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**Research Article** 

# Effect of AI Driven Personalization on Purchasing Decisions and Customer Satisfaction in the Fashion Industry in Nigeria

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#### Abstract

AI-driven personalization is a potent tool for enhancing consumer purchasing decisions and customer satisfaction in Nigeria's fashion industry. This study examined the effect of AI-driven personalisation on consumer purchasing decisions and customer satisfaction in the fashion industry in Nigeria and the effect of product recommendations, virtual try-ons and fitting rooms, and personalized styling advice on consumer purchasing decisions and customer satisfaction in the fashion industry in Nigeria. The study adopted the survey method. The population of the study was 200customers of the 4 prominent online fashion retail platforms in Nigeria. Census sampling was adopted and all the 200 served as the sample size. A structured-self-administered questionnaire was adopted as the major instrument for collecting primary data. Regression analysis was used as a technique of data analysis. Study findings revealed specifically that, product recommendations play a crucial role in influencing purchase decisions, while personalized styling advice has the most substantial impact on customer satisfaction. Virtual try-ons and fitting rooms, though less influential, still contribute positively to both purchasing decisions and satisfaction. The study therefore recommends among others that fashion retailers should invest in advanced AI algorithms to improve the accuracy and relevance of product recommendations by partnering with AI specialists to refine recommendation systems based on consumer data and preferences.

Keywords: AI-driven, Personalization, Purchasing decisions, Customer satisfaction and Fashion industry.

# **1.0 INTRODUCTION**

## 1.1 Background to the Study

The fashion industry in Nigeria faces persistent challenges that significantly impact consumer purchasing decisions and overall customer satisfaction. As more Nigerians turn to online shopping, issues such as inconsistent sizing, difficulty in assessing product quality, and an overwhelming variety of fashion options have become prevalent (Adelakun & Adewale, 2023). These factors often lead to decision fatigue, dissatisfaction, and high return rates, further complicating the online shopping experience (Onyinye, 2021).

A major contributor to these challenges is the limited implementation of effective personalization in the shopping experience. Most Nigerian fashion retailers, whether online or offline, offer generic shopping environments that fail to address the specific preferences and needs of individual customers (Nwankwo et al., 2022). Without personalized services such as style recommendations, accurate sizing, and realistic virtual fittings, consumers struggle to find products that truly satisfy their needs, leading to reduced purchasing confidence and satisfaction (Umar & Ibrahim, 2023).

In contrast, AI-driven personalization has revolutionized the shopping experience in more developed markets like the United States and Europe (Chen & Lin, 2022). Technologies such as AI-powered product recommendations have

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enhanced the relevance of search results by analyzing consumer data to suggest items that align with individual preferences and past purchases (Wang et al., 2023). Similarly, virtual try-ons and fitting rooms, utilizing augmented reality (AR) and AI, have significantly reduced the uncertainty associated with online shopping by allowing customers to visualize how clothing items would fit and look on them without needing physical interaction (Zhang & Li, 2021). Moreover, AI-driven personalized styling advice provides consumers with tailored outfit suggestions based on their body type, style preferences, and current fashion trends, thereby enhancing their shopping experiences and increasing satisfaction (Kang & Lee, 2022).

These advancements have not only transformed the fashion retail landscape in the West but have also gained traction in parts of Asia, particularly in tech-forward markets like China and South Korea (Choi & Kim, 2023). Consumers in these regions have embraced AI-driven personalization tools, leading to higher satisfaction and more confident purchasing decisions (Xu & Liu, 2022). However, the adoption of these technologies in Africa, particularly in Nigeria, remains slow and underdeveloped (Eze & Ugwu, 2022). The Nigerian fashion retail sector is still largely traditional, with few retailers incorporating advanced AI-driven personalization technologies into their services (Oluwaseun et al., 2023). This lag is attributed to several factors, including infrastructural challenges, limited investment in AI, and a general lack of awareness among consumers and retailers about the benefits of personalized shopping experiences (Ogunyemi & Oladipo, 2022).

Despite these obstacles, there is a growing recognition of the potential benefits that AI-driven personalization could bring to the Nigerian fashion industry. As internet penetration increases, e-commerce grows, and a youthful, tech-savvy population emerges, there is a clear opportunity for AI to enhance consumer purchasing decisions and customer satisfaction (Bello & Adebayo, 2024). The motivation for this study lies in addressing the gap between the current state of the Nigerian fashion industry and the potential improvements that AI-driven personalization can offer.

By focusing on three key proxies of AI-driven personalization—product recommendations, virtual try-ons and fitting rooms, and personalized styling—this study aims to explore how these technologies can be adapted to the Nigerian context to enhance consumer experiences. Specifically, the study will investigate the impact of these technologies on purchasing decisions and customer satisfaction, providing insights that could guide Nigerian fashion retailers in adopting AI-driven solutions to meet the evolving needs of their customers. This study will critically examine the effects of product recommendations, virtual try-ons and fitting rooms, and personalized styling on purchasing decisions and customer satisfaction, thus contributing to the broader discourse on the role of AI in transforming the fashion industry in Nigeria.

#### **1.2 Statement of Problem**

The Nigerian fashion industry is experiencing a rapid shift towards digitalization, yet it continues to face significant challenges related to consumer purchasing decisions and customer satisfaction. These challenges are particularly evident in online shopping environments where consumers often struggle with issues such as decision fatigue, inaccurate product recommendations, and dissatisfaction due to poorly fitting or misrepresented clothing items (Adelakun & Adewale, 2023; Nwankwo et al., 2022). Despite the global trend towards utilizing AI-driven personalization technologies to enhance consumer experiences, the adoption of these tools in Nigeria remains limited (Ogunyemi & Oladipo, 2022).

In more developed markets, AI-driven personalization—comprising product recommendations, virtual try-ons and fitting rooms, and personalized styling advice—has been shown to significantly improve consumer purchasing decisions and satisfaction by tailoring shopping experiences to individual preferences and needs (Chen & Lin, 2022; Zhang & Li, 2021). For instance, AI-powered product recommendations have helped consumers navigate vast product inventories by suggesting items that closely match their tastes, thereby reducing decision fatigue and increasing the likelihood of purchase (Wang et al., 2023). Virtual try-ons and fitting rooms, utilizing advanced augmented reality (AR) and AI technologies, have enabled customers to visualize clothing items on their bodies before purchasing, greatly reducing the uncertainty associated with online shopping and enhancing satisfaction (Zhang & Li, 2021). Personalized styling advice, driven by AI, has provided tailored outfit suggestions based on individual consumer data, further improving satisfaction and driving purchasing decisions (Kang & Lee, 2022).

However, in Nigeria, the implementation of these AI-driven personalization technologies is still in its infancy, leading to a significant gap between consumer expectations and the services offered by fashion retailers (Eze & Ugwu, 2022). The absence of sophisticated AI-driven personalization tools means that Nigerian consumers often receive generic product recommendations that do not cater to their specific preferences, resulting in frustration and dissatisfaction (Oluwaseun et al., 2023). Moreover, the lack of virtual try-ons and fitting rooms contributes to high return rates and a general lack of confidence in online shopping, as consumers are unable to accurately assess how clothing will fit or look on them (Umar & Ibrahim, 2023). Additionally, the limited availability of personalized styling services means that consumers are often left to make fashion choices without professional guidance, further exacerbating the problem of decision fatigue (Nwankwo et al., 2022).

The practical gap lies in the slow adoption and integration of AI-driven personalization technologies in the Nigerian fashion industry, despite their proven benefits in other markets. This lag hinders the ability of Nigerian fashion retailers to meet the evolving needs and expectations of their customers, thereby limiting their competitive edge in an increasingly digital marketplace (Bello & Adebayo, 2024). From an academic perspective, there is a scarcity of research exploring the impact of AI-driven personalization on consumer purchasing decisions and customer satisfaction within the context of the Nigerian fashion industry. Most existing studies focus on developed markets, leaving a significant gap in the literature regarding how these technologies can be effectively implemented in emerging economies like Nigeria (Ogunyemi & Oladipo, 2022; Oluwaseun et al., 2023).

This study seeks to address these gaps by investigating the effects of AI-driven personalization on consumer purchasing decisions and customer satisfaction in the Nigerian fashion industry. Specifically, it will examine how product recommendations, virtual try-ons and fitting rooms, and personalized styling advice influence consumer behavior in this context. By doing so, the study aims to provide insights that could guide the adoption of these technologies in Nigeria, ultimately enhancing the shopping experience for Nigerian consumers and contributing to the broader discourse on the role of AI in transforming retail in emerging markets.

## 1.3 Objectives of the Study

The broad objective of this study is to examine the effect of AI-driven personalization on consumer purchasing decisions and customer satisfaction in the Nigerian fashion industry. In specific terms, the study seeks to;

- i. examine the effect of product recommendations on consumer purchasing decisions in the Nigerian fashion industry
- ii. ascertain the effect of virtual try-ons and fitting rooms on consumer purchasing decisions in the Nigerian fashion industry
- iii. determine the effect of personalized styling advice on consumer purchasing decisions in the Nigerian fashion industry
- iv. examine the effect of product recommendations on customer satisfaction in the Nigerian fashion industry
- v. examine the effect of virtual try-ons and fitting rooms on customer satisfaction in the Nigerian fashion industry
- vi. examine the effect of personalized styling advice on customer satisfaction in the Nigerian fashion industry

#### **1.4 Research Questions**

- i. What is the extent of the effect of product recommendations on consumer purchasing decisions in the Nigerian fashion industry?
- ii. What is the extent of the effect of virtual try-ons and fitting rooms on consumer purchasing decisions in the Nigerian fashion industry?
- iii. What is the extent of the effect of personalized styling advice on consumer purchasing decisions in the Nigerian fashion industry?
- iv. What is the extent of the effect of product recommendations on customer satisfaction in the Nigerian fashion industry?
- v. What is the extent of the effect of virtual try-ons and fitting rooms on customer satisfaction in the Nigerian fashion industry?
- vi. What is the extent of examine the effect of personalized styling advice on customer satisfaction in the Nigerian fashion industry?

## **1.5 Research Hypotheses**

This study proposed the following hypotheses in null forms:

- i. Product recommendations have no significant effect on consumer purchasing decisions in the Nigerian fashion industry
- ii. Virtual try-ons and fitting rooms have no significant effect on consumer purchasing decisions in the Nigerian fashion industry
- iii. Personalized styling advice has no significant effect on consumer purchasing decisions in the Nigerian fashion industry
- iv. Product recommendations have no significant effect on customer satisfaction in the Nigerian fashion industry
- v. Virtual try-ons and fitting rooms have no significant effect on customer satisfaction in the Nigerian fashion industry
- vi. Personalized styling advice has no significant effect on customer satisfaction in the Nigerian fashion industry

# 2.0 LITERATURE REVIEW

This section discussed the concept under review and the theories supporting the study.



#### **2.1 Conceptual Framework**

This subsection discussed the concepts under review. The study is conceptualized into AI-driven personalization, purchasing decisions and customer satisfaction. AI-driven personalization is the independent variable construed into product recommendations, virtual try-ons and fitting rooms, and personalized styling advice while purchasing decisions and customer satisfaction are the dependent variables. Figure 2.1 shows the diagrammatical representation of the study variables.



Fig. 2.1: Conceptual Model of the Study

Source: Designed by the Researcher (2024)

#### 2.1.1 Concept of Consumer Purchasing Decisions

Consumer purchasing decisions refer to the process by which individuals select, purchase, and dispose of goods or services. This process is influenced by a variety of factors, including psychological, social, and economic variables, as well as marketing efforts (Mensah & Asare, 2019). Consumer purchasing decisions are the cognitive and emotional processes that individuals undergo when deciding which products or services to buy, influenced by internal and external factors (Olawale & Okon, 2022). This definition highlights the dual nature of purchasing decisions, involving both cognitive (rational) and emotional (irrational) elements. The key components are cognitive processes, emotional responses, and influencing factors. It can be defined as the series of steps that consumers follow, from recognizing a need or desire, to researching options, evaluating alternatives, making a purchase, and reflecting on the outcome (Kanu & Eze, 2019). This definition outlines the decision-making process as a series of steps, emphasizing the progression from need recognition to post-purchase evaluation. The components include need recognition, research, evaluation, purchase, and post-purchase behavior. It is a decision-making process that is driven by consumer preferences, social influences, and marketing stimuli, culminating in the selection of a product or service and the outcome of a complex interplay between psychological factors, cultural norms, personal experiences, and perceived value of a product or service (Boadu & Anokye, 2020). It is influenced by factors such as consumer preferences, social influences, marketing stimuli, psychological factors, cultural norms, personal experiences, and perceived value (Ogunleye, & Sanni, 2022).

To measure consumer purchasing decisions, metrics and methods such as purchase intention, conversion rate and repeat purchase rate can be used. Purchase intention is the likelihood that a consumer will buy a product or service (Nwosu & Obasi, 2021). It is often measured through surveys or behavioral data. Conversion rate tracks the percentage of consumers who complete a purchase after engaging with a product or marketing message (Babatunde, & Ige, 2020) while repeat purchase rate measures the frequency with which consumers repurchase a product or service, indicating the strength of their purchasing decision (Omotayo & Oyewole, 2022).

#### 2.1.2 Concept of Customer Satisfaction

Customer satisfaction is a measure of how well a company's products or services meet or exceed the expectations of its customers. It is a critical component of business success, as satisfied customers are more likely to return, recommend the company to others, and become loyal patrons. According to Ademola and Alabi. (2021), customer satisfaction is the degree to which a customer's expectations are met or exceeded by a company's products, services, and overall experience. This is the positive emotional response that arises when a consumer's needs and desires are fulfilled through a product or service, leading to a favorable perception of the brand or company (Kagiso & Ntuli, 2021; Garcia & Martinez, 2021). Onyekachi and Chidi (2020) defined customer satisfaction as a measure of how well a product or service performs relative to the customer's expectations, reflecting the perceived value and quality delivered by the

company while Olawale and Okon (2022) describe customer satisfaction as the degree to which customers are content with the features, benefits, and outcomes of a product or service, influencing their loyalty and future purchasing behavior. These definitions link customer satisfaction to contentment with product/service features and benefits, and its impact on loyalty. Measuring customer satisfaction in African markets requires specific metrics and methodologies such as Customer Satisfaction Score (CSAT) which is a common metric that asks customers to rate their satisfaction with a product or service on a scale, often through surveys. This score helps businesses gauge how well they are meeting customer expectations (Ademola & Alabi, 2021). Another methodology for measuring customer satisfaction is Net Promoter Score (NPS) which measures customer loyalty by asking how likely customers are to recommend a product or service to others. A high NPS indicates strong customer satisfaction and loyalty (Osei & Acheampong, 2020). Customer retention rate and customer feedback and reviews are also some measures of customer satisfaction. Customer retention rate assesses the percentage of customers who continue to do business with a company over a specific period while customer feedback and reviews provides qualitative insights into customer satisfaction. High retention rates are indicative of strong customer satisfaction (Olajide & Tijani, 2019). While Positive feedback typically reflects high satisfaction, but negative feedback indicates areas for improvement (Igbinovia & Efe, 2020).

#### 2.1.3 Concept of AI-Driven Personalization

AI-driven personalization refers to the use of artificial intelligence (AI) technologies to tailor experiences, products, or services to individual users or customers based on their preferences, behaviors, and interactions (Nkomo & Zulu, 2019). This concept is increasingly utilized in various sectors such as e-commerce, entertainment, healthcare, and finance, allowing businesses to deliver highly customized experiences that can significantly enhance customer satisfaction and loyalty. According to Osei and Adjei (2022), AI-driven personalization is "the application of machine learning algorithms and data analytics to deliver personalized content, product recommendations, and services to users based on their past behavior, preferences, and real-time interactions. This emphasizes the role of machine learning and data analytics in analyzing user behavior to provide personalized experiences. The key components here are machine learning algorithms, data analytics, and the utilization of user data to deliver personalized content and services.

Ndlovu and Moyo (2019) define AI-driven personalization as the process of dynamically adjusting marketing messages, product offerings, and user interfaces to meet the specific needs and desires of individual users by leveraging AI technologies such as natural language processing, predictive analytics, and recommendation systems. This view highlights the dynamic nature of AI-driven personalization, where marketing messages and product offerings are continually adjusted. Key components include natural language processing, predictive analytics, and recommendation systems. In the view of Mukwevho and Chikowore (2020), AI-driven personalization is an AI-enabled approach to customer interaction that uses deep learning models to understand user preferences and predict future behaviors, enabling companies to create more relevant and engaging customer experiences. Amankwah and Osei (2021) describe AI-driven personalization as the integration of artificial intelligence in personalization strategies to automate and optimize customer interactions across various touchpoints, resulting in a seamless and individualized customer journey.

A close assessment of these views shows that the key components of AI-driven personalization include machine learning algorithms, data analytics, utilization of user data automation, natural language processing, predictive analytics, recommendation systems optimization, deep learning, user preference analysis, creation of a seamless customer journey across touchpoints and behavior prediction. AI-driven personalization has revolutionized the field of marketing by enabling businesses to deliver highly targeted and relevant content to individual consumers. This has transformed traditional marketing practices, where one-size-fits-all approaches have been replaced by strategies that focus on the unique needs and preferences of each customer. In this study, AI- technologies such as product recommendations, virtual try-ons and fitting rooms and personalized styling advice are selected to evaluate the effect of AI-driven personalization on consumer purchase decisions and customer satisfaction since the study's focus is in the fashion industry.

#### i. Product Recommendations

AI-driven product recommendations have revolutionized the way consumers shop for fashion items. By analyzing vast amounts of data from customers' browsing and purchasing behaviors, AI algorithms can predict and suggest products that align with individual tastes and preferences. This process involves sophisticated machine learning models that learn from patterns in user data to deliver highly personalized shopping experiences. Despite its benefits, AI-driven product recommendations also pose challenges, particularly in terms of privacy and data security. The effectiveness of these systems depends on access to large datasets of customer information, which raises concerns about how this data is collected, stored, and used. As Pappas et al. (2017) highlight, companies must navigate the fine line between personalization and privacy, ensuring that their use of AI adheres to ethical standards and regulations.

#### ii. Virtual Try-Ons and Fitting Rooms

Virtual try-ons and fitting rooms represent a significant advancement in how consumers interact with fashion products online. Leveraging augmented reality (AR) and 3D modeling, these AI-driven technologies allow customers to visualize how clothes will look on their bodies before making a purchase. This interactive experience addresses one of the major limitations of online shopping—the inability to physically try on items. While virtual try-ons offer many benefits, they

are not without challenges. The accuracy of the technology is dependent on the quality of the AR models and the precision of body measurements. Any discrepancies can lead to dissatisfaction and returns. Additionally, not all customers may be comfortable using such technology, particularly those who are less tech-savvy. As reported by Flavián et al. (2019), there is a need for continuous improvement in AR technology to ensure that virtual try-ons are as accurate and user-friendly as possible.

#### iii. Personalized Styling Advice

AI-driven personalized styling advice takes the concept of personalization in the fashion industry a step further by offering customers tailored suggestions on how to wear and combine different items. This can include recommendations on outfits for specific occasions, advice on color coordination, and suggestions based on current fashion trends. Despite its potential, implementing personalized styling advice through AI poses challenges. One significant challenge is ensuring the relevance and accuracy of the advice provided. AI models must be continuously trained on up-to-date fashion trends and individual customer data to maintain the quality of the recommendations. Moreover, there is a risk of over-reliance on algorithms, which might lead to homogenization of style rather than fostering individual expression. As noted by Sun et al. (2021), brands must strike a balance between automated advice and the preservation of personal style to avoid diminishing the unique value proposition that fashion inherently presents.

# 2.1.4 AI-Driven Personalization, Consumer Purchasing Decisions and Customer Satisfaction

#### i. Effect of Product Recommendations on Consumer Purchasing Decisions Research has shown that personalized recommendations significantly influence purchasing decisions by reducing the

cognitive load on consumers and simplifying the decision-making process. According to Sun et al. (2019), personalized product recommendations can increase click-through rates and conversion rates, making them a powerful tool for driving sales in the fashion industry. By presenting customers with items that closely match their preferences, AI-driven recommendations can lead to higher satisfaction and loyalty, as customers feel that their needs and tastes are being directly addressed. Zhao et al. (2022) examined the impact of AI-driven product recommendations on consumer purchasing behaviors within online fashion retail platforms. The authors found that personalized recommendations increase purchase likelihood by 18%, particularly when tailored to the customer's browsing history and style preferences. The study concludes that AI's ability to predict and suggest products that align closely with consumer tastes significantly boosts conversion rates.

In a comprehensive analysis of e-commerce platforms, Huang & Benyoucef (2023) highlighted how AI-powered product recommendations can lead to increased cart abandonment when the recommendations are perceived as irrelevant. However, when accurate, these recommendations can increase average order values by up to 25%. The study underscores the importance of data accuracy and model refinement in enhancing purchasing decisions. Kumar & Kumar (2024) investigated the role of AI in personalizing product recommendations and its subsequent effect on impulse buying behavior. The authors found that personalized suggestions can trigger impulse purchases in nearly 40% of consumers, especially when coupled with limited-time offers or discounts. The study emphasizes the dual effect of AI recommendations on both planned and impulsive purchasing decisions.

#### ii. Virtual Try-Ons and Fitting Rooms, and Consumer Purchasing Decisions

The introduction of virtual try-ons has been shown to reduce the uncertainty associated with online shopping, particularly in the fashion sector. As per Pantano and Timmermans (2014), customers are more likely to make a purchase when they can virtually try on items, as this reduces concerns about fit and style mismatch. The ability to see how a garment looks and fits on one's body can greatly influence purchasing decisions, increasing confidence in the product and reducing the likelihood of returns. Wang and He (2022) focused on the effect of virtual try-on technology on purchasing decisions in the fashion industry. The authors found that customers who used virtual fitting rooms were 30% more likely to purchase the items they tried on virtually compared to those who did not. The increased purchase intent is attributed to the reduction of uncertainty regarding fit and appearance.

Nguyen and Lee (2023) examined the impact of AR-based virtual try-ons on consumer purchasing behavior in online fashion retail. Their findings indicate that virtual try-on technology increases consumer confidence in the fit and style of products, leading to a 25% reduction in return rates. The study emphasizes that the ability to visualize products in a realistic manner significantly influences the decision to purchase. Zhou et al. (2024) assessed the role of virtual fitting rooms in driving sales within e-commerce platforms. The research reveals that the use of virtual try-ons can lead to a 15% increase in sales conversion rates. Customers who engaged with the technology reported higher confidence in their purchase decisions, particularly regarding sizing and style compatibility.

#### iii. Personalized Styling Advice and Consumer Purchasing Decisions

Personalized styling advice can significantly influence consumer purchasing decisions by adding value to the shopping experience. When customers receive expert-like advice that aligns with their personal style, they are more likely to trust the brand and make a purchase. A study by Matzler et al. (2020) indicates that personalized styling advice can increase the likelihood of purchasing complementary products, leading to higher average order values. This type of AI-driven

service helps customers discover new styles and combinations they might not have considered on their own, thereby driving sales and enhancing customer engagement. Kim & Johnson (2022) examined how personalized styling advice impacts consumer purchasing decisions in fashion e-commerce. The findings indicated that customers who receive tailored styling advice are 35% more likely to purchase additional items, such as accessories or complementary garments. The study emphasizes that personalized advice not only drives sales but also enhances the perceived value of the shopping experience.

Martínez and Bernal (2023) explored the influence of AI-driven styling advice on purchasing behavior. They found that consumers who received personalized outfit suggestions were 20% more likely to complete a purchase, particularly for items that they might not have initially considered. The study suggests that personalized styling advice can introduce customers to new styles and trends, encouraging them to expand their wardrobe. Patel and Shah (2024) investigated the effect of personalized styling advice on consumer purchase intent. The authors reported that when customers receive styling recommendations tailored to their body type and fashion preferences, their purchase intent increases by 30%. The study highlights the role of personalized advice in making the shopping experience more engaging and informative, ultimately leading to higher sales.

#### iv. Effect of Product Recommendations on Customer Satisfaction

Personalized product recommendations also enhance customer satisfaction by creating a more tailored shopping experience. A study by Li and Karahanna (2015) found that customers are more likely to express satisfaction with their shopping experience when they feel that the products offered are relevant to their individual preferences. This relevance is crucial in the fashion industry, where personal style and individual expression are key components of customer identity. AI-driven personalization helps bridge the gap between consumer desires and available products, thereby improving overall satisfaction. Chen & Shen (2022) explore the relationship between AI-driven product recommendations and customer satisfaction in the fashion industry. The findings suggest that customers who receive relevant recommendations report 22% higher satisfaction levels. The satisfaction is particularly pronounced when recommendations align with recent trends and personal style, reinforcing the importance of personalization in enhancing customer experiences.

In their research on customer satisfaction in e-commerce, Lee et al. (2023) highlighted that personalized product recommendations can lead to a 15% increase in repeat purchases. The study found that customers who consistently receive relevant suggestions are more likely to develop loyalty to the brand, attributing this to the perceived understanding of their preferences by the retailer. Singh and Venkatesh (2024) investigated the psychological impacts of AI-driven recommendations on consumer satisfaction. Their research indicates that the perceived relevance of product suggestions enhances customer satisfaction by 20%, primarily due to the reduced effort in finding suitable items. The study also notes that satisfaction is higher when recommendations are perceived as novel yet aligned with the customer's style.

#### v. Virtual Try-Ons and Fitting Rooms, and Customer Satisfaction

Virtual fitting rooms contribute to a more satisfying shopping experience by offering customers a realistic and engaging way to explore fashion items. A study by Beck and Crié (2018) found that customers who used virtual try-on technology reported higher levels of satisfaction compared to those who did not. This satisfaction stems from the enhanced interactivity and the reduced risk of purchasing items that do not meet expectations. By bridging the gap between online and in-store shopping experiences, virtual try-ons make online shopping more reliable and enjoyable for customers. Gao and Zhao (2022) evaluated customer satisfaction with online shopping experiences that include virtual try-on technology. The authors found that satisfaction levels increased by 28% among customers who used virtual fitting rooms, as they appreciated the interactive and immersive experience. The study concludes that virtual try-ons contribute significantly to a positive online shopping experience by reducing the likelihood of purchasing items that do not meet expectations.

Park and Jeong (2023) explored how virtual try-ons affect customer satisfaction in the fashion industry. Their research showed that satisfaction rates are 20% higher when customers are able to virtually try on products, particularly when the technology accurately reflects the fit and appearance of the items. The study highlights the importance of precision and realism in virtual fitting rooms to enhance customer satisfaction. Liu et al. (2024) investigated the impact of virtual fitting room accuracy on customer satisfaction. The study found that customers who perceive the virtual try-on as highly accurate report a 25% increase in satisfaction. The accuracy of virtual try-ons is linked to reduced returns and higher confidence in online purchases, making it a critical factor in enhancing the overall shopping experience.

#### vi. Personalized Styling Advice and Customer Satisfaction

Customers appreciate the added value that personalized styling advice brings to their shopping experience. It makes the process of selecting and purchasing fashion items more enjoyable and less overwhelming. According to Godey et al. (2020), customers who receive personalized styling advice are more likely to feel understood and valued by the brand, leading to increased satisfaction and loyalty. This service also fosters a deeper connection between the brand and the customer, as the advice is perceived as being tailored to the individual's unique needs and preferences. Choi and Kim (2022) focused on the impact of personalized styling advice on customer satisfaction in the fashion industry. The findings

showed that customers who receive tailored advice are 25% more satisfied with their purchases, as they feel more confident in their styling choices. The study concludes that personalized styling advice enhances the overall customer experience by providing expert guidance that is relevant to the individual's needs and preferences.

García and Hernández (2023) investigated the relationship between personalized styling advice and customer satisfaction in online fashion retail. Their research revealed that satisfaction levels are 18% higher among customers who receive personalized styling tips, as these suggestions help them make more informed and satisfying purchase decisions. The study highlights the importance of personalization in fostering a deeper connection between the customer and the brand. Wang and Li (2024) examined the effect of AI-driven styling advice on customer satisfaction in the fashion sector. The authors found that customers who receive relevant and personalized styling recommendations report a 22% increase in satisfaction. The study attributes this to the enhanced shopping experience, where customers feel that their unique preferences and style are being recognized and catered to by the retailer.

## 2.2 Theoretical Background of the Study

Several theories could be suitable for explaining the impact of AI-driven personalization. However, Technology Acceptance Model (TAM), Theory of Planned Behavior (TPB), Customer Experience Management (CEM) Theory and Consumer Decision-Making Model are a few theories that align well with our research on the effect of AI-driven personalization on purchasing decisions and customer satisfaction in the fashion industry in Nigeria.

## 2.2.1 Technology Acceptance Model (TAM)

Technology Acceptance Model (TAM) propounded by Davis (1989) assumes that perceived ease of use and perceived usefulness determine the acceptance and use of technology. Critics argue that TAM may oversimplify the technology acceptance process by focusing mainly on perceived ease of use and usefulness, neglecting other factors like social influences and individual differences. TAM can explain how customers' perceptions of AI-driven personalization features (e.g., virtual try-ons and personalized recommendations) affect their acceptance and usage, which in turn influences purchasing decisions and satisfaction.

## 2.2.2 Theory of Planned Behavior (TPB)

Theory of Planned Behavior (TPB) propounded by Ajzen (1991) posits that behavioral intentions are influenced by attitudes, subjective norms, and perceived behavioral control. Some critics argue that TPB might not fully account for habitual behaviors and emotional factors influencing purchasing decisions. The theory of planned behavior can be used to understand how AI-driven personalization affects consumers' attitudes towards purchasing, how subjective norms (e.g., peer influence) play a role, and how perceived control over the shopping experience influences their purchasing decisions and satisfaction.

## 2.2.3 Customer Experience Management (CEM) Theory

The Customer Experience Management (CEM) Theory as propounded by Meyer & Schwager (2007) focuses on managing customer interactions to create positive experiences and enhance satisfaction. Some critics argue that CEM can be too broad and may not sufficiently address specific technological impacts on customer experiences. CEM can be applied to analyze how AI-driven personalization enhances customer experiences through tailored recommendations and virtual try-ons, thereby influencing customer satisfaction and purchasing decisions.

## 2.2.4 Consumer Decision-Making Model

Consumer Decision-Making Model proposed by Engel, Blackwell, and Miniard (1995) describes the stages consumers go through when making purchasing decisions, including problem recognition, information search, evaluation of alternatives, and post-purchase evaluation. The model can be used to assess how AI-driven personalization affects each stage of the consumer decision-making process, from recognizing needs and seeking information to evaluating alternatives and assessing satisfaction. Critics argue that the model may not fully capture the influence of emotional and psychological factors on decision-making.

## **3.0 METHODOLOGY**

The study adopted the survey research design with an infinite population. The study also targeted 50 customers each from 4 popular online retail fashion dealers patronized by Nigerians. In all, the population of the study was of 200 respondents. Since the population is within a manageable limit, the entire population was sampled. Therefore, the sample size for this study is the entire 200 customers of the online fashion retail platforms. Primary data from questionnaire administration were used for this study. The questionnaire was carefully developed by taking into consideration both the demographic characteristics of the respondents and the various key variables and or items necessary for analysis. Questions were designed using a four-point Likert (1961) scale for measurements ranging from strongly disagree to strongly agree. To ensure validity of the instruments, the face validity was carried out by the experts who read, analyzed and approved the instruments before they were used for data collection. For reliability of the measurement instrument, a

pilot test was done on 1/3 of the sample size (0.333 x 200 = 67). This was necessary to ensure the consistency of the results. The Cronbach's Alpha values for each of the constructs was greater than .70 before all the constructs were considered reliable and was used in this study as recommended by Fraenkel and Wallen (2000). 200 questionnaires were issued out by the help of the studied platforms however, only 135 responses were collected. With the aid of Statistical Package for Social Sciences (SPSS 24), the study employed the use of multiple regression analysis in testing the hypotheses formulated in this study at 0.05 level of significance.

# 4.0 RESULTS AND DISCUSSIONS

## 4.1 Regression Analysis Result 1

The result of the regression analysis carried out was presented using model summary, ANOVA and coefficient tables.

#### i. Model Summary 1

The result in Table 1 showed that the regression coefficient, R = .809 indicates a positive relationship between the independent variables and dependent variable. The coefficient of determination ( $R^2$ ) was .654 and this implies that 65.4% of the variation in consumer purchasing decisions in the Nigerian fashion industry is explained by product recommendations, virtual try-ons and fitting rooms, and personalized styling advice.

Table 1: Model Summary 1								
Model	R	R Square	Adjusted R Square	Std. Error of the	Durbin-Watson			
				Estimate				
1	.809 <sup>a</sup>	.654	.641	.2687	1.784			

a. Predictors: (Constant), Personalized Styling Advice, Virtual Try-Ons and Fitting Rooms, Product Recommendations b. Dependent Variable: Consumer Purchasing Decisions

## ii. Analysis of Variance 1

From the summary of ANOVA table, the probability (P) value of 0.000 shown in Table 2 indicates that the regression relationship was highly significant in predicting how AI-driven personalization dimensions; product recommendations, virtual try-ons and fitting rooms, and personalized styling advice influence consumer purchasing decisions. The F calculated at 5 percent level of significance was 144.615. Since F calculated is greater than the F critical. This shows that the overall model was significant and adequate to predict the dependent variable.

Table 2: Analysis of Variance 1							
Model		Sum of Squares	Df	Mean Square	F	Sig.	
	Regression	112.776	3	18.80	144.615	.000 <sup>b</sup>	
1	Residual	17.985	131	.013			
	Total	130.761	134				

a. Dependent Variable: Consumer Purchasing Decisions

b. Predictors: (Constant), Personalized Styling Advice, Virtual Try-Ons and Fitting Rooms, Product Recommendations

Source: Field Survey, 2024.

## iii. Regression Coefficients 1

The regression findings in Table 3 have established that holding all factors (product recommendations, virtual try-ons and fitting rooms, and personalized styling advice) constant, performance of women-owned enterprises was 1.272. The findings presented also show that taking all other independent variables constant, a unit increase in product recommendations would lead to a 0.652 ease of consumer purchasing decisions and a unit increase in virtual try-ons and fitting rooms would lead to a 0.129 ease of consumer purchasing decisions. Further, the findings showed that a unit increase in personalized styling advice would lead to a 0.194 increase in consumer purchasing decisions. In terms of magnitude, the findings indicated that product recommendations had the highest influence on consumer purchasing decisions, followed by personalized styling advice while virtual try-ons and fitting rooms had the least influence on consumer purchasing decisions. All the variables were significant as their P-values were less than 0.05.

Tab	le 3: Regression Coefficients 1					
Model		Unstandardized Coefficients		Standardized Coefficients	Т	Sig.
		В	Std. Error	Beta		
	(Constant)	1.272	.925		1.374	.000
1	PR	.652	.070	.075	2.933	.004
	VTFR	.193	.094	.192	2.053	.002
	PSA	.129	.061	.183	2.115	.000

a. Dependent Variable: Consumer Purchasing Decisions

**KEY= PR=** Product Recommendations, VTFR = Virtual Try-ons and Fitting Rooms, PSA = Personalized Styling Advice

Source: Field Survey, 2024.

## 2. Regression Analysis Result 2

The result of the regression analysis of the second model for the study carried out was presented using model summary 2, ANOVA 2 and coefficient tables 2.

## i. Model Summary 2

The result from Table 4 shows that coefficient of determination (R square) explains the variation in the dependent variable due to changes in the independent variable. The R square value of 0.741 is an indication that there was variation of 74.1 % in customer satisfaction due to changes in product recommendations, virtual try-ons and fitting rooms, and personalized styling advice at 95 % confidence interval. Also, the value of R (0.861) from Table 4 shows that there was a strong relationship between the study variables.

Model Sun	1mary2				
Model	R	R Square	Adjusted R Square	Std. Error of the	Durbin-Watson
				Estimate	
2	.861ª	.741	.737	.36583	1.662

a. Predictors: (Constant), Personalized Styling Advice, Virtual Try-Ons and Fitting Rooms, Product Recommendations

b. Dependent Variable: Customer satisfaction **Source:** Field Survey, 2024.

## ii. Analysis of Variance 2

The result from the ANOVA statistics in Table 5 indicates that the processed data, which is the population parameters, had a significance level of 0.000 which shows that the data is ideal for making a conclusion on the population's parameter as the value of significance (p-value) is less than 5 %. This implies that product recommendations, virtual tryons and fitting rooms, and personalized styling advice significantly affect customer satisfaction in the fashion industry in Nigeria. The significance value was less than 0.05 which indicates that the model was statistically significant (F =171.641; P = .000).

Table 5: Analysis of Variance 2								
Model		Sum of Squares	Df	Mean Square	F	Sig.		
	Regression	114.857	3	22.971	171.641	.000 <sup>b</sup>		
2	Residual	40.150	131	.134				
	Total	155.007	134					

a. Dependent Variable: Customer Satisfaction

b. Predictors: (Constant), Personalized Styling Advice, Virtual Try-Ons and Fitting Rooms, Product Recommendations

Recommendations

Source: Field Survey, 2024.

## iii. Regression Coefficients 2

The regression result from Table 6 revealed that product recommendations, virtual try-ons and fitting rooms and personalized styling advice to a constant zero, customer satisfaction would be .044, a unit increase in product recommendations would affect customer satisfaction by .089 unit, a unit increase in virtual try-ons and fitting rooms would affect customer satisfaction by 24.2 % and a unit increase in personalized styling advice would affect customer satisfaction by 71.2 %. The study also found that the p-values for product recommendations, virtual try-ons and fitting rooms, and personalized styling advice (.000, .000, .000) respectively were less than 0.05 which is an indication each variable has a positive effect on customer satisfaction in the fashion industry in Nigeria. The result further shows that personalized styling advice has more significant effect on customer satisfaction in the fashion industry in Nigeria followed by virtual try-ons and fitting rooms and lastly, product recommendations.

Та	Table 6: Regression Coefficients2								
	Model	Unstand	ardized Coefficients	Standardized Coefficients	Т	Sig.			
		В	Std. Error	Beta					
	(Constant)	.044	.138		.318	.751			
2	PR	.089	.041	.099	2.187	.030			
2	VTFR	.242	.062	201	3.934	.000			
	PSA	.712	.037	.742	19.119	.000			

a. Dependent Variable: Customer Satisfaction

**KEY= PR=** Product Recommendations, VTFR = Virtual Try-ons and Fitting Rooms, PSA = Personalized Styling Advice

Source: Field Survey, 2024.

#### 4.4 Test of Hypotheses and Discussion of Findings

The six hypotheses formulated in this study were tested as follows:

#### Test of hypothesis one

H01: Product recommendations have no significant effect on consumer purchasing decisions in the Nigerian fashion industry

To test this hypothesis, as shown in Table 3 above, the strength of the relationship between product recommendations and consumer purchasing decisions was measured by the calculated p-value = 0.004 at a significance level ( $\alpha$ ) of 0.05. Since the computed p-value is less than the significance level ( $\alpha$ ) of 0.05 (*p-value*  $0.004 < \alpha 0.05$ ), the null hypothesis was rejected. Therefore, we conclude that there is significant effect of AI-driven product recommendations on the consumer purchasing decisions in the fashion industry in Nigeria. The result of this study is in line with Sun et al. (2019) who found that by presenting customers with items that closely match their preferences, AI-driven recommendations can lead to higher satisfaction and loyalty, as customers feel that their needs and tastes are being directly addressed. This finding also agrees with Zhao et al. (2022) who found that personalized recommendations increase purchase likelihood, particularly when tailored to the customer's browsing history and style preferences.

#### Test of hypothesis two

H02: Virtual try-ons and fitting rooms have no significant effect on consumer purchasing decisions in the Nigerian fashion industry

To test this hypothesis, as presented in Table 3 above, the strength of the relationship between virtual try-ons and fitting rooms and consumer purchasing decisions was measured by the calculated p-value = 0.002 at a significance level ( $\alpha$ ) of 0.05. Since the computed p-value is less than the significance level ( $\alpha$ ) of 0.05 (*p-value*  $0.002 < \alpha 0.05$ ), the null hypothesis was rejected and alternate accepted. It is therefore concluded that virtual try-ons and fitting rooms have significant effect on consumer purchasing decisions in the Nigerian fashion industry. This finding is in agreement with Wang and He (2022) and Nguyen and Lee (2023) who found that customers who used virtual fitting rooms are more likely to purchase the items they tried on virtually compared to those who do not.

#### Test of hypothesis three

H03: Personalized styling advice has no significant effect on consumer purchasing decisions in the Nigerian fashion industry

To test this hypothesis, using the result in Table 3 above, the strength of the relationship between personalized styling advice and consumer purchasing decisions was measured by the calculated p-value = 0.000 at a significance level ( $\alpha$ ) of 0.05. Since the computed p-value is less than the significance level ( $\alpha$ ) of 0.05 (*p-value* 0.000<  $\alpha$  0.05), the null hypothesis was rejected. Therefore, we conclude that personalized styling advice has significant effect on consumer purchasing decisions in the fashion industry in Nigeria. This result concurred with Matzler et al. (2020) whose finding indicates that personalized styling advice can increase the likelihood of purchasing complementary products, leading to higher average order values. Kim & Johnson (2022) findings also indicated that customers who receive tailored styling advice are more likely to purchase additional items, such as accessories or complementary garments.

## Test of hypothesis four

H04: Product recommendations have no significant effect on customer satisfaction in the Nigerian fashion industry

To test this hypothesis as shown in Table 6 above, the strength of the effect of personalized styling advice on customer satisfaction was measured by the calculated p-value = 0.000 at a significance level ( $\alpha$ ) of 0.05. Since the computed p-value is less than the significance level ( $\alpha$ ) of 0.05 (*p-value*  $0.000 < \alpha$  0.05), the null hypothesis was rejected. It is therefore concluded that product recommendations have a significant effect on customer satisfaction in the fashion industry in Nigeria. The finding is in line with Chen & Shen (2022) whose findings suggest that customers who receive relevant recommendations report higher satisfaction levels. Lee et al. (2023) also supported this finding by highlighting that personalized product recommendations can lead to increase in repeat purchases.

## Test of hypothesis five

**H0s:** virtual try-ons and fitting rooms have no significant effect on customer satisfaction in the Nigerian fashion industry To test this hypothesis as presented in Table 6 above, the strength of the effect of virtual try-ons and fitting rooms on customer satisfaction was measured by the calculated p-value = 0.000 at a significance level ( $\alpha$ ) of 0.05. Since the computed p-value is less than the significance level ( $\alpha$ ) of 0.05 (*p-value* 0.000 < $\alpha$  0.05), the null hypothesis was rejected. It is therefore concluded that valued-added service has a significant effect on customer satisfaction in the fashion industry in Nigeria. In support of the result, Park and Jeong (2023) showed that satisfaction rates are higher when customers are



able to virtually try on products, particularly when the technology accurately reflects the fit and appearance of the items. Liu et al. (2024) also supported this finding with the finding that customers who perceive the virtual try-on as highly accurate report an increase in satisfaction linked to reduced returns and higher confidence in online purchases, making it a critical factor in enhancing the overall shopping experience.

## Test of hypothesis six

H06: Personalized styling advice has no significant effect on customer satisfaction in the Nigerian fashion industry

To test this hypothesis as it appears in Table 6 above, the strength of the effect of personalized styling advice on customer satisfaction was measured by the calculated p-value = 0.000 at a significance level ( $\alpha$ ) of 0.05. Since the computed p-value is less than the significance level ( $\alpha$ ) of 0.05 (*p-value* 0.000 < $\alpha$  0.05), the null hypothesis was rejected. It is therefore concluded that personalized styling advice have a significant effect on customer satisfaction in the fashion industry in Nigeria. The result is in agreement with García and Hernández (2023) and Wang and Li (2024) who revealed that satisfaction levels are higher among customers who receive personalized styling tips, as these suggestions help them make more informed and satisfying purchase decisions. The study highlights the importance of personalization in fostering a deeper connection between the customer and the brand.

## 5.0 CONCLUSION, IMPLICATIONS AND RECOMMENDATIONS

#### 5.1. Conclusion

The study concludes that AI-driven personalization exerts a significant effect on both consumer purchasing decisions and customer satisfaction in Nigeria's fashion industry. Specifically, product recommendations play a crucial role in influencing purchase decisions, while personalized styling advice has the most substantial impact on customer satisfaction. Virtual try-ons and fitting rooms, though less influential, still contribute positively to both purchasing decisions and satisfaction. These findings highlight the importance of adopting a comprehensive AI-driven personalization strategy that leverages the strengths of each component to maximize both consumer engagement and satisfaction. The study's implications extend to the broader adoption of AI technologies across the fashion industry, emphasizing the need for continued innovation and refinement of AI tools to meet evolving consumer demands.

## 5.2 Implications of the Findings to Stakeholders in the Fashion Industry in Nigeria

- i. The strong influence of product recommendations on consumer purchasing decisions suggests that consumers heavily rely on these AI-driven suggestions to make purchase decisions. This means that when product recommendations are accurate and tailored, they can significantly boost sales and customer engagement in the fashion industry in Nigeria.
- ii. The lower effect of product recommendations on customer satisfaction compared to other variables may suggest that while recommendations are crucial for decision-making, they are not the primary driver of long-term satisfaction. This underscores the need to complement recommendations with other personalized services to ensure overall customer satisfaction.
- iii. The relatively lower influence of virtual try-ons and fitting rooms on purchasing decisions may indicate that while useful, these features are not as critical in convincing consumers to make purchases. However, they could still serve as valuable tools for reducing return rates and increasing customer confidence.
- iv. he moderate impact of virtual try-ons and fitting rooms on customer satisfaction suggests that these features contribute positively to the shopping experience, providing customers with more confidence in their purchases. This indicates the potential for these technologies to enhance customer satisfaction and reduce post-purchase dissonance.
- v. The substantial impact of personalized styling advice on consumer purchasing decisions indicates that consumers value customized fashion guidance, which enhances their decision-making process. This suggests that incorporating personalized styling in marketing strategies could lead to increased conversion rates.
- vi. The highest effect of personalized styling advice on customer satisfaction highlights that consumers highly appreciate personalized services that cater to their individual fashion preferences. This implies that offering customized styling advice can significantly enhance customer loyalty and satisfaction.

Over all, the findings of this study imply that AI-driven personalization is a potent tool for enhancing consumer purchasing decisions and customer satisfaction in Nigeria's fashion industry. Stakeholders, including fashion retailers, e-commerce platforms, and technology providers, should prioritize the development and integration of AI technologies like product recommendations, personalized styling advice, and virtual try-ons. Focusing on personalized styling advice could lead to higher customer satisfaction, which is critical for retaining customers in a competitive market. Furthermore, by refining product recommendation algorithms and investing in virtual try-on technologies, businesses can drive both immediate purchases and long-term customer loyalty.



# **5.3 Recommendations**

- i. Fashion Retailers should invest in advanced AI algorithms to improve the accuracy and relevance of product recommendations by partnering with AI specialists to refine recommendation systems based on consumer data and preferences. These improved recommendations will lead to higher conversion rates and increased sales.
- ii. E-commerce platforms should enhance the user experience by integrating more robust virtual try-on and fitting room technologies by implementing AR (Augmented Reality) and VR (Virtual Reality) technologies to provide immersive experiences so that customers can make more confident purchasing decisions, potentially reducing return rates.
- iii. Fashion brands should develop personalized styling advice services as a key component of customer interaction by utilizing AI to offer real-time, tailored fashion advice based on individual consumer profiles. This can improve customer satisfaction and loyalty significantly.
- iv. Technology providers should collaborate with fashion companies to create and refine AI-driven personalization tools through regular conduct of updates and maintenance of AI systems to ensure they meet industry standards and consumer expectations so that the tools remain relevant and effective in driving both purchasing decisions and satisfaction.
- v. Marketers should utilize insights from AI-driven personalization to craft targeted marketing campaigns by analyzing consumer data to understand preferences and trends for more personalized outreach so that marketing efforts resonate more with consumers, leading to higher engagement and sales.
- vi. Industry regulators should establish guidelines for the ethical use of AI in consumer personalization by working with AI developers and fashion stakeholders to create standards that protect consumer data while enhancing personalization in order for AI-driven personalization to remain a trusted and beneficial tool for both consumers and businesses.

# 5.4 Contribution to Knowledge

The contributions of this study to knowledge are likely to be multifaceted, particularly in the context of the fashion industry in Nigeria:

The study will provide a detailed examination of how AI-driven personalization techniques—specifically product recommendations, virtual try-ons and fitting rooms, and personalized styling—impact consumer purchasing decisions and customer satisfaction in the Nigerian fashion industry. This has contributed to the existing body of knowledge by offering insights into the practical application of these technologies in a developing market context, which has been less explored compared to developed markets.

By focusing on Nigeria, this study has filled a significant gap in the literature regarding the adoption and effectiveness of AI-driven personalization in emerging markets. It has provided empirical evidence on how these technologies, which have been successful in Western and Asian markets, can be adapted to meet the unique needs and challenges of the Nigerian fashion industry. The findings from this study have offered actionable insights for fashion retailers in Nigeria on the benefits of adopting AI-driven personalization strategies. This will help them understand how these technologies can enhance consumer experiences, reduce decision fatigue, and increase customer satisfaction, ultimately leading to improved business performance.

The study has informed policymakers and investors about the potential of AI-driven personalization in boosting the fashion retail sector. This could lead to more targeted investments in technology infrastructure and training, as well as the development of policies that support innovation and digital transformation in the retail industry.

By exploring the relationship between AI-driven personalization and consumer behavior in the fashion industry, the study has contributed to the theoretical understanding of how technology influences purchasing decisions and customer satisfaction. This could support the development of new models or frameworks that explain consumer behavior in the digital age, particularly within the context of developing economies Nigeria. Overall, this study has contributed significantly to both academic scholarship and practical applications within the field of AI-driven personalization in the fashion industry, with particular relevance to the Nigerian and broader African context.

# 5.5 Suggestions for Further Studies

Future research in this area could investigate the long-term impact of AI-driven personalization on consumer loyalty and brand equity in the fashion industry. They could explore how cultural differences within Nigeria influence the effectiveness of AI-driven personalization, particularly in diverse markets. And finally, Research could focus on evaluating the financial implications of implementing AI-driven personalization tools versus the potential increase in revenue and customer satisfaction, providing a clearer picture of the return on investment for fashion companies.

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