

Customer Perception And Satisfaction Towards Personalized Shopping Experiences In E-Commerce 5.0

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ABSTRACT

AI-driven customization, personalized suggestions, and data-driven advertising tactics have revolutionized the online purchasing landscape with the development of E-Commerce 5.0. This study looks at how internet shoppers in Thoothukudi, Tamil Nadu, perceive and are satisfied with tailored purchasing experiences. 150 respondents provided primary data using a structured questionnaire as part of a descriptive study approach. Descriptive analysis, ANOVA, and independent t-tests were among the statistical methods employed to look at satisfaction levels and demographic effect. According to the study's findings, customers find AI-enabled ideas, customized discounts, and personalized recommendations to be practical and helpful, which enhances their enjoyment when they purchase. The findings also demonstrate that perception and happiness are unaffected by age or gender, suggesting that customization is uniformly accepted across all demographic groups. The study concludes that personalized shopping features positively influence customer satisfaction, repeat purchases and platform loyalty under E-Commerce 5.0, while emphasizing the need for transparency and trustworthy personalization for long-term consumer engagement.

Keywords: *E-Commerce 5.0, Personalized Shopping, AI-based Recommendations.*

1. INTRODUCTION:

The evolution of digital commerce in India has reached a transformative stage with the emergence of E-Commerce 5.0, characterized by advanced technologies such as artificial intelligence (AI), machine learning, virtual reality (VR), augmented reality (AR), and hyper-personalized shopping experiences. By providing customized product suggestions, personalized offers, and dynamic shopping interfaces that adjust to individual interests, these systems seek to increase customer engagement. Because they not only increase customer happiness but also have an impact on purchase decisions, loyalty, and general consumer behavior, personalized shopping experiences have emerged as a critical differentiator for e-commerce businesses.

Online shopping has become more popular in Thoothukudi district, a fast developing urban and semi-urban area in Tamil Nadu, as a result of rising internet penetration, smartphone usage, and changing customer preferences. Customers in this region are increasingly exposed to personalized recommendations, AI-driven product suggestions, and customized promotions, which shape their perception of digital shopping. Despite the growing popularity of these personalized features, there is limited empirical research exploring how consumers in Thoothukudi perceive and respond to personalized shopping experiences in E-Commerce 5.0. Understanding customer perception and satisfaction is critical for e-commerce platforms to improve service quality, enhance user engagement, and optimize their personalization strategies.

2. REVIEW OF LITERATURE

Kaur and Singh (2023) examined the impact of AI-driven personalized recommendations on customer satisfaction in Indian e-commerce platforms. Using a survey of 250 online shoppers, the study found that personalized product suggestions significantly enhance customer engagement and overall satisfaction. The research highlighted that ease of navigation, relevance of recommendations, and timely promotional offers positively influence consumers' purchase intentions and loyalty toward the platform.

Ramesh and Verma (2024) investigated consumer attitudes toward personalization features in next-generation e-commerce services. The study reported that personalized shopping experiences, including tailored discounts, product recommendations, and AI-powered search, increase perceived usefulness and convenience. However, the study also noted that excessive personalization without proper transparency could lead to privacy concerns, affecting trust and user satisfaction.

3. STATEMENT OF THE PROBLEM

E-Commerce 5.0, which uses machine learning, artificial intelligence, and tailored algorithms to provide individualized buying experiences, is the result of the quick development of digital technology, which has revolutionized online shopping. AI-driven product recommendations, customized promos, and personalized recommendations are all intended to increase consumer pleasure, loyalty, and engagement. Although large e-commerce platforms have embraced customization, little empirical study has been done on how customers in

smaller urban and semi-urban areas, like Thoothukudi district, view and react to these capabilities.

Consumers may benefit from personalized shopping through increased convenience and relevant product discovery, but challenges remain regarding perceived intrusiveness, data privacy concerns, trust, and transparency of personalized offers. Furthermore, it is unclear how factors such as frequency of online shopping, type of products purchased, and interaction with personalized recommendations affect overall satisfaction and purchase behavior in Thoothukudi. Understanding these perceptions is critical for e-commerce platforms to optimize personalization strategies, improve customer satisfaction, and foster responsible online shopping behavior. Therefore, this study aims to investigate customer perception and satisfaction towards personalized shopping experiences in E-Commerce 5.0 among consumers in Thoothukudi, focusing on the effectiveness, relevance, trust, and usability of personalized features in shaping consumer attitudes and loyalty.

OBJECTIVES OF THE STUDY

To assess customer perception of personalized shopping experiences in E-Commerce 5.0 platforms, including awareness, usefulness, and engagement with AI-driven recommendations and tailored promotions.

To evaluate customer satisfaction with personalized features, considering factors such as convenience, relevance, trust, and overall shopping experience.

To identify the influence of personalized shopping experiences on consumer behavior, including purchase decisions, repeat usage, and likelihood of recommending the platform to others.

NULL HYPOTHESIS

There is no significant between Age and Customer Perception & Satisfaction of the respondents

There is no significant between Gender and Customer Perception & Satisfaction of the respondents

METHODOLOGY

Table - II

Factors		Frequency	Percent
Occupation	Private Employee	36	24.0
	Govt Employee	30	20.0
	Business	30	20.0
	Professional	41	27.3
	Others	13	8.7
	Total	150	100

Source: Primary data

Interpretation - The above table reveals that a majority of the respondents are professionals (27.3%), followed by private employees (24%), while government employees and business owners each constitute 20% of the sample. A smaller proportion of respondents (8.7%) fall under the “others” category. This shows that the respondents are mainly engaged in white-collar

The study adopts a descriptive research design to examine customer perception and satisfaction towards personalized shopping experiences in E-Commerce 5.0 in Thoothukudi. Primary data will be collected from 150 respondents using a structured questionnaire divided into demographics, online shopping behavior, and perception and satisfaction with personalized features, measured on a 5-point Likert scale. Respondents will be selected through random sampling to ensure representation across age groups, income levels, occupations, and urban/semi-urban areas. The collected data will be analyzed using descriptive statistics, frequency analysis, and Likert-scale evaluation, along with ANOVA and Independent t - Test techniques to identify factors influencing customer perception and satisfaction.

Framework and Analysis

Table – I

Factors		Frequency	Percent
Monthly Income	Up to Rs. 10000	10	6.7
	Rs. 10000 - Rs. 20000	73	48.7
	Rs. 20000 - Rs. 30000	30	20.0
	Rs. 30000 - Rs. 40000	23	15.3
	Above Rs. 40000	14	9.3
	Total	150	100

Source: Primary data

Interpretation - The above table shows that a majority of the respondents fall under the monthly income category of Rs. 10,000 – Rs. 20,000, accounting for 48.7% of the total sample. This is followed by respondents earning Rs. 20,000 – Rs. 30,000 (20%) and Rs. 30,000 – Rs. 40,000 (15.3%). Only 9.3% of respondents reported a monthly income above Rs. 40,000, while a relatively small proportion (6.7%) earns up to Rs. 10,000 per month.

or skilled occupations, indicating that most participants may possess higher awareness and exposure to digital technologies, which could influence their perception and satisfaction towards personalized shopping experiences offered by E-commerce platforms.

Table - III

Factors		Frequency	Percent
Most Frequently Used E-Commerce Platforms	Myntra	5	3.8
	Meesho	7	5.4
	Amazon	49	37.7
	Flipkart	42	32.3
	Others	27	20.8
	Total	150	100

Source: Primary data

Interpretation – The above table shows that Amazon is the most frequently used e-commerce platform among the respondents, accounting for 37.7%, followed by Flipkart with 32.3% usage. A considerable percentage of respondents (20.8%) also use other platforms, indicating diverse platform preferences. Meanwhile, Meesho (5.4%)

and Myntra (3.8%) are comparatively less preferred by the respondents. This suggests that global and large-scale platforms such as Amazon and Flipkart dominate usage patterns in the region, while specific or niche platforms are used only by a smaller proportion of customers

H0: There is no significant between Age and Customer Perception & Satisfaction of the respondents

ANOVA						
Factors		Sum Squares	of df	Mean Square	F	Sig.
Personalized product recommendations enhance my shopping experience.	Between Groups	5.017	4	1.254	2.301	.062
	Within Groups	79.043	145	.545		
	Total	84.060	149			
I find personalized promotions/offers useful and relevant.	Between Groups	4.385	4	1.096	1.472	.214
	Within Groups	107.988	145	.745		
	Total	112.373	149			
AI-driven recommendations make it easier for me to discover products I need.	Between Groups	2.149	4	.537	.590	.670
	Within Groups	132.011	145	.910		
	Total	134.160	149			
Personalized suggestions increase my likelihood to purchase online.	Between Groups	9.330	4	2.333	2.393	.053
	Within Groups	141.343	145	.975		
	Total	150.673	149			
I trust e-commerce platforms to provide accurate and meaningful personalization.	Between Groups	3.930	4	.983	1.311	.269
	Within Groups	108.663	145	.749		
	Total	112.593	149			

Personalized experiences improve my overall satisfaction with online shopping.	Between Groups	3.540	4	.885	1.537	.195
	Within Groups	83.500	145	.576		
	Total	87.040	149			
Recommendations based on my previous purchases are helpful.	Between Groups	6.901	4	1.725	2.021	.095
	Within Groups	123.772	145	.854		
	Total	130.673	149			
Personalized ads and suggestions do not feel intrusive or annoying.	Between Groups	1.823	4	.456	.403	.806
	Within Groups	164.070	145	1.132		
	Total	165.893	149			
I am more likely to return to platforms that provide personalized shopping experiences.	Between Groups	5.847	4	1.462	2.430	.050
	Within Groups	87.226	145	.602		
	Total	93.073	149			
Overall, personalized features positively influence my online shopping behaviour.	Between Groups	4.479	4	1.120	1.921	.110
	Within Groups	84.515	145	.583		
	Total	88.993	149			

Source: Primary data

Interpretation – The ANOVA results presented in the table show that the significance values for all the listed statements are greater than 0.05, indicating that there is no statistically significant difference between the groups with respect to their perception of personalized shopping experience and satisfaction. Although a few statements show comparatively lower significance values close to the 0.05 level (such as personalized suggestions increasing purchase likelihood, and intention to return to platforms offering personalization), they still remain above the threshold, meaning the variation among groups is not strong enough to be considered statistically meaningful. Overall, the findings suggest that respondents, irrespective of their group classification, share a generally similar attitude towards the usefulness, satisfaction, and behavioural influence of personalized recommendations and AI-based shopping features in e-commerce platforms.

H0: There is no significant between Gender and Customer Perception & Satisfaction of the respondents

Independent t - Test						
Factors	F	Sig.	t	df	Sig. (2-tailed)	
Personalized product recommendations enhance my shopping experience.	4.015	.047	-1.166	148	.245	
			-1.163	142.482	.247	
I find personalized promotions/offers useful and relevant.	.098	.754	.090	148	.928	
			.090	139.108	.929	
AI-driven recommendations make it easier for me to discover products I need.	.544	.462	.696	148	.487	
			.697	144.981	.487	
Personalized suggestions increase my likelihood to purchase online.	7.316	.008	.941	148	.348	
			.921	124.825	.359	
I trust e-commerce platforms to provide accurate and meaningful personalization.	.447	.505	1.850	148	.066	
			1.817	129.310	.071	

Personalized experiences improve my overall satisfaction with online shopping.	.736	.392	1.402	148	.163
			1.378	129.644	.171
Recommendations based on my previous purchases are helpful.	3.389	.068	.835	148	.405
			.826	135.623	.410
Personalized ads and suggestions do not feel intrusive or annoying.	.061	.806	-.956	148	.341
			-.951	140.340	.343
I am more likely to return to platforms that provide personalized shopping experiences.	.508	.477	-.451	148	.653
			-.452	146.077	.652
Overall, personalized features positively influence my online shopping behaviour.	.531	.467	.520	148	.604
			.514	134.364	.608

Source: Primary data

Interpretation – The independent t-test results clearly show that the Sig. (2-tailed) values for all the given statements are greater than the standard significance level of 0.05, which indicates that there is no statistically significant difference between male and female respondents regarding customer perception and satisfaction towards personalized online shopping experiences offered by e-commerce platforms. Although a few variables such as trust in meaningful personalization and satisfaction with personalized services show comparatively lower p-values, they still remain above the acceptable threshold, meaning the differences between genders are not strong enough to be meaningful. Therefore, it can be concluded that both male and female respondents share similar opinions regarding personalization features, usefulness of AI-driven recommendations, satisfaction levels, and purchase behaviour in e-commerce platforms.

4. CONCLUSIONS

The present study examined customer perception and satisfaction towards personalized shopping experiences in E-Commerce 5.0 in Thoothukudi, focusing on how AI-driven features such as product recommendations, tailored promotions, and personalized suggestions influence consumer behaviour. The results clearly show that consumers in Thoothukudi are being exposed to and impacted by customization techniques employed by major e-commerce platforms, namely Amazon and Flipkart, who control the majority of online buying in the area. The majority of respondents believe that customized features are practical, pertinent, and helpful, which raises satisfaction and engagement. Additionally, demographic factors like age and gender do not substantially affect customer views or satisfaction levels, according to the findings of ANOVA and independent t-tests, indicating that the advantages of customisation are broadly acknowledged across various consumer groups. This implies that personalized shopping experiences are now becoming a mainstream expectation rather than a selective preference. However, respondents also show cautious

acceptance, emphasising the importance of credible recommendations, transparency, and trust in AI-based systems.

Overall, the study comes to the conclusion that, under E-Commerce 5.0, individualized shopping experiences positively influence consumer happiness, shopping convenience, and online purchase intentions. Customization boosts return visits and platform loyalty in addition to increasing the possibility that users will make a purchase. In order to maintain this momentum, e-commerce platforms should keep improving their customization tactics, make sure that customer data is used responsibly, and uphold openness. This will build long-term customer connections and trust in quickly developing digital marketplaces like Thoothukudi.

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