

NEAR EAST UNIVERSITY
INSTITUTE OF GRADUATE STUDIES
MA. MARKETING PROGRAM

THE EFFECT OF ARTIFICIAL INTELLIGENCE ON BRAND LOYALTY

MASTER THESIS

BAROZ KHAN AHMAD ZAI

THESIS SUPERVISOR

ASSOCIATE PROFESSOR DR AHMET ERTUGAN

Nicosia

MAY, 2024


Approval

We certify that we have read the thesis submitted by Baroz Khan Ahmad zai titled **“THE EFFECT OF ARTIFICIAL INTELLIGENCE ON BRAND LOYALTY”** and that in our combined opinion it is fully adequate in scope and in quality, as a thesis for the degree of Marketing.


Head of Committee:


Assist. Prof. Dr. Gunay Sadiqoglu

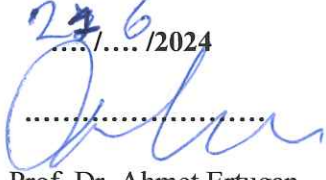
Committee Member:


Assoc. Prof. Dr. Seren Basaran

Supervisor:


Assoc. Prof. Dr. Ahmet Ertugan

Approved by the Head of the Department


23.6
...../...../2024
Assoc. Prof. Dr. Ahmet Ertugan

Head of Department

Approved by the Institute of Graduate Studies


...../...../2024
Prof. Dr. Kemal Husnu Can Baser

Head of the Institute

Declaration

I affirm that all the information, documents, investigation, and outcomes covered in this thesis have been assembled and offered in harmony with the academic regulations and moral principles of the Institute of Graduate Studies at Near East University. I therefore certify that, in accordance with the abovementioned regulations and guidelines, I have well acknowledged and attributed all non-original information and data utilized in this work.

Baroz Khan Ahmad zai

...../...../.....

Acknowledgments

I would like to convey my profound gratefulness to the individuals listed below for their significant contributions to my research project

I demonstrate my cordial gratefulness to my research advisor, Associate Professor Dr Ahmet Ertugan, for their tremendous counsel and tireless assistance during my entire research. His proficiency and valuable assessment played a crucial role that help me to accomplish my research, and guaranteeing its excellence. further, I prolong my sincere thankfulness to entire contributors who devoted their time in order to accomplish the questionnaire and provide their valuable thoughts on artificial intelligence, brand loyalty programs, and customer experience. Their willingness to participate is what facilitated my research.

Baroz khan Ahmad zai

Abstract**THE EFFECT OF ARTIFICIAL INTELLIGENCE ON BRAND
LOYALTY****Ahmad Zai, Baroz Khan****MSc Marketing Program****Date 5.2024****pages 75**

This research analyzes at the effect of Artificial Intelligence (AI) on brand loyalty, with a focus on two independent variables AI-Suggestion to Customers and AI-powered interaction. This research aims to solve or fix the lack of information on the impact of AI applications in marketing on customer brand loyalty and satisfaction.

A quantitative methodology was used to gather responses from a total of 330 students from different universities in North Cyprus, including Near East University, Cyprus International University, Eastern Mediterranean University, European Leadership University, and Cyprus West University. The questionnaire employed a 5-point Likert scale questions to assess the students' views of the impact of AI on brand loyalty. The reliability of the variables was checked by employ Cronbach's alpha, and the data were examined using correlation and regression methodologies.

The findings demonstrate that customer interactions enabled by artificial intelligence, such as Chatbots and virtual assistants, greatly improve brand loyalty by providing personalized and fast customer support. AI-powered recommendations enhance customer experiences by offering personalized suggestions, thereby deepening emotional bonds with brands. The study's findings indicate that firms can enhance customer loyalty by integrating AI technologies into their marketing and customer service campaigns.

***Keywords:* Artificial intelligence, Brand loyalty, Marketing, Personalization, Chatbots, Customer satisfaction**

ÖZ

Ahmad Zai, Baroz Khan Yüksek Lisans Pazarlama Programı

Tarih 5.2024 sayfa 75

Bu araştırma, Yapay Zeka'nın (YZ) marka sadakati üzerindeki etkisini, iki bağımsız değişkene odaklanarak analiz etmektedir: Müşterilere YZ-Önerileri ve YZ destekli etkileşim. Bu araştırma, pazarlamada YZ uygulamalarının müşteri marka sadakati ve memnuniyeti üzerindeki etkisi hakkındaki bilgi eksikliğini çözmeyi amaçlamaktadır.

Kuzey Kıbrıs'taki farklı üniversitelerden, Yakın Doğu Üniversitesi, Kıbrıs Uluslararası Üniversitesi, Doğu Akdeniz Üniversitesi, Avrupa Liderlik Üniversitesi ve Kıbrıs Batı Üniversitesi dahil olmak üzere 330 öğrenciden yanıt toplamak için nicel bir yöntem kullanılmıştır. Anket, öğrencilerin YZ'nin marka sadakati üzerindeki etkisine ilişkin görüşlerini değerlendirmek için 5 dereceli Likert ölçeği soruları kullanmıştır. Değişkenlerin güvenilirliği Cronbach alfa kullanılarak kontrol edilmiş ve veriler korelasyon ve regresyon metodolojileri kullanılarak incelenmiştir.

Bulgular, yapay zeka tarafından sağlanan müşteri etkileşimlerinin, örneğin Chatbotlar ve sanal asistanlar gibi, kişiselleştirilmiş ve hızlı müşteri desteği sağlayarak marka sadakatini önemli ölçüde artırdığını göstermektedir. YZ destekli öneriler, kişiselleştirilmiş öneriler sunarak ve markalarla duygusal bağları derinleştirerek müşteri deneyimlerini geliştirmektedir. Çalışma, firmaların pazarlama ve müşteri hizmetleri kampanyalarına YZ teknolojilerini entegre ederek müşteri sadakatini artıracaklarını göstermektedir.

Anahtar Kelimeler: Yapay zeka, Marka sadakati, Pazarlama, Kişiselleştirme, Chatbotlar, Müşteri memnuniyeti

Table of Contents

APPROVAL.....	II
DECLARATION	III
ACKNOWLEDGMENTS	IV
ABSTRACT	V
THE EFFECT OF ARTIFICIAL INTELLIGENCE ON BRAND LOYALTY	V
TABLE OF CONTENTS.....	VII
 CHAPTER I	 1
INTRODUCTION.....	1
1.1 Introduction	1
1.2 Background	1
1.2 Statement of the Problem	2
1.3 The Study Model and Hypothesis	2
1.4 Hypothesis	3
1.5 Significance of the study	4
1.8 Limitations	4
1.7 Chapter Summaries	5
1.7.1 Chapter two	5
1.7.2 Chapter three	5
1.7.3 Chapter four.....	5
1.7.4 Chapter five	5
1.7.5 Chapter six.....	6
1.8 Conclusion	6
 CHAPTER II	 7
LITERATURE REVIEW	7
2.1 Introduction	7
2.2 Past Studies	7

2.3 Enhancing Customer Loyalty, Satisfaction, Engagement.....	14
Interaction and Experience Through the Use of AI models and Approaches.....	14
2.3.1 Voice Assistants (VAs)	15
2.3.2 Sentiment Analysis	15
2.3.3 Social Media Listening	16
2.3.5 A Study of AI-Powered Customer Relationship Management (CRM) Systems	16
2.3.6 Chatbots for Improving Customer Service	16
2.3.7 Improve Customer Satisfaction with Virtual Assistants	18
2.3.8 The Functioning of a Virtual Customer Service Assistant	18
2.3.9 Analyzing Customer Behavior	18
2.3.10 The Concept of Personalization and Customization	19
2.3.11 Predictive analytics.....	19
2.3.12 The Internet of Things (IOT) Technology	20
2.4 AI in Marketing.....	20
2.5 Artificial Intelligence and Marketing in the Service Sector	22
2.6 Strategy for Marketing with AI and Social Media	23
2.7 Brand as a Logo.....	31
2.8 Brand as a Personality	32
2.9 Brand as an Added Value	32
2.10 Conclusion.....	33
CHAPTER III	34
METHODOLOGY	34
3.1 Introduction	34
3.2 Research Approach	34
3.3 Measure.....	34
3.4 Research Design	34
3.5 Procedure.....	35
3.6 Goodness of Data.....	35
3.7 Method	35
3.7.1 Participants	35
3.7.2 Measures.....	36
3.7.3 Statistical analysis	38
3.7.4 Research Instrument	38
3.8 Conclusion.....	39
CHAPTER IV	40

FINDING AND DISCUSSION	40
4.1 Introduction	40
4.2 Descriptive Statistics	40
4.3 AI-powered interaction	41
4.4 AISC (AI-Suggestion to Customers)	42
4.5 BL (Brand loyalty)	43
4.6 Demographic Information	43
4.6.1 Gender	44
4.6.2 Age	44
4.6.3 Level of Education	45
4.6.4 Income	45
4.7 Factor Analysis	46
4.8 Correlation Analysis	49
4.9 Hypotheses Testing	49
4.9.1 The relationship between AISC and BL	49
4.9.2 The relationship between AI and BL.....	50
4.10 Conclusion	51
CHAPTER V	53
DISCUSSION	53
5.1 Introduction	53
5.2 Main point from the review of Literature	53
5.2.1 AI and Personalized Marketing	54
5.2.2 Artificial Intelligence (AI) in the field of customer service.....	54
5.2.3 Dynamics of Brand Loyalty	54
5.2.4 Ethical considerations.....	54
5.3 Main empirical findings	55
5.3 .1 AI-powered interaction.....	55
5.3. AI-suggestion to customers and brand loyalty	55
5.3.3 Demographic influence.....	56
5.3.4 Ethical Consideration	56
5.4 Hypothesis Test Result and its Detail Interpretations and Implications	57
5.5 H1: AI-driven suggestions to customers have a positive effect on Brand Loyalty	57
5.6 H2: AI-powered interaction has positive effect on Brand loyalty	60
5.7 Key Findings	63
5.7.1 AI-Powered interaction.....	63

5.7.2 AISC (AI-Suggestion to Customers)	64
5.7.3 BL (Brand loyalty)	64
5.8 Research Question.....	65
5.9 Conclusion.....	66
 CHAPTER V1.....	 67
 CONCLUSION AND RECOMMENDATION	 67
6.1 Introduction.....	67
6.2 Conclusion.....	67
6.3 Recommendation for future	67
6.4 Limitations.....	68
6.5 Conclusion.....	69
 REFERENCES.....	 70
 APPENDIX.....	 1
APPENDIX 1	1
APPENDIX 2	2
SECTION 1.....	2
SECTION 2.....	2
APPENDIX 3	4

List of Tables

“Table 3.1” Cronbach Alpha for research variables.....	38
“Table 4.1” The Degree of Approval of the Questionnaire Paragraphs.....	41
“Table 4.2” The Mean Scores for the AI Items.....	42
“Table 4.3” The Mean Scores for the AISC Items.....	42
Table 4.4 “The Mean Scores for the BL Items”	43
“Table 4.5” Sample Distribution by Gender.....	44
“Table 4.6” Sample Distribution by Age.....	44
“Table 4.7” Sample Distribution by Educational Level	45
“Table 4.8” “Sample Distribution by Level of income	45
“Table 4.9” KMO and Bartlett’s Test.....	46
“Table 4.10” Confirmatory Factor Analysis Indictors for Good Fits.....	47
“Table 4.11” Confirmatory Factor Analysis.....	48
“Table 4.12” Correlation between Research Variables.....	49
“Table 4.13” Regression analysis of AISC on BL	51
”Table 4.14 “Regression analysis of AI on BL.....	50
“Table 5.1” Regression analysis for Hypothesis 1.....	58
“Table 5.2” Model Coefficient of Hypothesis 1.....	58
“Table 5.3” 95% Confidence Interval for β Hypothesis 1.....	59
“Table 5.4” Conclusion of Hypothesis 1.....	59
“Table 5.5” Regression Analysis for Hypothesis 2.....	61
“Table 5.6” Model Coefficient of Hypothesis 2.....	61
“Table 5.7” 95% Confidence Interval for β Hypothesis 2	62
“Table 5.8” Conclusion of Hypothesis 2.....	62

“Table 5.9” The Mean Scores for the AI Items.....	63
“Table 5.10” The Mean Scores for the AISC Items.....	64
“Table 5.11” The Mean Scores for the BL Items.....	65

List of figures

“Figure 4.1” CFA Result..... 48

CHAPTER I

INTRODUCTION

1.1 Introduction

This part offers an outline of the subject and the background which has encouraged this study inquiry. After that, it evaluates the current information and identifies the specific domain in which there is a deficiency of knowledge. Subsequently, a problem statement is written with the intention of addressing the focus of this investigation. Following that, the study's thesis is introduced through a conceptual model that emphasizes the independent and dependent variables. The study's importance and limitations are also explored. Chapter synopses will be stipulated at the end.

1.2 Background

This study aims to study the effect of AI technology on brand loyalty. Organizations are increasingly utilizing AI tools and methodologies to enhance consumer experiences, personalize marketing efforts, and strengthen brand relationships, thanks to the rapid advancements in AI technology.

AI algorithms enable organizations to provide highly customized consumer experiences by evaluating vast quantities of data to figure out customer preferences. The increasing accuracy and customization capabilities of AI-driven concepts have the potential to enhance the emotional connection between customers and companies. Gaining insight into the influence of customization on brand loyalty is essential for marketers aiming to enhance their tactics.

The rapid growth of Chatbots incorporating AI and virtual assistants has wholly revolutionized the style in which clients communicate & participate. These automated solutions provide immediate assistance, improve client loyalty, and simplify the purchasing process. An essential area of study involves investigating the correlation between the effectiveness of these AI-driven interactions and client loyalty towards a brand. This study offers significant understandings into the effect of AI on customer trust besides pleasure.

This study scrutinizes the relationship between AI-driven interaction, AI-driven Customer Suggestions (AISC), and brand loyalty (BL). The objective of the study is

to gain a richer understanding of customers' perceptions & opinions on brand interactions driven by AI. This will be achieved through the administration of a questionnaire survey that includes 5-point Likert scale responses. "Cronbach's alpha" is employed to assess the reliability of the research variables, measuring the consistency and dependability of the collected data.

The study aims to get valuable understandings into the influence of AI applications in marketing & customer service on brand loyalty. This will be achieved through a quantitative analysis of survey responses and the utilization of statistical methods such as correlation and regression analysis. The study project seeks to enhance the current knowledge on the correlation between AI technology and consumer performance in the perspective of brand loyalty. This shall be achieved by engaging undergraduate and graduate students from several universities in North Cyprus.

This research seeks to clarify the influence of AI technologies on consumer engagement, satisfaction, and loyalty in the digital age by examining the complex relationships between AI and brand loyalty. This research goals to provide significant insights for firms looking to leverage AI technology in order to develop sustainable brand-consumer interactions and enhance loyalty in a fiercely competitive environment. It achieves this by conducting a comprehensive analysis of theoretical frameworks, empirical research, and practical consequences.

1.2 Statement of the Problem

The primary drive of this study was to estimate the influence of AI on customer loyalty towards a specific brand.

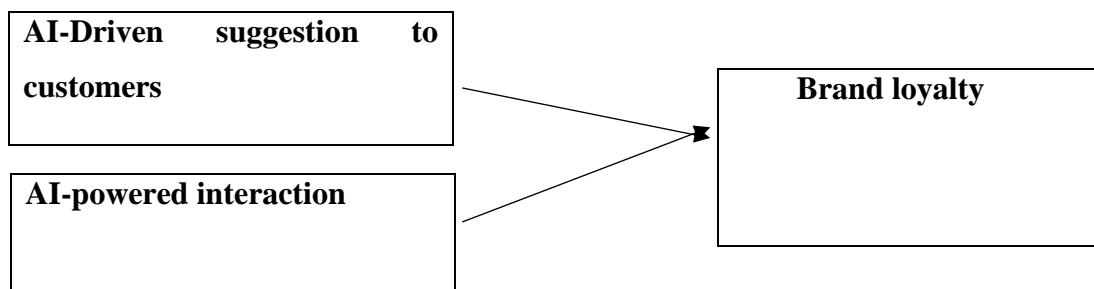
What factors affect the complex relationship between AI and brand loyalty?

1.3 The Study Model and Hypothesis

The research on the influence of artificial intelligence on brand loyalty is organized as follows, with a study model and hypothesis:

The study model purposes to analyze the correlation between the utilization of AI in marketing & customer service and its influence on brand loyalty. It includes variables both dependent and independent such as AI-Driven suggestions to customers, AI-Powered interaction and Brand loyalty. The goal of the model is to inspect the impact

of AI-driven approaches in marketing and customer service on the improvement of brand loyalty among customers.



Independent variables: AI-Driven suggestion to customers, AI-Powered interaction

Dependent variables: Brand loyalty

1.4 Hypothesis

The initial observations and literature measurement conducted prior to the study report have resulted in the formation of the preceding conceptual outline and supporting hypotheses, which will be examined in answer to the primary research enquiry.

The resulting hypotheses tested by this research are:

H1: AI-driven suggestions to customers have a positive effect on Brand Loyalty

H2: AI-powered interactions have a positive effect on Brand Loyalty

AI-driven suggestions to customers: This AI tool show an important part in enhancing customer experiences and influencing brand loyalty. These suggestions are personalized recommendations generated by artificial intelligence algorithms based on customer data and behavior analysis.

AI-powered interactions: AI-powered interactions include the utilization of artificial intelligence technologies to enhance communication and interaction between businesses and customers. These interactions utilize AI algorithms to automate and customize customer interactions through various interfaces, containing websites, social media platforms, and messaging applications.

1.5 Significance of the study

The significance of the study outlines the research is impact of AI on brand loyalty is of great significance and has multiple dimensions that are essential in various aspects.

This research provides to the current knowledge base by investigating the correlation between the utilization of AI in marketing and customer service and its stimulus on brand loyalty. The study offers important insight into this complex link by using quantitative analysis and statistical techniques such as correlation & regression analysis.

This study has practical implications for companies using AI to enhance customer engagement, satisfaction, and loyalty in today's digital world. Companies may build long-term customer relationships in a competitive market by understanding how AI affects brand-consumer relationships.

The research can help marketers and decision-makers to create AI-driven personalization-based marketing tactics to boost brand loyalty. AI algorithms' ability to understand customer preferences and build emotional relationships could drive strategic decision-making in companies. The rapid improvements of AI technology's and growing usage by companies make exploring its impact on brand loyalty vital in today's business world. The study examines an important issue for companies across industries aiming to improve customer relations with AI.

This research paper helps students, scholars, and professionals to understand how AI affects consumer behavior and brand loyalty. This detailed review of theoretical frameworks and empirical evidence sheds light on AI technology and brand-consumer connections.

1.8 Limitations

This study has taken place in different universities in Cyprus such as “Near East University, Cyprus International University, Eastern Mediterranean University, European Leadership University & Cyprus West University”. The sample size from specific institutions and limited to specific departments limits the research's generalizability. The results of a study with number of participants from a specific group or area may not be generalizable. The findings from a sample of 330 respondents

from specific Cyprus institutions and departments may not apply to a wider audience or other places.

Researchers can increase external validity by using a larger, more diversified sample. A bigger and diversified sample size increases participant variation in characteristics, experiences, and opinions, making conclusions more reliable and applicable to a wider population. Diverse samples may collect a variety of opinions, behaviors, and responses, helping the study derive appropriate conclusions beyond the original population or environment.

Therefore, increasing the sample size and including participants from different backgrounds, demographics, and locations can improve the analysis's external validity by making the findings more representative and allowing for broader generalizations about AI technologies and brand loyalty.

1.7 Chapter Summaries

Subsequent are the synopses of the subsequent five chapters.

1.7.1 Chapter two

This chapter delivers an outline of previous studies and examines the effect of AI on brand loyalty.

1.7.2 Chapter three

This chapter presents the conceptual model that was established & utilized in this study as the guiding framework for formulating hypotheses and research methodologies. The model identifies and categorizes the variables and their interconnections.

1.7.3 Chapter four

This chapter presents the methodology and investigation strategy employed in this research.

1.7.4 Chapter five

This chapter provided a report of the findings derived from the collected and analyzed data. The report contains details regarding the rate of achievement, data accuracy, demographics of the respondents, average replies of the respondents to attitude statements in the questionnaire, as well as correlations & regression analysis.

1.7.5 Chapter six

This chapter provides a comprehensive analysis of the theoretical & empirical findings, followed by a comprehensive discussion of the results. The previously carried hypotheses were reevaluated and elucidated. The chapter also determined whether the objectives were accomplished or not, thereby offering solutions to the study issues. The study's limitations, recommendations for further research, & the influence of AI on brand loyalty.

1.8 Conclusion

This chapter presented the research issue and the background information that has served as the inspiration for this investigation. Furthermore, it recognized the lack of knowledge and developed a problem statement that this study purposes to address. Subsequently, this thesis was introduced using a conceptual model that emphasized the dependent and independent factors. Subsequently, it presented the study's conceptual model, which served as the basis for preparing the hypothesis and research question. The study's importance and limitations were also addressed. Ultimately, summary was given for the remaining chapters.

CHAPTER II

LITERATURE REVIEW

2.1 Introduction

The prior research on the influence of AI on brand loyalty is discussed in this chapter. Use of AI in marketing has changed brand loyalty. Brands can tailor customer experiences, anticipate requirements, and offer targeted content using Artificial Intelligence and data analytics, encouraging deeper emotional relationships. AI-powered technologies also streamline cross-touchpoint interactions, improving convenience and pleasure. As artificial intelligence makes decisions, privacy, transparency, and ethical problems arise, possibly affecting customer trust and company loyalty. Thus, while AI has great potential to boost brand loyalty through tailored experiences, its ethical and societal implications require brands to carefully assess and responsibly deploy it.

2.2 Past Studies

Artificial Intelligence (AI) has revolutionized the marketing and consumer behavior landscape, changing how businesses connect with their consumers. Integrating AI technology into corporate tactics has led to a greater focus on the influence on brand loyalty among academics, marketers, and industry experts. The dynamic relationship between technology and customer loyalty creates a complex interaction, requiring a thorough investigation of the influence of AI on brand Loyalty.

AI algorithms enable brands to provide highly customized customer experiences by evaluating large amounts of data to determine individual preferences. With increasing accuracy and customization, AI-driven suggestions have the potential to enhance the emotional connection between customers and companies. Gaining insight into the influence of customization on brand loyalty is essential for marketers aiming to enhance their tactics.

The rapid growth of Chatbots with artificial intelligence and virtual assistants has revolutionized consumer engagements. These automated technologies provide immediate assistance, improve consumer interaction, and simplify purchasing. An important area of study is investigating the correlation between the effectiveness of

these AI-powered interactions and brand loyalty. This investigation provides understandings into the influence of AI on customer trust & satisfaction.

By effectively identifying and addressing client needs, firms may actively provide services and goods, developing a feeling of loyalty. The examination of the influence of predictive analytics on long-term brand loyalty and customer retention is a part that has not received much attention in this research of the influence of AI on brand loyalty.

There is a deficiency of research on the long-term influence of AI initiatives on brand loyalty. Knowledge about the long-standing sustainability of these methods and their lasting influence on customer behavior is crucial for developing successful, future-proof marketing strategies.

With the increasing integration of AI in marketing activities, it is vital to carefully examine the ethical implications of data use and algorithmic decision-making. There are areas of research that need to be explored to understand the effects of ethical factors, such as worries about data privacy and biases in algorithms, on customer trust and brand loyalty.

Cultural differences may impact the effectiveness of AI-based tactics on brand loyalty. Analyzing the impact of these differences on customer perceptions and loyalty levels might provide significant information for multinational companies aiming to customize their strategies for various countries.

The influence of AI on brand loyalty is a complex and continuously developing field of research. Although significant advancements have been achieved, there are noticeable gaps in information that, if tackled, may boost our understanding of the complex affiliation among AI technology and customer loyalty. Marketers and academics need to fill these gaps to negotiate the complex field of brand loyalty in the arena of AI.

The term AI denotes to an area within computer science that concentrates on building of intelligent systems. Computers have the capability of carrying out tasks typically requiring human intelligence. The idea of AI exists prior to its current existence. The term "AI" may be found back to the 1950s when "Alan Turing, an English polymath", initiated a study to understand if machines might imitate human activities (Batra et al., 2018). AI is a software system that can automatically acquire knowledge and improve

its performance over time without human interaction or influence. According to (Davenport et al., 2020), (Kumar et al., 2020), & (Shankar (2018), AI, using historical data, has the capability to forecast the occurrence of machine problem and notify us of past activities. Furthermore, data absorption is a crucial aspect of AI as it involves the processing of vast quantities of data in accordance with certain criteria (Feng et al., 2018) & (Lim et al., 2023).

The idea of AI refers to the scientific study of teaching computers to carry out human tasks by using massive data and detecting patterns that display intelligence. This is achieved via the use of machine learning procedures, natural language processing, and AI. Computers are designed to do tasks that often need intellectual ability, such as processing language, engaging in logic, and managing the physical environment (Hosanagar, 2020). AI uses various essential technologies to understand external data, simplify learning by analyzing gathered data, and exhibit adaptable behavior (Kaplan & Haenlajn, 2019). AI can be described as a mechanized system that copies human behavior and acquires knowledge through observation (Morgan, 2017).

AI utilizes various essential technologies to understand external data, simplify the learning process by analyzing gathered data, and exhibit adaptable behavior (Kaplan & Haenlajn, 2019). AI can be described as a mechanized system that copies human behavior and acquires knowledge through observation (Morgan, 2017). However, machine learning belongs to the capacity of a system to acquire the ability to perform tasks like human statistical programmers (Sterne, 2017).

AI has significantly decrease human errors, especially in the maximum critical field. Moreover, this equipment possesses the potential to generate and improve content in different email layouts that are attractive and useful to the receivers. AI unquestionably performs the function of reducing human involvement, therefore removing the risk of human error. Because of the ongoing data safety problems, several businesses are worried about their employees' ability to guard customer data and further important corporation data.

AI can efficiently address various difficulties by gathering knowledge, Understanding and reacting to the cybersecurity demands of an enterprise.

AI has the capacity to eliminate the wasteful and destructive practices commonly employed in the development and execution of marketing plans.

AI is the process of making tools that can do complicated jobs that humans usually do. AI doesn't use code to make machines do specific tasks; instead, it relies on huge patterns and formulas to make decisions that normally need human intelligence. You already have an easy example of AI in your pocket: Siri from Apple, Cortana from Microsoft, or Google Home. When told to, these tools can sound a warning, text or call someone, or even open an app.

Customer service involves assisting those who are interested in purchasing or utilizing a product. This means that the business either supports the purchaser pick out the best product for him or shows him how to use the product. This kind of service brings in new customers and gives better quality these all things are done through the use of AI.

After-sale customer service means giving customers all the information they need after they've bought a product. This includes setting up, using, and taking care of the product.

Companies use this kind of service to get consumers to stick with them and build long-term ties with them. AI can help the business get a clear picture of what its customers want. Plus, it helps find the best mix of platforms to get more customer engaged.

Implementing automation: AI can also make the work flow more effective and efficient. This gives marketing more time to plan, be creative, and get better results by working smarter.

The field of AI is now experiencing significant growth, as an increasing number of researchers are actively investigating the effects of this technology on the marketing industry. Market researchers aim to investigate the possible benefits of AI in improving the customer's purchasing experience, with the long-term objective of increasing customer loyalty and thus boosting profitability. The use of AI continues to provide benefits across several sectors such as

Healthcare: AI helps with research on drugs, customized medication treatments, medical image analysis, and patient care enhancement.

Finance: Artificial intelligence (AI) assists in identifying fraud, conducting algorithmic trading, evaluating risks, automating customer care, and providing customized financial guidance.

Manufacturing: Artificial intelligence improves the ability to anticipate maintenance needs, ensure quality control, maximize supply chains, and automate processes.

Retail: AI enhances customer experience by providing tailored suggestions, managing inventory, predicting demand, and automating the payment process procedures.

Agriculture: Artificial intelligence facilitates accuracy in agriculture, crop inspection, pest identification, and production enhancement.

Transportation: AI allows self-driving cars, traffic control, auto repair that detects problems coming, and optimizing routes.

In education: AI makes it possible for customized instruction, flexible tests, smart teaching systems, and the automation of administrative tasks.

Energy: AI plays a role in optimizing electricity systems, performing predictive maintenance on energy infrastructure, displaying energy consumption, and managing renewable energy. These are few examples that AI work effectively in these sectors, which help them to enhance their productivity and efficiency.

As companies move towards Industry 4.0, there is a continuous development of artificial intelligence (AI) and other emerging technologies. The 4.0 refer to The coming together of digital technologies and physical systems in the industrial sector is often called the "**Fourth Industrial Revolution.**" To make "smart factories" or "smart industries," people use automation, data sharing, IoT (Internet of Things), cloud computing, and AI. The goal of Industry 4.0 is to make manufacturing and other industry processes more flexible, efficient, and productive. (Haque et al., 2023; Kaplan & Haenlein, 2019).

AI improves user experiences through image recognition technology, product generation, and chatbots to communicate, which are software programs capable of engaging in discussions or interacting with users by using AI algorithms to identify and provide solutions. AI has multiple benefits that may be used, even in our daily lives, sometimes without knowing about them. AI is now being integrated into a range of products, including smartphones. Siri is widely recognized as an important example of the combination of AI expertise into cellphones. This particular functionality refers to a virtual personal assistant that is implemented on a wide range of Apple devices, including the iPhone and iPad. Siri has the capability to assist you in locating

information, obtaining directions, sending messages, launching applications, and even initiating voice calls. The practice of AI in the arena of marketing involves development of suitable AI-driven marketing analysis tools. These tools can help organizations to evaluate the relationship between product designs and consumer requirements, eventually leading to enhanced customer satisfaction (Dekimpe, 2020). AI provides the capability to customize solutions to meet the specific needs of customer's needs (Kumar et al., 2019) must be addressed. Moreover, AI could assist marketers in the formulation and organization of marketing strategies and plans (Susilo & Smith, 2023) by facilitating segmentation, targeting, and positioning (STP).

AI could aid marketers in visualizing a corporation's strategic path, in addition to STP (Huang & Rust, 2017). It is generally accepted that a significant majority of firms, over 80%, use AI services. These services operate quietly; however, they play a crucial part in forecasting the engagements of existing and prospective clients. According to Jeffs (2018, p. 6), companies that want to provide exceptional services should use artificial intelligence (AI) to address the challenges that significantly influence customer experience. These techniques are expected to have a low level of risk. Artificial intelligence and algorithms that process natural language enable Chatbots and virtual assistants to provide instant solutions to customer queries. Artificial intelligence (AI) systems receive instruction using huge amounts of data, enabling them to efficiently process a wide variety of consumer inquiries. AI operates independently by imitating human thinking and acting, assuming roles as customers, suppliers, or competitors.

According to (Alyazidi et al., 2020), knowledge management has the capability to analyze customer preferences, identify the most frequently requested items or services on search engines, and understand consumer purchasing behavior by visually representing the look of the things they experience. Virtual assistants and Chatbots, have the capability to provide prompt and precise solutions to customer inquiries. These AI-powered systems have the capability of gathering huge quantities of records in actual time, letting them to diagnose problems, make suggestions for products, and provide detailed instructions to customers. These AI-driven technologies manage customer inquiries, provide product suggestions, and support in resolving issues. Chatbots and virtual assistants increase customer satisfaction and involvement by

offering immediate support, hence minimizing response times. (Daqar and Smoudy, 2019)

Hence, it can be agreed that the utilization of technology is a basic need for companies due to the continuous advancement of technology throughout several company areas (Kaartemo & Nyström, 2021; Lobschat et al., 2021; Wilson et al., 2019). The use of technology for improvement has developed a need & is certain to have place in the advancement of marketing, both in the online & offline realms, in the future (Masnita et al., 2019). Currently, AI is being used in the field of marketing to analyze and understand customer behavior.

Furthermore, (AI) is widely used for the implementation of operational marketing strategies, including risk assessment, customer targeting, brand promotion, and price management with the aim of maximizing profitability (Marinchak et al., 2018). AI has significant influence and transforms marketing communication and networks in the digital era (Qiao et al., 2019).

Accordingly, AI is expressively altering brand choices, marketing techniques, and customer attitudes. Artificial intelligence (AI) may be used for the purposes of segmenting, personalizing, pricing, and predicting sales for a brand (Columbus, 2019). Furthermore, upcoming transformations in the worldwide position economy, which mostly focuses around flexible or temporary employment and often involves communicating Engaging with customers or clients through digital channels has a substantial influence on marketing initiatives. (Wang et al., 2020; Chen et al., 2012). Moreover, AI displays intelligent behavior by effectively integrating business and marketing strategies to generate, structure, and distribute marketing information, hence facilitating the global sale of brands (Davenport & Ronanki, 2018).

The incorporation of AI into companies operating in non-service sector has the possibility to significantly improve the worth of products provided to customers. AI enables businesses to carry out comprehensive analysis of customer response and analyses, identifying designs and styles, and using this valued data to enhance their product assistances. AI allows firms to recognize the most important characteristics that consumers look for and indicate specific areas where improvements may be made. This feature of AI makes it easier to decide which product development tasks are most important and what new features to add in the future. Furthermore, AI has the capacity

to enhance both the reputation and value of promoted items. Through the use of AI-powered picture recognition software, organizations are able to effectively analyze vast amounts of photographs in order to discover the most successful ones. Moreover, the program has the capability to categorize photographs according to certain patterns, allowing firms to generate more focused adverts that match to the images seen by website users. Moreover, the problem-solving skills, precision, and personalization provided by AI services have a beneficial effect on brand reputation. The three components of “customer equity, particularly value equity, brand equity, and relationship equity, are significantly influenced by these three characteristics, in addition to brand image”. Moreover, AI has the potential to aid non-service businesses in developing stronger relationships with customers by means of their promoted goods. AI-driven chatbots have the potential to improve customer service by efficiently and accurately responding to often requested inquiries. This enhancement improves customer satisfaction and builds loyalty. In addition, AI facilitates the analysis of information about customers by organizations, allowing them to uncover patterns and trends that could be used to enhance overall customer knowledge. Furthermore, organizations that do not provide services might improve their marketing skills by integrating robots. Retail establishments have the ability to use robots in order to provide customized suggestions that are customized to the specific preferences of every single customer. Furthermore, robots have the potential to significantly contribute to marketing initiatives by generating interesting and impactful material for customers.

2.3 Enhancing Customer Loyalty, Satisfaction, Engagement,

Interaction and Experience Through the Use of AI models and Approaches

In the modern business climate, prioritizing customer satisfaction as a top priority has become crucial. Organizations are progressively using AI as a means to enhance customer loyalty, satisfaction, engagement, relationships, and overall experience. AI technologies, such as machine learning, natural language processing, and data analytics, are significantly altering the way organizations understand and interact with their consumers.

2.3.1 Voice Assistants (VAs)

AI has been developed as a valuable tool for providing help (Balakrishnan & Dwivedi, 2021). The terms like "intelligent voice assistant" or "personal intelligent assistant" are sometimes used together with similar terminology such as "digital assistant," "interactive assistant," "voice assistant," "artificial intelligence agent," or even "chatbot" (Song et al., 2022). The most suitable name for this particular technology is "Voice Assistance System based on Artificial Intelligence" (hence referred to as VASAI). Examples of these technologies include Siri (Apple), Xiao AI (Xiaomi), Alexa (Amazon), Cortana (Microsoft), Bixby (Samsung), and several other lesser-known agents used by numerous corporations on their websites. Over time, VAs have gained popularity in the field of info collection (Jain et al., 2022). Moriuchi (2019) believes that the effectiveness of verbal information exchange surpasses that of written communication. Major corporations, like Microsoft, Google, Amazon, Xiaomi, Alibaba, and Facebook, aim to engage in regular communication with their customers by using the existing voice recognition technology inside the industry. (Platz, 2017). Virtual assistants (VAs) have transformed the way individuals access knowledge resources, participate in activities, search for information, make purchases, and interact with companies (Jain et al., 2022). Currently, voice search is used by 27% of the worldwide internet user base. McCue (2018) predicts a significant growth of 1000% in the adoption of in-home voice assistants (VAs) from 2018 to 2023. As a result, it is widely believed by experts that virtual assistants would ultimately replace traditional technology such as personal and laptop computers in several fundamental retail activities (Gartner, 2016).

At present, artificial intelligence (AI)-powered virtual assistants (VAs) are widely recognized as the most transformative and groundbreaking advancements brought to the consumer electronic industry.

2.3.2 Sentiment Analysis

An important component of data analytics is emotion analysis, which contains the use of natural language processing (NLP) methods to assess customer emotions based on textual data. Unstructured data from social media postings, customer reviews, and feedback forms may be evaluated to evaluate customer satisfaction. Sentiment analysis is a valuable tool for organizations as it allows them to identify specific areas that need

development. This enables them to promptly address consumer issues and boost overall satisfaction.

2.3.3 Social Media Listening

There is a variety of customer ideas and comments available on social media channels. Social media listening technologies that use artificial intelligence enable the analysis of social media posts, comments, and mentions in order to assess customer attitudes and trends. Business enterprises have the ability to take proactive measures in addressing consumer feedback, therefore displaying their commitment to ensuring customer satisfaction and building deeper partnerships.

2.3.5 A Study of AI-Powered Customer Relationship Management (CRM) Systems

Customer Relationship Management (CRM) systems show a vigorous role in the effective management of customer relationships. The integration of AI technology is improving traditional CRM systems, hence boosting their intelligence and effectiveness.

AI-Powered CRM Analytics: AI-powered CRM analytics analyze customer data in great detail, revealing deep connections and trends that may be difficult to identify via human means. These observations empower businesses to proactively anticipate the requirements of customers, customize marketing initiatives, and enhance customer engagements, hence improving customer loyalty and satisfaction.

2.3.6 Chatbots for Improving Customer Service

AI has shown hasty development & has had a profound influence on the daily lives of consumers from when it started as an academic field in 1956 (Russell & Norvig, 2003). The economic prosperity of AI-powered media tools, including Chatbots, has been observed in several industries in the past few spans (Cheng & Jiang, 2020). Business Insider (2020) predicts that the chatbot business will experience a multiple yearly development rate of 29.7%, increasing from 2.6 USD billion in 2019 to 9.4 USD billion in 2024. The customer service industry is experiencing significant growth, with Chatbots experiencing a yearly development rate of 31.6% from 2019-2026. AI-driven Chatbots improve the customer knowledge and quickly increase the reputation by engaging with individuals through genuine conversation.

Chatbots facilitate immediate and live interactions on websites, social media platforms, and instant messaging programs, without being limited by geographical location (Hagberg et al., 2016). In addition, it provides customized language that mimics human speech, so boosting the user's experience. The goal is to acquire information and cultivate loyalty among clients (Huang & Rust, 2018). Approximately 1.4 billion people worldwide utilize chatbots regularly.

According to Jovic (2020), over twenty-seven percent of individuals in the US have utilized chatbots for shopping on at least one occasion, with approximately 40% expressing a favorable inclination towards this type of purchasing encounter.

Chatbots, commonly referred to as Machine Dialogue systems, aid customers in making logical choices and completing purchases. (Dale, 2016) and (Hirschberg & Manning, 2015) have stated that the advancements in NLP and the incorporation of chatbots have made it easier for consumers to connect with companies. Chatbots have gained prominence as extremely effective artificial intelligence (AI) solutions in the field of customer care, functioning similar to a digital customer assistance representative. These solutions have the capacity to handle frequently asked questions, collect customer information to offer personalized service experiences, and guide clients to appropriate support channels.

AI demonstrates exceptional efficacy in addressing practical difficulties and making instantaneous judgments, often surpassing human skills (Amershi, 2019; Rai et al., 2019). Chatbots, developed by Bookings.com, are AI-powered robots that offer round-the-clock customer support and can answer travel-related questions from clients in 43 languages (Cross et al., 2019). Chatbots contain sophisticated language processing capabilities that allow them to efficiently interact with clients and offer precise advice. Booking.com experiences increased revenue through improved efficiency (Cross et al., 2019).

Consider, for instance, a Software-as-a-Service (SaaS) company that specializes in creating software designed to handle customer relationship management (CRM). The firm use a chatbot to interact with consumers, providing answers to queries regarding products, assisting in the formation of new initiatives, and helping onboarding of new staff members. Furthermore, the chatbot offers step-by-step guidance for often faced

issues, such as resetting passwords or recovering data, leading to a substantial reduction in the time needed to resolve them.

A notable example in this domain is DevRev's Turing bot, specifically developed to handle user queries and address grievances. The system operates in two separate modes: suggestion mode, which offers solutions to user queries, and auto-response mode, which generates and verifies replies automatically. These innovative features ensure that client inquiries are not only answered accurately, but also swiftly, hence enhancing overall customer satisfaction.

2.3.7 Improve Customer Satisfaction with Virtual Assistants

Advanced AI technologies like virtual assistants improve work performance and relationships with customers. These machines interpret and respond to user input like humans using artificial intelligence (AI). Customer assistance might include answering inquiries, addressing difficulties, and making suggestions.

2.3.8 The Functioning of a Virtual Customer Service Assistant

A virtual support assistant effectively manages customer inquiries and concerns across many communication channels, such as telephone calls, electronic mail, and real-time messaging. It efficiently addresses product-related concerns, facilitating communication and collaboration between businesses and their customers. This cognitive virtual assistant efficiently responds to a customer's inquiries, guaranteeing a smooth and timely customer engagement. The capabilities of this system go beyond just resolving issues, as it actively involves customers via the use of newsletters, emails, and catalogs, so promoting ongoing involvement and satisfaction. The use of AI technology enables firms to enhance their customer care operations and enhance the overall customer experience. Chatbots provide round-the-clock assistance, while virtual assistants can perform everyday life jobs. (Seshadri, 2024)

2.3.9 Analyzing Customer Behavior

The use of data-driven technology, likewise innovative analytics & machine learning algorithms, enables organizations to investigate huge amounts of data & discover essential patterns about customer behavior. By conducting an examination of customer behavior data, organizations are able to identify and understand the preferences, purchasing behaviors, and demographic characteristics of their customers. This understanding serves as the foundation for customizing goods and services to respond

to individual consumer requirements and preferences, hence enhancing customer satisfaction.

2.3.10 The Concept of Personalization and Customization

Brands are using AI to customize marketing emails according to user preferences and behavior, with the aim of enhancing engagement and influencing sales or purchases. The AI implemented an automatic segmentation process and initiated the delivery of customized material via email, SMS messaging, and in-app alerts, taking into account the specific lifecycle stage of each receiver.

One of the key approaches by which data-driven technologies enhance customer preference and engagement is by using the implementation of customization strategies. By using consumer data, organizations have the ability to create customized experiences for their customers. In order to provide personalized recommendations for goods and services, machine learning algorithms analyze historical purchase records, internet activities, and social media engagements. Examples of how customization enhances customer satisfaction and engagement include personalized marketing emails, product suggestions on e-commerce platforms, and customized offers that fit to individual consumer behavior. Amazon uses AI in different manners to enhance its operational efficiency and increase the overall satisfaction of its customers. These applications include personalized product recommendations, virtual try-on capabilities, optimization of the supply chain, detection of fraudulent activities, providing customer service, analysis of images and videos, and the ability to predict repairs (Nagy & Hajdú, 2021; Rana, 2023). Moreover, the use of AI enhances customer satisfaction by delivering a customized purchasing experience in a more effective manner (Polacco & Backes, 2018) and enhances customer involvement (Lemon & Verhoef, 2016).

2.3.11 Predictive analytics

The use of data-driven technology in predictive analytics enables organizations to proactively await & meet the demands and preferences of their customers. Through the examination of previous data and patterns, businesses have the ability to predict forthcoming trends and customer behavior. This observation facilitates proactive decision-making, allowing organizations to strategically supply products that are expected to be in high demand, implement timely promotional campaigns, and

improve pricing tactics. Predictive analytics serves to improve consumer satisfaction by assuring the availability of products, while also building trust among customers by showcasing the business's understanding and responsiveness to their demands.

2.3.12 The Internet of Things (IOT) Technology

In today's world of digitization, businesses continually seek to explore innovative strategies that focus on improving customer loyalty, satisfaction, involvement, relationships, and the entire customer experience. IoT has emerged as a major technology driving this revolutionary process. The term "IoT" refers to a network including networked objects and systems that establish communication over the internet, facilitating the gathering, sharing, and analysis of data in real-time. The mentioned technology has huge potential to fundamentally transform the manner in which organizations engage with their customers, providing customized and streamlined experiences that were previously deemed inconceivable

The development of IoT technology has brought about significant changes in customer loyalty programs, enhancing their communication, rewards, and personalization. Traditional loyalty programs often depend on points-based mechanisms or price reductions. Nevertheless, loyalty programs driven by IoT may provide distinctive and engaging experiences to customers. Retailers have the capability to offer customers smart loyalty cards or smartwatches that are equipped with Internet of Things (IoT) sensors. These devices have the competence to monitor and record the behaviors of consumers inside the shop, including but not limited to product trials, appearances at events, and survey participation. Customers have the opportunity to collect loyalty points or prizes in real-time via these interactions. Moreover, businesses have the ability to use Internet of Things (IoT) devices in order to establish enhanced experiences, whereby customers may engage in interactive games or challenges with the aim of acquiring extra incentives. The use of gaming not only serves to improve customer involvement, but also serves to strengthen their emotional attachment to the brand, so building long-lasting devotion.

2.4 AI in Marketing

The use of AI models and strategies is revolutionizing the way in which organizations improve customer loyalty, satisfaction, commitment, connections, and experience. Through the use of data analytics, machine learning, natural language processing, and

AI-driven customer relationship management (CRM) systems, businesses are able to acquire significant knowledge on customer behavior, customize interactions to individual preferences, and provide exceptional customer service. These technological improvements enhance client experiences and develop persistent customer loyalty, hence promoting company expansion and achievement in the highly competitive market. A number of countries' marketers and data scientists investigated to see what would happen if they used artificial intelligence (AI). In 2018, Blake Morgan, a researcher who studies customer experience, looked at three ways that AI improves the customer experience. Firstly, she says that a lot of customers like talking to a virtual helper before, during, or after they buy something. Another good thing about personalized services for customers is that they help them choose what items to buy. Lastly, AI helps businesses learn more about their customers, which lets them make plans based on that information (Morgan, 2018).

In business, especially in marketing, AI has opened up a lot of new ideas. Vastly personalized customer service & on-demand customer help can improve the customer experience for the company while cutting down on the time and cost of operations. This strategy enhances customer satisfaction across many marketing platforms and enhances market forecasting and efficiency. As a result, artificial intelligence (AI) gained significant recognition as a highly important technology in the business sector, according to the Association for Industrial and Organizational Psychology's workplace list (SIOP, 2020), AI has been known as the leading workplace trend.

Companies which use AI technologies keep their time by directing their attention towards other areas of digital marketing. AI is a comprehensive and continuous technical advancement with significant advantages. Consequently, it is suggested to use AI in the field of digital marketing in order to promote innovation and enhance productivity in the nearby future.

AI provides the capacity to evaluate customer information, allowing the generation of focused sectors and the automated adaptation of promotions to customize the message for each part.

As a consequence, this leads to the offering of further precise, related, and vibrant parts, along with enhanced and tailored marketing material and offers. The integration of artificial intelligence (AI) into segmentation and targeting processes provides

advantages in terms of time and cost reduction, as well as improved marketing effectiveness and return on investment (ROI). Customer segmentation is a process that includes the classification of customers according to different attributes, such as age, with the aim of enhancing comprehension of the customer demographic. Organizations may make well-informed judgments regarding product development and marketing strategies by acknowledging the differences across the customer segments. Artificial intelligence has the capability to examine client data in order to create accurate and focused segments. It can then adjust campaigns to customize the content for each section. Furthermore, AI improves the accuracy, relevancy, and dynamism of these segments, leading to the delivery of marketing material and offers that are more tailored and engaging.

The ongoing advancement of AI technology has a substantial impact on the development of marketing strategies (Rust, 2020). AI resolutions are now being used to tackle important complications, like as integrating strategy approach with market possible (Griffith et al., 2012). AI-based marketing resolutions have been observed to enhance various aspects of business operations, including corporate model decisions (Valter et al., 2018), fresh product growth (Chan & Ip, 2011).

2.5 Artificial Intelligence and Marketing in the Service Sector

AI has the capability to improve the quality of service in the aviation business, especially in the period after the COVID-19 pandemic, by providing a customized experience for every customer. AI has the skill to forecast passengers' preferences and requirements by examining their trip records, hence facilitating the delivery of personalized suggestions. Furthermore, AI has the potential to enhance operational efficiency via its ability to properly predict flight delays and cancellations. AI has the potential to exceed capacities of human workers in service-oriented firms, hence enhancing the level and quality of service offered to clients. Through the analysis of consumer data, AI empowers firms to provide customized customer experiences and make personalized suggestions. In addition, AI has the capability to automate routine tasks such as responding to often requested inquiries, so enabling human workers to concentrate on more complex duties. As a result, AI can tailor learning experiences to each student based on how they learn best and what they like. AI can also handle routine jobs like organizing and reviewing, which frees up professors to focus on study

and teaching. While robots can't completely replace people in the service business, they can work well with people to improve customer service. Robots are great at handling boring jobs like cleaning and replacing stores, but they can't understand or feel what other people are feeling. Because of this, putting robots in service settings along with people can make customer service more efficient and effective.

2.6 Strategy for Marketing with AI and Social Media

The usage of AI-enabled data mining technology has capability to significantly enhance business's capacity to get valuable information into consumers' reactions and attitudes towards their social media marketing efforts during product promotion. Important information may be obtained by conducting an analysis of customer feedback across various social media sites like Facebook, Twitter, & Instagram. By using this data, businesses may analyze patterns and trends, enabling them to improve their marketing strategy and efficiently reach their target audience.

Moreover, AI could play a vital part in monitoring and accepting the preferences, interests, and needs of consumers within various product categories via the analysis of their social media engagements. By doing so. This information may be used to create accurate marketing efforts, tailored to respond to the specific requirements of each customer. In addition, businesses could use and maximize AI technology in order to improve their product marketing efforts across a wide range of social media platforms. Through the use of AI algorithms, organizations may study customer behavior on these platforms to detect patterns and trends, which in return assist in developing of more efficient marketing campaigns.

The ongoing development of AI has immense potential to revolutionize customer-business connections, offering a future where customer focus is not only an objective but a seamless reality facilitated by the competencies of AI.

Marketing is a difficult field that centers around creating, promoting, and delivering importance to customers. The procedure involves understanding customer desires, framing items or services to accomplish those desires, and proficiently conveying the unique selling offer to the intended audience. Effective marketing techniques foster robust connections between enterprises and their customers, resulting in heightened sales, brand loyalty, and enduring prosperity (Rust, 2020).

AI may help marketers gain more detailed consumer data, which in turn improves their knowledge of how to categorize and direct clients to the next step of their journey, allowing them to provide the most effective experience. It is possible for marketers to increase ROI without squandering resources. to unsuccessful strategies by conducting a comprehensive analysis of customer data and gaining a deep understanding of their genuine desires. Additionally, they may save the cost of time on repeated advertising that causes irritation to customers. There are a number of ways in which AI will personalize advertising. A growing number of companies are incorporating AI into their content customization strategies to better cater to customer needs. This includes websites, emails, social media posts, videos, and more. Creating machines that can do jobs that used to require human brainpower is artificial intelligence's primary goal. Saving time and effort by reducing the amount of human resources needed to complete a project or an individual's workload, leads to notable advantages in terms of efficiency.

Soon, AI will be an essential part of every business world. The new trends in robotics powered by AI show significant changes in the AI world. It is clear from how ideas, interests, and funding have changed in AI usage by businesses. AI has reduced the mistakes made by people, especially in the most critical areas. Furthermore, this technology can create and improve communication in several attractive and functional formats for the receivers. Without question, AI exists to stop people from interacting with each other, which means that mistakes cannot happen. Many companies worry that their employees cannot keep clients' and other important company data safe because of how often data security problems happen. By learning, adapting, and responding to an organization's cybersecurity requests, AI can assistance with several of these difficulties. Artificial intelligence may assist marketers in performing tailored marketing strategies that include ad targeting. Machine learning (ML) may be used to distinguish between purchasing, real change, and discovering behavior, empowering the targeting of customers with a superior possibility of alteration. The use of facial recognition software, which is between a range of incredible AI-powered solutions, enables the observing of consumers' trips to physical stores and the association of photographs by their social media accounts.

When joint with AI-driven intelligent alerts, these innovative tools convey immediate advertising offers and hospitable messages to every visitor, leading to an enhanced degree of personalized user experience.

The successful implementation of AI-based systems in marketing situations has relied heavily on key factors such as estimating, strategy & planning, product, promotion, & location management. The main parts of marketing for AI applications have been identified as targeting and positioning, scenarios, and thinking models, which are of great relevance and significance in relation to product design and end-customer demands. AI is used by vendors to develop customer demand. The use of machine intelligence in integrated apps contributes to an affirmative user practice for customers. The system maintains a record of transactions, including the location and timing of these purchases. The system has the capability to examine the records and offer tailored marketing messages to consumers. When an individual visits a store in near territory, these communications consist of recommendations and special offers aimed at enhancing the customer's regular order worth. The use of a combined methodology to structure computerization in marketing delivers the business with a competitive edge. The AI marketing technique suggestions benefits in terms of decision-making and customer control. Data plays a vital part in enlightening the patterns of information suggested to customers by machine learning algorithms.

The process of programmatic media request involves the automatic purchasing and sale of online advertising promotions. Computer-based models possess machine learning characteristics, use audience data, as well as provide relevant advertisements to specific consumers.

AI technology may be used by vendors to detect and predict future trends. Given this information, individuals may then choose how to distribute their funds and identify specific targets. Companies have the ability to reduce their expenditure on digital advertising and concentrate more time to valuable tasks. From advertising strategy all the way through to converting and customer retention, artificial intelligence (AI) is an integral aspect of successful marketing efforts. stages. Consequently, organizations who effectively use AI will acquire a competitive edge.

Marketing campaigns use AI in areas such as banking, government, health care, retail, and more. Singly scenario results in different benefits, including higher campaign

success, consumer experience, or marketing operations efficiency. Marketers are using AI in automated marketing to tackle different troubles. Automated platforms utilize ML for bidding on real-time, targeted ad space. AI may also reduce marketing errors.

AI marketing is the most effective method for forecasting customers & enhancing the customer journey by integrating customer data. AI gives firms new methods to achieve this.

These technologies may improve marketing tactics, improve customer experiences, and change how companies attract, development, and convert customers. AI helps marketers segment customers by specialization to create critical groups. AI creation includes automated personalization and machine-generated content for the client journey. AI-powered selection of content improves customer satisfaction by providing relevant information, additional value, as well as business knowledge. It has several applications, such as personalizing messaging and improving customer recommendations. Companies use dynamic pricing modules in order to determine the most advantageous rates for their goods or services, hence ensuring competitiveness and accelerating the enhancement of profitability. The use of AI-controlled dynamic pricing modules allows organizations to effectively determine the prices of their services, even within limited timeframes. It is a highly profitable AI application in the field of marketing. AI is extremely helpful in marketing for implementing targeting strategies. AI continuously observes the behavior and purchasing history of potential customers and identifies trends using machine learning and deep learning algorithms. AI integrates information technologies to streamline company processes and provide an effortless experience. Marketers that use AI effectively succeed in business marketing results. AI applications help marketers to develop and use personalized, human-centered marketing strategies. These methods could attract customers and turn them into loyal supporters of brands. Using AI technology may enhance the attractiveness of interaction designs by enabling consumers to control small moments. Growing AI advantages allow organizations to redefine marketing for a better experience.

As per the provided denotation, brand loyalty could be well-defined as a biased and behavioral reaction conveyed over time by a decision-making unit towards one or more different brands from a given set of brands. This loyalty is influenced by psychological processes involved in decision-making evaluation (Jacob and Chestnut, 1978, p.80).

This definition defines six elements for the establishment of brand loyalty. In the parts that come after, a more comprehensive analysis of each of these topics will be provided (Trabelsi, 2020). When it comes to differentiating the products of a company from those of its competitors, branding has emerged as a fundamental tool. According to Lamb et al., there are three primary goals that branding serves: product identification and difference (brand), repeat sales (loyalty), and product development by taking into consideration the amount of expectation that consumers have. Over the course of the last ten years, businesses have come to realize the value of branding on all three levels and have discovered the benefits of maintaining consumers rather than searching for new ones. From this perspective, businesses and commercial organizations have acknowledged the relevance of customer loyalty to their own brands.

Brand loyalty first emerged as a one-dimensional concept. Two different loyalty concepts were developed in the 1950s. The loyalty concepts are used for the purpose of assessing both attitude and behavior. In 1971, Jacoby and Chestnut introduced a bi-dimensional composition model that integrated attitude and behavioral concepts, which raised significant interest in the field of brand loyalty research. Since the 1990s, the concept of brand loyalty has emerged as a highly investigated subject in the field of service marketing. Since the year 2001, there has been a notable increase in brand loyalty, despite the ongoing introduction of new items into the market.

Aaker claims that brand loyalty may be seen as a symbol of a company's innovative mindset, which eventually results in sustained brand purchases over an extended period. Aaker argues that brand loyalty plays a vital part in evaluating a brand's worth, since it has the potential to generate profits. Yoo et al. (year) assert that brand loyalty is a fundamental aspect of a brand's value. Furthermore, it has been observed by Smart Marketing and Research Techniques that there exists a strong positive correlation and association between customer loyalty and brand image.

Brand loyalty has been seen to appear as a behavioral reaction, as well as an expression and outcome of psychological mechanisms. Loyalty may be characterized as a strong and persistent determination to consistently buy or repurchase a preferred product or service over an extended period, even in the face of significant situational pressures and marketing strategies that may lead to the decision to switch. Brand loyalty may be

seen as a combination of attitudes and behavior, specifically in terms of habitual patterns.

Commitment is a key factor in identifying brand loyalty from other recurrent purchase behaviors and measuring long-term brand relationships (Jacoby and Kyner, 1973). Previous research suggests that consumers create brand loyalty via frequent experience of flow, leading to involved interactions with companies (Cuevas et al., 2021; Chen et al., 2021).

Consumers naturally form loyal ties with companies that provide satisfaction and great experiences (Cuesta-Valiño et al., 2021). In the current highly-competitive global market, companies have a major challenge in maintaining the long-term sustainability and continuity of their company. This study examines many dimensions of sustainability within the marketing literature, including maintainable character maintainable brand management maintainable online consumers and maintainable brand loyalty in contemporary years, it has been a major upsurge in interest. Brand loyalty has become an essential component for achieving sustainable corporate success due to its direct impact on market share and profitability. The crucial area of sustainable company is to ensure customer satisfaction & build brand loyalty. When a customer is loyal, they are committed to the business or product and are less price conscious and open to other offers. or company, making them one of the best and least expensive ways to market.

According to Ramachandran and Balasubramanian (2020), here is a reducing effect of brand loyalty on technical products & services. Brakus et al. (2009) proposed that brand-related concepts have the ability to have an influence on customer loyalty towards a company.

On the other side, Brakus et al. (2009) propose that the presence of similarity between brand personality characteristics and customer personality traits might influence consumer satisfaction via brand-related concepts. Similarly, Delgado Ballester and Munuera-Alemán (2001) argue that in a brand-to-customer connection that involves strong participation, brand-related concepts have an influence on customer satisfaction. In his study, Nasir (2005) emphasized the significance of customer brand loyalty in competitive markets. It enables organizations to establish strong relationships, gain market share, and achieve sustainable competitive

advantages. Hernandez-Ortega and Ferreira (2021) have similarly suggested brand loyalty as the principal driver of sustained growth and financial gains.

Brand loyalty is a partial response that means you always purchase a specific brand. No matter what brands have been bought before, the process should not be zero-order, where each brand is randomly picked. Zero-order behavior is not part of the brand-loyalty model because it means that marketing efforts are not enough. Brand loyalty changes over time and needs to be maintained. Consider how the customer buys things over time to tell the difference between loyal and non-loyal behavior. Brown (1952) distinguished brands A and B regarding stable, split, and consistent loyalty. This showed that buying habits over time can tell a lot about brand loyalty (Trabelsi, 2020).

Brand loyalty is determined by examining the purchasing behaviors shown by a decision-making organization, which may consist of a person, a household, or a business entity. It is of most significance in cases where individuals within a household have various product requirements and usage intentions, as moving between brands might indicate different requirements or intentions rather than a stable loyalty to a specific brand.

The continuing usage of **AI voice assistants** by customers is significantly influenced by customers' brand loyalty. Brand loyalty denotes to customers' tendency to choose a certain brand over rival brands, regardless of differences in price. According to Nasir (2005), the establishment of consumers' brand loyalty is crucial in competitive market environments as it enables organizations toward develop strong relationships, acquire market share, and achieve sustainable competitive advantages. Hernandez-Ortega and Ferreira (2021) correspondingly suggested brand loyalty as the principal source of sustained growth and financial gains. They clarified that customers who are loyal are more likely to pay higher prices and are willing to accept of challenges experienced during in-service performance, making them more likely to promote smart voice assistants to others. Therefore, it is vital for VA service providers to prioritize brand loyalty due to the cost-free nature of repeated utilization of these technologies. Brand loyalty, that occurs from memorable, effective, and well-organized connections with the voice assistant, becomes a vital strategic objective for VA service earners. As customers engage in conversational exchanges and complete activities with a brand's virtual assistant (VA), they undergo a state of engagement and experience flow.

Customers experience improved living conditions when engaging with AI-powered virtual assistants (VAs) developed by companies. According to Cuesta-Valiño et al. (2021), Khan and Hussain (2012), and Frey and Stutzer (2002), the presence of repeated good experiences serves as an opportunity for customers to establish a dedicated connection with a particular brand.

A company's success is heavily reliant upon being capable of successfully connecting with consumers and developing brand loyalty. Retaining existing consumers and developing brand loyalty are the highest priorities for a company's long-term survival and achievement. According to Ries (2014), brands are more than just products. According to the research conducted by Serafin and Horton (1994), Basil Coughlan, a former vice president at Ford, has estimated that each percentage point increase in brand loyalty is associated with a profit gain of \$100 million. This indicates that

The development of connections and interactions with consumers has been identified as a means of building brand loyalty (Gustafsson et al., 2005). The impact of brand trustworthiness on consumers' brand loyalty is influenced by the establishment of highly valued relationships (Alam et al., 2012). It has been further shown that trustworthiness plays a significant role in evaluating a product's capacity to meet customer expectations, hence serving as a crucial indicator of customer loyalty. The study conducted by Singla and Gupta (2019) revealed a strong & statistically noteworthy correlation among brand loyalty and honesty.

Companies that sell brands with a significant amount of loyal customers have a competitive edge compared to their competitors. The existence of brand-loyal consumers can effectively decrease the marketing expenditures of a corporation since research has indicated that the expenses associated with acquiring a new client are around six times greater than those incurred in retaining an existing one (Rosenberg and Czepiel, 1983). Finally, brand trust is a strategic asset that has been found to be a significant source of brand's value.

Consequently, on social media, a brand should align its approach with its offline history. They maintain a strong relationship with consumers by focusing on significant stimuli in their lives (Nguyen, Quach and Thai chon, 2021). Brand features such as the logo, tagline, colors, and graphics significantly influence the brand's visibility. These

include packaging, brand items, advertisements, websites, and digital platforms (Deryl, Verma and Srivastava, 2023).

Brand elements encompass components such as the name, word, design, sign, or any of them, facilitating easy recognition and efficient distinction. Researchers have criticized the definition for its limited perspective, as it fails to consider intangible brand characteristics such as mission, vision, and purpose (Deryl, Verma and Srivastava, 2023).

The brand logo and other aspects effectively communicate the brand's essence. Therefore, through advent of AI, brands can utilize sophisticated technologies to create influential brand components or employ AI methods to assess customers' opinions of a recently developed or modified logo (Capatina et al., 2020). Consumer images with the company logo or signs on social media demonstrate brand loyalty, advocacy, affection, and favorable consumer (Varsha et al., 2021). AI algorithms, such as machine learning algorithms and neural networks with AI, can determine why consumers engage with brand profiles, seeking the brand's attention and demonstrating devotion to it (Deryl, Verma and Srivastava, 2023).

A study conducted by Veloutsou (2015) discovered that intensity of consumer-brand connections is a reliable indicator of brand loyalty. Consumer-brand ties do not have a moderating effect. Instead, they act as facilitators connecting brand trust, loyalty, and pleasure.

The systematic study conducted by De Chernatony and Dall'Olmo Riley (1998) on brand definitions has been of significant use to this article and the research conducted by six hundred other scholars. This review included an analysis of more than 100 brand publications and interviews with twenty brand experts. According to brand experts, the definitions most often referenced are **brand as a value** system (Thrift, 1997;

2.7 Brand as a Logo

Brands are described by the American Marketing Association (1960) as a name, word, design, symbol, or mixture of them that differentiates one seller's products or services from competitors. Researchers like Wood (2000) and Kotler et al. (1999) defined brands as identifiers, signals of product origin, and solutions to product consistency (Park et al., 2011). Some scholars claim that the definition is overly product-focused

(Crainer, 1995) and ignores intangible parts of brand theory (Gardner and Levy, 1955). Riley (2009) criticized the concept for being too actual, comparing it to the US Federal Trademark Act's definition of "trademark."

(Economides, 1988). AI professionals have not openly criticized this theory, but the industry's success raises issues about its relevancy. Recent advances in machine learning have transformed product search using keyword or voice searches (Yoganarasimhan, 2014). This enhanced search feature better matches customer demands with relevant brands, reducing brand efficacy as an identifier.

2.8 Brand as a Personality

According to Lammin (1996) and Chernatony (2010), functional brand advantages are easily emulation able, indicating that creative messages and associations are more effective in brand distinction. According to Domingos (2015) and Mizroch (2015), AI knowledge is costly and in high demand, allowing those with access to the necessary skills to distinguish via AI-driven product innovation (Woodward, 2017). Scholars challenge the success of measuring brand personality across cultures and personality attributes (Ehsan Malik and Naeem, 2013; Garolera, 2001). Additionally, this theory and its criticisms began prior to current AI advancements.

2.9 Brand as an Added Value

Per Jones (1986), brand refers to non-functional advantages beyond a product's practical competences. Chernatony (2010) found that non-functional brand features, accounting for an estimated 20% of brand expenses, significantly influenced consumer purchase decisions (80%). According to Chernatony (2010), non-functional advantages are frequently emotional qualities that are hard to copy. American Express suggestions both applied value (banking services) and emotional value (prestige), which has a greater influence on purchases. AI specialists believe that the pre-1992 date does not account for current AI advancements (Press, 2016), which would change the 80/20 rule in this theory.

The existing literature review indicates that a positive attitude towards AI can impact the superiority of brand associations. By analyzing the brand-partner connection through mediated communication, we can understand how brands that integrate AI technology into their communication strategy can effectively utilize and improve their

operations. AI may significantly improve brand loyalty through specific situations, efficient customer interactions, and accurate prediction of client demands (Deryl, Verma and Srivastava, 2023). AI presents numerous possibilities for improving brand loyalty through specific experiences, optimizing consumer interactions, and forecasting customer requirements. Through the proper utilization of AI, firms may establish more robust connections with their clients, diminish the loss of customers, and stimulate sustained expansion.

2.10 Conclusion

This chapter providing a synopsis of the previous research on the influence of AI on brand loyalty. The outcomes of this literature review were used to foster and provide a conceptual framework in chapter three.

CHAPTER III

METHODOLOGY

3.1 Introduction

This chapter will present the approach used for collecting and analyzing data, along with a discussion of the findings.

3.2 Research Approach

The research process requires adopting an approach for theory development. This approach could be Deductive, Inductive or Adductive, according to Saunders et al., (2016). The approach also specifies the main strategy besides fundamental reasoning behind a research task. This study adopts a deductive approach and utilizes quantitative methodologies. Subsequent studies might repeat this approach in the future to validate its findings (Kummar, 2011). This study is a comprehensive and correlational investigation that establishes the factors and their interconnectedness. The data was directly acquired from a subset of individuals, referred to as a sample. The study utilized secondary data obtained from relevant research reviews.

3.3 Measure

A close-ended questionnaire was created and distributed to respondents through online means. It comprises four sections, including the personal details of the participants, and one section for each variable depicted in the conceptual framework. The variables will be on the attitude statements of the participants, “measurable on a 5-point Likert Scale”.

3.4 Research Design

For this study, a deductive research design was adopted. This is because the deductive research approach enables one to first develop a theory or hypothesis, and then test the theory through collected data (Saunders et al., 2016). To enable the testing of the hypothesis developed for this research, the quantitative research methodology was used. This is because it enables one to measure the relationships between variables of interests in the hypothesis, to determine the nature of their relationships statistically. The research strategy adopted in order to implement the quantitative research

methodology, is the survey technique. The survey technique helps one to collect data efficiently from a large population (Saunders et al., 2016).

3.5 Procedure

The questionnaires were created using Google Docs, and sent to the participants through online means (such as QR code, Emails, Social media) conveniently and randomly, using snowballing technique. The snowball technique involves distributing the questionnaire to a certain number of respondents, and encouraging them to share the survey to their network which fits the demography of the research.

3.6 Goodness of Data

Cronbach's alpha was used to evaluate the inner consistency of the data, which measures the level of interconnectivity among a group of elements. It is often regarded as a trustworthy indicator of the reliability of a measurement scale. The data's validity was assessed using the use of face validity. During the initial stage of this research, the researchers asked the opinions of professionals regarding the accuracy and reliability of the measure. This type of validity refers to whether a task seems relevant and appropriate for the preliminary evaluation that it is undertaking.

3.7 Method

3.7.1 Participants

This research aims to collect data from undergraduate and graduate students studying at different universities in North Cyprus. The universities targeted are “Near East University”, “Cyprus International University”, “Eastern Mediterranean University”, “European Leadership University”, and “Cyprus West University”.

A snowball sampling method was used at this stage with a sample size of 330 respondents. Given that the total population is estimated to be 57,500 students according to calculations made from different sources including the Times Higher Education (THE) website, the respective University websites, and personal inquiry, the adequate sample size was estimated to be between 266 – 1056 to ensure 3-6% margin error. The sample size calculator used to specify this was adopted from Saunders et al., (2016) recommendations for estimating sample size for a finite population size.

The participants were selected randomly at varying spots in the universities such as departmental buildings, Library complex, café, restaurants and bus stop. The questionnaire was administered to the participants through QR codes, or sent via E-Mails or Social Media platforms. And the participants were encouraged to share the survey with their friends and associates who were also students in the universities of interest. The data was collected in between the month of April and May.

3.7.2 Measures

A structured questionnaire was established to study further about relationship amongst the variables which construct conceptual model for study.

The close-ended questionnaire was made which comprised of four sections, including the personal details of the participants like age, gender, level of education and level of income and one section of 12 attitude statements for each variable there were 4 questions shown in the conceptual framework. The variables will be on the attitude statements of the participants, measurable on a “5-point Likert Scale”. The attitude statements were counted as follows: 1 Strongly disagree, 2 disagree, 3 neutrals, somewhat agree, 4 agree, 5 strongly agree. Below represent the attitude statements.

Brand loyalty

BL1	I believe a brand that uses AI provides products and services of exceptional quality	1	2	3	4	5
BL2	I have a strong feeling of loyalty and affiliation towards a brand that uses AI.	1	2	3	4	5
BL3	I believe that a brand that uses AI is following my beliefs and personality.	1	2	3	4	5
BL4	I will suggest or propose a brand that uses AI to my relatives and friends.	1	2	3	4	5

AI-Driven suggestion to Customers

AISC1	I am comfortable at using AI to recommend products and services on my behalf.	1	2	3	4	5
AISC2	The product or service suggestions provided by artificial intelligence are considered to be beneficial.	1	2	3	4	5
AISC3	The explanations that are provided for the recommendations of the product or service are clear and useful.	1	2	3	4	5
AISC4	The recommendation or suggestions provided seem to be relevant to my own interests and requirements.	1	2	3	4	5

AI-Powered interaction

IA 1	In my personal view, AI-powered interactions have the potential to be useful and efficient.	1	2	3	4	5
IA 2	I am willing to offer personal information to AI systems in order to enhance my overall experience.	1	2	3	4	5
I A3	I have certainty in the ability of AI systems to provide reliable and accurate information.	1	2	3	4	5
I A4	In my opinion, AI-powered interactions have the potential to provide a more customized and exciting experience compared with typical human interactions.	1	2	3	4	5

3.7.3 Statistical analysis

The gathering of data was analyzed with the aid of IBM SPSS Software. Apart from descriptive statistics, inferential statistics will be used to evaluate data. The inferential statistics will include regression analysis & correlation. Cronbach's Alpha will measure the goodness of data.

3.7.4 Research Instrument

The questionnaire was used to collect the data for this study. It was containing two sections with 16 items with Likert scale 5-point scale. The first section has 4 item which related to demographical information asking for (gender, age, educational level and income). The second section has 12 items which related to research variables (BL, AISC and AI). AI has 4 items with Likert scale 5-point scale with Cronbach alpha 0.833. AISC has 4 items with Likert scale 5-point scale with Cronbach alpha 0.894. BL has 4 items with Likert scale 5-point scale with Cronbach alpha 0.868. the total 12 items have a Cronbach alpha 0.941. "As per Hair, Black, Babin, and Anderson (2014), a minimum Cronbach's alpha of 0.7 is required to ensure reliability and establish the research as acceptable.". This indicated that all variable that have been used in this research were trustworthy.

"Table 3.1" Cronbach Alpha for research variables

Variable Name,	Items #,	Cronbach Alpha
AI,	4,	0.833
AISC,	4,	0.894
BL,	4,	0.868
Total,	12,	0.941

3.8 Conclusion

This chapter presents the conceptual model that was established and utilized in this study as the guiding framework for formulating hypotheses and research methodologies. The model identifies and categorizes the variables and their interconnections.

CHAPTER IV

FINDING AND DISCUSSION

4.1 Introduction

This chapter delivers a report of the findings derived from the collected and analyzed data. The report presents data on the attainment rate of the desired outcomes, the data collection's quality, the respondent's features, the average replies to the attitude statements in the questionnaire, & the regression & correlations analysis performed.

4.2 Descriptive Statistics

Subsequently receiving completed questionnaire after the participants, the response scale consisting of 12 items were converted into a quantitative level of scale. This was achieved by assigning numerical values to each answer category: “5 for Strongly Agree, 4 for Agree, 3 for Neither Agree nor Disagree, 2 for Disagree, and 1 for Strongly Disagree”. The overall scores of the surveyed participants for each section were categorized as indicated in Table 4.1.

“Table 4.1” The Degree of Approve of the Questionnaire Paragraphs

Likert-Scale	Classification	Description
1	1 – 1.79	Strongly Disagree
2	1.8 – 2.59	Disagree
3	2.6 – 3.39	Neither Agree nor Disagree
4	3.4 – 4.19	Agree
5	4.2 – 5	Strongly Agree

Source: (Idek et al., 2014).

The researcher assessed the questionnaire paragraphs' approval level based on the criteria outlined in Table 4.1, as described by (Idek et al., 2014). According to these criteria, a section is considered strongly disagreed if its average mean falls between 1 and 1.79, disagreed if it falls between 1.8 and 2.59, neither agreed nor disagreed if it falls between 2.6 and 3.39, agreed if it falls between 3.4 and 4.19, and strongly agreed if it falls between 4.2 and 5.

4.3 AI-powered interaction

Table 4.2 displays the mean scores for the artificial intelligence powered interaction items. The mean scores of the participants for the AI-powered interaction items vary between 3.06 and 3.48. Hence, the mean scores of the participants for AI-powered interaction (in general), as well as for each of its aspects, were all higher than the midpoint score of 3.00. The scores suggest that customers perceive the AI as being natural.

“Table 4.2” The Mean Scores for the AI Items

Items	Mean	Std. Deviation	Approval of Degree
AI1	3.48	1.149	Agree
AI2	3.06	1.274	Natural
AI3	3.26	1.139	Natural
AI4	3.19	1.207	Natural
Mean Score	3.25	1.22	Natural

4.4 AISC (AI-Suggestion to Customers)

Table 4.3 displays the mean scores for the AI-suggestion to customer’s items. The mean scores of the responders for AI-suggestion to customer’s items vary between 3.06 and 3.37. Hence, the mean scores of the respondents for AI-suggestion to customers (overall) were 2.9, indicating that the customers see the AI-suggestion to customers as being neutral.

“Table 4.3” The Mean Scores for the AISC Items

Items	Mean	Std. Deviation	Degree of Approval
AISC1	3.06	1.177	Natural
AISC2	3.36	1.117	Natural
AISC3	3.37	1.101	Natural
AISC4	3.34	1.064	Natural
Mean score	3.29	1.07	Natural

4.5 BL (Brand loyalty)

Table 4.4 displays mean scores for the brand loyalty elements. The mean scores of the responders for BL elements vary between 3.04 and 3.40. Hence, the mean ratings of the respondents for BL (overall) were 2.9, suggesting that customers perceive the BL as being natural.

Table 4.4 “The Mean Scores for the BL Items”

Items	Mean	Std. Deviation	Approval of Degree
BL1	3.04	1.252	Natural
BL2	3.29	1.110	Natural
BL3	3.40	1.062	Natural
BL4	3.32	1.119	Natural
Mean score	3.26	1.07	Natural

4.6 Demographic Information

The demographic information collected in this study contains four distinct aspects: age, gender, level of education, and income. Initially, gender was classified hooked on two distinct categories: female and male. Furthermore, the age is assessed across seven distinct groups, ranging from 20 to 27 years, 28 to 36 years, 37 to 40 years, 41 to 50 years, and over 50 years. Furthermore, the educational level was assessed using five distinct categories: High School diploma or its equivalent, Associate degree, Bachelor degree, Master degree, and Doctorate degree. Additionally, income was assessed across five distinct brackets: less than \$10,000, \$10,000-\$12,000, \$12,000-\$15,000, \$15,000-\$18,000, and beyond \$20,000.

4.6.1 Gender

Table 4.5 display the respondents That were picked based on their gender, which was categorized into two groups: male and female. Based on customer statistics, 54.8% of the responses were male, while 45.2% were female. Table 4.5 provides a brief summary of the distribution of the sample according on gender.

“Table 4.5” Sample Distribution by Gender

Variables	Frequency	Percent
Male	180	54.8%
Female	149	45.2%
Total	330	100.0%

4.6.2 Age

The customer's data included responders from various age categories, as illustrated in Table 4.6. The largest proportion of responders, accounting for 76%, falls between the age range of 20 to 27 years.

“Table 4.6” Sample Distribution by Age

Variables	Frequency	Percent
20-27	249	75.5
28-36	64	19.4
36-40	14	4.2
41-50	1	0.3
51+	2	0.6
Total	330	100.0

4.6.3 Level of Education

The level of education for the participants has been assessed using five groups, as presented in Table 4.7. 53% of respondents achieved a Bachelor's degree, the highest number among all respondents.

“Table 4.7” Sample Distribution by Educational Level

Variables	Frequency	Percent
Level of Educational		
High School diploma or equivalent	56	17.0
Associate degree	8	2.4
Bachelor degree	174	52.7
Master degree	75	22.7
Doctorate degree	17	5.2
Total	330	100.0

4.6.4 Income

The respondents' income was assessed using five categories, as illustrated in Table 4.8. 82% of respondents have less than \$10,000.

Table 4.8 “Sample Distribution by Level of income”

Variables	Frequency	Percent
Level of income		
Less than 10,000\$	271	82.1

10,000\$-12,000\$	30	9.1
12,000\$-15,000\$	7	2.1
15,000\$-18,000\$	8	2.4
20,000\$ or more	14	4.2
Total	330	100.0

4.7 Factor Analysis

Exploratory Factor Analysis (EFA) allows writer to reduce the number of variables identified and examine the interrelationships among the variables (Hinkin, 1998). The factors were identified using the Principal Component Analysis (PCA) and Promax with Kaiser normalization variation method. Following the recommendation of Hair et al. (2014), I selected only the items that had a loading factor of 0.4 or above on a single aspect. Table 4.9 displays the values of the Kaiser-Meyer-Olkin (KMO) measure and Bartlett's Test. The obtained value is 0.935, which aligns with the findings of Kaiser & Rice, 1974, and meets the needed sample value.

“Table 4.9” KMO and Bartlett’s Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.935
Bartlett's Test of Sphericity	Approx. Chi-Square	2484.744
	Df	55
	Sig.	0.000

The correlation between factors and visual assessment has been discovered to be statistically substantial with at $p=0.01$. The exploratory factor analysis (EFA) identifies two distinct components which are responsible for 68.81% total variance. The BL and AISC structures consist of eight items with loadings ranging from 0.666 to 0.969. Together, these constructs account for 61.8% of the total variance. The

artificial intelligence construct consists of four components. One item was removed due to inadequate loading performance. The next three components have loading values ranging from 0.811 to 0.844, and the construct accounted for 7.01% of the overall variance.

To certify the growth of a single-dimensional distinction, a confirmatory factor analysis (CFA) has been employed, which relied on the presence of a single underlying factor in the measurement framework. Therefore, the software utilized was SPSS AMOS version 24. Kaynak (2003) outlines six metrics that can be used to assess the quality of model fit: Chi-square/degree of freedom (CMIN/DF), Comparative Fit Index (CFI), Normed Fit Index (NFI), Incremental Fit Index (IFI), Root Mean Square Error of Approximation (RMSEA), and Standardized Root Mean Square Residual (SRMR). These indicators are presented in Table 4.10. The current study's CMIN/DF value of 2.217 meets the condition set by Bagozzi & Yi that it should be less than three. The CFI, NFI, and IFI values were observed to be 0.983, 0.969, and 0.983, correspondingly. The quality of these pointers was about 0.9 and met the requirements of Bentler and Bonett (1980), Byrne (1989), and Hu and Bentler (1998). Furthermore, the SRMR value was 0.0265, and the RMSEA value was 0.051, which align with the established benchmark values set by Hu and Bentler (1998) and Browne and Cudeck (1992). Since ramifications of these well-suited indicators, it could be argued which the model adequately aligns with facts.

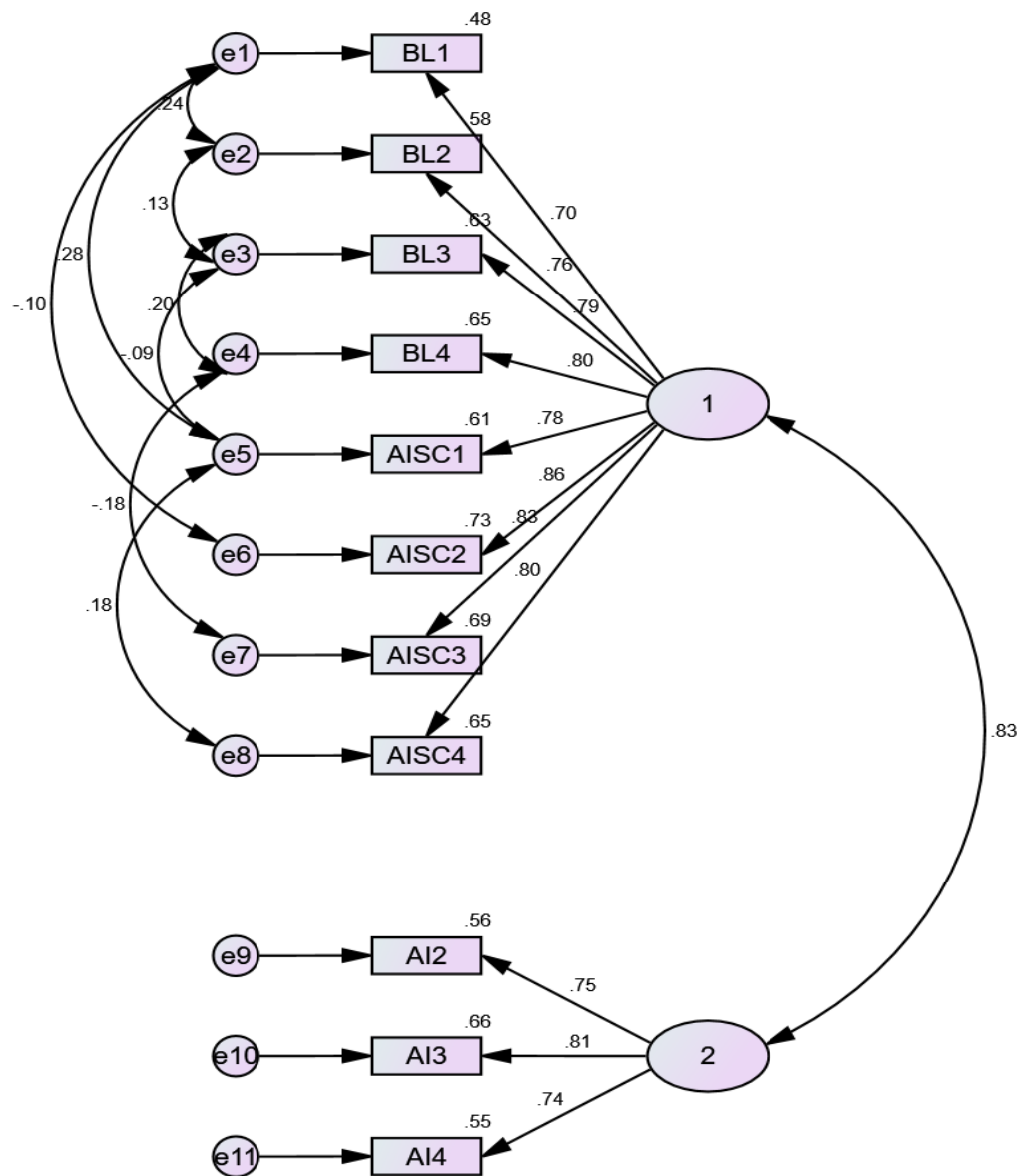
“Table 4.10” Confirmatory Factor Analysis Indictors for Good Fits

Model	CMIN	DF	P	CMIN/DF	CFI	NFI	IFI	RMSEA	SRMR
	77.604	35	0.000	2.217	0.983	0.969	0.983	0.051	0.0265

Besides, the specialists analyzed the legitimacy of this concentrate throughout the focalized legitimacy test. Awang (2012) and Hair et al. (2014) recommended that joined legitimacy could be examined across factor stacking. As per Awang (2012), the average variance extracted (AVE) ought to be 0.5 or greater to accomplish the legitimacy, & combined reliability (CR) ought to be ≥ 0.6 . Table 4.11 sums up the CFA result besides displays that all builds are solid and encounter the legitimacy rules.

“Table 4.11” Confirmatory Factor Analysis

Variable Name	Items	Factor loading	Cronbach Alpha	CR	AVE
AI	3	0.740-0.812	0.808	0.812	0.59
BL, AISC	8	0.696-0.856	0.932	0.931	0.63



“Figure 4.1” CFA Result

4.8 Correlation Analysis

The correlation study revealed a positive connection between the two constructs, with a significance value of 0.01. The results can be found in Table 4.12. The connection between AI & BL ($R = 0.728$, $p = 0.01$) is believed to be substantial & strongly affirmative link. The connection among AISC & BL ($R = 0.841$, $p = 0.01$) is believed to be statistically substantial plus strongly favorable relationship.

“Table 4.12” Correlation between Research Variables

Correlations			
	AISC	AI	BL
AISC	1		
AI	.776**	1	
BL	.841**	.728**	1
n= 330			
**. Correlation is significant at the 0.01 level (2-tailed).			

4.9 Hypotheses Testing

4.9.1 The relationship between AISC and BL

The hypothesis H1 suggests that AISC has a favorable influence on BL. The linear regression analysis, presented in Table 4.13, showed that there was a substantial connection between AISC & BL. The path estimates showed a statistically significant result ($F(1,328) = 789.744$, $p < 0.05$, $R^2 = 0.707$). The model coefficient indicates that AISC had an affirmative and statistically substantial effect on BL ($T(328) = 28.102$, $\beta = 0.833$, $p < 0.05$). If the value of (0) lies inside the bottom and higher boundaries of the 95% confidence interval, then the hypothesis is rejected. If 0 is not within the interval, then the hypothesis is considered to be accepted. Table 4.13 demonstrates that the value of (0) is not within the range defined by the bottom and higher boundaries of the 95% confidence interval (LLCI= 0.774, ULCI= 0.891). Therefore, the writer

concludes that the impact of AISC on BL is considerably distinct from (0). Thus, hypothesis H1 was confirmed.

“Table 4.13 “Regression analysis of AISC on BL

Model Summary								
Model	R	R Square	Adjusted R Square	Change Statistics				
				R Square Change	F Change	df1	df2	Sig. F Change
1	.841 ^a	.707	.706	.707	789.744	1	328	.000
a. Predictors: (Constant), AISC								
ANOVA ^a								
Model		Sum of Squares	Df	Mean Square	F	Sig.		
1	Regression	3448.966	1	3448.966	789.744	.000 ^b		
	Residual	1432.440	328	4.367				
	Total	4881.406	329					
a. Dependent Variable: BL								
b. Predictors: (Constant), AISC								
Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	2.099	.406		5.169	.000	1.300	2.898
	AISC	.833	.030	.841	28.102	.000	.774	.891
a. Dependent Variable: BL								

4.9.2 The relationship between AI and BL

The hypothesis H2 suggests that AI has a positive impact on BL. The linear regression analysis, presented in Table 4.14, revealed a strong relationship between AI and BL. The path estimates indicated a statistically significant result ($F(1,328) = 369.652, p < 0.05, R^2 = 0.530$). The model coefficient indicates that AI had an affirmative and statistically substantial effect on BL ($T(328) = 19.226, \beta = 0.719, p < 0.05$). If the bottom and higher bounds of the 95% confidence interval do not include zero, then the hypothesis is rejected. If the value of (0) is not inside the interval, then the hypothesis is considered to be accepted. Table 4.14 demonstrates that the value of (0) is not within the range defined by the bottom and higher limits of the 95% confidence

interval (LLCI= 0.646, ULCI= 0.793). As a result, the writer concludes that the impact of AI on BL is considerably distinct from (0). Consequently, hypothesis H2 proved valid.

“Table 4.14” Regression analysis of AI on BL

Model Summary								
Model	R	R Square	Adjusted R Square	Change Statistics				
				R Square Change	F Change	df1	df2	Sig. F Change
1	.728 ^a	.530	.528	.530	369.652	1	328	.000
a. Predictors: (Constant), AI								
ANOVA ^a								
Model		Sum of Squares	Df	Mean Square	F	Sig.		
1	Regression	2586.419	1	2586.419	369.652	.000 ^b		
	Residual	2294.987	328	6.997				
	Total	4881.406	329					
a. Dependent Variable: BL								
b. Predictors: (Constant), AI								
Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	3.692	.508		7.272	.000	2.693	4.691
	AI	.719	.037	.728	19.226	.000	.646	.793
a. Dependent Variable: BL								

4.10 Conclusion

The Results and Findings section of the thesis presents a thorough examination of the influence of artificial intelligence on brand loyalty. This investigation utilized statistical methods, namely correlation and regression analysis, to further explore the connection between the utilization of AI in marketing besides customer service and its influence on brand loyalty.

We used correlation analysis to figure out the degree and direction of AI-driven interactions and brand loyalty. By assessing the degree of relationship between these elements, the study found data patterns and connections.

However, regression analysis was used to figure out how AI use characteristics impacted brand loyalty. This statistical method identified and quantified brand loyalty factors.

The study used correlation and regression analysis to understand how artificial intelligence affects brand loyalty. These statistical methods helped the researcher analyze survey responses and develop conclusions about how AI technologies affect customer engagement, satisfaction, and brand loyalty.

CHAPTER V

DISCUSSION

5.1 Introduction

This chapter presents a concise summary of the main purpose and findings of the report. The chapter commences by providing a concise overview of the theoretical & experimental discoveries, as well as ends with a described study of the outcomes. The approved hypotheses will be evaluated and discussed. Furthermore, the chapter evaluates the degree to which the objectives were achieved and offers solutions to the research questions. The report clearly outlines its limits and provides recommendations for future research and successful application of AI.

5.2 Main point from the review of Literature

Main point from literature review

The literature review on Artificial Intelligence (AI) covers various aspects of AI technology and its applications in different fields. It discusses the historical background of AI, starting from Alan Turing's study in the 1950s to the current progressions in machine learning and neural networks. The review emphasizes the importance of AI on brand loyalty in several ways. AI's customized interactions, efficient services, and predictive capabilities can strengthen brand-consumer relationships and promote loyalty. AI technologies also help businesses to create personalized customer experiences by analyzing massive amounts of data to understand customer preferences, creating emotional bonds between customers and brands. It also emphasizes in customer relationship management (CRM) systems, highlighting how AI-powered CRM analytics can analyze customer data to improve marketing initiatives and enhance customer engagements.

Furthermore, the review also examines how AI affects customer behavior and brand loyalty. Studies show the importance of consumer-brand ties in brand loyalty and how AI systems may monitor customer engagement with brand profiles to uncover passion tendencies.

5.2.1 AI and Personalized Marketing

The literature significantly explores the capacity of AI to provide highly tailored content and recommendations, significantly increasing customer engagement and satisfaction. The investigation which has been conducted by (Lemon and Verhoef, 2016) and Grewal et al. (2020) provides evidence that AI has the capability to analyze large quantities of consumer data in order to provide customized marketing messages, product suggestions, and personalized offers. This ultimately leads to a more attractive and satisfactory customer experience.

5.2.2 Artificial Intelligence (AI) in the field of customer service

Reports have been demonstrated Chatbots and virtual assistants powered by AI can enhance the efficiency and satisfaction of customer support. (Huang and Rust,2018) conducted research that demonstrates the ability of these AI technologies to offer immediate support, decrease waiting periods, and maintain a constant level of service quality. Chatbots have the ability to efficiently manage a great amount of requests at the identical time. They may provide solutions or guide customers to human agents when needed, which improves the overall efficiency of the business.

5.2.3 Dynamics of Brand Loyalty

Both the emotional and psychological dimensions of brand loyalty, including trust, satisfaction, and engagement, play a vital part in certifying the continued support of customers over an extended period. Oliver (1999) and Dick and Basu (1994) have emphasized that brand loyalty is established through favorable customer experiences, confidence in the brand, and emotional connection. Artificial intelligence (AI) may significantly enhance these features by offering customized and reliable interactions that build a stronger bond between the customer and the company.

5.2.4 Ethical considerations

The ethical implications of AI in marketing, expressly associated with privacy concerns and consumer trust, are key matters. Martin and Murphy (2017) and Malhotra and Kubowicz Malhotra (2018) highlight the fact that AI has the potential to improve marketing effectiveness, but it also brings about major worries over privacy. Consumers are becoming more concerned about the methods of data collection, storage, and utilization, which can influence their confidence in the business.

Overall, the literature review suggests that AI has a substantial influence on increasing brand loyalty by enhancing customer experiences, engagement, and satisfaction through personalized interactions, efficient services, and predictive capacities. Through the proper utilization of AI technology, firms have the ability to establish stronger brand-consumer relationships and build loyalty among consumers.

5.3 Main empirical findings

5.3 .1 AI-powered interaction

Finding: Artificial intelligence (AI) driven interactions significantly boost customer loyalty and satisfaction

Alignment: This finding correlates with previously conducted studies that highlights the effectiveness of artificial intelligence in delivering tailored and optimized consumer experiences. Research conducted by Lemon and Verhoef (2016) and Grewal et al. (2020) has demonstrated the effectiveness of AI tools, like Chatbots and virtual assistants, in optimizing customer service operations, leading to increased levels of customer satisfaction. These AI technologies have the capability to manage requests at all times, deliver immediate responses, and provide tailored recommendations based on past experiences, thereby improving the entire customer experience.

The survey found that respondents expressed greater satisfaction when engaging with AI-powered services compared to conventional customer support approaches. The research supports the idea that AI's capacity to deliver prompt, accurate, and tailored solutions play an essential part in boosting customer engagement and fulfilment.

5.3. AI-suggestion to customers and brand loyalty

Finding: Customized artificial intelligence recommendations have an affirmative influence on customer faithfulness towards a brand.

Contrast: Existing research has shown that personalized recommendations have a positive impact on brand loyalty (Gonzalez et al., 2019; Joo and Park, 2020). However, our study discovered that the influence is particularly strong in specific demographic groups. Younger consumers and individuals with higher incomes demonstrated a more significant positive reaction to personalized AI recommendations in contrast to older consumers and individuals with lower incomes.

This difference emphasizes the need for personalization tactics to be customized for various demographic segments. Conventional research frequently assumes that all consumers are the same, but this study suggests that AI personalization should take into account demographic factors in order to achieve maximum performance. Younger consumers, for instance, may possess greater technological proficiency and be open to AI-generated recommendations, whereas older consumers may lean towards more conventional forms of interaction.

5.3.3 Demographic influence

Finding: Demographic factors, such as age and income, have an impact on the effectiveness of artificial intelligence in relation to brand loyalty.

Contrast: The finding offers a detailed comprehension that has not been thoroughly addressed in the current body of research. Although numerous research recognizes the significance of demographics in marketing (Kumar and Gupta, 2016; Verhoef et al., 2017), merely a controlled amount has specifically examined the influence of these aspects on the effectiveness of AI in boosting brand loyalty.

The study found that individuals in the younger age group (18-35) and those with higher incomes (annual income over \$20,000) are more likely to expressing stronger brand loyalty when exposed to marketing methods powered by artificial intelligence (AI). This suggests that these groups may possess higher anticipations for customization and incorporation of technology in their customer interactions. In contrast, older consumers (aged 50 and above) and lower-income groups exhibited lower levels of responsiveness towards AI-driven personalization, potentially because they are less familiar with or have less faith in AI technologies.

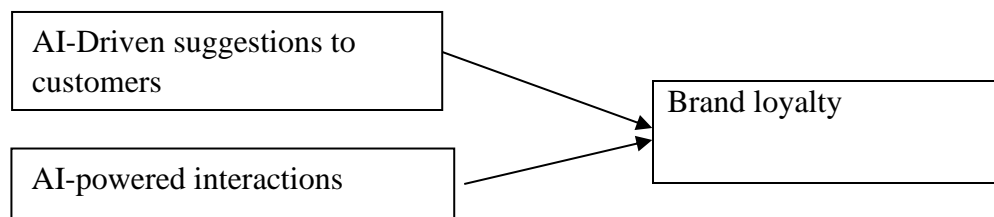
Companies should implement AI methods tailored to various demographics in order to effectively improve brand loyalty. Customizing AI applications to adjust to the distinct requirements and preferences of various demographic segments can enhance the effectiveness of these technologies.

5.3.4 Ethical Consideration

Findings: The presence of privacy issues could reduce the positive influence of AI on brand loyalty.

Alignment: This finding aligns with the existing body of work that emphasizes the significance of ethical practices in artificial intelligence (AI) to maintain consumer trust (Martin and Murphy, 2017; Malhotra and Kubowicz Malhotra, 2018). The adoption of AI technologies has been slowed by substantial privacy issues. The research revealed that individuals who expressed concern regarding data privacy and the ethical use of their information had a lower tendency to establish strong brand loyalty, despite acknowledging the benefits of personalized services facilitated by artificial intelligence. This alignment emphasizes how important it is for businesses to proactively tackle ethical challenges. In order to address privacy issues, companies must adopt transparent data policies, acquire express consent for data usage, and establish strong data protection measures. By acknowledging and resolving these issues, organizations can retain consumer confidence and fully utilize AI technologies to build brand loyalty.

5.4 Hypothesis Test Result and its Detail Interpretations and Implications



5.5 H1: AI-driven suggestions to customers have a positive effect on Brand Loyalty

Interpretation

The hypothesis H1 suggests that AISC has a favorable effect on BL. The linear regression analysis, presented in Table 4.13, showed that there was a substantial connection among AISC & BL. The path estimates showed a significant result ($F(1,328) = 789.744, p < 0.05, R^2 = 0.707$). The model coefficient indicates that AISC had an affirmative and statistically substantial effect on BL ($T(328) = 28.102, \beta = 0.833, p < 0.05$). If the value of (0) is inside the bottom and higher bounds of the 95% confidence interval, then the hypothesis is rejected. If 0 is not within the interval, then the hypothesis is considered to be acknowledged. Table 4.13 demonstrates that the value of (0) is, not within the range defined by the bottom and higher bounds of the

95% confidence interval (LLCI= 0.774, ULCI= 0.891). Therefore, the writer concludes that the impact of AISC on BL is considerably distinct from (0). Thus, hypothesis H1 was supported.

“Table 5.1” Regression analysis for Hypothesis 1

Statistic	Value
F (1,328)	789.744
p-value	< 0.05
R²	0.707

F (1,328): This represents the value of the F-statistic obtained from the regression analysis. It evaluates the overall importance of the model. The number in parentheses (1,328) represents the degrees of freedom, with 1 degree for the predictor and 328 degrees for the error term.

p-value: This indicates the level of relevance of the F-statistic. A p-value below 0.05 shows statistical significance of the model.

R²: The coefficient of determination represents the portion of variance in the dependent variable (BL) that can be explained by the independent variable (AISC). A R² score of 0.707 indicates that 70.7% of the variation in BL can be explained by AISC.

“Table 5.2” Model Coefficient of Hypothesis 1

Statistic	Value
T(328)	28.102
β(Beta)	0.833
p-value	< 0.05

T (328): This represents the value of the t-statistic for the regression coefficient. This test determines the statistical significance of the coefficient (β) being different from

zero. The value included in parenthesis (328) represents the degrees of freedom for the error term.

β (Beta): The standardized coefficient represents the strength and direction of the correlation between AISC and BL. A β coefficient of 0.833 indicates a strong positive correlation.

p-value: This indicates the level of significance of the t-statistic. A p-value below 0.05 shows statistical significance of the coefficient, indicating a meaningful link between AISC and BL.

“Table 5.3” 95% Confidence Interval for β Hypothesis 1

Statistic	Value
Lower limit(LLCI)	0.774
Upper limit(ULCI)	0.891

The lower limit (LLCI) is the minimum value of the 95% confidence interval for the regression coefficient (β). This statement indicates that we have a 95% level of confidence in asserting that the actual value of β is greater than or equal to 0.774.

The Upper Limit (ULCI) is the highest value inside the 95% confidence interval for the regression coefficient (β). It signifies that we have a 95% level of confidence that the actual value of β is less than or equal to 0.891.

As the interval does not include the value of 0, it suggests that there is a statistically significant link between AISC and BL.

“Table 5.4” Conclusion of Hypothesis 1

Criteria	Result
Value of 0 within 95% Confidence Interval	No
Conclusion	Hypothesis H1 is accepted

The value of 0 falls within the 95% confidence interval. This evaluates whether the 95% confidence interval for the regression coefficient (β) encompasses the value of 0. In this case, it does not.

Conclusion: The absence of the value 0 within the confidence interval indicates that the impact of AISC on BL is statistically significant and not equal to zero. Thus, hypothesis H2, suggesting that AISC has a positive impact on BL, is supported.

Implication

Advanced AI personalization algorithms can boost customer loyalty. Businesses should build and deploy AI systems that assess diverse data points to personalize customer experiences. This includes promoting products and customizing marketing messages, discounts, and content to customer preferences. Companies may boost customer satisfaction, resulting in repeat purchases and brand loyalty. Businesses should constantly update their AI algorithms to reflect customer needs and behavior.

5.6 H2: AI-powered interaction has positive effect on Brand loyalty

Interpretation

Hypothesis H2 posits that AI-powered interaction has a positive effect on BL. As presented in Table 4.14, the linear regression exhibited that the path estimates between AI-powered interaction & BL were substantial ($F_{(1,328)} = 369.652$, $p < 0.05$, $R^2 = 0.530$). Furthermore, the model coefficient indicates that AI-powered interaction was affirmative and statistically substantial to BL ($T_{(328)} = 19.226$, $\beta = 0.719$, $p < 0.05$). According to the bottom and higher boundaries of the 95% confidence interval, if 0 drops between them, then the hypothesis has been rejected. If 0 drops outside of the interval, then the hypothesis has been accepted. In Table 4.14, it displays that 0 does not drop between the bottom and higher boundaries of the 95% confidence interval (LLCI = 0.646, ULCI = 0.793), so the writer concludes that the influence of AI-powered interaction on BL is considerably different from 0. As a result, hypothesis H2 was accepted.

“Table 5.5” Regression Analysis for Hypothesis 2

Statistic	Value
F (1,328)	369.652
p-value	< 0.05
R²	0.530

F (1,328): This represents the value of the F-statistic obtained from the regression analysis. It evaluates the overall importance of the model. The number in parentheses (1,328) represents the degrees of freedom, with 1 degree for the predictor and 328 degrees for the error term.

p-value: This indicates the level of relevance of the F-statistic. A p-value below 0.05 shows statistical significance of the model.

R²: The coefficient of determination, represented as R², evaluates the extent to which the independent variable (AI-powered interaction) is responsible for the variability in the dependent variable (BL). Achieving a R² value of 0.530 indicates that 53% of the variation in BL can be explained by AI.

“Table 5.6” Model Coefficient of Hypothesis 2

Statistic	Value
T (328)	19.226
β (Beta)	0.719
p-value	< 0.05

T (328): This represents the value of the t-statistic for the regression coefficient. This test determines the statistical significance of the coefficient (β) being different from zero. The value included in parenthesis (328) represents the degrees of freedom for the error term.

β (Beta): The standardized coefficient represents the strength and direction of the correlation between AI and BL. A β coefficient of 0.719 indicates a strong positive correlation.

p-value: This indicates the level of significance of the t-statistic. A p-value below 0.05 shows statistical significance of the coefficient, indicating a meaningful link between AI and BL.

“Table 5.7” 95% Confidence Interval for β Hypothesis 2

Statistic	Value
Lower limit(LLCI)	0.646
Upper limit(ULCI)	0.793

The lower limit (LLCI) is the minimum value of the 95% confidence interval for the regression coefficient (β). This statement indicates that we have a 95% level of confidence in asserting that the actual value of β is greater than or equal to 0.646.

The Upper Limit (ULCI) is the highest value inside the 95% confidence interval for the regression coefficient (β). It signifies that we have a 95% level of confidence that the actual value of β is less than or equal to 0.793.

As the interval does not include the value of 0, it suggests that there is a statistically significant link between AI and BL.

“Table 5.8” Conclusion of Hypothesis 2

Criteria	Result
Value of 0 within 95% Confidence Interval	No
Conclusion	Hypothesis H2 is accepted

The value of 0 falls within the 95% confidence interval. This evaluates whether the 95% confidence interval for the regression coefficient (β) encompasses the value of 0. In this case, it does not.

Conclusion: The absence of the value 0 within the confidence interval indicates that the impact of AI on BL is statistically significant and not equal to zero. Thus, hypothesis H1, suggesting that AI has a positive impact on BL, is accepted.

Implication

Businesses should invest in AI for personalized and effective interactions with customers. Businesses may improve customer experience by using AI technologies to answer inquiries, provide recommendations, and provide consistent service. AI investments increase operational efficiency and customer relationships, build brand loyalty. Businesses should integrate AI technology that enable scale personalization to make each consumer feel valued.

5.7 Key Findings

5.7.1 AI-Powered interaction

According to Table 5.9, customers typically had a favorable view of the AI they dealt with, perceiving it to be relatively natural. The data displays the average scores for the artificial intelligence items. The average scores of the responders for the AI tasks vary between 3.06 and 3.48. Hence, the average scores of the participants for AI (overall), as well as each of its dimensions, were all higher than the midpoint score of 3.00. These scores suggest that the customer's observations of AI are authentic.

“Table 5.9” The Mean Scores for the AI Items

Items	Mean	Std. Deviation	Approval of Degree
AI1	3.48	1.149	Agree
AI2	3.06	1.274	Natural
AI3	3.26	1.139	Natural
AI4	3.19	1.207	Natural
Mean Score	3.25	1.22	Natural

5.7.2 AISC (AI-Suggestion to Customers)

The table 5.10 suggest that The respondents' mean scores for AISC items range from 3.06 to 3.37. As a result, the respondents' mean scores for AISC (wholly) was 2.9 this specify that the customer's observations of the AISC are natural. This indicates that the overall mean score is one point less for (AI-DRIVEN SUGGESTION TO CUSTOMERS) then (AI-powered interaction) which is 2.9.

“Table 5.10” The Mean Scores for the AISC Items

Items	Mean	Std. Deviation	Approval of Degree
AISC1	3.06	1.177	Natural
AISC2	3.36	1.117	Natural
AISC3	3.37	1.101	Natural
AISC4	3.34	1.064	Natural
Mean score	3.29	1.07	Natural

5.7.3 BL (Brand loyalty)

Table 5.11 suggest that the respondents' mean scores for BL items range from 3.04 to 3.40. As a result, the respondents' mean scores for BL (whole) was 2.9 this point out that the customer's observations of the BL are natural. This indicates that the overall mean score of (BL) and (AISC) are equal which is 2.9 but less than 1 point from (AI-powered interaction) that shows in table 5.9 above.

“Table 5.11” The Mean Scores for the BL Items

Items	Mean	Std. Deviation	Approval of Degree
BL1	3.04	1.252	Natural
BL2	3.29	1.110	Natural
BL3	3.40	1.062	Natural
BL4	3.32	1.119	Natural
Mean score	3.26	1.07	Natural

5.8 Research Question

What factors affect the complex relationships between AI and brand loyalty?".

- I. **Privacy and Security Concerns:** AI systems may collect and utilize customers' personal data, affecting brand trust and loyalty. In AI-driven interactions, data privacy and security are essential to customer trust and loyalty.
- II. **Ethical AI Use:** Algorithm bias and data misuse can damage brand perception and loyalty. To sustain customer trust, brands must adopt AI ethically and transparently.
- III. **Customer Experience and Satisfaction:** AI-delivered customer experiences influence brand loyalty. Positive experiences, personalized recommendations, and efficient customer service can boost brand loyalty.
- IV. **Accuracy and reliability of AI systems:** The effectiveness of personalized marketing efforts and customer engagement relies heavily on the accuracy and reliability of AI algorithms in predicting customer preferences and behavior. Incorrect suggestions or answers from AI systems can result in dissatisfied customers and reduced brand loyalty.
- V. **Communications and Transparency:** Building customer trust requires clear information about AI technologies' benefits and drawbacks. Transparency about how AI improves consumer experiences can boost brand loyalty.

- VI. **Innovation and adaptability:** Brands that adapt AI technologies to changing customer needs and preferences are more likely to build brand loyalty. Customer loyalty could decline if AI implementations slow down or fail to keep up with technology.

In addition, Organizations can tackle the complex relationships between AI and brand loyalty and improve consumer engagement, satisfaction, and loyalty in the digital era by understanding and resolving these aspects.

5.9 Conclusion

Customers, in general, have a perception that the artificial intelligence (AI) they interacted with was relatively Neutral, which indicated that it was easy to use and did not appear artificial. It would appear that the creation of an AI experience that is user-friendly was successful.

All things considered, the overall mean scores for AISC (AI Driven Suggestion) and BL (brand loyalty) were marginally lower than those for AI-powered interaction itself. The fact that this is the case emphasizes the possibility of a gap between the artificial intelligence's apparent neutral and the functionality it provides, as well as its capacity to increase brand loyalty. Overall, it shows that AI has shown positive impact on brand loyalty. The above all tables show the perceptions of the respondents Neutral or somewhat that indicates positive impact of AI on brand loyalty.

CHAPTER VI

CONCLUSION AND RECOMMENDATION

6.1 Introduction

The final chapter summarizes the research on AI and brand loyalty. This summary highlights the study's key findings for marketers and businesses interested in AI technologies. The chapter seeks to demonstrate how AI may improve customer loyalty and engagement in a competitive market.

In addition, the chapter will provide suggestions based on the outcomes of the study. These recommendations are intended to deliver practical directions for upcoming research actions and real-world applications in the fields of marketing and customer relationship management. The chapter seeks to guide organizations in making sensible choices and strategically implementing AI-driven techniques to enhance brand-consumer interactions and achieve sustainable growth. It provides actionable solutions based on study findings.

6.2 Conclusion

The study discovered that customer interactions enabled by artificial intelligence greatly boost customer satisfaction and boost brand loyalty. Customized artificial intelligence recommendations are especially efficient in enhancing satisfaction and loyalty; however, their influence differs among diverse demographic segments. The research also emphasized that demographic characteristics are important in influencing the effectiveness of AI, requiring specific AI tactics. In addition, ethical considerations, particularly those related to privacy, can reduce the beneficial impact of AI on brand loyalty.

6.3 Recommendation for future

- ❖ Base on positive impact of AI (Artificial intelligence) on BL (Brand loyalty)

Organizations should think about using AI technology into their operations more to boost business performance, given the favorable impact of AI has on BL.

Different segments of customers might respond differently to customized interactions. What works for one segment may not for another. Analyzing how machine learning algorithms and predictive analytics affect demographics, psychographics, and

purchasing behaviors should be the next step in customization. Companies can improve personalization methods to engage and keep customers across various groups by recognizing these distinct affects.

- ❖ Research ought to investigate which advanced personalization methods work best for different customer categories. This includes testing and evaluating collaborative filtering, content-based on recommendation systems, and hybrid models to assess their advantages and drawbacks in meeting customer requirements. Organizations can improve marketing relevance and efficacy by enhancing personalization methods based on segment-specific insights, resulting in customer satisfaction and loyalty.
- ❖ Future study might investigate how enhanced AI personalization affects customer privacy and trust and develop transparency and accountability techniques like use of data explanations and customer data ownership. This will increase customer trust and reduce risks.

6.4 Limitations

This study has taken place in different universities in Cyprus such as “Near East University, Cyprus International University, Eastern Mediterranean University, European Leadership University and Cyprus West University”. The sample size from specific institutions and limited to specific departments limits the research's generalizability. The results of a study with number of participants from a specific group or area may not be generalizable. The findings from a sample of 330 respondents from specific Cyprus institutions and departments may not apply to a wider audience or other places.

Researchers can increase external validity by using a larger, more diversified sample. A bigger and diversified sample size increases participant variation in characteristics, experiences, and opinions, making conclusions more reliable and applicable to a wider population. Diverse samples may collect a variety of opinions, behaviors, and responses, helping the study derive appropriate conclusions beyond the original population or environment.

Therefore, increasing the sample size and including participants from different backgrounds, demographics, and locations can improve the study's external validity

by making the findings more representative and allowing for broader generalizations about AI technologies and brand loyalty

6.5 Conclusion

This final chapter presents a discussion that addresses the major objective of this investigation and the findings of this study in relation to the research questions addressed and the hypothesis validated. Additionally, the study also included limitations and suggestions for future research.

REFERENCES

- Alyazidi, H. Y., Syaifudin, Santoso, G. B., & Murwonugroho, W. (2020). Knowledge management system of furniture production and distribution. *International Journal of Scientific and Technology Research*, 9(3), 1379–1384.
- Artificial Intelligence in Marketing: Literature Review and Future Research Agenda. (2023). *Journal of System and Management Sciences*, [online] 14(1). doi:<https://doi.org/10.33168/jsms.2024.0108>.
- Belanche, D., Casaló, L. V., & Flavián, C. (2020). Customer's Acceptance of Humanoid Robots in Services: The Moderating Role of Risk Aversion. *Smart Innovation, Systems and Technologies*, 167, 449–458. https://doi.org/10.1007/978-981-15-1564-4_42
- Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin*, 88(3), 588–606.
- Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin*, 88(3), 588–606.
- Browne, M. W., & Cudeck, R. (1992). Alternative Ways of Assessing Model Fit. *Sociological Methods & Research*, 21(2), 230–258.
- Browne, M. W., & Cudeck, R. (1992). Alternative Ways of Assessing Model Fit. *Sociological Methods & Research*, 21(2), 230–258.
- Byrne, B. M. (1989). *A primer of LISREL: basic applications and programming for confirmatory factor analytic models*. New York: Springer-Verlag.
- Byrne, B. M. (1989). *A primer of LISREL: basic applications and programming for confirmatory factor analytic models*. New York: Springer-Verlag.
- Capatina, A., Kachour, M., Lichy, J., Micu, A., Micu, A.-E. and Codignola, F. (2020). Matching the future capabilities of an artificial intelligence-based software for social media marketing with potential users' expectations. *Technological Forecasting and Social Change*, [online] 151(151), p.119794. doi:<https://doi.org/10.1016/j.techfore.2019.119794>.

- Chen, D., 2022. How Digital Technologies Reshape and Transform Marketing: The Participation of Augmented Reality in Brand Loyalty Building. *Acad. J. Bus. Manag.*, 4(9), pp.22-27.
- Cheng, Y. and Jiang, H. (2020). How Do AI-driven Chatbots Impact User Experience? Examining Gratifications, Perceived Privacy Risk, Satisfaction, Loyalty, and Continued Use. *Journal of Broadcasting & Electronic Media*, 64(4), pp.1–23. doi:<https://doi.org/10.1080/08838151.2020.1834296>.
- Daqar, M.A.M.A. and Smoudy, A.K.A. (2019). THE ROLE OF ARTIFICIAL INTELLIGENCE ON ENHANCING CUSTOMER EXPERIENCE. *International Review of Management and Marketing*, [online] 9(4), pp.22–31. doi:<https://doi.org/10.32479/irmm.8166>.
- Davenport, T. H., & Mahidhar, V. (2018). What's your cognitive strategy? *MIT Sloan Management Review*, (Summer). Retrieved from <https://sloanreview.mit.edu/article/whats-your-cognitive-strategy/> [Google Scholar]
- Deryl, M.Ds., Verma, S. and Srivastava, V. (2023). How does AI drive branding? Towards an integrated theoretical framework for AI-driven branding. *International Journal of Information Management Data Insights*, [online] 3(2), p.100205. doi:<https://doi.org/10.1016/j.jjime.2023.100205>.
- Haenlein, M., & Kaplan, A. (2019). A brief history of AI.: On the past, present, and future of artificial intelligence. *California Management Review*, 61(4), 5–14. doi: 10.1177/0008125619864925 [Crossref] [Web of Science ®], [Google Scholar]
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2014). *Multivariate Data Analysis* (7th ed.). Harlow, UK: Pearson Education Limited.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2014). *Multivariate Data Analysis* (7th ed.). Harlow, UK: Pearson Education Limited.
- Haleem, A., Javaid, M., Qadri, M.A., Singh, R.P. and Suman, R. (2022). Artificial Intelligence (AI) Applications for marketing: a literature-based Study. *International Journal of Intelligent Networks*, 3(3), pp.119–132.
- Hinkin, T. R. (1998). A brief tutorial on the development of measures for use in survey questionnaires. *Organizational Research Methods*, 2(1), 104– 121.

- Hinkin, T. R. (1998). A brief tutorial on the development of measures for use in survey questionnaires. *Organizational Research Methods*, 2(1), 104–121.
- Hu, L., & Bentler, P. M. (1998). Fit Indices in Covariance Structure Modeling: Sensitivity to Underparameterized Model Misspecification. *Psychological Methods*, 3(4), 424–453.
- Hu, L., & Bentler, P. M. (1998). Fit Indices in Covariance Structure Modeling: Sensitivity to Underparameterized Model Misspecification. *Psychological Methods*, 3(4), 424–453.
- Huang, M.-H. and Rust, RT (2020). A strategic framework for artificial intelligence in marketing. *Journal of the Academy of Marketing Science*, [online] 49(1), pp.30–50. doi:<https://doi.org/10.1007/s11747-020-00749-9>.
- Huh, J., Kim, H.-Y. and Lee, G. (2023). ‘Oh, happy day!’ Examining the role of AI-powered voice assistants as a positive technology in the formation of brand loyalty. *Journal of Research in Interactive Marketing*. doi:<https://doi.org/10.1108/jrim-10-2022-0328>.
- Idek, S., Fong, L. L., Sidhu, G. K., & Hoon, T. S. (2014). The Use of Consciousness-raising Tasks in Promoting the Correct Use of the Verb “Be” among Students in Vocational Colleges. *Theory and Practice in Language Studies*, 4(9), 1792–1803.
- Idek, S., Fong, L. L., Sidhu, G. K., & Hoon, T. S. (2014). The Use of Consciousness-raising Tasks in Promoting the Correct Use of the Verb “Be” among Students in Vocational Colleges. *Theory and Practice in Language Studies*, 4(9), 1792–1803.
- Jarek, K. and Mazurek, G. (2019). Marketing and Artificial Intelligence. *Central European Business Review*, [online] 8(2), pp.46–55. Available at: <https://www.ceeol.com/search/article-detail?id=775030>.
- Kaiser, H. F., & Rice, J. (1974). Little Jiffy, Mark Iv. *Educational and Psychological Measurement*, 34(1), 111–117.
- Kaiser, H. F., & Rice, J. (1974). Little Jiffy, Mark Iv. *Educational and Psychological Measurement*, 34(1), 111–117.
- Kaynak, H. (2003). The Relationship between Total Quality Management Practices and their Effects on Firm Performance. *Journal of Operations Management*, 21(4), 405–435.
- Kaynak, H. (2003). The Relationship between Total Quality Management Practices and their Effects on Firm Performance. *Journal of Operations Management*, 21(4), 405–435.

- Khamoushi Sahne, S.S., 2023. The Impact of Artificial Intelligence on Customer Loyalty in the Luxury Market: Mediating Role of Customer Relationship. Available at SSRN 4599807.
- Latif, W.B., Islam, M.A. and Noor, I.B.M., 2014. A conceptual framework to build brand loyalty in the modern marketing environment. *Journal of asian scientific research*, 4(10), p.547.
- Maroufkhani, P., Asadi, S., Ghobakhloo, M., Jannesari, M.T. and Ismail, W.K.W., 2022. How do interactive voice assistants build brands' loyalty?. *Technological Forecasting and Social Change*, 183, p.121870.
- Maroufkhani, P., Asadi, S., Ghobakhloo, M., Jannesari, M.T. and Ismail, W.K.W. (2022). How do interactive voice assistants build brands' loyalty? *Technological Forecasting and Social Change*, 183, p.121870. doi:<https://doi.org/10.1016/j.techfore.2022.121870>.
- Matosas-López, L., 2024. The influence of brand credibility and brand loyalty on customer satisfaction and continued use intention in new voice assistance services based on AI. *Journal of Marketing Analytics*, pp.1-22.
- Nguyen, T., Quach, S. and Thaichon, P. (2021). The effect of AI quality on customer experience and brand relationship. *Journal of Consumer Behaviour*, 21(3). doi:<https://doi.org/10.1002/cb.1974>.
- Ramachandran, S. and Balasubramanian, S. (2020). Examining the Moderating Role of Brand Loyalty among Consumers of Technology Products. *Sustainability*, 12(23), p.9967. doi:<https://doi.org/10.3390/su12239967>.
- Rane, N., 2023. Enhancing customer loyalty through Artificial Intelligence (AI), Internet of Things (IoT), and Big Data technologies: improving customer satisfaction, engagement, relationship, and experience. *Internet of Things (IoT), and Big Data Technologies: Improving Customer Satisfaction, Engagement, Relationship, and Experience* (October 13, 2023).
- Rust, RT (2020). The future of marketing. *International Journal of Research in Marketing*, [online] 37(1), pp.15–26. doi:<https://doi.org/10.1016/j.ijresmar.2019.08.002>.

- Seshadri, A. (2024). A complete overview of AI in customer service. A complete overview of AI in customer service. Available at: https://devrev.ai/blog/ai-in-customer-service?utm_source=devrev.
- Trabelsi, M. (2020). The Consumer-Private Labels Bond and the Store Loyalty: The Role of Satisfaction. *Open Journal of Business and Management*, 08(02), pp.428–451. doi:<https://doi.org/10.4236/ojbm.2020.82027>.
- Varsha, P.S., Akter, S., Kumar, A., Gochhait, S. and Patagundi, B., 2021. The impact of artificial intelligence on branding: a bibliometric analysis (1982-2019). *Journal of Global Information Management (JGIM)*, 29(4), pp.221-246.
- Veloutsou, C. (2015). Brand evaluation, satisfaction and trust as predictors of brand loyalty: The mediator-moderator effect of brand relationships. *Journal of Consumer Marketing*.
- Verma, S., Sharma, R., Deb, S. and Maitra, D. (2021). Artificial intelligence in marketing: Systematic review and future research direction. *International Journal of Information Management Data Insights*, [online] 1(1), p.100002. doi:<https://doi.org/10.1016/j.jjime.2020.100002>.
- Verma, S., Sharma, R., Deb, S. and Maitra, D. (2021). Artificial intelligence in marketing: Systematic review and future research direction. *International Journal of Information Management Data Insights*, [online] 1(1), p.100002. doi:<https://doi.org/10.1016/j.jjime.2020.100002>.
- Vlačić, B., Corbo, L., Costa e Silva, S. and Dabić, M. (2021). The Evolving Role of Artificial Intelligence in marketing: a Review and Research Agenda. *Journal of Business Research*, [online] 128(1), pp.187–203. doi:<https://doi.org/10.1016/j.jbusres.2021.01.055>.
- Vlačić, B., Corbo, L., Costa e Silva, S. and Dabić, M. (2021). The Evolving Role of Artificial Intelligence in marketing: a Review and Research Agenda. *Journal of Business Research*, [online] 128, pp.187–203. doi:<https://doi.org/10.1016/j.jbusres.2021.01.055>.
- West, A., Clifford, J. and Atkinson, D. (2018). ‘Alexa, Build Me a Brand’ — An Investigation into the Impact of Artificial Intelligence on Branding. *Journal of Business and*

Economics, 9(10), pp.877–887. doi:[https://doi.org/10.15341/jbe\(2155-7950\)/10.09.2018/005](https://doi.org/10.15341/jbe(2155-7950)/10.09.2018/005).

APPENDIX

APPENDIX 1

Near East University

Institute of Social science

MSc Marketing

May, 2024.

THE EFFECT OF ARTIFICIAL INTELLIGENCE ON BRAND LOYALTY.

Dear Participants,

This questionnaire seeks to discover individuals' perceptions of artificial intelligence's impact on brand loyalty. Your honest viewpoint will be crucial in evaluating this complex connection.

Please provide the most accurate response to each question to your knowledge. Choose the one that best reflects your perspective.

Kindly be aware that your involvement in the study is voluntary; regardless of whether you choose to participate or not, it will have no effect on your academic marks for the courses in which you are now registered. Regardless, your identity will remain undisclosed to any external entities. The data gathered in this study will be entirely utilized for academic purposes and may be showcased at national or worldwide academic conferences and/or publications. If you choose to discontinue your involvement in this study, you can do so by contacting us. If you choose to withdraw from the study, your data will be erased from our database and will not be included in any subsequent stages of the investigation. If you have any inquiries or concerns, kindly reach out to us using the following contact details

APPENDIX 2

SECTION 1

Personal details

Please tick (✓) as appropriate:

Your gender

Male Female Other

Your age

20-27 28-36 36-40 41-50 51+

Education level

High school diploma Associate's degree Bachelor's degree Master's degree Doctorate degree
Or equivalent

Income level (Annual)

Less than \$10,000 \$10,000-\$12,000 \$12,000-\$15,000 \$15,000-\$18,000 \$20,000 or more

SECTION 2

Please tick (✓) to a response from a scale 1 to 5 as

Strongly Disagree = 1 Disagree = 2 Neutral, somewhat agree = 3

Agree = 4 Strongly Agree = 5

Brand loyalty

BL 1	I believe a brand that uses AI provides products and services of exceptional quality.	1	2	3	4	5
BL 2	I have a strong feeling of loyalty and affiliation towards a brand that uses AI.	1	2	3	4	5
BL 3	I believe that a brand that uses AI is following my beliefs and personality.	1	2	3	4	5
BL 4	I will suggest or propose a brand that uses AI to my relatives and friends.	1	2	3	4	5

AI-Driven suggestions to customers

SC 1	I am comfortable using AI to recommend products and services on my behalf.	1	2	3	4	5
SC 2	The product or service suggestions provided by artificial intelligence are considered beneficial.	1	2	3	4	5
SC 3	The explanations that are provided for the recommendations of the product or service are clear and useful.	1	2	3	4	5
SC 4	The recommendations or suggestions seem relevant to my interests and requirements.	1	2	3	4	5

AI-powered interactions

AI 1	In my personal view, AI-powered interactions have the potential to be useful and efficient.	1	2	3	4	5
AI 2	I am willing to provide personal information to AI systems to enhance my overall experience.	1	2	3	4	5
AI 3	I have confidence in the ability of AI systems to provide reliable and accurate information.	1	2	3	4	5
AI 4	In my opinion, AI-powered interactions have the potential to provide a more customized and exciting experience compared with typical human interactions.	1	2	3	4	5

APPENDIX 3



SCIENTIFIC RESEARCH ETHICS COMMITTEE

01.04.2024

Dear Baroz Khan Ahmad Zai

Your application titled “**The effect of artificial intelligence on brand loyalty**” with the application number NEU/SS/2024/1776 has been evaluated by the Scientific Research Ethics Committee and granted approval. You can start your research on the condition that you will abide by the information provided in your application form.

A handwritten signature in blue ink, appearing to read "A. K. KIRAZ".

Prof. Dr. Aşkın KİRAZ

The Coordinator of the Scientific Research Ethics Committee

THE EFFECT OF ARTIFICIAL INTELLIGENCE ON BRAND LOYALTY

ORIGINALITY REPORT

14%	11%	6%	5%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	docs.neu.edu.tr Internet Source	5%
2	eprints.glos.ac.uk Internet Source	1%
3	Luis Matosas-López. "The influence of brand credibility and brand loyalty on customer satisfaction and continued use intention in new voice assistance services based on AI", Journal of Marketing Analytics, 2024 Publication	<1%
4	Submitted to Yakın Doğu Üniversitesi Student Paper	<1%
5	www.kit.nl Internet Source	<1%
6	Maria DSouza Deryl, Sanjeev Verma, Vartika Srivastava. "How does AI drive branding? Towards an integrated theoretical framework for AI-driven branding", International Journal	<1%