

A STUDY ON CUSTOMERS PERCEPTION TOWARDS THE APPLICATION OF AI TOOLS IN THE ONLINE SHOPPING OF IMITATION JEWELS IN MADURAI CITY

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Abstract

Technology – driven online shopping experiences are gaining popularity among consumers of different age groups. The change in consumer's purchasing behavior is being driven by their desire for convenience, personalization and efficiency. This research paper aims to explore the various dimensions of customer perception towards the application of AI tools in the online shopping of imitation jewels in Madurai city. A sample of 50 respondents from Madurai city is surveyed using a questionnaire. To identify interferences in the collected data, an appropriate method of analysis is used.

Keywords: Online shopping, Imitation jewels, Customer perception.

Introduction

The advent of Artificial Intelligence (AI) has revolutionized the retail industry, transforming the way businesses interact with customers and provide personalized shopping experiences. The online shopping landscape has undergone a significant transformation with the incorporation of AI-powered tools. Imitation jewels a popular fashion accessory, has also become a significant segment in the online retail market. Madurai, is a city known for its rich cultural heritage and growing online shopper base. This research aims to investigate customer perception towards the application of AI tools in the online shopping of imitation jewels in Madurai city. The study seeks to explore the factors influencing customers' attitudes and behaviors towards AI-powered online shopping platforms.

Statement of the Problem

The increasing popularity of online shopping has led to a growing demand for personalized and efficient shopping experiences. The integration of Artificial Intelligence (AI) tools in online shopping platforms has the potential to address this demand. However, there is a lack of understanding about how customers perceive the application of AI tools in online shopping, particularly in the context of imitation jewels shopping in Madurai city. This knowledge gap hinders the effective implementation of AI-powered online shopping platforms that cater to the needs and preferences of customers. Therefore, this study aims to investigate customer perception towards the application of AI tools in online imitation jewels shopping in Madurai city.

Objectives

The following are the objectives of the study

1. To analyse the demographic and socioeconomic characteristics that influence customers perceptions of AI tools in the shopping of online imitation jewels.
2. To examine customers awareness and understanding of AI tools in the shopping of online imitation jewels
3. To identify the factors influencing customers perceptions of AI-powered online imitation jewels shopping platforms.

Research Methodology

It is an analytical study where a sample for the entire population was chosen from imitation jewel users in the city of Madurai based on their age, gender, annual income, and a few other factors. The sample size consisted of 50 respondents and are selected using simple random sampling technique. The study is based on both Primary and Secondary Data. Primary data was collected using a structured questionnaire and distributed to the respondents within the geographical location of Madurai city. Secondary data was collected from articles, journals and online resources to supplement the findings.

Review of Literature

Julian Pieconka “Artificial Intelligence (AI) experienced major leaps in its practical capabilities and commercial implementations. This includes performing seemingly creative tasks such as designing everyday products like chairs, tables, and jewelry. This study focuses on the consumers’ perspective to explore how the implementation of AI in the context of product designs is perceived. By conducting focus groups, it became clear that the products themselves appear indistinguishable. Yet, the knowledge about AI involvement seems to drastically influence consumers’ perceptions of products, as they are described to lack humanity, love, effort, and overall emotions resulting in a perceived loss of value despite an indistinguishable product”.¹

Vipin Kumar, Bharath Rajan, Rajkumar Venkatesan, Jim Lecinski: “Their article explores the role of artificial intelligence (AI) in aiding personalized engagement marketing—an approach to create, communicate, and deliver personalized offerings to customers. It proposes that consumers are ready for a new journey in which AI is a tool for endless options and information that are narrowed and curated in a personalized way. It also provides predictions for managers regarding the AI-driven environment on branding and customer management practices in both developed and developing countries”.²

Nishita Hada, Sejal Jain, Shreya Soni, Shubham Joshi: “In this new era of social distance, technology can help prevent the spread and build a resilient society. Technology

¹ Pieconka, J. (2023). Creative Machines-Consumers’ Perception of AI Designed Products (Doctoral dissertation, Leopold-Franzens-Universität Innsbruck).

² Kumar, V., Rajan, B., Venkatesan, R., & Lecinski, J. (2019). Understanding the role of artificial intelligence in personalized engagement marketing. *California management review*, 61(4), 135-155.

is playing a vital role in keeping our society functioning without much disturbance. In such situations, online shopping becomes the easiest and the most suitable way for shopping. Considering India is one of the largest consumers of gold, diamonds, and other precious metals in the world. The jewelry and gem exchange of India plays a major role in the country's GDP. This paper shows jewelry shopping using augmented reality and virtual reality that will allow the users to virtually examine the jewelry in the comfort of their home and give them the joy of conventional shopping".³

Analysis and Findings

One of the objectives of the study is to analyse the demographic and socioeconomic characteristics that influence customer's perceptions towards the application of AI tools in the online shopping of imitation jewels.

Table 1
Socio - economic characteristics of respondents

Particulars	Frequency	Percentage
Age		
20-40 yrs	40	80%
40-60 yrs	10	20%
Above 60 yrs	-	-
Gender		
Male	22	44%
Female	28	56%
Transgender	-	-
Marital Status		
Married	23	46%
Unmarried	27	54%
Educational Qualification		
High School	-	-
Higher Secondary	2	4%
Under Graduate	22	44%
Post Graduate	24	48%
Professional degree	2	4%
Occupation		
Student	19	38%
Government Employee	5	10%
Private Employee	18	36%

³ Hada, N., Jain, S., Soni, S., & Joshi, S. (2021). Review on Augmented Reality and Virtual Reality Enabled Precious Jewelry Selling. In Computational Vision and Bio-Inspired Computing: ICCVBIC 2020 (pp. 665-674). Springer Singapore.

Self Employed	7	14%
Retired	1	2%
Nature of Family		
Nuclear	35	70%
Joint Family	15	30%
Family Annual Income		
Below Rs.5,00,000	30	60%
Rs.5,00,000 to Rs.10,00,000	16	32%
Rs.10,00,000 to Rs.15,00,000	-	-
Above Rs.15,00,000	4	8%

Source: Primary data

Table 1 exhibits that 80 percent of the respondents are in the age group of 20-40 years, 56 percent of the respondents are female, 54 percent of the respondents are unmarried, 48 percent of the respondents are post graduate, 38 percent of the respondents are student, 70 percent of the respondents belong to nuclear family, 60 percent of the respondents are earning an income of below Rs.5, 00,000.

Table 2
General Perception about usage of AI tools

Particulars	Frequency	Percentage
Awareness		
Aware	32	64%
Not Aware	18	36%
Frequency		
Always	7	14%
Often	7	14%
Sometimes	18	36%
Rarely	11	22%
Never	7	14%
Shopping Experience		
Improved product recommendations	14	28%
Enhanced customer service	12	24%
Personalized offers and discounts	12	24%
Simplified navigation and search	10	20%
Others	2	4%
Comfortable of usage		
Comfortable	42	84%
Non Comfortable	8	16%
Expectation from an AI-powered shopping platform		
Virtual try-on	10	20%

Personalized recommendations	15	30%
Price comparison	15	30%
Product reviews	10	20%
AI-Powered feature		
Virtual try-on	14	28%
Personalized recommendations	11	22%
Chatbots	10	20%
Product Suggestions	11	22%
Others	4	8%
Website design and User experience		
Satisfied	38	76%
Not Satisfied	12	24%
Product information and transparency		
Satisfied	35	70%
Not Satisfied	15	30%
Customer Support and Service		
Satisfied	39	78%
Not Satisfied	11	22%
Recommend to friends and family		
Recommend	34	68%
Do not recommend	16	32%

Source: Primary data

Table 2 reveals that the majority of the respondents 64% are aware of AI tools being used in online imitation jewels shopping. 36% of the respondents are using AI-powered features sometimes while shopping through online. 28% of the respondents are thinking AI tools can enhance their online imitation jewels shopping experience through improved product recommendations. 84% of the respondents are comfortable with the usage of AI tools being used in online imitation jewels shopping. 30% of the respondents are expecting both Personalized recommendations and Price comparison features in online imitation jewels shopping using AI. 28% of the respondents are satisfied with using virtual try-on while shopping online. 76% of the respondents are satisfied with the website design and user experience. 70% of the respondents are satisfied with the product information and transparency. 78% of the respondents are satisfied with the customer support and service. 68% of the respondents will recommended their friends and family for purchasing imitation jewels through online shopping using AI.

Table 3
Insights on the application of AI tools in the online shopping of imitation jewels

Particulars	W Strongly Agree	W Agree	W Neutral	W Disagree	W Strongly Disagree	Total Weightage Points
Virtual Try on	90	48	42	10	1	191
Smart Search Features	60	28	21	16	16	141
Personalized Product Recommendations	30	12	15	36	18	111
Real time order status	35	52	69	10	2	168
Real time order returns	10	12	36	34	16	108
Transparency	65	48	33	12	8	166
User reviews & ratings	20	40	54	24	6	144
Efficient Navigation	105	44	24	12	4	189
Dynamic pricing strategies	70	48	39	16	3	176
Inspecting a diamond in real time	55	48	33	20	6	162

Source: Primary data

The Table 3 indicates that “Virtual Try-On” (191 points) is ranked as the foremost insight of customer perception regarding the application of AI tools in the online shopping of imitation jewels, followed by “Efficient Navigation” (189) indicating that intuitive search and personalized browsing experiences are essential for a smooth shopping experience. “Real time order returns” (108) and “Personalized product recommendations” (111) received lower weightages.

Findings of the Study

1. The majority of respondents (80%) are in the 20-40 age group, indicating that younger consumers are more engaged with AI tools in online shopping for imitation jewels. Additionally, 56% of the respondents are female, suggesting a significant interest from female shoppers in AI-powered online shopping experiences.
2. Awareness of AI tools is relatively high, with 64% of respondents acknowledging their presence in online shopping for imitation jewels. However, 36% of

respondents are not fully aware of these tools, which highlight the need for better awareness and education among consumers.

3. A significant portion of respondents (84%) expressed comfort in using AI tools, suggesting that once customers are familiar with the technology, they feel confident in integrating these tools into their shopping experiences.
4. The “**Virtual Try-On**” feature was rated the highest, with 191 points, reflecting the strong customer preference for AI that enables them to virtually try on imitation jewels before purchase, significantly boosting confidence in their decisions.
5. **Efficient Navigation** was another highly valued feature, indicating that AI tools that simplify browsing and product discovery are crucial to enhancing the user experience, making it easier for customers to find what they are looking for.
6. While **Personalized Product Recommendations** received moderate support, it still reflects that customers appreciate tailored suggestions. However, it was ranked lower than other features, suggesting that this tool needs to be further optimized for greater relevance and accuracy in product recommendations.
7. The **Real-Time Order Status** feature was well-received, with a high weightage of 168 points, signaling that customers value the ability to track their orders in real time, which enhances transparency and trust in the shopping process.
8. **Dynamic Pricing** and **Real-Time Product Inspection** features also received positive feedback, but some customers expressed concerns about the transparency of dynamic pricing strategies, suggesting that clearer communication regarding pricing algorithms could increase satisfaction and reduce customer hesitation.

Suggestions

1. Online retailers should focus on increasing awareness and educating consumers about AI tools, especially through tutorials, user guides, and targeted marketing campaigns.
2. AI systems should be continuously refined to offer more personalized and accurate product recommendations, utilizing customer preferences, browsing history, and demographic data.
3. Improving the realism and accuracy of Virtual Try-On features can boost user confidence. Integrating augmented reality for real-time viewing through mobile devices can enhance the experience.
4. Optimizing website design and simplifying the navigation process will improve the shopping experience, with AI helping to provide smart, intuitive search and product discovery.
5. Clearer communication on how dynamic pricing works, along with providing price comparison tools and tracking price history, can alleviate concerns and build trust among consumers.

6. Expanding real-time product inspection features can help customers inspect the quality and details of imitation jewels from different angles using AI-powered zoom and 3D views.
7. AI-powered chatbots should be implemented to provide instant customer support, resolving queries about products, shipping, and returns quickly and efficiently.
8. Retailers should provide more detailed product descriptions, high-resolution images, and videos to increase transparency, helping customers make more informed purchasing decisions.

Conclusion

In conclusion, this study highlights the growing acceptance and enthusiasm for AI tools in the online shopping of imitation jewels in Madurai city. The findings reveal that younger consumers, particularly females, are more engaged with AI-powered platforms. The majority of respondents are aware of AI tools and feel comfortable using them, with features like Virtual Try-On and Efficient Navigation receiving the highest appreciation. While AI-driven personalized product recommendations were appreciated, there is room for improvement in making these suggestions more relevant. Transparency in pricing and product details was also valued by customers, underlining the importance of trust-building in AI-powered shopping experiences. Overall, the research demonstrates that AI tools significantly enhance the online shopping experience for imitation jewels, but to maximize their effectiveness, continuous refinement and better customer education are essential.

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