ADDIS ABABA UNIVERSITY, SCHOOL OF COMMERCE
DIGITAL MARKETING WITH SPECIALTY IN E-COMMERCE POSTGRADUATE PROGRAM

THE EFFECT OF AI-DRIVEN B2C E-COMMERCE PERSONALIZATION ON CUSTOMER PURCHASE INTENTION: CASE STUDY ON *SHEIN.COM* CUSTOMERS IN ADDIS ABABA, ETHIOPIA

BY: - NEBIYU TAYE

A Thesis Submitted to the Department of Marketing Management in Partial Fulfillment for the Award of Master of Science Degree in Digital Marketing with Specialty in E-commerce

Advisor: Hailemariam Kebede (PhD)

JUNE 2024

ADDIS ABABA, ETHIOPIA

APPROVAL SHEET

THE EFFECT OF AI-DRIVEN B2C E-COMMERCE PERSONALIZATION ON CUSTOMER PURCHASE INTENTION: CASE STUDY ON SHEIN.COM CUSTOMERS IN ADDIS ABABA, ETHIOPIA

BY: - NEBIYU TAYE

Signature and Date

Approved By the Board of Examiners and Advisors:

---	---
Advisor	***Signature and Date***
---	---
Internal Examiner	***Signature and Date***
---	---
External Examiner	***Signature and Date***
---	---
Department Chairperson	***Signature and Date***
---	---
Dean of College	***Signature and Date***

Declaration

This section provides an introduction to my originality of my works. When others are involved, I will make every effort to clearly disclose this information, refer to relevant documents, and welcome collaborative research and discussion. Information obtained from published or unpublished articles is indicated in the text with sources indicated. I declare that this is my original research and that I have not completed graduate studies at any other institution. This study was carried out under the supervision of **Hailemariam Kebede (PHD)** Department of Marketing Management, Addis Ababa University.

Researcher's full Name (Declared by):

By: - **Nebiyu Taye**

Signature:_____Date: _____

Statement of Certification

This is to certify that Nebiyu Taye has carried out this thesis work on the topic entitled with "THE IMPACT OF AI-DRIVEN B2C E-COMMERCE PERSONALIZATION ON CUSTOMER PURCHASE INTENTION: CASE STUDY ON SHEIN.COM CUSTOMERS IN ADDIS ABABA, ETHIOPIA" under my supervision. This work is enough for submission for the partial fulfillment for the award of Master of Science Degree in Digital Marketing with Specialty in E-commerce.

Advisor: Haile Mariam Kebede (PHD): Signature_____Date_____

Acknowledgement

First, I would like to thank God for the strength and overall assistance He gave me throughout the research process. His support helped me navigate this special time.

I would also like to express my deepest gratitude to my advisor, Haile Mariam Kebede (Ph.D.), for his valuable advice, constant encouragement, dedication, and creative guidance. His important words and relationships from the beginning have been instrumental in this journey.

I extend my heartfelt thanks to the respondents, specifically the SHEIN.com users in Addis Ababa, Ethiopia, for their invaluable support, advice, and endless encouragement, even when I felt discouraged. Their patience and understanding were greatly appreciated in preparing this study.

Finally, I would like to thank my family and friends for their support and encouragement, including my sister Sara Taye, who has helped me a lot even though she is distant from me, and my lifetime supporter Bethelhem Sisay for her relentless assistance.

Table of Contents

Abbreviation

AI - Artificial Intelligence
EFT - Electronic Funds Transfer
B2C - Business-to-Consumer
NLP - Natural Language Processing
GA - Genetic Algorithm
ANN - Artificial Neural Network
GAN - Generative Adversarial Network
B2B - Business-to-Business
ADB - Asian Development Bank
TAM - Technology Acceptance Model
TPB - Theory of Planned Behavior

List of Tables

List of Figures

Abstract

The main objective of this study is to investigate the effect of AI driven ecommerce personalization on the purchasing intentions of Shein.com customers in Addis Ababa, Ethiopia. The study focused on three key dimensions of AI driven ecommerce personalization: product recommendation, pricing offers, and marketing message. A mixed method (quantitative and qualitative) research approach was used to determine the impact of these personalization strategies on customer buying behavior.

Descriptive and explanatory research designs were employed, and a sample of 352 respondents was selected using non probabilistic (purposive) sampling techniques. Data was collected through a questionnaire utilizing a 5-point Likert scale and analyzed using SPSS.

The findings revealed that Shein.com customers come from diverse economic backgrounds and exhibit varied shopping frequencies. The analysis demonstrated a significant relationship between AI driven personalized product recommendations and customer purchase intentions, with AI driven personalized product recommendations having the strongest impact, followed by personalized pricing offers and personalized marketing message. These results underscore the effectiveness of AI driven personalization in influencing buying decisions in the context of the rapidly growing ecommerce market in Ethiopia.

This suggests that when ecommerce sites effectively utilize AI to tailor product suggestions to individual preferences, it greatly enhances the likelihood of purchase. Personalized pricing offers like ‘buy-one-get-one-free’ also positively impact buying decisions by creating a sense of value and exclusivity, while personalized marketing messages fairly keep customers engaged and encourage repeat visits.

Keywords: AI driven ecommerce personalization, Customer purchase intention, Shein.com, Product recommendation, Pricing offers, Marketing message, Buying behavior, Shopping frequencies, Personalized product recommendations, Personalized pricing offers, Personalized marketing messages, Ecommerce market, Buying decisions, Customer engagement

CHAPTER ONE

INTRODUCTION

1.1. Background of the Study

E-commerce, at its core, involves the buying and selling of goods and services over the internet, transcending geographical and temporal barriers (Anna Goy et al., 2007). It encompasses a wide range of commercial transactions, integrating technologies such as mobile commerce, electronic funds transfer, supply chain management, internet marketing, and online transaction processing. Within e-commerce, two main branches exist: B2B and B2C. B2B e-commerce involves transactions between businesses, characterized by large volumes and complex processes. Key players include manufacturers, wholesalers, and distributors, with a focus on supply chain management, bulk pricing, and customized products. On the other hand, B2C e-commerce focuses on direct sales to end consumers, emphasizing customer engagement, individualized marketing, and user-friendly interfaces.

The constant and effective connection between the partners substantially facilitates business contacts at the corporate level (B2B). For example, the ability to place orders and track their fulfillment as well as the automated supply chain management facilitate effective management of business dealings between remote service providers and lower production and delivery costs.

Customers can buy products and services at any time, wherever in the world, on an individual basis (B2C). For example, millions of consumers use electronic catalogs like the online store Amazon to make purchases of goods and services, or they utilize electronic marketplaces like ebay to publish products and place orders (Anna Goy et al., 2007)

E-commerce can further be classified into service-based and product-based categories. Service-based e-commerce platforms offer intangible goods such as digital products, educational courses, or booking services, prioritizing convenience, speed, and accessibility. On the other hand, product-based e-commerce deals with tangible goods like electronics, clothing, or home goods, relying heavily on logistics, product presentation, and quality assurance.

Personalization is a key aspect of e-commerce. It refers to tailoring the shopping experience to individual customers through customized product recommendations, customized pricing offers and personalized marketing messages. Traditionally, personalization has relied on segmentation

and rule-based systems, where customers are categorized into groups based on demographics or past behaviors, and content is tailored accordingly (Sumitha K., 2022). However, with the advent of artificial intelligence (AI), personalization strategies have been revolutionized AI-driven strategies leverage machine learning, predictive analytics, and Natural Language Processing (NLP), to offer real-time, highly personalized shopping experiences. These strategies analyze vast amounts of data to provide more accurate and dynamic customer engagement.

Since the 1970s by using knowledge-intensive user models, researchers and developers of intelligent tutoring systems have been guiding individualized instructional interactions with learners. This could be clear evidence that content adaptation is certainly not a recent innovation (Alpert, S.R., Karat, J., Karat, C-M., Brodie, C., & Vergo, J.G. , 2003; D. Sleeman and J.S. Brown, 1982).

Numerous artificial intelligence (AI) methods and instruments, such as genetic algorithms (GAs), artificial neural networks (ANNs), fuzzy set theory, and other machine learning techniques like generative adversarial networks (GANs) or predictive analytics (Luce, 2019), have also been successfully implemented in the apparel manufacturing industry (Jelil, 2018). These methods have been shown to be the most appropriate and successful in the fashion industry because of their ability to handle complex relationships and dependencies within data as well as uncertainties relating to human factors, including consumer behavior, the expertise of designers and professionals, sensory quality attributes, and more (Thomassey & Zeng, 2018). This research will also concentrate on product-based e-commerce, examining how personalization influences purchasing decisions.

In Ethiopia, the B2C ecommerce landscape has been evolving rap idly, reflecting a global trend towards online shopping. Notable platforms such as SHEIN.com, Jiji and Alibaba have become household names among Ethiopian customers. These platforms cater to a wide array of customer needs, ranging from clothing and electronics to household utensils. The popularity of these platforms can be attributed to their ability to provide a diverse range of products that align with the preferences and necessities of Ethiopian customers. Moreover, the convenience of online shopping, coupled with the ability to access a global marketplace, has significantly influenced the purchasing behavior of Ethiopian customers. This shift in customer behavior underscores the importance of understanding how these platforms manage to retain customer interest and loyalty.

One of the key strategies employed by these ecommerce platforms is the use of AI-driven personalization. This involves offering tailored suggestions, individualized offers, and personalized marketing communications to enhance customer engagement and purchase intention. For instance, customers who frequently purchase certain types of products may receive targeted discounts or personalized product recommendations. Similarly, regular buyers might be enticed with special offers or exclusive deals. These personalized experiences are not just about promoting sales; they also aim to create a sense of value and recognition among custo mers, making them feel that their individual preferences and interests are being acknowledged and catered to. Such strategies are pivotal in shaping customer purchase intentions and are particularly relevant in the Ethiopian context, where ecommerce is still an emerging yet rapidly growing sector. customers are increasingly adopting computers and internet connections in Ethiopia; according to DataReportal's data from the Digital 2023 report, there were 20.86 million internet users in Ethiopia in January 2023, or 16.7% of the country's total population. Ethiopia had 66.80 million active mobile phone connections in total that year, which is equal to 53.5 percent of the country's entire population. According to Kepios, a strategic marketing firm that works closely with DataReportal to produce the Global Digital Reports, the number of internet users in Ethiopia climbed by 520 thousand (+2.6%) between 2022 and 2023.

Furthermore, a considerable number of adults use the Internet daily for job or pleasure purposes, and they are spending less time watching TV and going shopping in person. These individuals present a prospective target market for online advertising and e-commerce.

As the e-commerce landscape in Ethiopia undergoes rapid evolution, this research strategically narrows its focus to Addis Ababa, the nation's capital, and centers on the widely utilized B2C platform SHEIN.com. The decision to concentrate on Addis Ababa is informed by its pivotal role as a hub for business and technological advancements within the country. The high popularity of SHEIN.com, coupled with its relative cheaper pricing offers and its distinction as one of the few platforms offering direct shipping to Addis Ababa, positions it as a key subject for investigation. One of the key strategies employed by these ecommerce platforms is the use of AI-driven personalized marketing.

1.2. Statement of the Problem

In the dynamic landscape of e-commerce, the evolution of personalization strategies, particularly in B2C product-based platforms, has become a focal point of investigation. While traditional personalization methods have relied on segmentation and rule-based systems, the integration of artificial intelligence (AI) has ushered in a new era of highly dynamic and real- time customization Globally, the introduction of AI-driven customization in B2C ecommerce has completely changed the way people shop. It is unclear, nevertheless, how this kind of customization affects consumers' intents to make purchases, especially in the Ethiopian market. The objective of this study is to look into how customers in Addis Ababa, Ethiopia are impacted by AI-driven personalization tactics used by the specific B2C ecommerce platform, SHEIN.com.

The problem at hand lies in understanding the specific impact of AI-driven personalization on consumer purchase intention within the realm of B2C product -based e-commerce. This would take us to raise important questions that need to be addressed. Does personalization on an ecommerce website – SHEIN.com in our case, really benefit customers and make them purchase? Which specific personalization feature enhance customer purchase intention (shopping experience) on ecommerce websites? By focusing on the intersection of AI, personalization, and customer purchase intention, this research seeks to contribute valuable insights that can inform businesses looking to optimize their online strategies in this emerging market. Policymakers and researchers in the ongoing evolution of the e-commerce landscape are also thought to gain from this research.

1.3. Research Questions

1.3.1. Main Research Questions

How does AI-driven personalization in B2C e-commerce impact purchase intention, in the case of SHEIN.com customers in Addis Ababa, Ethiopia?

1.3.2. Sub-Research Questions

I. To what extent does AI-driven personalized product recommendation influence customer purchase intention, in the case of SHEIN.com customers in Addis Ababa, Ethiopia?

II. What impact does AI-driven personalized pricing offer have on customer purchase intention, in the case of SHEIN.com customers in Addis Ababa, Ethiopia?

III. How does AI-driven personalized marketing message affect the purchase intention of a customer, in the case of SHEIN.com customers in Addis Ababa, Ethiopia?

1.4. Objectives of the Study

1.4.1. General Objective of the Study

The general objective of the study is to examine the impact of AI-driven personalization in B2C ecommerce platforms, in the case of SHEIN.com customers in Addis Ababa, Ethiopia.

1.4.2. Specific Objectives of the study

I. To evaluate the impact of AI-driven personalized product recommendation on customer purchase intention, in the case of SHEIN.com customers in Addis Ababa, Ethiopia.

II. To investigate the effect of AI-driven personalized pricing offer on customer purchase intention, in the case of SHEIN.com customers in Addis Ababa, Ethiopia.

III. To examine the role of AI-driven personalized marketing messages on customer p urchase intention, in the case of SHEIN.com customers in Addis Ababa, Ethiopia.

1.5. Significance of the Study

This study is significant as it provides insights into the rapidly evolving ecommerce sector in Ethiopia, a market with unique characteristics and potential. The findings will benefit online retailers by highlighting effective AI personalization strategies that resonate with Ethiopian customers. Businesses operating in this emerging market stand to gain valuable insights that can guide the optimization of their online strategies. The dyna mic interplay between AI-driven personalization and customer purchase intention, as explored in this study, offers a strategic lens for businesses to enhance user experiences, tailor marketing efforts, and ultimately, strengthen their competitive edge.

Policymakers invested in the progression of the e-commerce sector will find merit in this research. By understanding the intricate relationship between AI-driven personalization and consumer behavior, policymakers can formulate informed regulations and initiatives that foster a conducive environment for the growth of digital commerce. The study aims to contribute to the formulation of policies that support innovation, consumer protection, and the overall sustainability of the e-commerce ecosystem in Ethiopia. Moreover, this research can contribute to academic literature by filling the gap regarding the influence of AI personalization in emerging markets like Ethiopia.

1.6. Scope of the Study

The study, situated within the conceptual scope of Machine Learning, Natural Language Processing, and predictive analytics, meticulously explores the impact of AI-driven personalization techniques on consumer purchase intentions in the realm of B2C ecommerce.

With a targeted focus on customers in Addis Ababa, Ethiopia navigating the renowned international ecommerce platform SHEIN.com, the research scrutinizes the intricate dynamics of AI technologies. The methodological approach involves quantitative method, employing a survey to delve into the experiences of users. Notably, the independent variables considered encompass; AI-driven personalized product recommendations, pricing offers, and marketing messages.

1.7. Organization of the Study

The thesis is organized into five chapters to systematically explore the impact of AI -driven personalization on customer purchase intention. In Chapter One, an introduction encompasses the background, problem statement, objectives, research questions, hypo thesis, significance, scope, and overall structure of the study. Chapter Two conducts a comprehensive review of related literature, establishing a theoretical foundation within the broader academic discourse. Chapter Three will outline the research methodology, detailing the design, data collection methods, sampling techniques, and analysis procedures. Chapter Four presents and analyze the collected data, employing statistical tools and qualitative insights to examine the relationship between AI-driven personalization and customer purchase intention. Finally, Chapter Five concludes the thesis by summarizing key findings, drawing conclusions, and providing actionable recommendations for businesses, policymakers, and future research.

CHAPTER 2

REVIEW OF RELATED LITERATURE

2.1. Theoretical Literature Review

2.1.1. Theoretical Models Used as a Foundation for the Study

The theoretical foundation of this study is grounded in two widely recognized models: the Technology Acceptance Model (TAM) and the Theory of Planned Behavior (TPB). Developed by Davis (1989), TAM posits that perceived usefulness (PU) and perceived ease of use (PEOU) are the primary determinants of individuals' intentions to use a technology, which in turn predict actual usage. PU refers to the degree to which a person believes that using a technology will enhance their performance, while PEOU is the degree to which a person believes that using a technology will be free of effort. In the context of AI-driven e-commerce personalization, TAM suggests that if consumers perceive personalized features as useful and easy to use, they are more likely to develop positive intentions towards using these features, ultimately influencing their purchasing decisions.

On the other hand, TPB, proposed by Ajzen (1991), extends the Theory of Reasoned Action (TRA) by incorporating perceived behavioral control (PBC) alongside attitudes and subjective norms as predictors of behavioral intentions. TPB posits that attitudes (A) towards a behavior, subjective norms (SN), which are the perceived social pressures, and PBC, which reflects the perceived ease or difficulty of performing the behavior, all influence behavioral intentions. In this study's context, TPB implies that consumers' purchase intentions are shaped by their attitudes towards personalized e-commerce features, social influences, and their perceived control over using these features.

By integrating TAM and TPB, this study provides a comprehensive framework to understand the factors that drive consumer acceptance and use of AI-driven personalized e-commerce features, highlighting how both technology-specific perceptions and broader behavioral influences collectively impact purchasing behavior. This integration allows for a more holistic analysis of consumer behavior in the realm of AI-driven e-commerce personalization.

2.1.2. Meaning of Artificial Intelligence

Artificial Intelligence (AI) is a cutting-edge technology that empowers computer systems to perform tasks that typically require human intelligence, such as learning, problem -solving, and decision-making. In the context of e-commerce, AI plays a pivotal role in revolutionizing the way businesses operate online. The question of how much a computer can replace a human worker in a task, either fully or partially, gave rise to the idea of artificial intelligence (Weber, F. and Schütte, R., 2019) Information processing for natural

language communication, information storing and presentation, automatic reasoning (using stored knowledge to generate new hypotheses and answers), machine learning to adjust to changing conditions, and the ability to identify novel behavioral patterns are all desirable features for artificial intelligence systems 25 (Fedorko, R., Kráľ, Š. and Bačík, R., 2022).

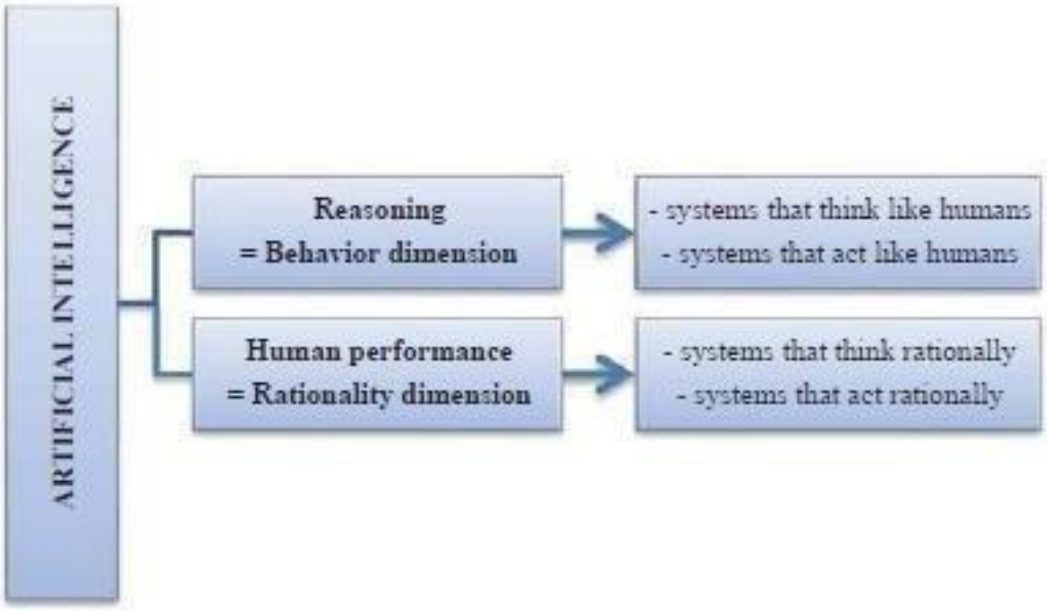

Figure 1 Dimensions of Artificial Intelligence (Russell SJ and Norvig P, 2016)

Artificial Intelligence (AI) made significant strides in 2016, advancing not only in machine learning but also in public awareness. This trend is expected to continue, with most marketers believing that consumers are now ready for the technology (eMarketer, 2017).

2.1.3. Theoretical Models in E-Commerce Personalization

2.1.3.1 Personalization-Privacy Paradox

E-commerce applications come with user-friendly ordering systems that let clients select and place orders for goods based on their own, customized needs (Sundaram, B.B., Sowjanya, M.S., Andavar, V. and Reddy, N.R., 2018). When it comes to personalized online experiences in e-commerce, we are faced with a bit of a puzzle. It is like a seesaw – on one side, we have the wonderful aspect of having AI provide recommendations and services that are tailored just for each one of us. However, on the other side, there is that nagging concern about privacy. We know the worry that our personal info might be floating around where it should not be.

Here is where the concept of privacy calculus comes into play. Imagine if one is deciding if it is worth sharing their preferences and habits for better recommendations. It is a bit like deciding if the benefits of a personalized online shopping spree outweigh the potential risks to their privacy. In literature, it has been effusively noted that personalization is partly dependent on consumers'

Willingness to share their personal information and use personalized services whereas the consumers like to receive and/or obtain these services by giving out as little information as they could (Xu, H., Luo, X.R., Carroll, J.M. and Rosson, M.B., 2011).

2.1.3.2. Sociotechnical Systems Theory

The Sociotechnical Systems Theory is a comprehensive methodology that emphasizes the seamless integration of social and technical elements into organizational structures. Socio-technical systems theory refers to a set of specialized joint optimization techniques for designing systems that exhibit open system qualities, making them more resilient to competition, change, and complexity in the environment (Michael Sony, Subhash Naik, 2020).

Sociotechnical Systems Theory plays a key role in B2C platform optimization by improving customized experience design and functioning. Platforms may explore different aspects of how technology systems interact with the many behaviors and preferences of ind ividual customers within the larger societal context by utilizing this approach (Blount, Y., Castleman, T., & Coulthard, D., 2005)

2.1.3.3. Decision Tree Models

A tree has many analogies in real life, and turns out that it has influenced a wide area of machine learning, covering both classification and regression. In decision analysis, a decision tree can be used to visually and explicitly represent decisions and decision -making. As the name goes, it uses a tree-like model of decisions. Decision tree is a commonly used tool in data mining for deriving a strategy to reach a particular goal. It is also widely used in machine learning. A decision tree is drawn with its root at the top and turned upside down. In the figur e on the left, each bolded word in black stands for an internal node or condition that determines how the tree divides into branches and edges. The decision or leaf is where the branch ends that no longer splits (Prashant Gupta, 2017).

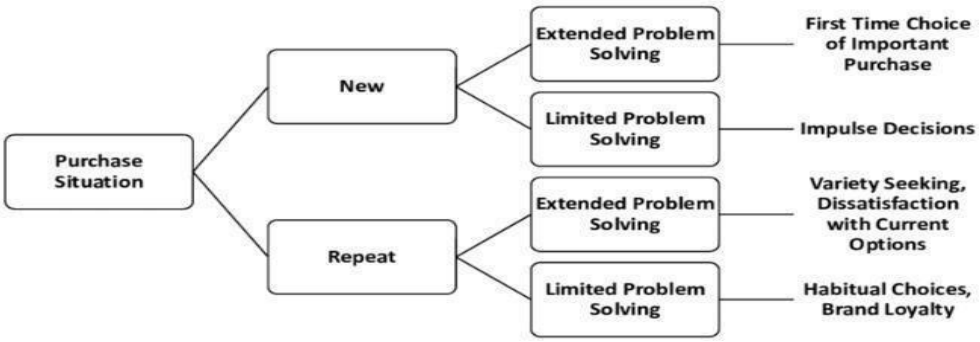

Figure 2 Sample decision tree on consumer decisions. (Holdford, David, 2018)

Decision Trees model is a widely used classification algorithm since it is easy to use with high accuracy. Since the value to be predicted is binary, the decision tree is the optimal machine learning algorithm to use (Sulim Kim et al., 2022).

2.1.3.4. Predictive Analytics

AI can evaluate prospects (customers) based on their propensity to buy (high -quality leads) with the aid of predictive systems (Järvinen, J. and Taiminen, H., 2016), respond to frequently asked queries and help customers overcome objections by leveraging emotion AI (Paschen et al. 2019), and automate and expedite the checkout process (Campbell et al. 2020). Leading e-commerce businesses such as Amazon have included language-assisted ordering through their Amazon Echo system (Holmqvist et al. 2017). Complicated artificial intelligence models are employed in retail assortments (Shankar V 2018), sales forecasting (Dwivedi et al. 2019), and search, suggestion, pricing, and promotion personalization (Montgomery AL, Smith MD, 2009). AI can provide individualized and pertinent information on a range of devices and automate service interactions (Bock et al. 2020).

Through the establishment of connections between various client data points such as previous purchases, demographics, social media attitudes, and online behavior, predictive analytics facilitates continuous and comprehensive analysis of customer data. In the fiercely competitive realm of contemporary e-commerce, where personalization is a key differentiator, the integration of predictive analytics and big data e-commerce solutions is instrumental. This synergy empowers businesses to enhance the personalization of each customer's online buying experience, leveraging insights derived from data analysis to cater to individual preferences and expectations. The result is a more dynamic and responsive approach to customer engagement, contributing to the overall success and competitiveness of e-commerce enterprises in the rapidly evolving market **(**itransition, 2022**).** Similar to other machine learning approaches, predictive

analytics employs an algorithm, which is a statistical method that consists of two stages: training and prediction.

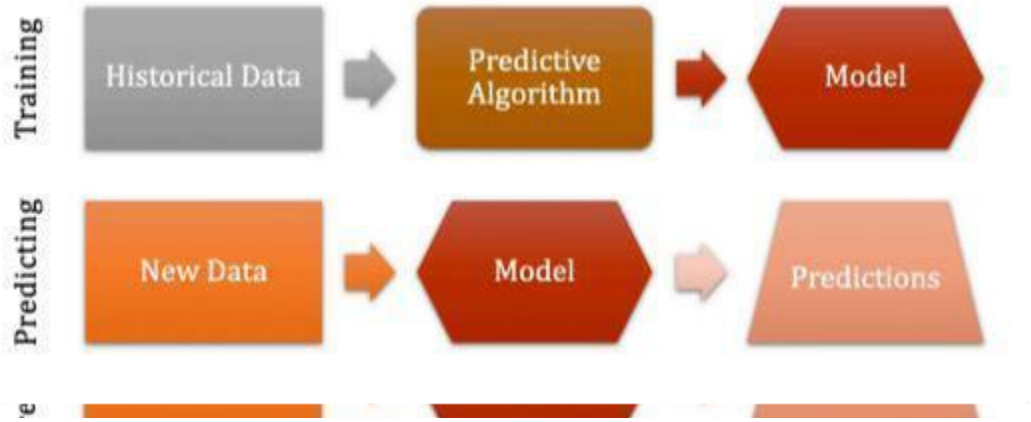

Figure 3 The training process within predictive analytics (Luce, L., 2019).

2.2. Research Hypothesis

H-1: AI-driven customized product recommendation has a positive and significant impact on customer purchase intention.

H-2: AI-driven customized pricing offer has a positive and significant impact on customer purchase intention.

H-3: AI-driven personalized marketing messages has a positive and significant impact on customer purchase intention.

2.3. Empirical Literature Review

2.3.1. E-commerce in the Ethiopian Context

A nation's social and economic development is significantly influenced by e-commerce. We all understand the importance of e-commerce in various aspects of human existence, but we also recognize the risks associated with it. In the realm of e-commerce, a platform involves more than two parties. The future impact of electronic commerce on trade and industry is expected to be substantial, affecting aspects that are currently difficult to grasp. It is still viewed as a double - edged blessing in many nations, with promises of progress and concerns about risks (Singh, 1999). Businesses are adopting e-commerce to enter new markets, enhance customer satisfaction, reduce expenses, increase productivity and efficiency (Wenninger, 1999).

According to Straub (2010), developing nations have lagged behind in the early stages of technology acquisition due to a variety of factors, including ineffective knowledge use, low firm investment in technology acquisition, a lack of policies supporting the advancement of these technological areas, and the high cost of importing technology.

Ethiopia is trailing behind the rest of the world in the usage of e-commerce services, despite their widespread use elsewhere. E-commerce can provide a range of possibilities for the first time for nations like Ethiopia. Since the banking industry in Ethiopia began utilizing SMS services and electronic banking a few years ago, internet marketing has significantly improved. These initiatives support users' increased access to the internet and their gr owing usage of it as a vital information source (Gelata, F. T., Gemada, S. C., & Han, J., 2022).

2.3.2. Barriers of E-commerce in Ethiopia

E-commerce has emerged as a transformative force in the global economy, revolutionizing the way businesses operate and consumers engage in transactions. E -commerce has an impact that extends beyond commercial activities. It has a significant influence on a ll facets of human civilization, including government operations, employment and production (Sundaram, B.B., Sowjanya, M.S., Andavar, V. and Reddy, N.R., 2018). However, in the context of Ethiopia, this digital revolution faces great challenges and barriers that impede its widespread adoption and success. Despite the country's increasing internet penetration, the barriers of e -commerce in Ethiopia are multifaceted, encompassing issues such as limited access to digital infrastructure, financial constraints, regulatory hurdles, and cultural considerations.

2.3.3. Poor Telecommunication and Infrastructure Facility

The traditional methods of conducting business across all types of enterprises worldwide are rapidly changing due to the widespread usage of the Internet for online transactions. E -commerce advances businesses because it is driven by the belief that the Internet can lower transaction costs by minimizing the need for intermediaries and making connections to the market easier (Kelela Tilahun, Mesfin Kifle, 2020).

The digital landscape in Ethiopia presents a notable challenge for the widespread adoption of e - commerce, as highlighted by the 2023 population and internet statistics from IWS. With a population of nearly 120 million, the country's potential consumer base is substantial. However the alarming reality becomes apparent when considering that just 17.7% of Ethiopians have internet access. This significant digital gap highlights the pressing need for investments in digital infrastructure to increase internet accessibility. Since most

people are still not connected, closing this huge gap is essential to developing a more diverse and vibrant e-commerce sector in Ethiopia.

In any nation, expanding the ICT infrastructure is the only method to enhance the state of e - commerce. The study conducted in Ethiopia yielded data that indicated that the obstacles to e - commerce in online clothing product buying are the absence of in -person engagement with an item, customers' fear of security and privacy risks, and a lack of e-commerce infrastructure. (Nagender, 2016).

2.3.4 Payment Collection

Digital payments offer users the flexibility to make payments remotely whenever it is convenient for them, which saves time and enhances the payment experience. This is in contrast to cash payments and bank and check deposits, which need users to visit a specific bank branch or utility provider during their assigned working hours. Regardless of the locations of the sending and receiving parties, digital payments may happen instantly. Real-time payments' ability to enable instant access is essential (National Bank of Ethiopia, 2021).

Regarding credit cards, Ethiopian banks do not provide them. Local financial institutions have just lately begun utilizing card banking and mobile apps for their principal online operations. For online purchases to be effective, there must be an internet connection in order to have an online payment service. One may launch an online store in a nation like Ethiopia by accepting payments via Cash on Delivery (COD) (Gelata, F. T., Gemada, S. C., & Han, J., 2022).

Digital payments may be a safer option than cash provided appropriate safeguards are implemented, even in the face of frequent cyberattacks and online fraud (National Bank of Ethiopia, 2021).

2.3.5. Consumer Behavior

Consumer behavior and awareness play a vital part in the progress of E-commerce business. The quality of E-services provided by the firms is critical in determining the extent to which consumers will engage (Isaac, 2016). “Consumer-brand personalization is a lot like dating: People don’t share everything about themselves early in the relationship. Unfortunately, what consumers say they want differs from what companies are actually delivering to people” (Jessica Liu, 2023).

Seventy-two percent of consumers have left their shopping carts empty on retailer websites and apps because they find the payment procedure time-consuming or have worries about online security, according

to Visa study conducted in 2019. Given the recent news headlines on numerous cyber-attacks, it is understandable why people are hesitant about entering personal information, especially credit card numbers. Few customers are aware of the dangers associated with internet buying; thus their concern is understandable (Javed, 2018).

Global practice demonstrates a shift toward specialized training programs that focus on skills that will probably be essential for people working in the digital economy (Asian Development Bank, 2019).

2.3.5. After Sales Service

After-sale service is a crucial component of the online retail industry. If the product is not satisfactory after it is sold to the consumer, a replacement plan or a procedure for receiving a return of money must be in place. The vital foundation of an e-commerce firm is after-sales support, which the e-commerce service provider should provide (Isaac, 2016).

“Following the Pareto principle, 80% of your revenue comes from your 20% most engaged customers. What is even more interesting is that just a 5% increase in retention can increase revenue by 125% and that 5% of your premium customers can generate up to 40% of your revenue! How to keep your customers engaged? The answer is simple: Provide stellar e-commerce after-sales service” (Marcin Chruszcz, 2023).

2.3.7. Taxation System

Ethiopian e-commerce is still in its early stages of development. The absence of a legal framework was the primary obstacle to Ethiopia's e-commerce industry's expansion. Just in 2020, Ethiopia made two significant advancements in e-commerce legalization and advancement to meet the demands of the global business landscape and digitalize its economy. Adopting the electronic transaction proclamation is the first action item. This would address the issue underlying the lack of legislation governing e-commerce. Adopting the "the digitalization of economy 2025" approach as a component of its prosperity ambitions is the second measure. A key factor in allowing our nation to benefit from the blossoming of e-commerce is the adoption of the proclamation that governs electronic transactions and the plan on the digitization of the economy 22 (Balcha, A., 2023).

Regardless of the country of origin of the products, Ethiopian importers bear an even greater load of paperwork for processing legal formalities with Ethiopian Revenue and Customs Authorities ERCA and other legal bodies. Small and medium-sized enterprises (SMEs) may bear the most of this burden. Chamberization would likely be a deal-breaker for businesses involved in e-commerce (Javed, 2018).

2.3.8. Overview of SHEIN.COM

Chris Xu founded SHEIN in 2008 in Nanjing, China, and it is well known for its affordably priced apparel. In the beginning, SHEIN was more of a drop shipping company than a shop. Rather than creating and producing clothing, the firm purchased its goods from Guangzhou wholesale marketplaces. Romwe, a Chinese retailer bought SHEIN in 2014, turning it into a "fully integrated retailer." Even if Amazon and other fast fashion shops offer low prices, a typical shirt at Zara may cost up to $30, while the identical item at SHEIN is only half as much. SHEIN also wants to make sure that all of its customers, no matter how rich or poor, can afford to enjoy fashion. Young customers are becoming more and more drawn to SHEIN because of its inexpensive costs. Women's gowns may cost as little as $10, and t-shirts as little as $5 (Jiaye Liu. 2022). SHEIN's low prices and fashionable products can attract buyers seeking a more cost -effective choice (Chehni, Y., 2023).

With an estimated turnover of USD 15.7 billion in 2021, SHEIN has become the next global fast fashion superstar. SHEIN has a market value of up to USD 100 billion, something that only a small number of high-tech unicorn companies—startups with a valuation of $1 billion or more— have accomplished.

2.3.9. Artificial Intelligence Application on Ecommerce

Because AI solutions are quicker, less expensive, and less prone to human error, researchers think they can enhance e-commerce business performance (Huang, M.H. and Rust, R.T., 2018; Canhoto, A.I. and Clear, F., 2020).

AI is able to analyze vast amounts of user-generated content—both written and unwritten—that are posted on social media platforms to identify the requirements, preferences, attitudes, and behaviors of users. For instance, the IBM Watson AI system can recognize psychographic traits in text to provide marketers with insightful information for the creation of new products or innovations (IBM, 2020). In order to analyze user experience, AI may find themes and patterns in user postings. This knowledge can then be utilized to develop user experience-enhancing tactics.

Additionally, it aids in the collection, classification, and analysis of external market knowledge— that is, information on external market dynamics and players that might affect consumer preferences and behavior (Kalia, P. and Paul, J., 2021).

By boosting satisfaction, strengthening bonds, customizing help, and offering recovery in the event of a service downtime, artificial intelligence (AI) can take the lead in customer care and support. "Service AI"

is the term used by researchers to describe the configuration of technology to offer value in both internal and external service contexts through flexible adaptation made possible by sensing, learning, decision-making, and actions (Bock et al., 2020).

2.3.10. Impact of Personalization on Customer Purchase Intention

Several studies have underscored the significant impact of personalized approaches in e-commerce and marketing. Smith and Linden (2017) demonstrated a notable 20% increase in sales for an online retailer through personalized recommendations, highlighting the effectiveness of tailoring product suggestions to individual preferences. Joo et al. (2019) further supported this notion in the apparel industry, showing that AI-driven personalization not only enhanced customer satisfaction but also increased repeat purchases, indicating its role in fostering customer loyalty.

Li and Karahanna (2015) found that personalized marketing messages significantly boosted customer engagement by aligning promotions with individual preferences, emphasizing the importance of relevance in marketing communications. Tam and Ho (2005) added that personalized pricing offers improved perceived value and purchase intention, although concerns over pricing transparency among consumers were noted. Sundar and Kim (2019) extended these findings by linking the perceived ease of use and usefulness of AI-driven personalization to increased customer satisfaction and purchase intentions, aligning with propositions from the Technology Acceptance Model (TAM).
Finally, Pavlou and Fygenson (2006) integrated insights from the Theory of Planned Behavior (TPB), highlighting that attitudes, subjective norms, and perceived behavioral control significantly influenced online consumer behavior influenced by personalized e-commerce experiences. Together, these studies provide empirical evidence of the varied benefits of personalized approaches in enhancing consumer engagement, satisfaction, and loyalty within the digital marketplace. It is impossible to proceed with personalization and user -adapted engagement without first gathering user data (Alpert, S.R., Karat, J., Karat, C-M., Brodie, C., & Vergo, J.G., 2003).

Alibaba has launched Fashion AI technology in an effort to increase sales. Consumers may upload images of products they wish to purchase to the Taobao e-commerce platform, and the platform will automatically look for items for sale that match the image (Simon JP, 2019). Similar to this, AI can gather real-time data by monitoring a customer's online behavior on their website or the websites of competitors in order to determine whether to offer a price reduction or search the company's database to see if those customers have accepted or rejected prior product recommendations (Canhoto, A.I. and Clear, F., 2020).

Research has shown that personalized experiences can lead to increased customer engagement, satisfaction, and loyalty. When customers feel that an online store understands their needs and interests, they are more likely to make a purchase. Seventy one percent of customers want personalized interactions from businesses, and 76% become unhappy when they do not.

Furthermore, customers may opt out more easily than ever before if they're unhappy with the service they receive—during the epidemic, 75% of customers changed brands, products, or methods of payment (McKinsey & Company, 2021).

Consumer desires for tailored experiences varies depending on where they are in the shopping process. Forty-three percent of customers value customization throughout the buy and usage phase, 47% find it delightful after making the purchase, and 38% of consumers value it during the discovery and research phase (Forrester's August 2022 Consumer Energy Index and Retail Pulse Survey). Businesses are mostly focused on offering individualized experiences before and during the purchase process, with 66% of respondents emphasizing on the product/service information stage, 62% during the purchase phase, and an additional 62% during the product introduction phase (Forrester, 2022).

2.3. Conceptual Framework

A conceptual framework diagram can show how an independent variable affects a dependent variable. For the purposes of this study, purchase intention of a customer is the dependent variable, while the independent variables are customized product recommendations, customized pricing offers and personalized marketing messages.

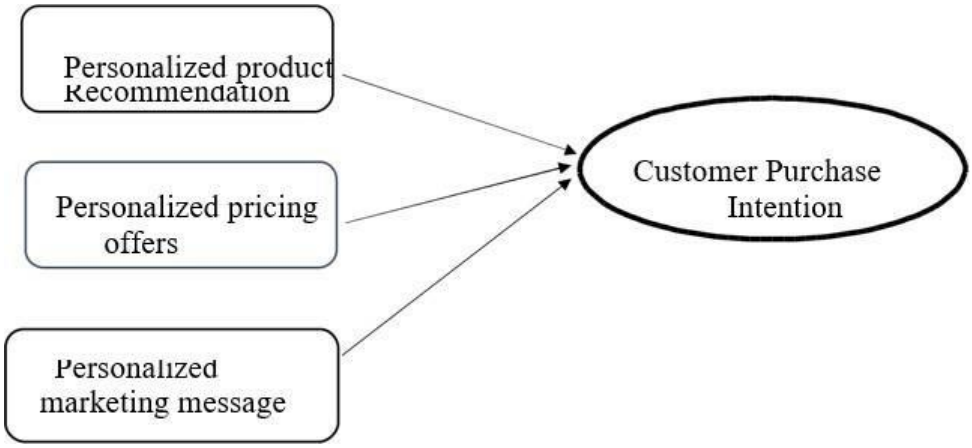

Figure 4 Conceptual framework (from theoretical and empirical review)

CHAPTER 3

RESEARCH METHODOLOGY

In this section of the study, the methodical strategy used to look at the relationships between customer purchase intention and AI-powered personalization techniques in business-to-consumer (B2C) e-commerce will be explored. The approach focuses on the viewpoint of Addis Ababa, Ethiopia, customers, and includes the development, use, and evaluation of our research framework. This section presents an explanation of the research design, sampling strategies, data collection methods, and how data was validated and how reliability is measured as well as the data analysis and presentation to obtain information about how customers perceive the influence of AI-driven personalization on their purchase decisions in the dynamic context of B2C e-commerce in Addis Ababa.

3.1 Research Design

This study adopts a mixed methods approach, combining descriptive statistics and qualitative interviews to explore the impact of AI driven ecommerce personalization on customer purchase intention. The quantitative component involves analyzing descriptive statistics from survey data, while the qualitative component consists of thematic analysis of interviews with selected Shein.com customers in Addis Ababa.

3.2. Research Approach

In this study, a mixed methods approach is adopted, combining both quantitative and qualitative research methods to comprehensively investigate the impact of AI driven personalization on customer purchase intentions. Qualitative methods involve gathering nonnumerical data through techniques such as interviews, observations, and open-ended surveys to explore the underlying reasons and meanings behind specific phenomena. These methods are particularly useful for gaining deep insights into customer experiences and behaviors and understanding the context and motivations behind their actions. On the other hand, quantitative methods are well suited for examining the relationships between variables, testing hypotheses, and providing statistically significant results. They involve collecting numerical data through structured surveys, experiments, or secondary data analysis, and using statistical techniques to analyze this data.

The quantitative component of this research measures the impact of AI driven personalization and quantifies customer behaviors, preferences, and purchase intentions. This approach allows for the examination of relationships between variables and provides valuable insights into the magnitude and direction of these impacts, contributing to a statistically robust understanding.

Additionally, the qualitative component involves conducting in depth interviews with selected Shein.com customers in Addis Ababa. This aims to gather rich, detailed data on customer experiences and perceptions of AI driven personalization, complementing the quantitative findings by providing a deeper understanding of the underlying reasons and motivations behind customer behaviors.

By integrating both quantitative and qualitative data, this study aims to provide a comprehensive analysis of how AI driven personalization strategies influence customer purchase intentions in the context of Shein.com in Addis Ababa, Ethiopia. This mixed methods approach leverages the strengths of both methodologies, ensuring a thorough investigation of the research topic.

3.3. Source of Data

Data for this study were collected through a structured questionnaire and in-depth interviews. The questionnaire data provided the basis for descriptive statistical analysis, while interviews offered qualitative insights into customer experiences and perceptions.

This research will primarily rely on the collection of primary data. To gather this data, the research plans to utilize digital methods by creating online forms that can be accessed and completed by participants through web-based platforms.

The digital method has been chosen to provide convenience and accessibility for participants. By utilizing this method, this research aims to gather a diverse range of responses that will contribute to a comprehensive understanding of the impact of AI driven personalization on customer purchase intention.

3.4. Target Population of the Study

This research intends to employ a non-probabilistic sampling approach, specifically focusing on B2C e-commerce customers utilizing the SHEIN.com platform in Addis Ababa, Ethiopia. Non - probabilistic sampling, also known as purposive sampling, allows for the intentional selection of participants based on specific criteria, in this case, their participation on the ecommerce platform, SHEIN.com.

This research relies on web traffic data for the platform SHEIN.com from SEMRUSH, which reported 9,400 website visitors from Ethiopia in December 2023. The assumption that SHEIN.com's 9,400 website visitors in Ethiopia, directly represent the number of unique customers in Addis Ababa is grounded in several considerations. Addis Ababa, being the capital city, is presumed to be a major representative of the country's technological advancement and e - commerce usage. Moreover, SHEIN.com's operational focus, with product shipments solely within Addis Ababa, contributes to this assumption.

This specific context aligns with the belief that the observed commercial and technological advancements in the nation's capital are indicative of broader patterns in other parts of the country, reinforcing the utility of the 9,400 website visitors as a valuable approximation for evaluating the potential SHEIN.com consumer base in Addis Ababa.

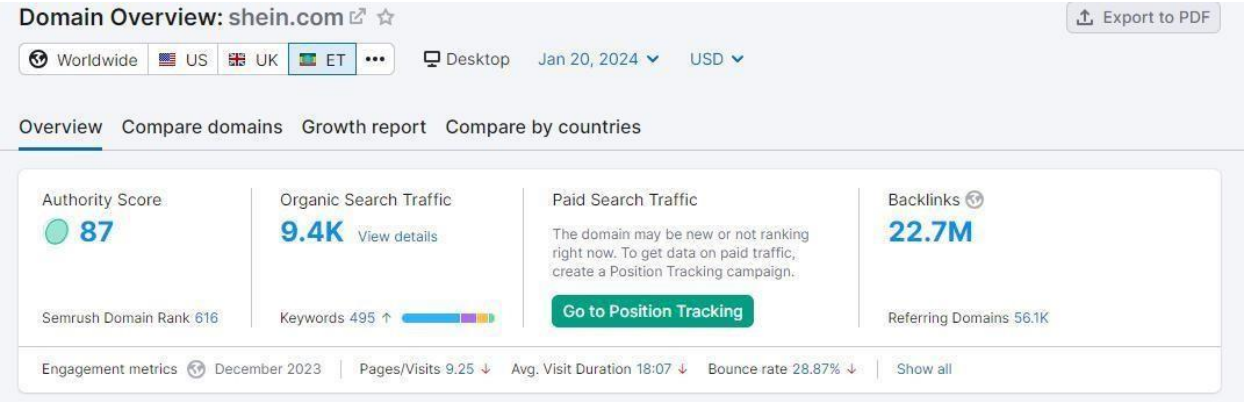

Figure 5 Web traffic data of SHEIN.com domain from Ethiopia (SEMRUSH, 2023)

3.5. Sample Size

A cut-off point was chosen in order to calculate the sample size using the finite population sample size determination formula since the number of populations under research is increasing every day. Using a statistical technique based on accuracy rate and confidence level, the sample size determination calculation was performed for a population of 9,400 typical web visitors as of December 2023, with a confidence level of 95% and a margin of error of 5%. The sample size for a population greater than 5,000 (infinite population) was found using the conventional method as shown below.

$$n = \frac{(1.96^2 * 0.5 * 0.5) * 9400}{(1.96^2 * 0.5 * 0.5) + (9400 - 1) + (9400 - 1) * 0.05^2} = 369$$

Consequently, the sample size for this investigation is **369**, rounded to the nearest whole number.

Where:

- n is the sample size
- Z is Z-score corresponding to the desired level of confidence (1.96 for a 95% confidence level)
- P is the estimated proportion of the population (if unknown, 0.5 is commonly used for maximum variability)
- E is the margin of error, typically determined by the precision required

The determination of sample size for the qualitative interviews was guided by empirical literature and the principle of data saturation. Guest, Bunce, and Johnson (2006) observed that saturation often occurs within the first 12 interviews, with core themes emerging as early as six interviews. Creswell (1998) suggests that phenomenological studies typically require up to 10 participants, while Marshall, Cardon, Poddar, and Fontenot (2013) reviewed qualitative research across disciplines and found that sample sizes often range from 15 to 30 participants. Mason (2010) emphasized that reaching saturation is key, wherein additional interviews yield little new information. Based on these studies, this research conducted approximately 15 interviews, continuously assessing for saturation.

Interview Process: Semi-structured interviews were conducted through Google Meet, an online platform suitable to conduct interviews with each session lasting between 30 to 45 minutes. An interview guide was used to maintain consistency across interviews while allowing participants the freedom to express their experiences in detail. Ethical considerations, including informed consent and confidentiality, were strictly followed to protect participants' rights and privacy.

3.6. Data Analysis Method

3.6.1. Quantitative data analysis

Descriptive statistics, such as averages, percentages, and frequency distributions, were utilized to summarize and describe the basic features of the dataset. SPSS was employed to generate tables and charts, providing a comprehensive descriptive statistical summary of the respondents' demographic characteristics. These statistics helped to provide a clear overview of the data and highlighted the key demographic trends within the sample.

Inferential statistics were used to draw conclusions and make inferences about the population based on the sample data. Techniques such as correlation analysis, t -tests, ANOVA, and regression analysis were applied using SPSS to determine relationships, differences, and potential predictors within the data. These analyses allowed for a deeper understanding of the underlying patterns and factors influencing customer purchase intentions.

This combined approach not only emphasized the importance of accuracy in data manipulation but also highlighted the systematic process used to extract significant insights from the collected data within the context of the study. By leveraging both descriptive and inferential statistics, the research provided a robust analysis that informed the study's conclusions and recommendation.

3.6.2. Qualitative data analysis

Interview transcripts were analyzed using thematic analysis. The coding process involved identifying key patterns and themes related to personalized product recommendations, pricing offers, and marketing messages. Themes were iteratively reviewed and refined to ensure accuracy and depth of understanding**.**

By combining descriptive statistics with thematic analysis of qualitative data, this study provided a robust and comprehensive analysis of the impact of AI driven personalization on customer purchase intentions. This mixed methods approach emphasized the importance of both quantitative accuracy and qualitative depth, ensuring a systematic process to extract significant insights from the collected data. The integration of both statistical summaries and detailed thematic insights informed the study's conclusions and recommendations, offering a well-rounded understanding of the research topic.

3.7. Validity and Reliability

3.7.1. Validity

In the context of this research, validity ensures that the data collection instruments, such as questionnaires or surveys, accurately represent the concepts of AI-driven personalization and customer purchase intention. The research design has been carefully developed to align with the specific objectives, employing robust methodologies to accurately measure the intended constructs of AI-driven personalization and customer purchase intention.

Thorough literature reviews have informed the selection of appropriate variables and measurement tools, ensuring construct validity. Additionally, internal validity is safeguarded through the systematic control of potential confounding factors, allowing fo r a precise examination of the causal relationship between AI-driven personalization strategies and customer purchase intentions.

3.7.2. Reliability

To guarantee the consistency and dependability of this research, standardized and systematic procedures have been employed throughout the data collection and analysis phases. The research instruments, including surveys and questionnaires designed to capture perspectives on AI-driven personalization and purchase intention, undergo meticulous testing to assess their reliability. Cronbach's alpha, a widely recognized measure of internal consis tency, will be employed to evaluate the reliability of these instruments. By calculating Cronbach's alpha coefficient, the research aims to ascertain the extent to which the items within each measurement tool consistently measure the same underlying constructs. This approach ensures that the data collected is not only reliable but also internally coherent, reinforcing the dependability of the findings.

3.8. Ethical Consideration

This research will adhere to a stringent code of conduct to prevent harm, and continuous efforts will be made to minimize any potential risks associated with participation. Cultural sensitivities specific to Addis Ababa will be carefully respected, and the study will engage with the community in a collaborative and respectful manner. Transparent reporting practices will be observed, maintaining integrity and accuracy in the presentation of research methods and findings. Data security measures will be implemented to protect participant information, and the study will adhere to all relevant data protection regulations. Ultimately, this research endeavors to be a model of ethical conduct, prioritizing the well-being, autonomy, and rights of participants.

CHAPTER 4

DATA PRESENTATION AND ANALYSIS

In chapter 3 the research method and design explained in detail. Based on this presentation and discussion of the findings of the research were discussed in this chapter. Hence it gives clear meaning of the research findings. The chapter also discussed about the response rate, demographic information of the respondents such as gender, level of education and position. It also discussed the empirical results of the study based on the research objectives.

4.1. Response Rate

Online questionnaires were distributed for 369 people that were experienced in the area. The data that collected using structured questionnaires showed that out of the total 369 questionnaires distributed to participants in the study, 352 filled in and returned the questionnaires making a response rate of 95.4%. This response rate was representative and commendable to make conclusion for the study. 50% response rate is adequate for analysis and reporting: a response of 60% is good and a 70% response rate and above is excellent. Hence, based on the assertion, the response rate was considered to be excellent. (Julius 2013)

4.2. Respondents' Demographic Information

The respondents' background is primarily presented to provide a clear image of about different qualities of respondents that participated in the study.

4.2.1 Respondents' Gender

Table 1 Statistical results for the respondents' gender (Source: Own survey (2024))

Sex	**Frequency**	**Percentage**
Male	187	53.1%
Female	165	46.9%
Total	352	100.0%

According to the above table out of 352 respondents 187 were male which is 53.1%, other 165 which is 46.9% were female.

4.2.2. Educational background

Table 2 statistical results for the respondents' educational background (Source: Own field survey (2024))

Educational background	Frequency	Percent
College Diploma	32	9.1%
Higher Level (BSc, MSc, PhD, …)	320	90.9%
Total		100%

The above table shows that out of 352 respondents, 9.1% (32) were college diploma certificate holders and 90.9% (320). This data indicates that majority of the shein.com platform users have higher level (BSc, MSc, PhD, etc.) educational background.

4.2.3. Net Monthly Income of Respondents

Table 3 statistical results for the respondent's net monthly income (Source: Own survey (2024))

Income bracket in ETB	Frequency	Percent
< 5,000	30	8.5%
5,000 – 15,000	93	26.4%
15,000 – 25,000	72	20.5%
>25,000	157	44.6%
Total	352	100.00%

The survey findings among customers of the Shein.com platform reveal that 8.5% (30) of respondents have a net income of less than 5,000 ETB, 26.4% (93) have a net income between 5,000 and 15,000 ETB, 20.5% (72) earn between 15,000 and 25,000 ETB, and the largest group, 44.6% (157), have a net income exceeding 25,000 ETB. This distribution indicates a diverse economic profile among Shein.com customers, with a significant portion in the higher -income bracket and a relatively smaller representation in the lower income country
(30)

4.3. Reliability Test

This study used Cronbach's alpha to test the reliability of questionnaire. The findings show that Cronbach's alpha for all dimensions of AI-driven ecommerce personalization is above 0.70, which indicates a high level of internal consistency for all items. Overall Cronbach's alpha value for the nine items is 0.863.

Table 4 Result of reliability analysis for the questionnaire

Dimension of AI-Driven Personalization	**Number of Items**	**Cronbach's Alpha**
Product Recommendation	3	0.857
Pricing Offers	3	0.705
Marketing Messages	3	0.853
Overall Reliability Analysis	9	0.863

4.4. Data Analysis Pertinent to the Study

4.4.1. Descriptive Statistics Analysis

4.4.1.1. Shopping Frequency of Customers

Table 5 Statistical results for the customers' shopping frequency

Shopping Frequency	Frequency	Percent
Once a Week	13	3.7%
Several times a week	3	0.9%
Once a month	119	33.8%
Several times a month	6	1.7%
Several times a year	1	0.3%
Non-specific pattern	147	41.8%
Rarely	63	17.9%
Total	352	100.00%

The survey findings among customers of the Shein.com platform reveal that 3.7% (13) of respondents shop once a week, 0.9% (3) shop several times a week, 33.8% (119) shop once a month, 1.7% (6) shop several times a month, 0.3% (1) shop several times a year, 41.8% (147) shop with a non-specific pattern, and 17.9% (63) shop rarely. This distribution indicates a varied shopping frequency among Shein.com customers, with the largest group exhibiting non -specific shopping patterns and a substantial proportion shopping once a month, while a smaller percentage shop frequently or rarely.

4.4.1.2. Platform choice of customers

Table 6 Statistical results for the customers' platform choice

Shopping Frequency	Frequency	Percent
Desktop (Website)	48	13.6%
Tablet (App)	2	0.6%
Mobile (App)	166	47.2%
Tablet (Website)	6	1.7%
Mobile (Website)	130	36.9%
Total	352	100.00%

The survey findings among customers of the Shein.com platform reveal a clear preference for mobile shopping, with 47.2% (166) of respondents using the mobile app and 36.9% using the mobile website. This combined 84.1% indicates that Shein.com's customers overwhelmingly favor mobile devices for their shopping needs, reflecting the broader trend towards mobile commerce. Only 13.6% (48) of respondents shop via the desktop website, suggesting that while desktop usage remains relevant, it is significantly less favored compared to mobile options. The tablet app and website are the least utilized platforms, with only 0.6% (2) and 1.7% (6) of customers using them, respectively.

4.4.1.3. Frequency and Percent Score for AI-Driven Personalization Dimensions

Table 7 Frequency and Percent Score for AI-Driven Personalization Dimensions

Dimensions of AI-Driven Personalization	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Product Recommendation										
Customized Product recommendations on Shein.com make it easier for me to find product of interest.	8	2.3	39	11.1	31	8.8	121	34.4	153	43.5
Customized Product recommendations on Shein.com influence my decision to make a purchase.	8	2.3	41	11.6	82	23.3	138	39.2	83	23.6
Customized product recommendations on Shein.com provide relevant suggestions based on my past purchases.	8	2.3	26	7.4	69	19.6	156	44.3	93	26.4

Pricing Offers										
I find value in receiving customized pricing offers	3	0.9	27	7.7	88	25	127	36.1	104	29.5
Customized pricing offers make me feel understood as a customer	15	4.3	35	9.9	59	16.8	168	47.7	75	21.3
Customized pricing offers provide me cost saving	15	4.3	40	11.4	54	15.3	162	46	81	23
Marketing Messages										
Customized marketing messages resonate with my interests	15	4.3	92	26.1	91	25.9	122	34.7	32	9.1
Customized marketing messages make me feel understood as a customer.	14	4.0	73	20.7	118	33.5	115	32.7	32	9.1
Customized marketing messages on Shein.com contribute to a personalized shopping experience.	22	6.3	85	24.1	40	11.4	125	35.5	80	22.7

With regards to the independent variable ‘AI-driven product recommendation’, the survey findings indicate that 77.9% of respondents agree or strongly agree that AI-driven product recommendations on Shein.com make it easier to find products of interest, with 2.3% strongly disagreeing, 11.1% disagreeing, and 8.8% remaining neutral. Regarding the influence on purchase decisions, 62.8% agree or strongly agree that these recommendations affect their buying choices, while 2.3% strongly disagree, 11.6% disagree, and 23.3% are neutral. For relevance based on past purchases, 70.7% of respondents agree or strongly agree that the recommendations are relevant and aligned with their past purchases, with 2.3% strongly disagreeing, 7.4% disagreeing, and 19.6% neutral.

The survey findings for the items under the independent variable 'personalized pricing offers' on Shein.com show that a majority of respondents find value in receiving customized pricing offers such as buy-one-get-one-free and other bundled deals, with 65.6% agreeing or strongly agreeing, while 25% remain neutral and a small portion, 8.6%, disagree. When asked if these offers make them feel understood as customers, 69% of respondents agree or strongly agree, 16.8% are neutral, and 14.2% disagree. Regarding the perception of cost savings from these offers, 69% agree or strongly agree, 15.3% are neutral, and 15.7% disagree. This indicates a general positive reception towards personalized pricing offers among the respondents, with a majority feeling valued and perceiving cost savings.

The survey findings regarding personalized marketing messages on Shein.com show a mix of opinions among respondents. While a significant number agree that these messages align with their interests and preferences, with 43.8% expressing some level of agreement, a notable portion, comprising 25.9% of respondents, remains neutral, suggesting room for improvement in message relevance. Similarly, while 41.8% feel these messages make them feel understood as customers, a substantial percentage (33.5%) are neutral, indicating potential for enhancing the personalization and impact of these communications. However, a majority (58.2%) perceive the personalized marketing messages as contributing to a personalized shopping experience, suggesting a generally positive reception, despite opportunities for improvement to better meet customer expectations.

4.4.2. Pearson Correlation analysis

According to Shukran (2003), the relationship is expressed by value within the range -1.00 to + 1.00 as Pearson product–moment indicates. Pearson correlation is +1 in the case of a perfect increasing (positive) linear relationship (correlation), -1 and 1 in all other case indicating the degree of liner dependency between variables. To determine the relationship between AI driven eCommerce personalization dimensions (personalized product recommendation, personalized pricing offers and personalized marketing message) and customer purchase intention, Pearson correlation was computed. Table 8 presents the results of Pearson correlation on the relationship between AI-driven eCommerce personalization dimensions and customer purchase intention.

Table 8 Pearson Correlation Test Result

AI-Driven Ecommerce Personalization		Customer Purchase Intention
Personalized Product Recommendation	Pearson Correlation	0.673
	Sig. (2-tailed)	0.001
	N	352
Personalized Pricing Offers	Pearson Correlation	0.588
	Sig. (2-tailed)	0.001
	N	352
Personalized Marketing Message	Pearson Correlation	0.347
	Sig. (2-tailed)	0.001
	N	352

**. Correlation is significant at the 0.01 level (2-tailed). Source: SPSS Correlation result output, 2024

The three AI-driven ecommerce personalization dimensions and customer purchase intention have positive relationship (Table 4.8). The dimensions with the highest correlation are Personalized Product Recommendation and Customer Purchase Intention (0.673), Personalized Pricing Offers (0.588). Whereas Personalized Marketing Message (0.347) has the weakest correlation. The customer's purchase intention and the personalized marketing message have the least correlation, while the customer's purchase intention and the personalized product recommendation have the strongest association. In general, when there

is positive connection between two or more variables, such as when customer purchase intention and AI-driven ecommerce personalization aspects are positively correlated.

Enhancing the effectiveness of AI-driven product recommendations has a significant impact on customer purchase intentions. Product recommendations leverage customer data to suggest items that align with individual preferences and shopping behaviors, making the shopping experience more personalized and relevant.

Implementing personalized pricing offers also contributes substantially to influencing customer decisions. Personalized pricing offers, such as discounts, special promotions, or "buy one get one free" deals, cater to the unique preferences and purchasing p atterns of each customer.

Although lower correlation with Customer Purchase Intention as compared to the two, delivering personalized marketing messages enhances customer purchase intention. Personalized marketing messages, such as targeted emails or SMS notifications, provide cust omers with relevant information and offers based on their individual interests and previous interactions with the brand.

4.4.3. Multiple Regression Analysis

Multiple regressions are the most common and widely used to analyze the relationship between a single continues dependent variable and multiple continues on categorical independent variable (George et al, 2003). In this study multiple regression analysis was employed to examine the effect of AI-driven eCommerce personalization dimensions on customer purchase intention. The following table presents the results of multiple regressions analysis.

Here the squared multiple correlation coefficients (R2) which tells the level of variance in the dependent variable (customer purchase intention) that is explained by the model.

Table 9 Model Summary (*Source: SPSS Regression results output, 2024*)

Model	R	R square	Adjusted R sq.	Std. Error
1	0.893	0.748	0.672	0.472
a. Predictors: (Constant), Personalized; Product Recommendation, Pricing Offers, Marketing Messages				
b. Dependent Variable: Customer Purchase Intention.				

The positive and statistically significant effect on the customer purchase intention is shown in Table 4.9. The percentage of a dependent variable's change that can be statistically explained by the independent variables is measured by the model summary table R-Square value, also known as the coefficient of determination. It can have any value between 0 and 1.

The model's R-square value is 0.748, which indicates that variations in the AI-driven ecommerce variables (Personalized; Product Recommendation, Pricing Offers, and Marketing Message) account for 74.8% of the respondents' observations. The remaining 25.2% can be attributed to random error and additional independent variables that were left out of the model.

Table 10 ANOVA table Source: SPSS ANOVA output, 2024

Model		Sum of Squares	Df	Mean Square	F	Sig
1	**Regression**	133.206	3	44.402	85.382	<0.001
	Residual	180.973	348	.520		
	Total	314.179	351			
a. Predictors: (Constant), Personalized; Product Recommendation, Pricing Offers, Marketing Messages						
b. Dependent Variable: Customer Purchase Intention.						

According to Field (2005), the ANOVA indicates whether the model produces an overall significantly good degree of prediction of the outcome variable. Given that the ANOVA table's significance result is 0.000, or $p<0.05$, the regression analysis demonstrated the existence of a high degree of prediction. The multiple regression findings in the coefficient table below show the relative contributions of each AI-driven eCommerce personalization variable.

Table 11 Coefficient of relationship of AI-driven ecommerce personalization on customer purchase intention.

Model	Unstandardized error		Standardized Coeff.	t	sig	Collinearity Stat.	
	B	Std. Error	Beta			Tolerance	VIF
Constant	.815	.198		4.122	<0.001		
Product Rec.	.361	.053	.346	6.751	<0.001	.632	1.583
Pricing Off.	.315	.054	.302	5.788	<0.001	.608	1.544
Marketing M.	.149	.043	.154	3.512	<0.001	.863	1.159

a. Dependent variable: Purchase Intention

Table 11 shows the standardized beta coefficient, which indicates the distinct contribution of each component to the model, a significant statistical contribution of the predictor variable to the model, indicated by a low p value (<.005) and a high beta value. Conversely, a high p value (p >.005) and a small beta value suggest that the predictor variable has little to no meaningful impact on the model. (Gorge and others, 2003).

Additionally, Table 11 shows that, at a 95% confidence level, Personalized; Product Recommendation, Pricing Offers, Marketing Messages dimensions of AI-driven ecommerce personalization significantly affect customers' purchase intention. The establishment of the function has taken into account the important criteria pertaining to AI-driven ecommerce personalization.

The regression function that has been established is:

Customer Purchase Intention	= .815 + 0.361(Prod. Rec) + 0.315 (Pricing Off.) + .149 (Marketing M.)

4.4.4. Hypothesis test results and discussions

Customers' propensity to buy is positively and significantly affected by personalized product recommendations, pricing offers, and marketing messages, as indicated by the correlation and regression coefficient tables above. The degree of significance assigned by each AI-driven ecommerce variable to the choice of AI-driven eCommerce variable to customer purchase intention is shown by the unstandardized coefficient (Beta value). The following rankings of the factors can be made based on how important they are.

- Personalized Product Recommendation (β=.361)
- Personalized Pricing Offers (β=0.315)
- Personalized Marketing Message (β=0.149)

Given that the three AI-driven ecommerce personalization variable coefficients are substantial, Table 5.1 indicates that there is a significant association between the three AI-driven eCommerce personalization variables and customer purchase intention. The following lists the tests and discussions of the hypotheses:

H-1: AI-driven personalized product recommendation has a positive and significant impact on customer purchase intention.

Research hypothesis one predicts a statistically significant and positive relationship between AI-driven personalized product recommendation and customer purchase intention. The regression output supported the hypothesis and revealed a positive, statistically significant relationship, allowing the researcher to keep the hypothesis H1 unchanged.

H-2: AI-driven customized pricing offers have a positive and significant impact on customer purchase intention.

AI-driven personalized pricing offers, and customer purchase intention have a statistically significant positive relationship. The second research hypothesis states that the customer purchase intention and AI-driven personalized pricing offers will be positively and statistically significant. The regression output confirmed the hypothesis with a positive and statistically significant association, allowing the researcher to accept hypothesis H2.

H-3: AI-driven personalized marketing message has a positive and significant impact on customer purchase intention.

Research hypothesis one predicts a statistically significant and positive relationship between AI-driven personalized marketing message and customer purchase intention. The regression output supported the hypothesis and revealed a positive,

Statistically significant relationship, allowing the researcher not to reject hypothesis H3.

Hypothesis	Beta Value	Sig	Relationship	Decision Rule
H-1: AI-driven personalized product recommendation has a positive and significant impact on customer purchase intention.	0.361	<0.001	Positive	Accepted
H-2: AI-driven customized pricing offers have a positive and significant impact on customer purchase intention.	0.315	<0.001	Positive	Accepted
H-3: AI-driven personalized marketing message has a positive and significant impact on customer purchase intention.	0.149	<0.001	Positive	Accepted

4.4.5. Results from key informant interview

4.4.5.1. Personalized Product Recommendation

The thematic analysis of interview responses under the theme "Personalized Product Recommendation" highlights a uniform pattern of positive feedback from Shein.com customers regarding the relevance and influence of these recommendations on their purchasing behavior. Participants consistently emphasized the high relevance and accuracy of the personalized product recommendations. They frequently mentioned that these suggestions align well with their preferences and needs, often showcasing items that match their style and taste.

Many participants noted that personalized recommendations significantly influence their purchasing decisions. They reported that these suggestions often lead them to buy products they might not have considered otherwise, indicating a strong impact on their shopping behavior. This influence underscores the importance of personalized recommendations in guiding customers toward new and relevant products.

Additionally, participants expressed that personalized recommendations enhance their overall shopping experience on Shein.com. The ease of discovering new and relevant items through these suggestions makes shopping more convenient and enjoyable. This enhancement in the shopping experience contributes to greater customer satisfaction and loyalty.

Several respondents also mentioned their reliance on personalized recommendations, which underscores the trust and confidence customers place in the accuracy of these AI-driven suggestions. This reliance helps them discover new products and make informed purchasing decisions, further solidifying the role of personalized recommendations in shaping their shopping habits.

In summary, the thematic analysis indicates that personalized product recommendations on Shein.com are highly valued by customers for their relevance, accuracy, and significant influence on purchase decisions. These recommendations not only enhance the shopping experience by making it more convenient and enjoyable but also foster a sense of trust and reliance among customers, leading to increased satisfaction and higher purchase rates.

4.4.5.2. Personalized Pricing Offer

The thematic analysis of interview responses under the theme "Personalized Pricing Offers" reveals a generally positive yet moderate influence of these offers on customers' purchasing intention on Shein.com. Participants commonly expressed appreciation for the personalized discounts they receive, noting their value and fairness. These discounts were recognized as helpful and occasionally led to spontaneous purchases that might not have been made otherwise.

However, while participants acknowledged the benefits of personalized pricing offer, they consistently indicated that these discounts only moderately increase their likelihood of making a purchase. Several respondents mentioned that while the discounts are valuable, they do not motivate purchases as strongly as personalized product recommendation. This sentiment suggests that, although appreciated, personalized pricing offers are not the primary driver behind customers' buying decisions.

Moreover, participants highlighted that the personalized pricing offers are perceived as beneficial but are not the main reason for their purchases. The discounts were seen as a nice addition rather than a crucial factor in their shopping behavior. This points to the idea that while personalized pricing strategies are effective to a certain extent, they do not hold the same weight as other personalization dimensions, such as product recommendations.

In summary, the thematic analysis indicates that personalized pricing offers on Shein.com are valued by customers for their fairness and occasional ability to spur spontaneous purchases. However, these offers only moderately influence purchase decisions and are not as impactful as personalized product recommendations. The findings suggest that while personalized discounts contribute positively to the shopping experience, they are secondary to other personalization strategies in driving customer purchases.

4.4.5.3. Personalized Marketing Message

The thematic analysis of interview responses under the theme "Personalized Marketing Message" reveals that while these messages are relevant and engaging, their influence on customers' purchasing decisions on Shein.com is moderate. Participants consistently reported that the personalized marketing messages they receive are informative and relevant to their interests. However, these messages only fairly influence their decisions to make a purchase.

Several respondents mentioned that, although they find the personalized marketing messages useful and engaging, these messages have a less significant impact on their purchase decisions compared to personalized product recommendations and pricing offers. This sentiment suggests that while marketing messages are a valuable part of the overall customer engagement strategy, they are not as compelling in driving purchases as other forms of personalization.

Participants also noted that the personalized marketing messages help keep them informed about new products, sales, and promotions, contributing to a more informed shopping experience. However, the impact of these messages on their actual buying behavior is relatively modest. The messages were seen as helpful and relevant, but not as a primary factor influencing their decision to buy.

In summary, the thematic analysis indicates that personalized marketing messages on Shein.com are appreciated for their relevance and ability to keep customers informed. Nonetheless, their influence on purchase decisions is moderate compared to other personalization strategies such as product recommendations and pricing offers. While personalized marketing messages contribute positively to customer engagement and information dissemination, they play a secondary role in motivating purchases.

CHAPTER 5

SUMMARY, CONCLUSION AND RECOMMENDATION

As a final chapter, this part of the research provides summary, conclusions and recommendations. Results have been discussed in line with the research objectives stated earlier in chapter one.

5.1. Summary of findings

The primary goal of the research was to examine the effect of AI-driven ecommerce personalization on the buying intention of shein.com customers in Addis Ababa, Ethiopia. A suitable sample of 352 responses from shein.com customers in Addis Ababa, Ethiopia completed the questionnaire used for the research.

Customers of the Shein.com platform answered the survey, and the results showed that 8.5% (30) have a net income of less than 5,000 ETB, 26.4% (93) have a net income between 5,000 and 15,000 ETB, 20.5% (72) have a net income between 15,000 and 25,000 ETB, and 44.6% (157) are the largest group with a net income exceeding 25,000 ETB. This distribution shows that Shein.com clients have a wide range of economic backgrounds, with a sizable percentage of them falling into the upper income range and a comparatively smaller percentage into the lower income category.

The survey findings among customers of the Shein.com platform also revealed that 3.7% (13) of respondents shop once a week, 0.9% (3) shop several times a week, 33.8% (119) shop once a month, 1.7% (6) shop several times a month, 0.3% (1) shop several times a year, 41.8% (147) shop with a non -specific pattern, and 17.9%

(63) shop rarely. This distribution indicates a varied shopping frequency among Shein.com customers, with the largest group exhibiting non -specific shopping patterns and a substantial proportion shopping once a month, while a smaller percentage shop frequently or rarely.

The results of the correlation analysis demonstrated a strong and significant effect between AI-driven personalized pricing offers and AI-driven personalized product recommendations.

Additionally, the results show that the AI-driven personalized product recommendation and customer purchase intention had the highest relationship, whereas the AI-driven personalized marketing message and customer purchase intention had the lowest relationship.

The outcomes of the multiple regression analysis demonstrated that Customer Purchase Intention is positively and significantly impacted by each of the three AI-driven ecommerce personalization dimensions i.e AI-driven personalized; product recommendation, pricing offers and marketing message.

Qualitative data from interviews further underscored the dominance of personalized product recommendations in shaping purchase decisions. Based on these findings, recommendations were made to enhance AI algorithms for more accurate product suggestions, refine personalized pricing strategies, tailor marketing messages to customer preferences, and integrate these elements into a holistic personalization strategy. Continuous refinement of these strategies based on ongoing customer feedback and market dynamics is advised to maximize the effectiveness of AI-driven personalization in ecommerce, thereby boosting customer satisfaction and increasing purchase rates.

5.2. Conclusion

The objective of this study was to examine the impact of AI-driven B2C e-commerce personalization features on customer purchase intention. Based on the analysis presented in the previous chapter, the following conclusions are drawn:

AI-driven personalization features, such as product recommendations, pricing offers, and marketing messages, have a positive and significant effect on Shein.com customers in Addis Ababa, Ethiopia. These features enhance the shopping experience by aligning closely with customer preferences and behaviors, thus increasing purchase intention.

According to Table 11, product recommendations significantly increase customer buying intention by presenting items of interest. Personalized pricing offers, such as ‘buy-one-get-one-free', and personalized marketing messages, also positively influence purchase decisions and effectively keep customers informed and engaged.

In general, the following specific empirical findings emerged from the investigation: AI-driven personalization in product recommendations, pricing offers, and marketing messages has a

positive and significant effect on customer purchase intention. However, there are opportunities for Shein.com to enhance these features further to maximize their impact on customer behavior.

5.3. Recommendation

The objective of this study was to investigate how AI-driven B2C e-commerce personalization features impact customer purchase intention on Shein.com in Addis Ababa, Ethiopia. The analysis reveals that AI-driven personalization features, such as product recommendations, pricing offers like 'buy -one-get-one-free', and personalized marketing messages, play a crucial role in enhancing the overall shopping experience. These features are shown to align closely with customer preferences and behaviors, thereby significantly increasing purchase intention among Shein.com customers.

To capitalize on these findings, Shein.com should first enhance its AI algorithms. Improving the accuracy and relevance of product recommendations based on comprehensive data analysis and customer behavior patterns will ensure that customers are presented with items that are most likely to resonate with them. This not only improves the likelihood of purchase but also enhances customer satisfaction by reducing the effort required to find desired products.

Furthermore, personalized pricing offers should be optimized to provide compelling incentives that encourage immediate purchase decisions. Tailoring promotions based on individual customer profiles and purchase history, and leveraging dynamic pricing strategies, can effectively stimulate purchase frequency and increase transaction values.

In terms of personalized marketing messages, Shein.com should focus on delivering personalized content that is timely, relevant, and engaging. Utilizing customer data to craft messages that speak directly to individual interests and preferences will maintain customer engagement throughout the purchasing journey. This can include targeted promotions, personalized emails, and notifications that highlight new arrivals or special offers tailored to each customer segment.

Improving the site's user interface and overall customer experience is also critical. Enhancing navigation simplicity, optimizing mobile responsiveness, and integrating interactive features such as product reviews, style guides, and virtual try-on tools will extend session durations and foster repeated visits. These elements contribute to a more immersive and satisfying shopping experience, thereby increasing customer loyalty and advocacy.

BIBLIOGRAPHY

1. Abd Jelil, R., (2018) Review of artificial intelligence applications in garment manufacturing. Artificial Intelligence for the fashion industry in the big data era, pp.97-123.

2. Ajzen, I. (1991). The theory of planned behavior. Organizational Behavior and Human Decision Processes, 50(2), 179-211.

3. Alpert, S.R., Karat, J., Karat, C-M., Brodie, C., & Vergo, J.G. (2003) User Attitudes Regarding a User-Adaptive ecommerce Web Site. User Modeling and User-Adapted Interaction.

4. Anna Goy et al. (2007) Personalization in E-Commerce Applications. IBM 61T.J. Watson Research Center.

5. Asian Development Bank (2019) ADB Annual Report 2019. Available at:

https://www.adb.org/documents/adb-annual-report-2019

6. Balcha, A., (2023) TAXATION OF INCOME FROM E-COMMERCE IN ETHIOPIA: A QUEST FOR INTEGRATING MODERN RULES OF TAXATION INTO ETHIOPIAN INCOME TAX SYSTEM. Jimma University Journal of law, 15(1), pp.95-121.

7. Blount, Y., Castleman, T., & Coulthard, D. (2005) ecommerce in service industries: Extending the Socio-Technical Paradigm. ACIS 2005 Proceedings.

8. Bock, D.E., Wolter, J.S. and Ferrell, O.C., (2020) Artificial intelligence: disrupting what we know about services. Journal of Services Marketing, 34(3), pp.317-334.

9. Bürgi, M., Straub, A., Gimmi, U. and Salzmann, D., (2010) The recent 62 landscape history of Limpach valley, Switzerland: considering three empirical hypotheses on driving forces of landscape change. Landscape Ecology, 25(2), pp.287-297.

10. Campbell et al. (2020) From data to action: How marketers can leverage AI. Business horizons, 63(2), pp.227-243.

11. Canhoto, A.I. and Clear, F., (2020) Artificial intelligence and machine learning as business tools: A framework for diagnosing value destruction potential. Business Horizons, 63(2), pp.183-193.

12. Chehni, Y., (2023) A Comparative Study Exploring The difference in customer perceived value between the two online retailers: ASOS and Shein.

13. Chruszcz, M. (2023) Blog: E-commerce After-Sales Service: Best Practices.

Available at: https://www.ingrid.com/blog/ecommerce-after-sales-service

14. Data Reportal - SimonKemp (2023) Digital 2023: Ethiopia. Available at: https://datareportal.com/reports/digital-2023-ethiopia#:~:text=Ethiopia's%20internet%20penetration%20rate%20stood,percent)%20between%202022%20and%2020

15. Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS Quarterly, 13(3), 319-340. Available at: https://doi.org/10.2307/249008

16. Dwivedi YK, Hughes L, Ismagilova E, et al (2019) Artificial Intelligence (AI): Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research, practice and policy. Int J Inf Manage 101994. doi: 10.1016/j.ijinfomgt.2019.08.002

17. eMarketer (2017) Artificial Intelligence Roundup. Available at: http://files.r - trends.ru/reports/eMarketer_Roundup_Artificial_Intelligence_2018_2.pdf

18. Fedorko, R., Kráľ, Š . and Bačík, R., (2022) Artificial intelligence in e-commerce: A literature review. In Congress on Intelligent Systems: Proceedings of CIS 2021, Volume 2 (pp. 677-689). Singapore: Springer Nature Singapore.

19. Forrester (2023) Q1 2023 B2C Marketing CMO Pulse Survey. Available at:

https://www.forrester.com/blogs/ceos-and-cmos-are-misaligned-on-customer-needs/

20. Gelata, F. T., Gemada, S. C., & Han, J. (2022) Review on the E-commerce Business Models in Ethiopia. European Journal of Applied Sciences, 10(5). 48-58.

21. Holdford, David. (2018) CONSUMER BEHAVIOR. PP 208

22. Holmqvist J, Vaerenbergh Y Van, Grönroos C (2017) Language use in services: Recent advances and directions for future research. J Bus Res 72:114-118. doi: 10.1016/j.jbusres.2016.10.005

23. Huang, M.H. and Rust, R.T., (2018) Artificial intelligence in service. Journal of service research, 21(2), pp.155-172.

24. Isaac Owusu Asante et.al. (2016) Consumers' Role in the Survival of E - Commerce in Sub Saharan Africa: Consequences of E-Service. Quality on Engagement Formation, IEEE. Itransition (2022) Blog: Accelerating ecommerce growth with predictive analytics. Available at: https://www.itransition.com/predictive-analytics/ecommerce

26. Järvinen, J. and Taiminen, H., (2016) Harnessing marketing automation for B2B content marketing. Industrial marketing management, 54, pp.164 -175.

27. Javed R.Shaikh and Georgi Iliev (2018) A technique for DoS attack detection in e-commerce transactions based on ECC and Optimized Support Vector Neural Network. Control and Cybernetics, Volume 47, Issue 4

Pp.439-463.

28. Jessica Liu. Blog: Consumers Don't Always Want The Personalization That You're Delivering. Available at: https://www.forrester.com/blogs/consumers-dont-always-want-the-personalization-youre-delivering/

29. Joo et al. (2019). Consumer evaluations of CSR authenticity: Development and validation of a multidimensional CSR authenticity scale. Journal of Business Research, 98(May), 236-249.

30. Kalia, P. and Paul, J., (2021) E-service quality and e-retailers: Attribute- based multi-dimensional scaling. Computers in Human Behavior, 115, p.106608.

31. Li and Karahanna (2015). Online Recommendation Systems in a B2C E-Commerce Context: A Review and Future Directions February 2015Journal of the Association for Information Systems 16(2):72-107.

32. Luce, L. (2019) Artificial Intelligence for Fashion. APRESS, San Francisco, CA, USA.

33. Marcin Chruszcz (2023) Blog: E-commerce After-Sales Service: Best Practices. Available at: https://www.ingrid.com/blog/ecommerce-after-sales-Service

34. McKinsey & Company (2021) Next in Personalization 2021 Report. Available at: https://www.mckinsey.com/capabilities/growth-marketing-and-sales/our-insights/the-value-of-getting-personalization-right-or-wrong-is-Multiplying

35. Michael Sony, Subhash Naik, (2020) Industry 4.0 integration with socio - technical systems theory: A systematic review and proposed theoretical model, Technology in Society, Volume 61.

36. Montgomery AL, Smith MD (2009) Prospects for Personalization on the Internet. J Interact Mark 23:130-137. doi: 10.1016/j.intmar.2009.02.001. 6733.National Bank of Ethiopia. National Digital Payments Strategy 2021 -2024. Available at: https://www.betterthancash.org/explore-resources/ethiopias-National-digital-payments-strategy-2021-2024

37. Paschen et al. (2019) Artificial intelligence (AI) and its implications for market knowledge in B2B marketing. Journal of business & industrial marketing, 34(7), pp.1410-1419.

38. Prashant Gupta (2017) Blog: Decision Trees in Machine Learning. Available at: https://towardsdatascience.com/decision-trees-in-machine-learning-1b9c4e8052

39. SEMRUSH (2023) Domain Overview: shein.com. Available at: https://www.semrush.com/analytics/overview/?q=Shein.com&protocol=https&searchType=domain&db=et

40. Shankar V (2018) How Artificial Intelligence (AI) Is Reshaping Retailing. Retail 94:vi-xi. doi: 10.1016/S0022-4359(18)30076-9

41. Singh, N., Yadav, M. and Sahu, O., (2016) Consumer acceptance of apparel e-commerce-Ethiopia. Intellectual Economics, 10(1), pp.55-62.

42. Simon JP (2019) Artificial intelligence: scope, players, markets and geography. Digit Policy, Regul Gov 21:208-237. doi: 10.1108/DPRG-08-2018-0039.

43. Smith, Brent & Linden, Greg. (2017). Two Decades of Recommender Systems at Amazon.com. IEEE Internet Computing. 21. 12-18. 10.1109/MIC.2017.72.

44. Sulim Kim et al., (2022) Customer Churn Prediction in Influencer Commerce: An Application of Decision Trees. Procedia Computer Science 199 (2022) 1332-1339.

45. Sundaram, B.B., Sowjanya, M.S., Andavar, V. and Reddy, N.R., 2018. Opportunities and Challenges of E-Commerce in the Case of Ethiopia. International Journal for Research in Technological Studies, 5(4), pp.2348 - 1439.

46. Sumitha K. (2022) A Comparative Analysis of Artificial Intelligence in Marketing and Traditional Marketing. International Journal of Business Analytics & Intelligence 10 (1) 2022, 16-21.

47. Tam and Ho (2005). Web Personalization as a Persuasion Strategy: An Elaboration Likelihood Model Perspective. Information Systems Research, 16, 271-291. Available at: http://dx.doi.org/10.1287/isre.1050.0058

48. Thomassey, S. and Zeng, X., (2018) Introduction: artificial intelligence for the fashion industry in the big data era (pp. 1-6). Springer Singapore.

49. Tilahun, K. and Kifle, M., (2020) E-commerce Framework for Micro and Small Enterprises in Ethiopia. HiLCoE Journal of Computer Science and Technology, 3(2).

50. Weber, F. and Schütte, R., (2019) A domain-oriented analysis of the impact of machine learning-the case of retailing. Big Data and Cognitive Computing, 3(1), p.11.

51. Wenninger, J., (1999) Business-to-business electronic commerce. Current issues in Economics and Finance, 5(10).

52. Xu, H., Luo, X.R., Carroll, J.M. and Rosson, M.B., (2011) The personalization privacy paradox: An exploratory study of decision making process for location-aware marketing. Decision support systems, 51(1),

pp.42-52.

APPENDIX I

SURVEY QUESTIONNAIRE

Dear valued respondent,

As part of my pursuit of a Master of Science Degree in Digital Marketing with Specialty in E-Commerce at the Addis Ababa University, School of Commerce, I am conducting a research study focusing on "The Impact of AI-Driven B2C Ecommerce Personalization on Customer Purchase Intention: Viewpoint of SHEIN.COM Customers in Addis Ababa, Ethiopia."

Your insights are crucial to the success of this research, and I kindly request your participation in completing the attached questionnaire. Your individual responses will remain completely confidential, and the collective perspectives gathered will significantly contribute to the depth of my analysis. Your support in this endeavor is highly appreciated, and I sincerely thank you in advance for taking the time to share your valuable perspectives.

Nebiyu Taye

+251920843945

Nebst19@gmail.com

PART I – DEMOGRAPHICS

Direction: Please select the appropriate option by putting an X in the box next to each question.

1. Gender

A. Male

B. Female

2. Education

A. Elementary Level

B. Secondary Level

C. College (Diploma)

D. Higher Institution

C. Profession – What is your current professional status? A. Unemployed

B. Employed

C. Self-Employed

D. Student

D. Net Income –How much net amount of money do you earn monthly?

A. < 5,000

B. 5,000 – 15,000

C. 15,000 – 25,000

D. 25,000

E. Experience – How many years of professional experience do you have?

A. 1-3 years

B. 3-5 years

C. 5-10 years

D. >10 years

E. None

PART II – ONLINE SHOPPING BEHAVIOUR

1. **Shopping Frequency - How frequent do you shop online?**

A. Once a week

B. Several times a week

C. Once a month

D. Several times a month

E. Once a year

F. Several times a year

2. **Shopping Platform – Which device do you mostly use when you shop online?**

A. Desktop (website)

B. Tablet (app)

C. Mobile (app)

D. Tablet (website)

E. Mobile (website)

3. **Awareness on AI-Driven Personalization**

I. How often do you notice customized pricing offers on SHEIN.com?

a. Always

b. Frequently

c. Occasionally

d. Rarely

e. Never

II. **How often do you notice personalized product recommendations on SHEIN.com?**

a. Always b.

Frequently

c. Occasionally

d. Rarely

e. Never

III. How often do you notice personalized marketing messages from SHEIN.com?

a. Always

b. Frequently

c. Occasionally

d. Rarely

e. Never

PART III - PERSONALIZATION AND PURCHASE INTENTION

Direction - Please indicate your degree of agreement or disagreement by putting "X" in the appropriate option for each of the following statements where,

SDA = Strongly Disagree; DA= Disagree; N= Neutral; A= Agree; SA=Strongly Agree.

No.	Description	SDA	DA	N	A	SA
	Product Recommendation					

1	The customized product recommendations on Shein.com influence my decision to make a purchase.					
2	Customized product recommendations make it easier for me to find products of interest.					
3	Customized product recommendations help me make quicker purchase decisions.					
4	Customized product recommendations provide relevant suggestions based on my past purchases.					
5	Customized product recommendations help me feel understood as a customer.					

6	Customized product recommendations help me discover products I wouldn't have found otherwise.					

	Customized Pricing Offer					
7	I find value in receiving customized pricing offers like buy one-get-one-free & other bundled offers when shopping on Shein.com.					
8	I believe that customized pricing offers like buy-one-get-one-free & other bundled offers on Shein.com are tailored to my preferences.					
9	I am more likely to consider purchasing products when presentedwithcustomized pricing offers like buy-one-get-one-free & other bundled offers.					
10	I trust that the customized pricing offers like buy-one-get-one-free & other bundled offers on Shein.com are fair and tailored to my needs					

11 & Shein savings.	I believe that customized pricing offers like buy-one-get-one-free other bundled offers on .com provide me with cost gs.					
12 free & Shein as a c	I believe that customized pricing offers like buy-one-get-one- other bundled offers on .com make me feel understood stomer.					
13 free &	I perceive customized pricing offers like buy-one-get-one- other bundled offers on Shein.com as exclusive and personalized for me.					
	Personalized Marketing Message					
14 affec	Personalized marketing messages from Shein.com my perception of the products.					
15 captu	Personalized marketing messages from Shein.com effectively e my attention.					
15	Personalized marketing messages on Shein.com make me feel more connected to the brand.					

16	Personalized marketing messages on Shein.com resonate with my interests and preferences.					

17	Personalized marketing messages on Shein.com make me feel understood as a custo mer.					
18	Personalized marketing messages on Shein.com contr bute to a personalized shopping experience.					
Over all Impact and Satisfaction						
19	The AI-driven personalization on Shein.com enhances my over ll shopping experience.					
20	The AI-driven perso nalization on Shein.com helps me c scover new and relevant prod ucts.					
21	The AI-driven perso nalization on Shein.com makes my s opping experience more enjoy able.					

22 on S loyal	The AI-driven personalization ein.com enhances my sense of y to the brand.					
23 on S to ex	The AI-driven personalization ein.com makes me more likely lore the website.					
24 on Sh more.	The AI-driven personalization ein.com makes me trust the brand					
25 on Sh reco	The AI-driven personalization ein.com makes me more likely to end the platform to others.					

26	The AI-driven personalization on Shein.com enhances my satisfaction with the platform.					

Interview questions

1. Welcome and Introduction:

"Thank you for participating in this interview. My name is [Your Name], and I'm conducting this research to understand the impact of AI-driven personalization on customer purchase intentions for Shein.com in Addis Ababa."

"This interview will take about 30-45 minutes, and your responses will be kept confidential. Do you have any questions before we begin?"

General Shopping Behavior

2. Shopping Habits:

"Can you tell me about your general online shopping habits? How often do you shop online, and what types of products do you usually buy?"

Determinants of Purchase Intention

3. Factors Influencing Purchase Decisions:

"What factors do you consider most important when deciding to make a purchase online? For example, do you prioritize product quality, price, brand reputation, or something else?"

"How do these factors influence your decision to shop on Shein.com specifically?"

Personalized Product Recommendations

4. Experience with Personalized Recommendations:

"Have you noticed any personalized product recommendations while shopping on Shein.com? Can you describe your experience with these recommendations?"

"How do these personalized recommendations influence your decision to purchase a product? Can you provide an example?"

5. Effectiveness of Recommendations:

"Do you feel that the personalized product recommendations on Shein.com are relevant to your preferences and needs? Why or why not?"

"How do you feel about the accuracy and usefulness of these recommendations?"

Personalized Pricing Offers

6. Experience with Personalized Pricing Offers:

"Have you received any personalized pricing offers, such as discounts or special deals, while shopping on Shein.com? Can you describe your experience with these offers?"

"How do these personalized pricing offers influence your decision to make a purchase?"

7. Perception of Pricing Offers:

"Do you think the personalized pricing offers are fair and valuable? Why or why not?"

"Can you share an instance where a personalized pricing offer prompted you to make a purchase that you might not have otherwise considered?"

Personalized Marketing Messages

8. Experience with Personalized Marketing Messages:

"Have you received any personalized marketing messages, such as emails or notifications, from Shein.com? Can you describe your experience with these messages?"

"How do these personalized marketing messages influence your perception of Shein.com and your purchase decisions?"

9. Effectiveness of Marketing Messages:

"Do you find the personalized marketing messages relevant and engaging? Why or why not?"

"Can you provide an example of a marketing message that successfully captured your interest and led to a purchase?"

Overall Impact of AI-driven Personalization

10. General Perception:

"Overall, how do you feel about the AI-driven personalization strategies used by Shein.com? Do you think they enhance your shopping experience? Why or why not?"

"Do you have any suggestions for improving the personalization strategies on Shein.com?"

11. Purchase Intention:

"To what extent do you believe that personalized product recommendations, pricing offers, and marketing messages influence your intention to purchase from Shein.com?"

"Is there anything else you would like to share about your shopping experience on Shein.com and how personalization affects your purchase decisions?"