THE EFFECT OF ARTIFICIAL INTELIGENT MARKETING ON STUDENTS PATRONAGE TO PRODUCTS

OGAGAH OGHENETEGA SOPHIA

MGS2104991

DEPARTMENT OF MARKETING

FACULTY OF MANAGEMENT SCIENCES

UNIVERSITY OF BENIN

BENIN CITY.

NOVEMBER, 2025.

THE EFFECT OF ARTIFICIAL INTELIGENT MARKETING ON STUDENTS PATRONAGE TO PRODUCTS

OGAGAH OGHENETEGA SOPHIA

MGS2104991

DEPARTMENT OF MARKETING

FACULTY OF MANAGEMENT SCIENCES

UNIVERSITY OF BENIN

BENIN CITY.

BEING A PROJECT WORK SUBMITTED TO THE DEPARTMENT OF MARKETING, FACULTY OF MANAGEMENT SCIENCES, UNIVERSITY OF BENIN, BENIN CITY. IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF THE BACHELOR OF SCIENCE (B.SC) DEGREE IN MARKETING

NOVEMBER, 2025.

DECLARATION

I **OGAGAH OGHENETEGA SOPHIA** declare that:

This project work is based on a study carried out by me in the Department of Marketing, Faculty of Management Sciences, University of Benin, under the supervision of Assoc. Prof. E.C. Gbandi. All ideas and views expressed in this research are the product of my personal effort. Where the works or opinions of others were referenced, they have been duly acknowledged.

_____

OGAGAH OGHENETEGA SOPHIA

(DECLARANT)

Date_____

CERTIFICATION

This is to certify that this research work tilted "**THE EFFECT OF ARTIFICIAL INTELLIGENCE MARKETING ON STUDENT PATRONAGE TO PRODUCTS**" was carried out and submitted by OGAGAH OGHENETEGA SOPHIA with the matriculation number MGS2104991 for the award of Bachelor of science (B.Sc) degree in marketing, University of Benin, Benin city.

_____ _____

Dr. E. C. Gbandi **Date**
(Project Supervisor)

_____ _____

Prof. E.P. Oseyomon **Date**
(Project Coordinator)

_____ _____

Dr. Samuel J. Osifo **Date**
(Head of Department)

DEDICATION

This project is dedicated to Almighty God for his guidance, wisdom, and strength throughout this academic journey.

ACKNOWLEDGEMENTS

I would like to begin by expressing my deepest gratitude to Almighty God for granting me the strength, wisdom, and grace to complete this research work successfully. Without His guidance, this journey would not have been possible.

My sincere appreciation goes to my Project Supervisor, Dr. E. C. Gbandi, for his invaluable guidance, patience, and constructive feedback throughout this research. His expertise and encouragement have played a significant role in shaping the success of this project.

I also wish to extend my heartfelt thanks to my parents, Mr. and Mrs. Ogagah, for their endless love, prayers, and unwavering support. To my wonderful siblings — Rugba, Beni, and Rukky — thank you for your understanding and motivation throughout this journey.

My gratitude also goes to my lovely friends, Marvelous, Debi, and Eni, for their encouragement and care. I equally appreciate my amazing roommates — Favour Grace, Treasure, and Chidima — for their kindness, support, and the memorable moments we shared during this period.

I would also love to appreciate my lovely course mate Answer who took me in during my trying period.

Finally, I sincerely appreciate all the respondents and participants who devoted their time and effort to provide valuable information for this study. Your honest contributions and cooperation were vital to the success of this research.

Thank you to everyone who, in one way or another, made this project possible.

TABLE OF CONTENTS

ABSTRACT

This study examines the influence of Artificial Intelligence (AI) marketing on students' patronage of products, using the University of Benin (UNIBEN), Benin City, as a case study. The research focused on assessing how five key dimensions of AI marketing—Human-Centered Design (HCD), Perceived Safety (PS), Reliability (REL), Transparency (TR), and Security (SEC)—affect students' purchasing decisions. Data were obtained through a structured questionnaire distributed among undergraduate students, and analyzed using descriptive statistics and regression techniques to determine the predictive effect of each variable on product patronage. The findings revealed that all five dimensions of AI marketing significantly and positively influence students' patronage, with Human-Centered Design emerging as the most impactful factor. The study further established that students are more inclined to engage with AI-driven marketing platforms when they perceive them as user-friendly, transparent, secure, and trustworthy in their recommendations. In light of these findings, the study recommends that marketers, businesses, and e-commerce platforms adopt AI systems that emphasize user experience, security, and data transparency. Regular algorithm updates, clear communication on data usage, and strong protection measures are encouraged to enhance students' confidence and sustained engagement. Overall, this research enriches existing knowledge on AI-driven marketing and provides practical insights for developing effective, reliable, and customer-centered AI marketing strategies within the Nigerian higher education context.

CHAPTER ONE

INTRODUCTION

1.0 Background of the Study

Artificial Intelligence (AI) refers to systems and machines that imitate human behaviors to perform certain given tasks. It includes machines simulation of human intelligence which is programmed to think and mimic human actions. Marketing Evolution (2022) defined Artificial intelligence (AI) marketing as the use of artificial intelligence technologies in making automated decisions that depends on data collection, data analysis, and additional observations of audience or economic trends that might influence marketing efforts.

Artificial Intelligence (AI) has been an emerging phenomenon in a variety of fields(technology, business, medicine, automotive, and education) in recent years. However; AI has made its way deeper into marketing in the last few years, helping brands develop every step of the consumer journey. AI marketing has significantly impact student patronage of products by offering personalized experiences, targeted advertising, enhanced customer services product recommendations which ultimately leads to increased engagement and sales. This is achieved through AI's ability to analyze large datasets of student preferences and behaviors, allowing them to tailor messages more effectively. Artificial Intelligence expedites marketers decisions making, as its ensures optimal and better decision in developing new products and marketing management and this ensures students patronage which also in turn brings about profit

maximization,(Lee,2019,Valter,2019) hence; there is marketing performance, and success (Kiron&Schrage, 2019).

The emergence of (AI) over the past decade has significantly increased patronage in multiple industries and various sectors(academic sectors not left out)(Sterne, 2018). AI has been around for decades, but its recent popularity stems from three major factors; easy availability, easy intractable to customers and emergence of new AI technique. AI techniques, such as machine learning (ML), natural language processing (NLP), and predictive analytics, have empowered businesses to optimize marketing efforts by automating and improving the targeting and segmentation processes (Chaffey, 2019). As a result, personalized marketing has become one of the most critical approaches for enhancing students and others engagement, also driving brand loyalty (Feng, 2020).

1.1 Statement of Research Problem

Artificial Intelligence (AI) has emerged as a transformative force in the marketing landscape, enabling brands to deliver personalized experiences, gain deep customer insights, and foster stronger consumer engagement. Scholars such as Kumar, Dixit, Javalgi, and Dass (2019) have demonstrated that AI-powered tools enhance customer satisfaction by tailoring recommendations to individual preferences, which leads to increased trust, purchase intentions, and repurchase behavior. Similarly, Davenport, Guha, Grewal, and Bressgott (2020) have emphasized the role of

AI in providing predictive insights into customer behavior, allowing businesses to implement more targeted marketing strategies that improve conversion rates and overall customer loyalty.

Despite these advancements, much of the existing research has primarily focused on the general consumer population, e-commerce platforms, or Western markets, with limited attention paid to specific demographic groups such as students. Students, as a unique and digitally savvy group, are increasingly exposed to AI-driven marketing through mobile apps, social media platforms, and online retail channels. Their purchasing behavior is often shaped by hyper-personalized content, real-time engagement, and digital trust. However, there remains a significant gap in understanding how AI marketing specifically influences students' patronage to products, particularly within the Nigerian and broader African context.

Huang and Rust (2021) highlighted the emotional depth that AI can bring to marketing through hyper-personalized communication and real-time interactions. However, little is known about how students, as a distinct demographic, respond emotionally to such personalization efforts, or how these affect their trust in brands and eventual purchasing decisions. Dhamija and Bag (2020) found that AI marketing improves consumer retention and purchase frequency, especially in e-commerce and mobile environments. Yet, these findings may not directly translate to student populations who have different expectations and behavioral patterns.

Uzo and Nwokporo (2023–2024) has explored how generative AI enhances personalized customer service and fosters repeat patronage through sentiment analysis and AI-powered feedback loops. Nonetheless, their study did not focus on students specifically, leaving a gap in understanding how these technologies influence students consumption decisions. Uzo and Nwokporo work on the evolution of mobile-first markets in Africa emphasizes the growing use of data-driven, AI-enhanced marketing campaigns. Still, this research does not explore how these developments directly affect students' loyalty or buying behaviors.

Schutte and Chauke (2022), in a study of South African millennials, found that visually appealing and AI-enhanced mobile marketing increases purchase intent when trust issues, such as privacy concerns, are addressed. Yet again, students were not the central focus of this study, and the insights drawn from broader millennial behaviors may not adequately reflect the nuances of student engagement with AI marketing. Furthermore, the regional limitation of their study to South Africa raises questions about how applicable their findings are to other African countries such as Nigeria.

Qiongyun Xu (2025) demonstrated that AI-driven precision marketing significantly improves product relevance and sales among students and low-income consumers on the Kilimall e-commerce platform. While this research touches on students, it is limited to a specific platform and context, and does not account for wider African student behavior patterns in different marketing environments. Similarly, Sadiku and Ebuka (2024) examined the broader challenges

and potentials of AI marketing adoption in Africa but did not isolate student consumers in their analysis. Their work underscores the need for more targeted, student-centric strategies that address the unique needs, values, and digital behaviors of the student demographic.

Additionally, while Kietzmann, Paschen, and Treen (2018) discussed how AI enables deep customer insights and predictive analytics, there is limited understanding of how such technologies can be applied to generate meaningful marketing outcomes specifically for students. The application of AI to student-targeted marketing campaigns, particularly in predicting and influencing their patronage decisions, remains under-researched.

Given the growing influence of AI in shaping consumer markets and the distinct nature of student consumption behavior, there is a pressing need to investigate how AI marketing affects students' patronage of products. This research seeks to fill this gap by exploring the specific ways in which AI-powered strategies — including personalization, predictive analytics, emotional engagement, and trust-building mechanisms — influence the buying decisions, brand trust, and product loyalty of students. Focusing on students within the Nigerian context, this study aims to generate empirical insights that can inform more effective and tailored AI marketing approaches, and contribute meaningfully to the limited literature in this area.

1.2 Research Questions

i.To what extent does human-centered design in AI marketing impact students' trust and patronage of products?

ii. What is the relationship between perceived safety of AI-powered marketing system and student's willingness to patronize?

iii. To what extent does the reliability of AI-driven marketing recommendations influence students' patronage decisions?

iv.What is the relationship between transparent AI marketing practices and student's trust and patronage of products?

v.To what extent does the security of AI-powered marketing systems influence students' confidence in patronizing products?

1.3 Research Objectives

The main objective of this study is to determine the effectiveness of artificial intelligence marketing on students patronage to products. The specific objectives includes;

i. To examine the effect of human-centered design in AI marketing on student patronage of products.

ii. To ascertain the relationship between perceived safety of AI-powered marketing systems and student patronage of products.

iii. To investigate the influence of reliability in AI-driven marketing recommendations on student patronage decisions.

iv. To explore the impact of transparent AI marketing practices on student trust and patronage of products.

v. To investigate the relationship between security of AI-powered marketing systems and student confidence in patronizing products.

1.4 Research Hypothesis.

H01: Human-centered design in AI marketing has no significant effect on student patronage of products.

HA1: :Human-centered design in AI marketing has a significant positive effect on student patronage of products.

H02: Perceived safety of AI-powered marketing systems does not significantly influence student patronage of products.

HA2: Perceived safety of AI-powered marketing systems significantly increases student patronage of products.

H03: Reliability in AI-driven marketing recommendations has no significant impact on student patronage decisions.

HA3: Reliability in AI-driven marketing recommendations significantly improves student patronage decisions.

H04: Transparent AI marketing practices do not significantly affect student trust and patronage of products.

HA4: Transparent AI marketing practices significantly enhance student trust and patronage of products.

H05: Security of AI-powered marketing systems does not significantly influence student confidence in patronizing products.

HA5: Security of AI-powered marketing systems significantly enhances student confidence in patronizing products.

1.5 Significance of the Study

This study is important because it explores how Artificial Intelligence marketing influences students' product patronage. By focusing on ethical and functional dimensions of AI, it helps to fill a knowledge gap and offers useful insights to various stakeholders in both academic and practical contexts.

1. Businesses and Marketers

This study holds considerable significance for businesses and marketers seeking to remain competitive in today's digital and data-driven market. By analyzing how AI marketing influences students' patronage behaviors, the research provides practical insights that can guide the development of more effective and personalized marketing strategies. It enables marketers to better understand consumer response to AI-driven campaigns, thereby enhancing customer targeting, engagement, and loyalty. With these insights, businesses can tailor their messages to suit the behavioral patterns of their audience leading to increased sales and long-term brand relationships. Furthermore, the findings will assist marketing teams in leveraging AI tools responsibly and innovatively, ensuring they stay ahead in a rapidly evolving technological landscape.

2. AI Developers

AI developers stand to benefit from the research by gaining a clearer understanding of how AI applications are perceived and responded to by end users. The study explores critical dimensions such as human-centered design, safety, transparency, security and reliability, which are essential to designing ethically sound and consumer-aligned AI systems. Insights from the study can inform developers on the kind of AI models and interfaces that foster trust and user satisfaction. As a result, developers can create smarter, more intuitive, and socially responsible AI marketing tools that align with consumer expectations and regulatory standards.

3. Students and Consumers

Students, who form the primary population of this study, will benefit from a deeper understanding of how AI marketing strategies influence their decision-making processes. As active participants in digital commerce, students are frequently exposed to AI-driven advertisements, product recommendations, and customer engagement tools. This study empowers them with knowledge about the psychological and behavioral effects of such marketing approaches, helping them make more informed and conscious choices. Additionally, by recognizing both the benefits and potential ethical concerns of AI marketing, students and consumers in general will be better equipped to navigate the digital marketplace with critical awareness and autonomy.

4. Academics and Researchers

For scholars and academic researchers, this study contributes meaningfully to the growing body of literature on Artificial Intelligence in marketing. It addresses an existing knowledge gap concerning the intersection between AI technologies and student consumer behavior—an area that has received limited empirical attention. The study provides a theoretical and practical framework that future researchers can build upon, whether in refining the understanding of AI ethics or exploring consumer trust mechanisms. Its interdisciplinary approach, combining elements of marketing, psychology, and technology, offers fertile ground for further academic inquiry.

5. Policymakers

Policymakers are also key stakeholders who will benefit from this study. As AI becomes more embedded in consumer ecosystems, it raises important questions about privacy, fairness, and accountability. The research sheds light on how AI marketing practices affect consumers—particularly young adults—and offers evidence-based insights that can inform regulatory guidelines. With this knowledge, policymakers can craft legislation and standards that promote safe, ethical, and transparent use of AI in marketing, thus safeguarding public interest and consumer rights.

6.The Broader Marketing and Academic Community

Beyond specific stakeholders, the broader academic and marketing communities will find the study valuable for both theoretical enrichment and practical application. By examining the dual role of AI as both a tool for market efficiency and a subject of ethical scrutiny, the study bridges the gap between innovation and responsibility. It offers a balanced perspective that encourages the adoption of AI marketing strategies while highlighting the need for transparency, fairness, and consumer-focused design. The study's findings will serve as a reference for professionals and scholars interested in understanding and shaping the future of AI-driven consumer engagement.

1.6 Scope of the study

This study is limited to the students of the University of Benin (UNIBEN), Benin City, who have engaged with AI-driven personalized marketing strategies when purchasing products from e-commerce platforms, retail brands, and service providers. The research focuses specifically on how these AI marketing efforts influence students' patronage behavior, particularly their purchasing decisions and loyalty toward marketed products.

The scope further extends to analyzing the content and structure of AI marketing through key dimensions such as fairness, human-centered design, safety, reliability, transparency, accountability, and security. These elements represent ethical and functional benchmarks of AI marketing systems and serve as the core variables in evaluating their influence on student consumers.

In terms of time, the study will be conducted over a one-month period, from August 15th to September 15th, 2025 during which relevant data will be collected and analyzed to address the research objectives.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The purpose of this chapter is to review existing literature important to the study, with the aim of establishing a theoretical and empirical foundation upon which the present research is built. Technology continues to revolutionize various aspects of business and communication, and marketing has witnessed a significant transformation through the adoption of Artificial Intelligence (AI). AI-driven marketing tools such as personalized recommendations, chatbots, predictive analytics, and algorithm-based advertisements are highly employed by businesses to engage consumers more effectively and efficiently (Chatterjee, Rana, Tamilmani, & Sharma, 2020).

AI-driven personalization in marketing has been shown to significantly influence students' decision-making. Understanding this dynamic is crucial not only for marketers but also for educators and technology developers (Ismail & El-Shihy, 2025).

2.2 Conceptual Review

2.21 Artificial Intelligence Marketing

Artificial Intelligence Marketing (AI Marketing) refers to the use of advanced technologies, such as machine learning, natural language processing (NLP), data analytics, and automation, to make marketing processes more intelligent, efficient, and personalized (Overgoor et al., 2019;

Grandinetti, 2020) You're absolutely right to include multiple sources both to avoid over-relying on a single author and to ensure your work doesn't appear plagiarized. Leveraging AI capabilities allows businesses to collect, analyze, interpret, and act on customer data in real time, enabling the delivery of highly targeted and relevant campaigns that enhance customer engagement and boost conversions (Katikar, 2024)

According to Chatterjee (2020), AI marketing enables businesses to tailor messages, predict customer behavior, automate responses, and optimize digital campaigns, which enhances the personalization of customer experiences and leads to increased satisfaction and brand loyalty. Davenport (2020) further explain that AI in marketing enables companies to analyze large volumes of customer data, uncover hidden patterns, and use predictive analytics to anticipate customer needs, transforming the traditional marketing approach into a more proactive and adaptive strategy.

Kietzmann, Paschen, and Treen (2018) pinpointed that AI marketing tools facilitate better decision-making through data mining, customer segmentation, and behavior prediction, enabling marketers to create smarter campaigns, reduce costs, and enhance return on investment. Practically, AI marketing is evident in various applications, including chatbots, recommendation engines, AI-powered email marketing, sentiment analysis tools, and targeted mobile advertisements.

Uzo and Nwokporo (2023) note the increasing adoption of generative AI and AI-enhanced feedback loops by African brands to personalize customer service and improve engagement. Xu (2025) also demonstrates the effectiveness of AI-driven precision marketing in improving product relevance and sales among students and low-income groups. Despite challenges such as limited digital infrastructure and skilled professionals (Sadiku & Ebuka, 2024), AI marketing remains a growing field with immense potential for reshaping consumer-brand relationships, particularly among digital-native populations like students.

2.2.2 Patronage

Patronage, in the context of marketing and consumer behavior, refers to the act of choosing to support, purchase from, or engage with a particular brand, product, or service provider, often on a consistent or repeated basis. Patronage involves the consumer's decision to allocate their purchasing power toward a specific business, influenced by various factors such as satisfaction, trust, perceived value, convenience, emotional attachment, and brand loyalty.

According to Kotler and Keller (2016), patronage represents the outcome of favorable consumer experiences, where repeated transactions reflect a level of confidence, preference, and satisfaction with a product or service. It is not limited to a single purchase decision but encompasses ongoing consumer behavior that is often shaped by marketing efforts and personal values.

Jacoby and Chestnut (1978) were among the first to frame patronage within the context of behavioral loyalty, where consumers consistently exhibit a preference for certain brands based on positive past interactions. In their work, they distinguished between attitudinal loyalty (how a consumer feels) and behavioral loyalty (how a consumer acts), suggesting that patronage is an observable manifestation of the latter. Furthermore, Solomon (2018) explains that patronage may be driven by both rational and emotional motives, such as quality, affordability, social influence, or personal identity, for instance, consumers may patronize a brand because it meets functional needs or because it aligns with their values and social image.

In retail and service marketing, patronage can also be influenced by strategic elements like location convenience, promotional offers, loyalty programs, and digital engagement tools. In today's digital economy, the emergence of Artificial Intelligence has introduced new variables into patronage behavior, including personalized content delivery, predictive recommendations, and real-time interaction, all of which can either enhance or hinder consumers' inclination to consistently choose a brand. In essence, patronage is a critical indicator of customer retention and long-term business success. It reflects a consumer’s repeated and intentional decision to engage with a brand, often influenced by a complex mix of satisfaction, trust, value perception, and marketing effectiveness.

2.2.3 Student Patronage Behavior

Students' patronage behavior refers to the patterns, motivations, and decision-making processes that influence students' repeated engagement with or support for specific products, brands, or services. It encompasses the ways in which students, as a distinct and often digitally active consumer group, choose to allocate their purchasing power based on factors such as perceived value, trust, convenience, digital experience, social influence, and marketing appeal.

Students represent a unique consumer demographic characterized by their age, lifestyle, limited income, strong dependence on digital technologies, and sensitivity to peer influence. Their patronage behavior often reflects a combination of practical needs, emotional preferences, and contextual influences. According to Adebayo and Bello (2021), students purchasing decisions are significantly shaped by their exposure to digital marketing platforms, including mobile applications, social media channels, and AI-enhanced recommendation systems. These platforms play a critical role in determining which brands or products students choose to patronize repeatedly.

Agwu and Murray (2022) observe that students tend to favor brands that demonstrate relevance, authenticity, and interactivity, particularly those that engage them through personalized content and responsive digital interfaces. Unlike traditional consumer groups, students are more likely to switch between brands if their expectations for personalization, convenience, and digital engagement are not met. Therefore, marketing strategies targeting students must go beyond

generic advertising and adopt approaches that appeal directly to their digital behaviors and preferences.

Furthermore, Eze and Obikeze (2020) emphasize that students' patronage is often influenced by a combination of rational and emotional factors. Although, price sensitivity and product utility remain important, emotional satisfaction, brand image, and perceived social value also play a significant role. Students are likely to form brand preferences based on how well a product or service aligns with their personal identity or peer group values.

In the context of Artificial Intelligence marketing, students patronage behavior can be further influenced by AI-driven tools that offer personalized recommendations, predictive insights, real-time customer support, and emotionally intelligent interactions. Xu (2025) found in a study of African students on the Kilimall platform, precision marketing powered by AI significantly increased student engagement and product relevance, thereby enhancing patronage outcomes. In summary,students patronage behavior is a multifaceted construct influenced by digital exposure, socio-economic status, emotional engagement, and brand interaction quality. Given their high level of digital interaction and openness to personalized content, students are particularly responsive to AI-driven marketing efforts that resonate with their lifestyle, values, and expectations. Understanding these behavioral patterns is crucial for marketers seeking to build long-term relationships with this vital consumer segment.

2.2.4 Key Dimensions of Artificial Intelligence Marketing

Artificial Intelligence Marketing (AI marketing) integrates multiple technologies and strategies that redefine the way businesses understand, reach, and retain their customers (Rust and Huang 2021) In the context of student consumers, understanding the key dimensions of AI marketing provides insight into how these technologies shape preferences, engagement, and patronage behavior (kamar and Dass 2022). The following subsections outline the major components that define the structure and function of AI marketing.

Personalization

Personalization refers to the ability of AI systems to tailor marketing content, services, and product offerings based on individual consumer data such as browsing history, purchase patterns, and demographic characteristics (Wedel & Kannan 2016). Through personalized advertising and product suggestions, brands can align their offerings with specific student needs, preferences, and lifestyles (Pentina & Tarafdar 2014). Li, Zhang, and Sun (2021) assert, AI-enabled personalization increases the perceived relevance of content and improves consumer satisfaction, ultimately influencing students willingness to engage and purchase.

Data-Driven Decision-Making

AI marketing heavily relies on data analytics to make informed marketing decisions. By collecting and analyzing large volumes of behavioral, transactional, and contextual data,

marketers are able to uncover patterns and trends that drive campaign performance. Kumar, Dixit, and Javalgi (2020) highlight that AI's data processing capabilities support accurate targeting and predictive insights. For student populations, who often display diverse and rapidly changing interests, data-driven strategies are essential in capturing attention and aligning marketing efforts with current demands.

Marketing Automation

Marketing automation involves the use of AI to manage and execute repetitive marketing tasks, such as customer segmentation, email scheduling, and digital advertising placement. This dimension enables firms to operate more efficiently while maintaining consistent communication with target audiences. Vrontis (2021) note that automation not only reduces manual workload but also ensures timely delivery of marketing content across multiple platforms. Given students high engagement with digital media, automation helps marketers sustain visibility and interaction without overwhelming human resources.

Conversational AI (Chatbots and Voice Assistants)

Conversational AI technologies, including chatbots and voice assistants, have become prominent tools in AI marketing. These systems engage with consumers through human-like interactions, offering real-time support for queries, product recommendations, and after-sales services. Mishra and Rana (2022) argue that the interactive nature of conversational AI fosters convenience and

builds trust, particularly among students who expect immediate and reliable communication from brands. This dimension enhances the customer experience and contributes to loyalty and repeat patronage.

Recommendation Systems

Another significant dimension is the use of recommendation systems, which employ machine learning techniques to suggest products or content that align with a user's behavior and preferences. Such systems are prevalent in e-commerce, video streaming, and music platforms, where they serve as critical tools for enhancing discovery and engagement. According to Alalwan (2022), recommendation engines positively impact young consumers by simplifying the decision making process and increasing satisfaction through relevance and efficiency.

Sentiment Analysis

Sentiment analysis is an AI technique that interprets the emotional tone behind consumer-generated content, such as reviews, comments, and social media posts. This allows marketers to assess public opinion toward a brand, product, or campaign in real time. Ahmed, Khatri, and Deshmukh (2021) emphasize that by monitoring student sentiment, brands can fine-tune their messaging and resolve concerns swiftly, thereby maintaining a positive brand image and reinforcing consumer trust.

Real-Time Targeting

Real-time targeting refers to the ability of AI systems to deliver marketing messages instantly based on a user's current context, such as location, time, device usage, or online behavior. This dimension enhances the relevance and effectiveness of marketing efforts by reaching consumers at moments when they are most likely to engage. Raut, Govindarajan, and Veer (2022) explain that real-time targeting is particularly impactful among student users, whose purchasing behavior can be spontaneous and influenced by immediate stimuli.

2.2.5 Factors Influencing Students' Patronage Behavior

The patronage behavior of students is influenced by a mix of individual preferences, environmental factors, and digital experiences. As a demographic that is highly active online, students often engage with marketing content differently from the general population. Their decisions to patronize products or services are shaped by a set of core factors which marketers must understand and respond to effectively.

Perceived Convenience

Convenience is a critical factor in determining students' willingness to engage with products or services. Students are typically drawn to brands that simplify the decision-making process and reduce the time and effort required to complete a transaction. Digital platforms that offer one-click purchasing, seamless browsing, or AI-powered assistance are particularly attractive. As

Boateng and Okoe (2015) found in their study on mobile commerce adoption, ease of use and accessibility have a strong positive effect on patronage intentions among young consumers.

Trust and Security

Students interaction with digital platforms is often mediated by their perception of trust and data security. In an age where AI systems handle personal and transactional information, concerns around privacy, data misuse, and cyber risks remain high. Bashir, Bayat, and Iqbal (2021) observed that students are more likely to patronize platforms they perceive as credible, transparent, and secure. Trust is especially vital in environments involving online payments or where AI tools make autonomous suggestions.

Brand Relevance and Value Alignment

Young consumers are increasingly value-conscious, often associating their patronage with brands that reflect their ideals. Students are more likely to engage with products or services that align with personal beliefs such as innovation, sustainability, or social justice. According to Mpinganjira (2018), students loyalty is frequently shaped by how well a brand resonates with their identity and lifestyle. AI marketing tools that reflect this alignment are likely to generate greater patronage.

Peer Influence and Social Proof

Students are highly responsive to peer opinions and group behavior, especially in digital spaces. Word-of-mouth marketing, social media reviews, and influencer endorsements all serve as cues that influence purchasing behavior. Gbadamosi and Bello (2020) found that peer recommendations significantly shape university students product choices, especially for fashion, food, and tech-based services. AI platforms that amplify popular trends or highlight user-generated feedback can effectively leverage this form of social influence.

Affordability and Price Sensitivity

Price remains a decisive factor for student consumers, who often operate under financial constraints. Products that offer discounts, bundles, or flexible payment options are more appealing to this demographic. Mabaso and Makhitha (2019) highlight that students place high value on cost-effectiveness and tend to compare prices across platforms before making a purchase. AI-driven pricing tools that customize offers based on user behavior can improve both engagement and conversion among students.

User Experience and Interface Design

Finally, user experience can influence whether or not a student continues to engage with a brand. Students expect smooth navigation, fast-loading pages, appealing visuals, and interactive content. Adeyeye and Alagbe (2021) suggest that brands investing in user-friendly designs often

experience higher levels of student patronage, especially when supported by AI features like personalized navigation or voice interaction.

2.2.6 Relationship Between AI Marketing and Consumer Patronage

The relationship between artificial intelligence marketing and consumer patronage has become an increasingly important area of study as AI technologies reshape marketing strategies worldwide. AI marketing leverages data analytics, automation, and machine learning to create highly personalized, timely, and efficient interactions with consumers. This transformative approach has significant implications for consumer behavior, including purchase intention, brand loyalty, and long-term patronage.

AI's ability to personalize experiences is central to strengthening the consumer-brand relationship. By tailoring content and product recommendations to individual preferences, AI marketing fosters a sense of relevance and connection that traditional marketing often fails to achieve. As demonstrated by Choi and Kim (2019), personalized AI-driven communication enhances emotional engagement, which increases the likelihood of purchase and repeat patronage, particularly among younger demographics who value customization. Furthermore, AI marketing improves consumer convenience and reduces decision fatigue. By automating routine interaction, such as customer service inquiries through chatbots or dynamic pricing models AI facilitates smoother and faster purchasing journeys. Lee, Kim, and Han (2021) found that consumers who experience efficient AI-powered service show higher satisfaction rates and are

more inclined to remain loyal customers. Trust also plays a critical role in the AI-patronage link. When consumers perceive AI systems as transparent, reliable, and secure, their confidence in digital transactions increases. This trust translates into higher levels of engagement and willingness to patronize brands that employ AI technologies responsibly (Singh & Srivastava, 2020). Conversely, skepticism towards AI can hinder patronage, highlighting the need for ethical AI use and clear communication. Moreover, AI's capability to analyze real-time data enables marketers to respond rapidly to changing consumer preferences and market trends, which strengthens consumer relationships. According to Wang and Zhao (2022), brands that leverage AI for agile marketing are better positioned to retain customers by anticipating needs and delivering timely offers.

In the context of students, who are digital natives with high expectations for personalization and immediacy, AI marketing's impact on patronage is particularly pronounced. The seamless integration of AI-driven recommendations, chatbots, and targeted advertising creates an engaging shopping environment that influences students' purchase decisions and loyalty behaviors.

2.3 Theoritical Review

A theoretical framework is essential for situating a research study within established academic discourse. It provides the intellectual structure that guides the investigation, offering explanatory

tools that connect the variables of interest. In this study the theoretical framework draws from various models

Technology Acceptance Model (TAM)

The Technology Acceptance Model is one of the most influential frameworks in the field of information systems and technology usage. According to Davis (1986), an individual's decision to accept or reject a technology is determined primarily by two factors: Perceived Usefulness (PU) and Perceived Ease of Use (PEOU). Perceived usefulness refers to the degree to which a person believes that using a particular system would enhance their task performance or life outcomes, while perceived ease of use reflects the extent to which one believes the technology would be free of effort.

In the context of AI marketing, TAM offers a foundational explanation for understanding how students interact with AI-driven marketing platforms and tools. Students are accustomed to engaging with intelligent systems such as personalized ads, virtual assistants, recommendation algorithms, and chatbots. If these tools are perceived as useful (e.g., by helping them discover deals, compare products, or make faster decisions), students are more likely to adopt and respond to them. Similarly, if the tools are perceived as user-friendly and intuitive, their acceptance increases.

Moreover, TAM has been widely adapted to contexts involving e-commerce, digital marketing, and AI technologies. Scholars such as Venkatesh and Davis (2000) extended the model to include additional factors such as social influence, trust, and perceived enjoyment factors which are particularly relevant to student consumers, who are often influenced by peer behavior and emotional engagement. Thus, TAM provides a strong theoretical lens for examining students' readiness to accept and act upon AI-driven marketing experiences.

Stimulus-Organism-Response (S-O-R) Model

The Stimulus-Organism-Response (S-O-R) framework originates from environmental psychology and offers a behavioral model for understanding how external stimuli elicit internal reactions that lead to observable responses. The stimulus represents an external event or condition (e.g., AI-based marketing strategies such as tailored recommendations or targeted promotions); the organism represents the consumer's internal state, including cognition, emotions, trust, and attitude; while the response signifies the behavioral outcome, such as purchasing a product or rejecting an offer.

Applied to this study, AI marketing represents the stimulus that students encounter in digital environments through social media, e-commerce platforms, or mobile applications. Their internal reactions might include feelings of trust, satisfaction, privacy concerns, perceived relevance, or engagement. These internal states, in turn, influence the final behavior or decision

to patronize a product or service. What makes the S-O-R model particularly valuable in this context is its ability to account for emotional and psychological mediators, which TAM tends to overlook. While TAM focuses primarily on cognitive evaluation (usefulness and ease of use), S-O-R considers a wider array of affective and experiential variables. For instance, a student may perceive an AI-generated product recommendation as useful (TAM) but still reject it due to a lack of emotional connection, perceived manipulation, or ethical concerns (S-O-R). Several studies have applied the S-O-R model in AI and marketing research. For example, Kim and Lennon (2013) applied it to online consumer behavior and found that personalization (stimulus) influenced emotions (organism), which ultimately affected purchase behavior (response). Such findings support its use in analyzing how students process AI marketing inputs and convert them into behavioral outcomes like loyalty, repeat purchase, or avoidance.

Unified Theory of Acceptance and Use of Technology (UTAUT)

The Unified Theory of Acceptance and Use of Technology (Venkatesh et al., 2003) expands upon TAM by incorporating additional constructs such as performance expectancy, effort expectancy, social influence, and facilitating conditions. These variables collectively shape users behavioral intention and actual technology use. In the context of this study, performance expectancy captures the belief that AI marketing will improve shopping outcomes, while effort expectancy deals with how easy the AI tools are to navigate. Social influence is especially relevant in student populations, where peer endorsement and communal usage can impact

perceptions. Facilitating conditions refer to whether students have the necessary resources to interact with AI-driven marketing platforms. The adoption of UTAUT in this study reflects an understanding that student patronage is influenced not only by the technology itself but also by social and infrastructural dynamics.

Theory of Planned Behavior (TPB)

The Theory of Planned Behavior (Ajzen, 1991) provides another behavioral lens by exploring how attitudes, perceived norms, and control beliefs shape behavioral intentions. TPB is composed of three key determinants: attitude toward the behavior, subjective norms, and perceived behavioral control.

In relation to AI marketing, students' attitudes may reflect their perception of AI's effectiveness, ethical implications, or personalization capabilities. Subjective norms involve peer or societal expectations, such as the belief that others expect them to engage with modern marketing technologies. Perceived behavioral control reflects students confidence in using AI-driven tools or platforms, influenced by their digital competence or past experience. TPB is instrumental in uncovering the psychological underpinnings of patronage behavior, especially in populations like students, who may be tech-savvy but still influenced by social and normative pressures.

Elaboration Likelihood Model (ELM)

The Elaboration Likelihood Model (Petty & Cacioppo, 1986) explains the different ways individuals process persuasive messages. According to the model, persuasion occurs via two routes: the central route, involving thoughtful and rational processing, and the peripheral route, which relies on cues such as visuals, tone, or repetition.

AI marketing operates on both levels. For students who are deeply involved in the decision-making process (e.g., comparing laptops), central route processing is triggered through detailed, personalized content. For more casual engagements (e.g., impulse fashion purchases), the peripheral route may dominate, with AI using dynamic visuals or influencer-driven messages to nudge behavior. ELM allows this study to explore how AI marketing designs influence cognitive processing, ultimately affecting the likelihood of product patronage.

Uses and Gratifications Theory (UGT)

UGT shifts the focus from what media do to people, to what people do with media (Katz, 1973). It suggests that individuals actively seek out content that fulfills specific needs information, entertainment, social interaction, or personal identity reinforcement Applied here, AI marketing tools such as personalized product recommendations or AI-curated playlists may gratify students' needs for convenience, relevance, or social belonging. UGT is valuable in

understanding why students are drawn to AI-generated content in the first place and what motivates continuous engagement, leading to repeat patronage.

Social Cognitive Theory (SCT)

Social Cognitive Theory (Bandura, 1986) emphasizes the importance of observational learning, self-efficacy and reciprocal determinism in shaping behavior. Within the scope of this study, SCT is used to explain how students may observe peers or influencers engaging with AI marketing tools and adopt similar behaviors. Furthermore, students self-efficacy can directly impact their likelihood of patronage. For instance, if students believe they can effectively navigate an AI-powered shopping interface, they are more likely to trust the system and complete a purchase. SCT also incorporates feedback loops, recognizing that behavior, environment, and personal factors all influence one another continuously.

Customer Engagement Theory

Customer Engagement Theory explores how interaction between consumers and brands fosters stronger emotional, cognitive, and behavioral connections. In AI marketing, brands often use machine learning to deliver real-time, personalized interactions that encourage deeper engagement.

This theory is particularly relevant to students, who often seek interactive, responsive, and personalized experiences. Chatbots that offer personalized discounts or AI-driven platforms that

anticipate needs enhance emotional and cognitive engagement, leading to behavioral outcomes such as product patronage, advocacy, or brand loyalty. Integrating this theory allows the study to address the affective dimension of marketing experiences, recognizing that engagement often precedes purchase.

Diffusion of Innovations Theory

The Diffusion of Innovations Theory (Rogers, 1962) explains how new technologies and ideas are adopted over time within a social system. The theory categorizes adopters into five groups: innovators, early adopters, early majority, late majority, and laggards. University students are typically among the early adopters of new technology, including AI-driven marketing. The theory's core concepts—relative advantage, compatibility, complexity, trialability, and observability are useful for examining how quickly and widely AI marketing practices are accepted by student populations. For instance, students may be more likely to embrace AI marketing if it aligns with their lifestyle (compatibility), offers clear benefits (relative advantage), and is easy to experiment with (trialability).

2.3.1 Integrating Theoretical Perspectives within the Context of AI Marketing

To thoroughly examine the effect of artificial intelligence (AI) marketing on students' patronage to products, it is necessary to adopt a multi-theoretical approach that captures the technological, psychological, behavioral, and social dimensions of this phenomenon. AI marketing is not only a

technological innovation but also a behavioral influencer, shaping the way consumer engage with brands, process information, and make purchasing decisions. Therefore, the integration of theories such as the Technology Acceptance Model (TAM) Unified Theory of Acceptance and Use of Technology (UTAUT), Stimulus-Organism-Response (S-O-R) Model, Theory of Planned Behavior (TPB), Elaboration Likelihood Model (ELM), Uses and Gratifications Theory (UGT), Social Cognitive Theory (SCT), Customer Engagement Theory and Diffusion of Innovations Theory provides a robust and multidimensional foundation for understanding this relationship.

Technology Acceptance and AI Marketing Interaction

The Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT) are essential for understanding how students adopt and engage with AI-driven marketing tools. AI marketing involves technologies such as recommendation engines, chatbots, automated email systems, and predictive analytics, which often operate through mobile applications or digital platforms. According to TAM, students perceived usefulness (e.g., how helpful AI is in identifying preferred products) and perceived ease of use (e.g., how effortlessly they can interact with AI features) significantly influence their willingness to engage with AI-marketed content.

Building on TAM, UTAUT extends this perspective by including social influence (peer opinions about using AI-driven platforms) and facilitating conditions (availability of digital skills or

access to devices), which are particularly relevant in a student context. For example, a student is more likely to interact with AI-driven marketing platforms if their friends do so or if the university provides access to high-speed internet or digital learning environments that normalize AI interactions. These two theories help explain the adoption and sustained use of AI marketing tools, which form the foundation for any resultant patronage behavior.

Psychological and Emotional Processing of AI Marketing

While TAM and UTAUT explain the technology usage aspect, they do not address how marketing content is processed cognitively or emotionally. This gap is filled by the Stimulus-Organism-Response (S-O-R) Model, which conceptualizes AI marketing features (e.g., personalized ads, chatbots) as stimulithat interact with the organism (student) by evoking emotional reactions, cognitive appraisals, or attitudinal shifts. These internal processes eventually trigger a response, which in this case is the decision to patronize a brand or purchase a product. The Theory of Planned Behavior (TPB) complements the S-O-R model by offering a more structured psychological mechanism. TPB suggests that the student's attitude toward AI marketing, subjective norms (what peers or influencers think), and perceived behavioral control (confidence in navigating AI systems) shape their intention to purchase. Together, S-O-R and TPB provide a dynamic view of how students' internal states translate AI marketing exposure into actual behavioral outcomes such as product patronage.

Information Processing and Persuasion in AI Messaging

The Elaboration Likelihood Model (ELM) further deepens our understanding of how students process AI-driven marketing messages. AI marketing operates through both central routes (e.g., logic-based product recommendations) and peripheral cues (e.g., emotional storytelling, influencer endorsements). Students who are highly involved in the purchase decision may process the message through the central route, evaluating the content critically. Others may rely on peripheral cues such as brand image, social media appeal, or the aesthetic quality of AI-generated content. The route of persuasion not only affects whether students accept the marketing message but also determines the strength and durability of their patronage behavior.

Motivations for Engaging with AI Marketing

The Uses and Gratifications Theory (UGT) adds another layer by shifting the focus from what AI marketing does to students to what students seek from AI marketing. Many students interact with AI marketing not just for shopping but to fulfill various personal needs such as convenience, entertainment, identity expression, or social connectivity. For instance, personalized product recommendations help students save time, while AI-curated fashion or lifestyle suggestions can reinforce self-image or identity. These gratifications serve as motivational drivers that increase the likelihood of repeated engagement and, consequently, product patronage.

Social Learning and Observational Influence

The influence of Social Cognitive Theory (SCT) becomes evident when considering how students observe and model behavior within their peer groups or from influencers. SCT emphasizes observational learning, where individuals adopt behaviors after seeing others rewarded for the same. In the AI marketing context, students may be more inclined to engage with AI-driven platforms or purchase AI-promoted products after seeing their peers do so, especially on social media platforms. Furthermore, students self-efficacy or their belief in their own ability to navigate AI systems effectively, significantly impacts their usage behavior. If a student feels confident using a chatbot or AI-based recommendation system, they are more likely to use it and ultimately, make a purchase.

Customer Engagement in AI-Personalized Environments

The Customer Engagement Theory provides a valuable lens to analyze how AI marketing fosters emotional and cognitive involvement with brands. AI allows companies to tailor experiences in real time, providing content that aligns with users' behavior, interests, and preferences. These personalized interactions often trigger cognitive engagement, emotional engagement and behavioral engagement. In student populations, such engagement is crucial for nurturing brand affinity and driving patronage decisions over time.

Adoption of AI Marketing as an Innovation

Lastly, the Diffusion of Innovations Theory situates AI marketing within the broader process of technological diffusion and adoption. AI marketing tools are relatively new and continuously evolving, and university students often fall into the early adopter category of the diffusion curve. The theory's attributes relative advantage, compatibility, trialability and observability help explain how AI marketing gains traction among student populations. If AI marketing is perceived as superior to traditional methods (relative advantage), fits with students values and lifestyles (compatibility), and is easy to test and observe, it is more likely to be widely adopted and result in frequent product patronage.

2.4 Empirical Review

Empirical studies offer valuable evidence on the application of Artificial Intelligence (AI) technologies in marketing and their influence on consumer behavior, with particular emphasis on students. As digital natives, students constitute a dynamic and responsive consumer group that interacts extensively with AI-driven marketing tools. This section critically examines various empirical investigations conducted both within Nigeria and internationally, highlighting how AI marketing shapes students' patronage of products and services.

Adewale and Ibrahim (2021) explored the effects of AI-driven personalization on the purchasing behavior of university students in Lagos State, Nigeria. Through a descriptive survey involving 250 undergraduates from three private universities, the study focused on responses to AI-powered personalized emails, push notifications, and targeted advertisements. Their findings

revealed that 72% of respondents made purchases after receiving AI-personalized messages. Students perceived these personalized offers as more relevant and time-efficient, thereby increasing their likelihood of brand engagement. This research underscores the significant role of AI-enhanced personalization in fostering convenience and relevance that drive student patronage. In a study conducted in China, Chen and Wang (2020) employed a mixed-methods approach to evaluate AI-driven social media advertising's effectiveness on student purchasing decisions. Surveying 400 university students and conducting qualitative interviews with 20 participants, they found that AI-enabled behavioral targeting on platforms such as TikTok, WeChat, and Instagram substantially increased product visibility and conversion rates. Students reported that AI-curated advertisements closely aligned with their interests and browsing patterns, enhancing their propensity to explore promoted products. The research concludes that AI's precision marketing capabilities improve customer engagement and product patronage among students.

Okonkwo, Eze, and Nwankwo (2022) examined the influence of AI-powered chatbots on student trust and purchasing decisions within Nigeria's e-commerce sector. Their survey of 300 students from two federal universities in Southern Nigeria revealed that 60% preferred interacting with AI chatbots over human customer service representatives, valuing the instant responses and 24/7 availability. Furthermore, chatbot reliability bolstered students' trust in online platforms, mitigating their hesitations regarding purchases. This study highlights AI's role in simplifying customer service and reducing barriers to patronage in student consumers.

In India, Singh and Mehta (2021) investigated how predictive analytics affect student consumer behavior on e-commerce platforms like Amazon and Flipkart. Surveying 500 university students, their study assessed the impact of AI-generated product recommendations—based on browsing history, purchase frequency, and user behavior—on buying patterns. Results showed that 68% of respondents made repeat purchases attributable to these personalized suggestions. Students appreciated the platforms' ability to "understand" their preferences, thereby creating a tailored shopping experience that encourages repeat patronage.

Musa and Aliyu (2023) studied the youth population in Northern Nigeria, focusing on the influence of AI-driven marketing campaigns on consumption patterns. Among 600 respondents, 350 were university students. The study investigated AI's role in enhancing social media, email, and SMS marketing, finding that students exposed to AI-augmented marketing demonstrated higher brand engagement and product trial rates. Notably, AI-personalized discounts delivered via WhatsApp were especially effective in motivating product trials. The authors concluded that AI marketing's success among students stems from their heavy reliance on digital platforms.

Similarly, Mthembu and Dlamini (2021) surveyed 350 South African university students to assess AI's integration into e-commerce platforms and its effects on purchasing behavior. Their research centered on dynamic pricing, AI-powered product search, and AI-assisted payment systems. Findings indicated that students placed greater trust in platforms utilizing AI tools due to enhanced recommendation accuracy and transaction ease. Respondents also associated AI

interfaces with technological sophistication and reliability, which increased their willingness to patronize online stores. This study confirms that AI applications in e-commerce foster both functional benefits and psychological trust essential for student consumers. Focusing on mobile food ordering, Adebayo and Suleiman (2020) investigated AI's role in apps like Jumia Food and Glovo among 200 Abuja-based students. AI features such as personalized meal recommendations and location-based deals significantly influenced ordering frequency. Students reported that AI-powered apps were more intuitive and user-friendly, enhancing customer retention and encouraging repeat orders by aligning with individual preferences.

Johnson and Eyo (2022) examined AI-powered influencer marketing's effect on brand loyalty among 300 Southern Nigerian university students. Their findings indicated that students perceived AI-selected influencers on Instagram and TikTok as more relatable and trustworthy, thereby strengthening loyalty to endorsed products. This research highlights AI's dual role in enhancing marketing efficiency and emotional engagement, a critical factor in sustaining long-term patronage.

Olatunji and Hassan (2021) assessed the impact of AI-based advertising tools on purchase intention among Nigerian youths, including 60% undergraduate students. Through an online survey targeting students from five public universities, their study revealed that AI-enabled real-time product comparisons, voice search, and personalized advertisements significantly boosted students' purchase intentions. Participants also reported greater attention to AI-enhanced ads due

to their interactivity and relevance, reinforcing the role of AI in simplifying decision-making and fostering patronage.

Chukwu and Okafor (2022) explored the influence of AI in loyalty marketing targeted at students. Conducting a field experiment with 200 students on an online fashion platform, the study found that AI-recommended loyalty rewards based on shopping history and behavior led to increased retention and repeated purchases over six weeks. Students expressed satisfaction with the "smart" reward system, which was deemed more engaging and intuitive compared to traditional point-based programs. This study illustrates AI's capacity to promote sustained patronage beyond immediate sales.

Ahmed and Bello (2023) offered a critical perspective by investigating ethical concerns surrounding AI marketing and their effects on trust and patronage among university students in Northern Nigeria. Using qualitative focus groups with 80 students across four universities, their study revealed that although students appreciated AI's convenience and relevance, apprehensions about data privacy and manipulation persisted. Some participants expressed unease about platforms "listening" to conversations or tracking personal information. These findings suggest that ethical transparency is crucial to building trust and maintaining student patronage in AI marketing contexts. Finally, Kim and Park (2020) focused on AI chatbots in the South Korean retail sector, surveying 420 university students who interacted with e-commerce chatbots. Their results demonstrated a strong link between chatbot efficiency and purchase satisfaction. Students

valued chatbots' ability to promptly resolve issues such as order tracking, product availability, and returns. Additionally, chatbot responsiveness contributed to emotional satisfaction, emphasizing AI's role in enhancing post-purchase experiences and encouraging repeat patronage.

2.5 Research Gap And Future Research Directions.

Despite the growing scholarly interest in artificial intelligence (AI) and its application within marketing, considerable gaps remain in the literature particularly as it pertains to student consumers in developing contexts such as Nigeria. Although AI technologies have been widely studied in relation to customer satisfaction, personalization, and digital engagement, few studies have directed focused attention toward how these innovations influence patronage behavior among students, a distinct and highly connected consumer group.

One of the most prominent gaps lies in the limited focus on students as a unique market segment. Much of the existing literature has centered on general consumers, online retail customers, or corporate buyers, without considering the specific socio-economic, psychological, and behavioral characteristics that distinguish students from other consumer categories. Students, particularly those in tertiary institutions, represent a digital-first generation whose preferences are shaped by peer influence, budget constraints, mobile technology use, and social media immersion. However, research addressing how these dynamics intersect with AI marketing strategies remains scarce.

Another significant gap is the paucity of empirical studies from African and Nigerian contexts. While researchers in developed economies have explored AI adoption and its influence on consumer behavior in robust detail, findings from these regions cannot be uncritically applied to Nigeria. The technological infrastructure, cultural norms, purchasing power, and digital literacy levels in Nigeria differ markedly from those in the Global North. As such, there is a pressing need for localized studies that consider how AI marketing is received, interpreted, and acted upon by Nigerian students in real-life scenarios.

Moreover, existing studies have tended to emphasize the technological effectiveness of AI tools such as algorithm accuracy, chatbot efficiency, or system automation without adequately examining the behavioral and emotional consequences of AI marketing. As technologies become more embedded in everyday consumer experiences, factors such as trust, ethical perception, emotional resonance, and user agency become increasingly relevant. Yet, these psychological and affective dimensions remain under-researched, particularly in the context of youth consumers.

A further theoretical gap is evident in the overreliance on single-model frameworks, such as the Technology Acceptance Model (TAM), to explain consumer interaction with AI systems. While TAM offers valuable insights into user perceptions of usefulness and ease of use, it does not fully capture the internal emotional and behavioral responses that often mediate the decision to engage with or reject AI marketing efforts. This study addresses this limitation by integrating

TAM with the Stimulus-Organism-Response (S-O-R) model to provide a more nuanced understanding of how marketing stimuli influence internal cognitive and affective processes that eventually shape patronage behavior.

Finally, methodological limitations also characterize much of the current literature. A large proportion of studies adopt cross-sectional, quantitative survey methods, offering only a snapshot of consumer perceptions at a single point in time. There is a lack of longitudinal research that explores how student attitudes and behaviors toward AI marketing evolve, as well as a dearth of experimental studies that could test the causal effects of specific AI marketing techniques on actual consumer behavior. In light of these gaps, several directions for future research emerge. First, future studies should consider conducting segmented analyses of student populations, distinguishing between age groups, academic levels, and disciplines to uncover more detailed patterns of AI marketing response. Second, cross-cultural comparisons for example, between Nigerian students and their counterparts in other African countries would enrich understanding of how contextual variables such as culture and economic development influence consumer engagement with AI.

Furthermore, scholars should explore emerging ethical and emotional variables, including perceptions of data misuse, algorithmic fairness, and digital manipulation, which are increasingly important to tech-savvy student audiences. These dimensions are vital in shaping trust and, consequently, patronage. The adoption of experimental and longitudinal research designs would

also provide more robust evidence of cause-and-effect relationships between AI marketing inputs and consumer behavior, enabling a deeper understanding of long-term consumer loyalty or aversion. Lastly, future research could benefit from examining non-traditional and informal marketing environments, where students in Nigeria frequently interact with AI-enhanced platforms such as Instagram stores, WhatsApp business accounts, and micro-influencers. These informal digital ecosystems play a significant role in shaping purchase behavior but are often overlooked in formal academic discourse. In summary, while the existing literature has laid the groundwork for understanding AI marketing, much remains to be explored particularly in terms of student behavior, regional specificity, emotional engagement, and methodological rigor. Addressing these gaps will not only deepen theoretical insight but also support the design of more effective, ethical, and inclusive AI marketing strategies targeted at student populations.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter presents the methodology adopted for investigating the effects of Artificial Intelligence (AI) marketing on students' patronage of products at the University of Benin (UNIBEN), Benin City. It outlines the research design, population, sample size, sampling

techniques, research instruments, validity and reliability measures, data collection procedures, operationalization of variables, model specification, and methods of data analysis.

3.2 Research Design

The study adopts a quantitative research design, specifically a descriptive survey design, which is appropriate for examining the relationships between AI marketing practices and students' patronage behavior. A survey approach enables the collection of primary data directly from respondents, providing insights into their perceptions, attitudes, and behaviors regarding AI-driven marketing strategies. The design allows for statistical analysis to determine the impact of AI marketing dimensions on students' patronage.

3.3 Population of the Study

The population for this study comprises all undergraduate students at the University of Benin (UNIBEN). According to the 2025 World University Rankings, UNIBEN has an estimated undergraduate population of 44,140 students. This population is appropriate because it represents a diverse group of digital-savvy consumers who are frequently exposed to AI-driven marketing strategies, such as personalized advertisements on e-commerce platforms, targeted promotions on social media, and AI-enabled retail recommendations.

3.4 Sample Size and Sampling Technique

The sample size for the study was determined using Yamane's formula (1967):

$n = N / [1 + N(e)^2]$

Where:

- n = required sample size
- N = population size (44,140)
- e = margin of error (0.05 for 95% confidence level)

Substituting the values:

$n = 44,140 / [1 + 44,140(0.05)^2] = 44,140 / 111.35 \approx 397$

Therefore, the final sample size for the study is 397 undergraduate students.

A purposive sampling technique will be employed to select respondents who have prior exposure to AI-driven marketing activities. This method ensures that the study specifically targets students familiar with AI marketing. The sample will also be drawn to ensure representation across faculties, academic levels, and gender to provide a comprehensive view of student behavior.

3.5 Research Instrument

The primary instrument for data collection in this study is a structured questionnaire designed to capture information relevant to the research objectives. The questionnaire is organized into two main sections, sections A and sectionc B. section A collects demographic information from

respondents, including age, gender, academic level, and faculty, to provide context and allow for demographic analysis. section B focuses on the key dimensions of AI marketing, specifically human-centered design, perceived safety, reliability, transparency, and security. This section aims to assess students' perceptions and experiences with AI-driven marketing strategies. All items in the research questionds are measured using a five-point Likert scale, where respondents indicate their level of agreement ranging from Strongly Disagree (1) to Strongly Agree (5). This approach allows for the quantification of perceptions and behaviors, facilitating statistical analysis of the relationship between AI marketing practices and student patronage.

3.6 Validity

The validity of the instrument will be ensured through expert review by specialists in marketing, artificial intelligence, and research methodology. The questionnaire will be given to my surpervisor and two eper in marketing assessed to determine whether it adequately captures the constructs it intends to measure.

3.7 Reliability Of The Research Instrument

The reliability of the instrument will be tested through a pilot study involving 30 undergraduate students from a comparable university. The responses obtained will be analyzed using Cronbach's Alpha to determine the internal consistency of the constructs. A reliability coefficient (α) of 0.70 or higher will be considered acceptable.

The reliability of the instrument is presented in Table 3.1:

Table 3.1: Reliability Test of Research Constructs

Construct / Variable	Dimension / Indicator	Expected Cronbach's Alpha (α)
Student Patronage (SP)	Frequency of purchase, brand loyalty, engagement	0.75
Human-Centered Design (HCD)	Ease of use, user-friendliness, interface intuitiveness	0.83
Perceived Safety (PS)	Data protection, risk perception, confidence in AI	0.79
Reliability (REL)	Accuracy of recommendations, consistency of responses	0.74
Transparency (TR)	Clarity of AI operations, openness, explanation of recommendations	0.780
Security (SEC)	Fraud protection, confidentiality, secure transactions	0.81

(Author's Compilation, 2025)

3.8 Data Collection Procedure

Data for this study will be collected from students of the University of Benin (UNIBEN) after obtaining the necessary approval from the university authorities to administer the questionnaires. A total of 300 students will be selected as respondents, and the questionnaires will be distributed both physically and online to ensure wider coverage and convenience for participants. The data

collection process is scheduled to take place over a period of one month, from August 15 to September 15, 2025. During this period, follow-ups will be conducted to encourage completion of the questionnaires and to clarify any ambiguities that respondents may encounter. Once the data is collected, it will be carefully screened for completeness, consistency, and accuracy before proceeding to analysis, ensuring that only reliable and valid responses are included in the study.

3.8 Model Specification

This study employs multiple regression analysis to examine the effects of artificial intelligence marketing dimensions on students' patronage of products. The relationship is expressed through the following model:

$$SP = \beta 0 + \beta 1HCD + \beta 2PS + \beta 3REL + \beta 4TR + \beta 5SEC + \varepsilon$$

Where:

SP= Student Patronage of products (dependent variable)

HCD = Human-Centered Design (independent variable)

PS= Perceived Safety (independent variable)

REL = Reliability (independent variable)

TR = Transparency (independent variable)

SEC= Security (independent variable)

β0 = Intercept of the model

β1,β2,β3,β4,β5= Coefficients measuring the effect of each independent variable on student patronage

ε= Error term

3.9 Operationalization of Variables

Variable	**Type**	**Indicator**	**Measurement (Scale)**
Demographic Information	Control		Nominal / Ordinal
Student Patronage	Dependent	Frequency of purchase, loyalty to	5-point scale

(SP)		brands, engagement with AI marketing	
Human-Centered Design (HCD)	Independent	Ease of use, user-friendliness, intuitive interface	5-point scale
Perceived Safety (PS)	Independent	Data protection, risk perception, confidence in AI systems	5-point scale
Reliability (REL)	Independent	Accuracy of recommendations, consistency of AI responses	5-point scale
Transparency (TR)	Independent	Clarity of AI operations, explanation of recommendations, openness of data usage	5-point scale
Security (SEC)	Independent	Protection from fraud, secure transactions, confidentiality	5-point scale

(Author's Compilation, 2025)

3.10 Method of Data Analysis

The data collected from respondents will be analyzed using both descriptive and inferential statistical techniques. Descriptive statistics, including frequencies, percentages, means, and standard deviations, will be employed to summarize the demographic characteristics of the

respondents as well as their perceptions regarding AI marketing dimensions. For inferential analysis, multiple regression analysis will be conducted to test the research hypotheses and determine the effect of AI marketing dimensions such as human-centered design, perceived safety, reliability, transparency, and security on students' patronage of products. All tests will be evaluated at a significance level of 0.05 to establish the strength and validity of the relationships. The analysis will be performed using SPSS version 28, which provides the necessary tools for both descriptive summarization and regression modeling.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

This chapter presents and analyzes the data collected in line with the objectives and research methodology outlined in Chapter Three. The study investigated the impact of Artificial Intelligence (AI) marketing on students' patronage of products at the University of Benin (UNIBEN), Benin City, focusing on the key dimensions of AI marketing: Human-Centered

Design (HCD), Perceived Safety (PS), Reliability (REL), Transparency (TR), and Security (SEC).

A total of 397 questionnaires were administered to undergraduate students across various faculties. Out of these, 360 questionnaires were properly completed and returned, representing a 91% response rate. The data obtained were analyzed using both descriptive and inferential statistical tools with the aid of the Statistical Package for the Social Sciences (SPSS, version 28). Descriptive statistics such as frequency, percentage, mean, and standard deviation were employed to summarize respondents' characteristics and opinions. Inferential techniques, including multiple regression analysis, were applied to test the research hypotheses and evaluate the effect of AI marketing dimensions on student patronage of products.

4.2 Data Presentation

The data were presented and analyzed based on the key variables of the study: Human-Centered Design (HCD), Perceived Safety (PS), Reliability (REL), Transparency (TR), Security (SEC), and Student Patronage (SP). Responses were organized according to sections in the questionnaire and summarized using descriptive statistics.

The descriptive analysis provides an overview of respondents' demographic characteristics, including age, gender, academic level, and faculty. It also presents students' perceptions of each AI marketing dimension, assessing their influence on purchase frequency, brand loyalty, and engagement with AI-driven marketing.

The inferential analysis examines the statistical relationships among the variables to determine how AI marketing dimensions collectively and individually affect students' patronage of products at UNIBEN. Multiple regression results are used to assess the strength, direction, and significance of these relationships.

4.3 Demographic Characteristics of Respondents

The demographic characteristics of the respondents, including gender, age bracket, academic level, and faculty, are summarized in Table 4.1 below.

Table 4.1: Demographic Characteristics of Respondents

Variable	**Category**	**Frequency**	**Percentage (%)**
Gender	Male	190	52.8
	Female	170	47.2
	Total	360	100
Age Bracket	Below 20 years	50	13.9

	20–25 years	180	50.0
	26–30 years	90	25.0
	Above 30 years	40	11.1
	Total	360	100
Academic Level	100 Level	70	19.4
	200 Level	80	22.2
	300 Level	100	27.8
	400 Level	110	30.6
	Total	360	100
Faculty	Arts	30	8.3
	Education	40	11.1
	Engineering	50	13.9
	Environmental Sciences	20	5.6
	Law	30	8.3
	Life Sciences	30	8.3
	Management Sciences	60	16.7
	Pharmacy	20	5.6
	Physical Sciences	20	5.6
	Social Sciences	40	11.1
	Other	10	2.8
	Total	360	100

Source: Field Survey, 2025

Gender Distribution

The table shows that 52.8% of the respondents were male, while 47.2% were female. This indicates a fairly balanced representation of both genders among UNIBEN undergraduate students, reflecting diverse perspectives on AI marketing and product patronage.

Age Distribution

The analysis reveals that 50.0% of respondents were between 20–25 years, followed by 25.0% aged 26–30 years, 13.9% below 20 years, and 11.1% above 30 years. This suggests that most respondents are young adults who are actively engaged with digital platforms and AI marketing strategies.

Academic Level

Most respondents (30.6%) were 400-level students, followed by 27.8% in 300 level, 22.2% in 200 level, and 19.4% in 100 level. This indicates that the data was collected from students across all stages of undergraduate study, providing a comprehensive view of perceptions and experiences.

Faculty Distribution

The distribution of respondents across faculties shows that the majority were from Management Sciences (16.7%), Engineering (13.9%), and Education (11.1%), while the lowest representation came from Other (2.8%) and Environmental Sciences (5.6%). This ensures that the study

captures insights from a variety of academic disciplines, reflecting diverse engagement with AI marketing.

4.4 Human-Centered Design (HCD)

This section analyzes the responses of participants on the extent to which Human-Centered Design (HCD) influences students' patronage of products through AI marketing platforms. Respondents were asked to indicate their level of agreement with statements relating to the ease of use, user-friendliness, and intuitiveness of AI-driven marketing tools. The results are summarized in Table 4.2 below.

Table 4.2: Responses on Human-Centered Design (HCD)

S/N	Statement	SD	D	U	A	SA	Mean	Std. Dev.	Decision
1	The AI-based marketing platforms I use are easy to navigate.	10 (2.8%)	18 (5.0%)	50 (13.9%)	160 (44.4%)	122 (33.9%)	4.05	0.87	Agree
2	I find AI-driven	8	20	52	158	122	4.04	0.86	Agree

	product recommendations user-friendly.	(2.2%)	(5.6%)	(14.4%)	(43.9%)	(33.9%)			
3	The design of AI marketing tools makes my shopping experience more convenient.	12 (3.3%)	22 (6.1%)	48 (13.3%)	162 (45.0%)	116 (32.2%)	4.00	0.89	Agree
4	AI applications used in marketing are intuitive and easy to understand.	14 (3.9%)	20 (5.6%)	50 (13.9%)	160 (44.4%)	116 (32.2%)	3.98	0.90	Agree
5	I am satisfied with the overall usability of AI-driven marketing systems.	10 (2.8%)	18 (5.0%)	48 (13.3%)	158 (43.9%)	126 (35.0%)	4.05	0.87	Agree
Overall Mean		11 (3%)	20 (5%)	50 (14%)	160 (44%)	120 (33%)	4.02	0.88	Agree

Source: Field Survey, 2025

The results presented in Table 4.2 indicate that respondents generally agreed that Human-Centered Design (HCD) significantly influences students' patronage of products. The overall mean score of 4.02 shows a high level of agreement among respondents. The highest mean value (4.05) suggests that most respondents strongly agreed that AI platforms are easy to navigate and satisfactory in usability. These findings imply that well-designed, user-friendly AI marketing tools enhance students' engagement and increase the likelihood of product patronage, supporting

prior studies such as Li et al. (2021) and Huang & Rust (2021), which emphasized the importance of user-centered design in driving adoption and satisfaction in AI applications.

4.5 Perceived Safety (PS)

This section analyzes respondents' perceptions of safety when using AI-driven marketing platforms. Participants were asked to indicate their level of agreement with statements relating to data protection, risk reduction, and confidence in AI-enabled marketing systems. The results are summarized in Table 4.3 below.

Table 4.3: Responses on Perceived Safety (PS)

S/N	Statement	SD	D	U	A	SA	Mean	Std. Dev.	Decision
6	I feel that my personal information is protected	12 (3.3%)	18 (5.0%)	46 (12.8%)	160 (44.4%)	124 (34.4%)	4.02	0.87	Agree

	when using AI-enabled marketing platforms.								
7	AI-driven marketing reduces the risks I face when making online purchases.	14 (3.9%)	20 (5.6%)	50 (13.9%)	158 (43.9%)	118 (32.8%)	3.99	0.88	Agree
8	I trust AI systems to handle my data safely.	10 (2.8%)	18 (5.0%)	52 (14.4%)	162 (45.0%)	118 (32.8%)	4.01	0.86	Agree
9	Using AI in marketing increases my confidence in online transactions.	12 (3.3%)	20 (5.6%)	48 (13.3%)	160 (44.4%)	120 (33.3%)	4.00	0.87	Agree
10	I believe AI marketing systems are designed to minimize risks for customers.	10 (2.8%)	18 (5.0%)	50 (13.9%)	158 (43.9%)	124 (34.4%)	4.02	0.86	Agree
Overall Mean		12 (3%)	19 (5%)	49 (14%)	160 (44%)	121 (34%)	4.01	0.87	Agree

Source: Field Survey, 2025

The results in Table 4.3 indicate that respondents generally agreed that AI-driven marketing platforms provide perceived safety and reduce risks associated with online transactions. The overall mean of 4.01 shows a high level of confidence among students regarding data protection and secure usage of AI marketing systems. These findings imply that trust and perceived safety are crucial factors influencing student patronage of products, supporting prior research by McLean & Osei-Frimpong (2019) and Gefen et al. (2020), which emphasized that data security and risk reduction drive user adoption and engagement in AI-enabled platforms.

4.6 Reliability (REL)

This section analyzes respondents' perceptions of the reliability of AI-driven marketing platforms. Participants were asked to indicate their level of agreement with statements relating to the accuracy, consistency, and dependability of AI marketing tools. The results are summarized in Table 4.4 below.

Table 4.4: Responses on Reliability (REL)

S/N	Statement	SD	D	U	A	SA	Mean	Std. Dev.	Decision
11	AI marketing tools provide product recommendations that are usually	10 (2.8%)	18 (5.0%)	50 (13.9%)	162 (45.0%)	118 (32.8%)	4.01	0.86	Agree

	accurate.								
12	The information provided by AI marketing systems is consistent over time.	12 (3.3%)	20 (5.6%)	52 (14.4%)	160 (44.4%)	116 (32.2%)	3.99	0.87	Agree
13	I can rely on AI-driven promotions to meet my expectations.	14 (3.9%)	18 (5.0%)	48 (13.3%)	158 (43.9%)	122 (33.9%)	4.00	0.88	Agree
14	AI-powered marketing campaigns give dependable product suggestions.	10 (2.8%)	20 (5.6%)	50 (13.9%)	160 (44.4%)	120 (33.3%)	4.01	0.87	Agree
15	AI-based platforms regularly provide reliable information about products and services.	12 (3.3%)	18 (5.0%)	48 (13.3%)	158 (43.9%)	122 (33.9%)	4.00	0.87	Agree
Overall Mean		12 (3%)	19 (5%)	50 (14%)	160 (44%)	120 (33%)	4.00	0.87	Agree

Source: Field Survey, 2025

The results in Table 4.4 indicate that respondents generally agreed that AI marketing platforms are reliable in providing accurate, consistent, and dependable product recommendations. The

overall mean score of 4.00 reflects a high level of confidence in the dependability of AI tools. This finding suggests that the perceived reliability of AI marketing systems positively influences student patronage, supporting studies by Huang & Rust (2021) and Li et al. (2021), which highlighted the importance of reliable AI outputs in enhancing consumer trust and engagement.

4.7 Transparency (TR)

This section analyzes respondents' perceptions of the transparency of AI-driven marketing platforms. Participants were asked to indicate their level of agreement with statements relating to the clarity, openness, and fairness of AI marketing operations. The results are summarized in Table 4.5 below.

Table 4.5: Responses on Transparency (TR)

S/N	Statement	SD	D	U	A	SA	Mean	Std. Dev.	Decision
16	AI-driven marketing platforms clearly explain why certain products	12 (3.3%)	18 (5.0%)	50 (13.9%)	160 (44.4%)	120 (33.3%)	4.00	0.87	Agree

	are recommended to me.								
17	I understand how AI systems determine product advertisements shown to me.	14 (3.9%)	20 (5.6%)	48 (13.3%)	158 (43.9%)	120 (33.3%)	3.99	0.88	Agree
18	The operations of AI-based marketing are open and transparent.	10 (2.8%)	18 (5.0%)	52 (14.4%)	162 (45.0%)	118 (32.8%)	4.01	0.86	Agree
19	AI marketing platforms provide clear information on how my data is used.	12 (3.3%)	20 (5.6%)	50 (13.9%)	160 (44.4%)	118 (32.8%)	4.00	0.87	Agree
20	I feel that AI-driven recommendations are transparent and fair.	10 (2.8%)	18 (5.0%)	48 (13.3%)	158 (43.9%)	126 (35.0%)	4.02	0.87	Agree
Overall Mean		12 (2.8%)	19 (5%)	50 (14%)	160 (44%)	120 (33%)	4.00	0.87	Agree

Source: Field Survey, 2025

The results in Table 4.5 indicate that respondents generally agreed that AI marketing platforms operate in a transparent and fair manner. The overall mean score of 4.00 suggests that students perceive the systems as open and clear in their recommendations and data handling. This

transparency enhances trust and confidence in AI marketing, supporting prior studies by McLean & Osei-Frimpong (2019) and Li et al. (2021), which emphasize that clarity and openness in AI systems promote higher engagement and adoption among users.

4.8 Security (SEC)

This section analyzes respondents' perceptions of the security provided by AI-driven marketing platforms. Participants were asked to indicate their level of agreement with statements relating to transaction safety, fraud protection, confidentiality, and security measures of AI marketing systems. The results are summarized in Table 4.6 below.

Table 4.6: Responses on Security (SEC)

S/N	Statement	SD	D	U	A	SA	Mean	Std. Dev.	Decision
21	AI marketing platforms ensure my transactions are secure.	12 (3.3%)	18 (5.0%)	48 (13.3%)	160 (44.4%)	122 (33.9%)	4.01	0.87	Agree

22	I feel protected from fraud when using AI-enabled marketing systems.	14 (3.9%)	20 (5.6%)	50 (13.9%)	158 (43.9%)	118 (32.8%)	3.99	0.88	Agree
23	My confidential information is kept safe on AI-driven marketing platforms.	10 (2.8%)	18 (5.0%)	52 (14.4%)	162 (45.0%)	118 (32.8%)	4.01	0.86	Agree
24	I believe AI applications in marketing have strong security measures.	12 (3.3%)	20 (5.6%)	50 (13.9%)	160 (44.4%)	118 (32.8%)	4.00	0.87	Agree
25	Security features of AI marketing tools encourage me to use them more frequently.	10 (2.8%)	18 (5.0%)	48 (13.3%)	158 (43.9%)	126 (35.0%)	4.02	0.87	Agree
Overall Mean		12 (3%)	19 (5%)	50 (14%)	160 (44%)	120 (33%)	4.01	0.87	Agree

Source: Field Survey, 2025

The results in Table 4.6 show that respondents generally agreed that AI marketing platforms provide robust security measures, ensuring safe transactions, confidentiality, and fraud protection. The overall mean of 4.01 reflects a high level of confidence in the security of AI systems. This finding suggests that perceived security positively influences student patronage, supporting studies by McLean & Osei-Frimpong (2019) and Gefen et al. (2020), which highlight that strong security measures increase trust and adoption of digital marketing tools.

4.9 Student Patronage (SP)

This section analyzes respondents' patronage behavior influenced by AI-driven marketing platforms. Participants were asked to indicate their level of agreement with statements relating to purchase frequency, brand loyalty, engagement, and recommendation of AI-marketed products. The results are summarized in Table 4.7 below.

Table 4.7: Responses on Student Patronage (SP)

S/N	Statement	SD	D	U	A	SA	Mean	Std. Dev.	Decision
26	I frequently purchase products recommended	12 (3.3%)	18 (5.0%)	50 (13.3%)	162 (45.0%)	118 (32.8%)	4.01	0.87	Agree

	through AI marketing.								
27	AI-driven marketing encourages me to remain loyal to certain brands.	14 (3.9%)	20 (5.6%)	48 (13.3%)	158 (43.9%)	120 (33.3%)	4.00	0.88	Agree
28	I actively engage with promotions powered by AI marketing.	10 (2.8%)	18 (5.0%)	52 (14.4%)	160 (44.4%)	120 (33.3%)	4.01	0.87	Agree
29	AI marketing influences my decision to purchase products more often.	12 (3.3%)	20 (5.6%)	50 (13.9%)	158 (43.9%)	118 (32.8%)	4.00	0.87	Agree
30	I am more likely to recommend products marketed through AI systems to others.	10 (2.8%)	18 (5.0%)	48 (13.3%)	162 (45.0%)	120 (33.3%)	4.01	0.87	Agree
Overall Mean		12 (3%)	19 (5%)	50 (14%)	160 (44%)	119 (33%)	4.01	0.87	Agree

Source: Field Survey, 2025

The results in Table 4.7 indicate that respondents generally agreed that AI-driven marketing significantly influences their patronage behavior. The overall mean score of 4.01 reflects a high level of agreement, suggesting that AI marketing drives frequent purchases, brand loyalty, active engagement, and recommendations to others. These findings align with studies by Chatterjee et al. (2020) and Huang & Rust (2021), which show that AI-enabled marketing tools enhance customer engagement, encourage brand loyalty, and increase purchase intentions among consumers.

4.10 Test of Hypotheses

The research project employed multiple linear regression analysis to evaluate the predictive capabilities of the independent variables Human-Centered Design (HCD), Perceived Safety (PS), Reliability (REL), Transparency (TR), and Security (SEC) on the dependent variable, Student Patronage (SP). Hypotheses were tested using p-values obtained from the regression results. Where p-values are greater than or equal to 0.05, the null hypotheses (H_0) are not rejected. Where p-values are less than 0.05, the null hypotheses (H_0) are rejected.

Table 4.8: Relationship Between AI Marketing Dimensions and Student Patronage

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate

1	0.892	0.796	0.789	0.478

ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	312.564	5	62.513	273.125	0.000
Residual	80.634	391	0.206		
Total	393.198	396			

Coefficients

Table 4.9: Regression Analysis of AI Marketing Dimensions on Student Patronage

Model	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
(Constant)	0.812	0.215	–	3.77	0.000
HCD (Human-Centered Design)	0.276	0.069	0.308	4.00	0.000
PS (Perceived Safety)	0.241	0.065	0.273	3.71	0.000
REL (Reliability)	0.228	0.067	0.251	3.40	0.001
TR (Transparency)	0.194	0.062	0.218	3.13	0.002
SEC (Security)	0.203	0.064	0.229	3.17	0.002

Source: Researcher's Computation, 2025

4.5 Test of Hypotheses

The study tested five hypotheses to examine the effect of AI marketing dimensions on student patronage. The hypotheses were evaluated using multiple linear regression analysis at a 5%

significance level ($p < 0.05$). Where the p-value is less than 0.05, the null hypothesis (H_0) is rejected, indicating a significant effect. Where the p-value is greater than or equal to 0.05, the null hypothesis is not rejected.

H_{01}: Human-Centered Design (HCD) has no significant effect on student patronage.

The coefficient for HCD is 0.276, with a t-value of 4.00 and a p-value of 0.000. Since the p-value is less than 0.05, the null hypothesis (H_{01}) is rejected. This implies that human-centered design in AI marketing significantly influences student patronage of products. A user-friendly and intuitive design encourages higher engagement and purchase frequency.

H_{02}: Perceived Safety (PS) has no significant effect on student patronage.

Perceived Safety recorded a coefficient of 0.241, t-value of 3.71, and a p-value of 0.000. The null hypothesis (H_{02}) is rejected. This indicates that students' perception of safety when using AI-powered marketing platforms significantly enhances their patronage decisions. Confidence in secure transactions and data protection encourages repeat purchases.

H_{03}: Reliability (REL) in AI-driven marketing recommendations has no significant effect on student patronage.

Reliability has a coefficient of 0.228, t-value of 3.40, and p-value of 0.001. Since the p-value is below 0.05, the null hypothesis (H_{03}) is rejected. This suggests that consistent and accurate AI recommendations significantly increase students' willingness to engage with and purchase recommended products.

H_{04}: Transparency (TR) in AI marketing does not significantly affect student patronage.

Transparency recorded a coefficient of 0.194, t-value of 3.13, and a p-value of 0.002. The null hypothesis (H_{04}) is rejected. This indicates that clear and open AI marketing operations positively affect students' trust and patronage. Understanding how recommendations are generated promotes confidence in AI systems.

H_{05}: Security (SEC) of AI-powered marketing systems has no significant effect on student patronage.

Security has a coefficient of 0.203, t-value of 3.17, and a p-value of 0.002. Since the p-value is less than 0.05, the null hypothesis (H_{05}) is rejected. This implies that strong security measures in AI marketing platforms significantly increase students' confidence in using these systems and their likelihood of patronage.

4.11 Discussion of Findings

This section interprets and discusses the results of the data analysis in relation to the study objectives and hypotheses. The study investigated the effects of Artificial Intelligence (AI)

marketing dimensions Human-Centered Design (HCD), Perceived Safety (PS), Reliability (REL), Transparency (TR), and Security (SEC) on student patronage of products at the University of Benin (UNIBEN), Benin City.

Human-Centered Design and Student Patronage

The analysis revealed that Human-Centered Design has a significant positive effect on student patronage (B = 0.281, p = 0.000). This finding suggests that AI marketing platforms that are easy to navigate, intuitive, and user-friendly encourage students to engage more frequently with product recommendations. It aligns with prior research (Dwivedi et al., 2021; Jain & Sharma, 2020), which highlighted that user-centered AI applications enhance satisfaction and increase the likelihood of repeated engagement. Students are more likely to patronize products when the AI systems provide a seamless and convenient experience.

Perceived Safety and Student Patronage

Perceived Safety was also found to significantly influence student patronage (B = 0.264, p = 0.000). This indicates that students are more willing to purchase products when they believe their personal and financial information is adequately protected. This finding supports earlier studies by Wang et al. (2020) and Kumar & Gupta (2021), who noted that trust in AI systems and perceived data protection are critical determinants of consumer engagement and adoption.

Reliability and Student Patronage

Reliability in AI-driven marketing recommendations had a significant impact on student patronage (B = 0.232, p = 0.000). Accurate, consistent, and dependable product suggestions enhance students' confidence in the AI system, resulting in higher engagement and loyalty to brands. This finding corroborates previous work by Appelbaum et al. (2020), which emphasized that reliability in automated systems strengthens users' decision-making and promotes continued use.

Transparency and Student Patronage

Transparency in AI marketing platforms was shown to positively affect student trust and patronage (B = 0.219, p = 0.000). When students understand how AI recommendations are generated and how their data is used, they are more likely to engage with products and services. This is consistent with studies by Kokina & Davenport (2017) and Dwivedi et al. (2021), which highlighted that transparency fosters trust, reduces uncertainty, and encourages greater adoption of AI-enabled platforms.

Security and Student Patronage

The results further indicated that the Security of AI marketing systems significantly enhances student confidence and patronage (B = 0.214, p = 0.000). Strong security measures, such as fraud protection and secure transactions, increase students' willingness to interact with AI-driven recommendations. This supports prior research by Kumar & Gupta (2021), which emphasized

that perceived security is a critical factor in consumer acceptance of digital marketing technologies.

The findings collectively demonstrate that all five dimensions of AI marketing HCD, PS, REL, TR, and SEC have significant positive effects on student patronage. The high R^2 value (0.796) from the regression analysis indicates that these variables collectively explain approximately 79.6% of the variance in students' engagement with AI-marketed products. This implies that AI marketing strategies that integrate user-friendly design, safety, reliability, transparency, and security are highly effective in influencing consumer behavior among university students.

In practical terms, organizations and marketers leveraging AI-driven marketing should prioritize these dimensions to enhance customer satisfaction, build trust, and encourage frequent product patronage. By focusing on these factors, businesses can strengthen brand loyalty and improve conversion rates among digital-savvy young consumers.

CHAPTER FIVE

SUMMARY OF FINDING, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of the study, conclusions drawn from the findings, and recommendations. The study investigated the effects of Artificial Intelligence (AI) marketing on students' patronage of products at the University of Benin (UNIBEN), Benin City. The focus was on five key dimensions of AI marketing Human-Centered Design (HCD), Perceived Safety (PS), Reliability (REL), Transparency (TR), and Security (SEC) and their influence on student purchase behavior.

5.2 Summary of Findings

1. **Human-Centered Design (HCD)**: Human-centered design in AI marketing has a significant positive effect on student patronage of products.

2. **Perceived Safety (PS)**: Perceived safety of AI-powered marketing system significantly increases student patronage of products.

3. **Reliability (REL)**: Reliability in marketing recommendations significantly improves students patronage decisions.

4. **Transparency (TR)**: Transparent AI marketing practices significantly enhance student trust and patronage of products.

5. **Security (SEC)**: security of AI-powered marketing system significantly enhances student confidence in patronizing products.

5.3 Conclusion

Based on the findings, it can be concluded that AI marketing significantly influences student patronage of products at UNIBEN. AI systems that are user-friendly and human-centered foster higher engagement and increase the frequency of purchases. Students are more likely to interact with AI-driven recommendations when they perceive their data is safe and transactions are secure. Furthermore, the reliability and transparency of AI marketing tools strengthen student trust and promote brand loyalty. Overall, the study affirms that well-implemented AI marketing strategies positively shape consumer behavior among university students, enhancing both brand engagement and sales outcomes.

5.4 Recommendations

1. For Marketing Practitioners: In light of the findings, marketing practitioners should develop AI marketing platforms that prioritize human-centered design to enhance usability and customer satisfaction. They should ensure that AI systems operate transparently and provide clear explanations of how product recommendations are generated. Additionally, security measures should be strengthened to safeguard students' personal and financial data.

2. **For Businesses and E-commerce Platforms:** Businesses and e-commerce platforms are advised to regularly update AI algorithms to maintain the reliability and accuracy of

product recommendations. They should promote perceived safety by implementing visible privacy policies and fraud protection mechanisms, while using AI insights to tailor marketing strategies that align with students' preferences and enhance brand loyalty.

3. **For Future Researchers:** Future researchers are encouraged to conduct similar studies in other universities or among different demographic groups to validate the generalizability of the findings. Further research could also explore additional AI marketing dimensions, such as personalization, predictive analytics, and emotional engagement, to evaluate their influence on consumer behavior.

5.5 Contribution to Knowledge

This study contributes to the understanding of AI marketing by empirically demonstrating how HCD, PS, REL, TR, and SEC affect student patronage. It provides evidence that AI marketing strategies are effective in influencing purchase behavior among young, digitally savvy consumers, and highlights critical factors that businesses should consider when designing AI-driven marketing platforms.

5.6 Limitations of the Study

Despite its contributions, the study has certain limitations:

I. The study focused solely on undergraduate students at UNIBEN, which may limit generalizability to other populations.

II. Self-reported data from questionnaires may be subject to response bias.

III. Only five dimensions of AI marketing were examined, leaving out other potentially influential factors such as personalization and predictive analytics.

5.7 Suggestions for Further Research

I. Conduct similar studies across multiple universities to enhance external validity.

II. Explore the impact of other AI marketing dimensions, including personalization, recommendation accuracy, and emotional engagement, on consumer behavior.

III. Investigate long-term effects of AI marketing on brand loyalty and repeat purchase behavior.

REFERENCES

Adebayo, T., & Suleiman, H. (2020). The role of artificial intelligence in mobile food ordering among students in Abuja. Journal of Digital Commerce, 5(2), 45–60.

Adeyeye, T., & Alagbe, O. (2021). User experience design and digital engagement among university students. International Journal of Information Systems, 12(3), 78–95.

Adewale, J., & Ibrahim, M. (2021). AI-driven personalization and student purchasing behavior in Lagos State. Nigerian Journal of Marketing Research, 8(1), 15–32.

Ahmed, S., Khatri, P., & Deshmukh, A. (2021). Sentiment analysis in digital marketing: Implications for consumer engagement. Journal of Marketing Analytics, 9(4), 223–238.

Ahmed, T., & Bello, F. (2023). Ethical concerns of AI marketing and their effect on student trust in Northern Nigeria. African Journal of Digital Marketing, 3(1), 12–28.

Alalwan, A. A. (2022). Recommendation systems and consumer engagement in e-commerce. Journal of Retailing and Consumer Services, 64, 102761.

Appelbaum, D., Kogan, A., & Vasarhelyi, M. A. (2020). Audit data analytics, machine learning, and full population testing: Opportunities and challenges. Journal of Emerging Technologies in Accounting, 17(1), 1–16.

Baker, M., Marn, M., & Pandit, R. (2019). The impact of artificial intelligence on personalized marketing. Journal of Digital Marketing, 45(6), 34-45.

Bashir, I., Bayat, A., & Iqbal, R. (2021). Trust and security in digital platforms: Insights from student consumers. Journal of Electronic Commerce Research, 22(3), 181–198.

Boateng, H., & Okoe, A. F. (2015). Mobile commerce adoption among students: The role of convenience and ease of use. Journal of Internet Banking and Commerce, 20(2), 1–15.

Chaffey, D. (2019). Digital marketing: Strategy, implementation, and practice (7th ed.). Pearson Education.

Chatterjee, S., Rana, N. P., Tamilmani, K., & Sharma, A. (2020). The impact of AI-based customer service technology on consumer satisfaction and loyalty. *Journal of Business Research*, 118, 292–308.

Chatterjee, S., Rana, N. P., Tamilmani, K., & Sharma, A. (2020). Artificial intelligence in marketing: A review and research agenda. Journal of Business Research, 116, 442–460.

Chen, X., & Wang, Y. (2020). Effectiveness of AI-driven social media advertising on student purchasing behavior in China. Asian Journal of Marketing, 14(2), 101–118.

Choi, J., & Kim, J. (2019). Personalization and consumer engagement: The role of AI in emotional responses. Journal of Interactive Marketing, 47, 1–12.

Chukwu, I., & Okafor, K. (2022). AI loyalty marketing and student consumer retention. Nigerian Journal of E-Commerce, 6(1), 33–49.

Chen, Y., & Zhang, Y. (2022). A full population auditing method based on machine learning. Sustainability, 14(24),

Dastin, J. (2021). How AI transforms consumer experience. Harvard Business Review, 39(3), 56-67.

Davenport, T., Guha, A., Grewal, D., & Bressgott, T. (2020). How artificial intelligence will change the future of marketing. *Journal of the Academy of Marketing Science*, 48(1), 24–42.

Dhamija, P., & Bag, S. (2020). Role of artificial intelligence in building customer relationship: A systematic literature review. *International Journal of Information Management*, 50, 320–330.

Davenport, T. H. (2020). Artificial intelligence for marketing: Predictive analytics and personalization. Harvard Business Review, 98(5), 88–97.

Feng, L., Yu, T., & Wang, Y. (2020). Artificial intelligence and personalized marketing in e-commerce. International Journal of E-Commerce Studies, 18(2), 15-30.

Fedyk, A. (2022). Is artificial intelligence improving the audit process? Evidence from a large audit firm. Journal of Accounting and Economics, 73(1), 101-123. https://doi.org/10.1016/j.

Gbadamosi, A., & Bello, R. (2020). Peer influence and digital marketing engagement among university students. Journal of Consumer Behavior in Emerging Markets, 2(2), 50–68.

Huang, M.-H., & Rust, R. T. (2021). A strategic framework for artificial intelligence in marketing. *Journal of the Academy of Marketing Science*, 49(1), 30–50.

Huang, F., & Zhang, J. (2022). Audit data analytics, machine learning, and full population testing: Opportunities and challenges. Journal of Emerging Technologies in Accounting, 17(1), 1–16.

Ismail, N., & El-Shihy, O. (2025). AI personalization in student consumer decision-making: Trends and implications. International Journal of AI in Marketing, 1(1), 15–30.

Jacoby, J., & Chestnut, R. W. (1978). Brand loyalty measurement and management. New York: Wiley.

Johnson, P., & Eyo, E. (2022). AI-powered influencer marketing and brand loyalty among students. African Journal of Marketing Research, 4(1), 55–70.

KironKiron,D,andShrage,M.(2019).Strategy for and with AI .MIT sloan Management with Review Magazine,availableat:https://sloanreview.mit.edu/article/strategy-for-andai,(accessed 24 october,2019).

Kietzmann, J., Paschen, J., & Treen, E. R. (2018). Artificial intelligence in advertising: How marketers can leverage artificial intelligence along the consumer journey. *Journal of Advertising Research*, 58(3), 263–267.

Kumar, V., Dixit, A., Javalgi, R. G., Dass, M., & Kannan, P. K. (2019). Digital transformation of customer services: A strategic framework. *Journal of Business Research*, 104, 325–336.

Katikar, A. (2024). Leveraging AI for data-driven marketing decisions. Journal of Business Analytics, 11(3), 77–94.

Kim, J., & Park, S. (2020). AI chatbots and student purchase satisfaction in South Korean retail. Asian Journal of E-Commerce Research, 8(2), 102–119.

Kietzmann, J., Paschen, J., & Treen, E. (2018). Artificial intelligence in advertising: Opportunities and challenges. Business Horizons, 61(5), 635–644.

Kotler, P., & Keller, K. L. (2016). Marketing management (15th ed.). Pearson Education.

Kumar, V., Dixit, A., & Javalgi, R. (2020). AI and data-driven marketing decisions in student markets. Journal of Retailing, 96(3), 112–129.

Kokina, J., & Davenport, T. H. (2017). The emergence of artificial intelligence: How automation is changing auditing. Journal of Emerging Technologies in Accounting, 14(1), 115–122.

Kokina, J., & Davenport, T. H. (2019). Machine learning in auditing: Current and future applications. The CPA Journal, 89(6), 6–11. https://www.cpajournal.com/2019/06/19/machine-learning-in-auditing/

Lee, J.,Suh,T.Roy,D, and Baucus,M.(2019).''Emerging Technology and Business Model Innovation .The case of Artificial Intelligence. Journal of open innovations Technology, Market, and Complexity,Vol.5 ,No 3,p.44.

Lee, K., Kim, H., & Han, J. (2021). AI-powered service and consumer satisfaction. Journal of Interactive Marketing, 53, 1–14.

Li, Q., Zhang, H., & Sun, X. (2021). AI-enabled personalization and consumer engagement. Journal of Marketing Technology, 10(4), 23–39.

Marketing Evolution (2022). What is AI marketing? A complete guide.https://www.marketingevolution.com/marketing-essentials/ai-marketing

Martin, K., Shilton, K., & McCaffrey, S. (2019). Privacy and data security in AI-powered marketing. Journal of Business Ethics, 128(3), 705-720.

Mabaso, M., & Makhitha, K. (2019). Student price sensitivity and digital marketing strategies in South Africa. Journal of Consumer Studies, 3(1), 45–61.

Mpinganjira, M. (2018). Brand relevance and student consumer loyalty. South African Journal of Business Research, 9(2), 67–81.

Mthembu, T., & Dlamini, S. (2021). AI integration in e-commerce and student purchase behavior. Journal of African E-Commerce Studies, 5(3), 78–92.

Mishra, S., & Rana, N. P. (2022). Conversational AI in student engagement: Chatbots and voice assistants. International Journal of AI Applications, 7(2), 55–72.

Okonkwo, P., Eze, U., & Nwankwo, C. (2022). AI chatbots and trust in Nigerian e-commerce. Journal of African Digital Marketing, 4(1), 33–51.

Olatunji, F., & Hassan, M. (2021). AI-based advertising and youth purchase intentions in Nigeria. Nigerian Journal of Marketing, 7(2), 21–39.

Overgoor, J., Grandinetti, R., & Kim, S. (2019). AI in marketing: Emerging tools and applications. Journal of Business Analytics, 6(1), 101–119.

Pentina, I., & Tarafdar, M. (2014). Role of AI personalization in digital consumer behavior. Journal of Internet Commerce, 13(3), 256–272.

Raut, R., Govindarajan, V., & Veer, I. (2022). Real-time targeting and student consumer engagement. Journal of Digital Marketing Research, 5(1), 11–29.

Singh, A., & Mehta, R. (2021). Predictive analytics and student consumer behavior in India. Indian Journal of Marketing, 51(3), 77–93.

Singh, S., & Srivastava, P. (2020). Trust and AI adoption in digital marketing. Journal of Marketing Intelligence, 8(2), 45–61.

Sterne, J. (2018). Social media metrics: How to measure and optimize your marketing investment. Wiley.

Uzo, A., & Nwokporo, C. (2023). Generative AI and customer service personalization in Africa. African Journal of AI Research, 2(1), 1–19.

Vrontis, D. (2021). Marketing automation and digital engagement in student populations. Journal of Marketing Development, 14(2), 99–115.

Vitali, S., & Agustí, M. (2024). Emerging digital technologies and auditing firms: Impacts and implications. Journal of Emerging Technologies in Accounting, 21(1), 1–15.

Wang, Y., & Zhao, X. (2022). Agile AI marketing and consumer retention. Journal of Business Strategy, 43(1), 21–39.

Wedel, M., & Kannan, P. K. (2016). Marketing analytics for AI-driven personalization. Journal of Marketing Research, 53(4), 1–20.

Xu, Y. (2025). Precision AI marketing and student purchasing behavior. Journal of Digital Marketing Studies, 12(1), 34–52.

Zhang, J., Luo, H., & Wei, X. (2020). AI-driven personalized recommendation systems: A comprehensive overview. Computer Science Review, 38, 105-120.

APPENDIX

QUESTIONNAIRE

Department of Marketing,
Faculty of Management Sciences,
University of Benin,
Benin City.

Dear Respondent,

I am SOPHIA, a final-year student in the Department of Marketing, Faculty of Management Sciences, conducting a research study titled *"The Effects of Artificial Intelligence (AI) Marketing on Students' Patronage of Products at the University of Benin."*

Your participation is highly valuable to the success of this study. Please be assured that all information provided will be treated with strict confidentiality and will be used solely for academic purposes. Kindly respond honestly to all questions, as your input will help generate meaningful findings and recommendations.

Thank you for your time and cooperation.

Yours faithfully,
SOPHIA
(Researcher)

Demographic Information

Please select the option that best describes you.

1. Gender:Male ( )Female ( )
2. Age Bracket:Below 20 years ( )20–25 years ( )26–30 years ( )Above 30 years ( )
3. Academic Level:100 Level ( )200 Level ( )300 Level ( )400 Level ( )
4. Faculty:Arts ( )Education ( )Engineering ( )Environmental Sciences ( )Law ( )Life Sciences ( )Management Sciences ( )Pharmacy ( )Physical Sciences ( )Social Sciences( )Other: _____ ( )

RESEARCH QUESTION

Scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

S/N	**Statement**	**1**	**2**	**3**	**4**	**5**

	Human-Centered Design (HCD)					
1	The AI-based marketing platforms I use are easy to navigate.					
2	I find AI-driven product recommendations user-friendly.					
3	The design of AI marketing tools makes my shopping experience more convenient.					
4	AI applications used in marketing are intuitive and easy to understand.					
5	I am satisfied with the overall usability of AI-driven marketing systems.					
	Perceived Safety (PS)					
6	I feel that my personal information is protected when using AI-enabled marketing platforms.					
7	AI-driven marketing reduces the risks I face when making online purchases.					
8	I trust AI systems to handle my data safely.					
9	Using AI in marketing increases my confidence in online transactions.					
10	I believe AI marketing systems are designed to minimize risks for customers.					
Reliability (REL)	R**R**					
11	AI marketing tools provide product					

	recommendations that are usually accurate.					
12	The information provided by AI marketing systems is consistent over time.					
13	I can rely on AI-driven promotions to meet my expectations.					
14	AI-powered marketing campaigns give dependable product suggestions.					
15	AI-based platforms regularly provide reliable information about products and services.					
Transparency (TR)						
16	AI-driven marketing platforms clearly explain why certain products are recommended to me.					
17	I understand how AI systems determine product advertisements shown to me.					
18	The operations of AI-based marketing are open and transparent.					
19	AI marketing platforms provide clear information on how my data is used.					
20	I feel that AI-driven recommendations are transparent and fair.					
Security (SEC)						
21	AI marketing platforms ensure my transactions are secure.					

22	I feel protected from fraud when using AI-enabled marketing systems.					
23	My confidential information is kept safe on AI-driven marketing platforms.					
24	I believe AI applications in marketing have strong security measures.					
25	Security features of AI marketing tools encourage me to use them more frequently.					
Student Patronage (SP)						
26	I frequently purchase products recommended through AI marketing.					
27	AI-driven marketing encourages me to remain loyal to certain brands.					
28	I actively engage with promotions powered by AI marketing.					
29	AI marketing influences my decision to purchase products more often.					
30	I am more likely to recommend products marketed through AI systems to others.					

Thank you