

“AI-Driven Personalisation and Purchase Intention among Generation Z Consumers: The Role of Consumer Trust and Privacy Concerns”

Dr. Preeshma KV

Ayishabeevi K

MTM College of Arts,

MTM College of Arts,

Science and Commerce, Veliyancode,

Science and Commerce, Veliyancode,

Ponnani, 679579, Kerala

Ponnani, 679579, Kerala

Abstract

AI-driven personalisation has become an important part of online shopping, helping consumers discover products based on their interests and preferences. This study examines the relationship between AI-driven personalisation, consumer trust, privacy concerns and purchase intention among Generation Z consumers. Primary data were collected from Generation Z consumers who had experienced personalised product recommendations. The data were analysed using descriptive statistics, reliability analysis, Pearson correlation and multiple regression. The findings show that AI-driven personalisation, consumer trust and privacy concerns are significantly related to purchase intention, and all three factors contribute significantly to predicting consumers' purchase intention. The study concludes that personalised shopping experiences, consumer trust and privacy considerations are important in understanding the purchase decisions of Generation Z consumers.

Keywords: AI-Driven Personalisation, Purchase Intention, Consumer Trust, Privacy Concerns, Generation Z.

1. Introduction

Artificial Intelligence (AI) has brought noticeable changes to digital marketing, particularly in the way businesses interact with consumers and offer personalised products and services. AI-driven personalisation allows digital platforms to understand consumers' interests and online behaviour and provide recommendations, advertisements and offers that are more relevant to their individual needs. This is especially important for Generation Z, who are highly familiar with social media, e-commerce and other digital platforms. Personalised recommendations can make online shopping easier and more convenient and may encourage consumers to develop a stronger intention to purchase. However, the use of personal information in delivering such personalised experiences has also increased concerns about privacy and the way consumer data are collected and used. Along with privacy concerns, consumer trust is an important factor in determining how positively consumers respond to AI-based personalisation. Consumers may be more willing to follow personalised recommendations when they feel that the platform is reliable and handles their information responsibly. Therefore, understanding the relationship between AI-driven personalisation, consumer trust, privacy concerns and purchase intention is important, particularly among Generation Z consumers. Against this background, the present study examines how AI-driven personalisation influences purchase intention among Generation Z consumers, while considering the roles of consumer trust and privacy concerns.

2. Statement of the Problem

AI-based personalisation has become increasingly common in online shopping, helping consumers receive product suggestions and content based on their interests and preferences. Although these personalised experiences may support easier purchasing decisions, they also create concerns about data privacy and the extent to which consumers trust AI-enabled platforms. Such concerns may be significant among Generation Z because of their frequent use of digital technologies and online services. However, the way AI-driven personalisation, consumer trust and privacy concerns affect their purchase intention requires further understanding. Hence, this study focuses on examining the relationship between these factors and the purchase intention of Generation Z consumers

3. Objectives

1. To analyse the relationship between AI-driven personalisation and purchase intention among Generation Z consumers.
2. To assess how consumer trust and privacy concerns are related to purchase intention among Generation Z consumers.
3. To determine the effect of AI-driven personalisation, consumer trust and privacy concerns on purchase intention.

4. Scope and Significance of the Study

The study examines Generation Z consumers to understand how AI-driven personalisation, consumer trust and privacy concerns influence their intention to purchase through digital platforms. It covers consumers who regularly use online shopping and other digital services where they encounter personalised content, recommendations and advertisements. The study is relevant because it provides insight into how young consumers balance the benefits of personalised online experiences with their concerns about trust and personal data. The findings may assist businesses and marketers in designing effective personalisation strategies while maintaining consumer confidence and ensuring the responsible use of customer information.

5. Research Methodology

The study follows a quantitative research approach to understand the relationship between AI-driven personalisation, consumer trust, privacy concerns and purchase intention among Generation Z consumers in Kerala. Primary data will be collected through a structured questionnaire from 100 consumers aged 18–29 years who have experience with personalised product recommendations on digital platforms. Convenience sampling will be used to select the respondents. The collected data will be analysed using descriptive statistics, Pearson correlation, multiple regression and ANOVA to identify the relationships and effects among the study variables.

6. Review of Literature

Ahire (2025) explored the relationship between AI-based personalisation, consumer trust and privacy concerns in digital marketing. The study was based on responses from 210 consumers who had experience with AI-based marketing. The findings showed that personalised content can make marketing messages more relevant and useful, which may encourage consumers to consider purchasing. At the same time, consumers expressed concerns about data collection, privacy and the lack of transparency in how AI uses their information. The study suggests that building consumer trust and following responsible data practices are important for the effective use of AI personalisation.

Eandhizhai et al. (2026) examined the impact of AI-driven social media marketing on the purchase intention of Generation Z consumers. Data were collected from 487 consumers in Chennai and analysed using PLS-SEM. The study found that AI-based social media marketing helps build brand trust, encourage consumer participation and increase digital engagement, which can lead to stronger purchase intention. Among the factors studied, consumer citizenship behaviour had the greatest influence on purchase intention. The study shows that effective use of AI in social media marketing can help brands connect with Generation Z by building trust and encouraging active engagement.

Ma'sum et al. (2026) studied how AI-generated content and perceived personalisation influence consumers' purchase intention, with brand credibility as a mediating factor. Using data from 168 respondents in Indonesia and SEM analysis, the study found that both AI-generated content and personalisation positively influence brand credibility. Brand credibility, in turn, significantly affects purchase intention. Personalisation did not directly influence purchase intention but had an indirect effect through brand credibility. The study highlights the importance of building brand credibility when using AI-based marketing strategies to influence consumer buying decisions.

Mukherjee and Sahu (2026) examined the effect of AI-powered personalisation on consumer purchase behaviour, focusing on trust and customer satisfaction as mediating factors. Based on 200 respondents, the study found that AI personalisation significantly influenced purchase behaviour, explaining 70.9% of its variance. Customer satisfaction emerged as the strongest predictor, highlighting the importance of trust and satisfaction alongside technological efficiency.

Okafor et al. (2026) studied the relationship between AI-driven personalisation and online purchase intention, considering consumer awareness as a mediator. The findings showed that AI personalisation had no significant direct effect on purchase intention, whereas consumer awareness played an important mediating role. The study highlighted that consumers' understanding of AI and its benefits is essential for translating favourable attitudes into purchase intentions

7. Research Gap

Previous studies have mainly examined AI-driven personalisation in relation to customer engagement, satisfaction, trust and privacy. However, comparatively less attention has been given to how AI-driven personalisation, consumer trust and privacy concerns together relate to the purchase intention of Generation Z consumers. There is a need for further empirical evidence on these relationships among Generation Z consumers. Therefore, this study seeks to address this gap by examining the relationship between AI-driven personalisation, consumer trust, privacy concerns and purchase intention among Generation Z consumers.

8. Data Analysis and Interpretation

Table.8.1

Demographic Variable	Category	Frequency	Percentage (%)
Age	18–20 years	25	25.0
	21–23 years	59	59.0
	24–26 years	12	12.0
	27–29 years	4	4.0
Gender	Male	45	45.0
	Female	55	55.0
Educational Qualification	Higher Secondary	9	9.0
	Undergraduate	61	61.0

	Postgraduate	26	26.0
	Other	4	4.0
Occupation	Student	78	78.0
	Salaried Employee	17	17.0
	Business/Self-employed	1	1.0
	Other	4	4.0

Source: Primary Data

Demographic Profile

The table shows that most of the respondents (59%) were in the 21–23 years age group, followed by those aged 18–20 years (25%). Females represented 55% of the respondents, while males accounted for 45%. In terms of educational qualification, 61% were undergraduates and 26% were postgraduates. Regarding occupation, students formed the largest group (78%), followed by salaried employees (17%).

Table. 8.2

Construct	No. of Items	Cronbach's Alpha
AI-Driven Personalisation	4	0.900
Consumer Trust	4	0.889
Privacy Concerns	4	0.905
Purchase Intention	4	0.883

Source: Primary Data

Reliability Statistics

The results show that the Cronbach's alpha values for the four main variables ranged from 0.883 to 0.905, indicating good to excellent internal consistency. This suggests that the items consistently measured their respective variables, and all the items were therefore retained for further analysis.

Table. 8.3

Variable	N	Mean	Std. Deviation
AI-Driven Personalisation	100	3.1950	0.92290
Consumer Trust	100	2.9025	0.83703
Privacy Concerns	100	3.1425	0.94030
Purchase Intention	100	3.0575	0.82101

Source: Primary Data

Descriptive Statistics

The table indicates that the mean scores for all four variables were around the moderate level. AI-driven personalisation recorded the highest mean (3.195), followed by privacy concerns (3.143) and purchase intention (3.058). Consumer trust had the lowest mean score (2.903). The standard deviation values indicate some variation in the responses among the respondents.

Hypotheses of the Study

Ho1: AI-driven personalisation has no significant relationship with purchase intention among Generation Z consumers.

Ho2: Consumer trust has no significant relationship with purchase intention among Generation Z consumers.

Ho3: Privacy concerns have no significant relationship with purchase intention among Generation Z consumers

Table. 8.4

Variables	AP	CT	PC	PI
AI-Driven Personalisation (AP)	1	0.695**	0.614**	0.666
Consumer Trust (CT)	0.695**	1	0.538**	0.644
Privacy Concerns (PC)	0.614**	0.538**	1	0.626
Purchase Intention (PI)	0.666**	0.644**	0.626**	1

Source: Primary Data

Pearson Correlation among Study Variables

The results show that AI-driven personalisation, consumer trust and privacy concerns have significant positive relationships with purchase intention. Among these variables, AI-driven personalisation has the strongest correlation with purchase intention ($r = 0.666$), followed by consumer trust ($r = 0.644$) and privacy concerns ($r = 0.626$). Since all the relationships are significant at the 1% level ($p < 0.01$), the null hypotheses Ho1, Ho2 and Ho3 are rejected.

Ho4: AI-driven personalisation, consumer trust and privacy concerns do not significantly predict purchase intention among Generation Z consumers.

Table. 8.5

Model	R	R Square	Adjusted R Square	Std Error
1	0.748	0.560	0.546	0.55327

Model Summary

This table reveals a strong relationship between AI-driven personalisation, consumer trust, privacy concerns and purchase intention ($R = 0.748$). The R^2 value of 0.560 indicates that the three variables together explain 56.0% of the variation in purchase intention. The adjusted R^2 value of 0.546 also shows that the model has a satisfactory explanatory power. The standard error of 0.55327 represents the average difference between the observed and predicted values of purchase intention.

Table. 8.6

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	37.345	3	12.448	40.666	<0.001
Residual	29.387	96	0.306		
Total	66.732	99			

Source: Primary Data

ANOVA

The results indicate that the regression model is statistically significant ($F = 40.666$, $p < 0.001$). Since the significance value is below 0.05, the null hypothesis (Ho4) is rejected. This suggests that AI-driven

personalisation, consumer trust and privacy concerns, when considered together, significantly predict the purchase intention of Generation Z consumers.

Table. 8.7

Predictor	B	Std. Error	Beta (β)	t	Sig.	VIF
Constant	0.618	0.228	—	2.715	0.008	—
AI-Driven Personalisation (AP)	0.253	0.091	0.284	2.771	0.007	2.294
Consumer Trust (CT)	0.281	0.094	0.287	2.986	0.004	2.011
Privacy Concerns (PC)	0.259	0.076	0.297	3.394	0.001	1.668

Source: Primary Data

Regression Coefficients

The table reveals that all three variables have a significant positive effect on purchase intention. Privacy concerns have the strongest influence ($\beta = 0.297$, $p = 0.001$), followed by consumer trust ($\beta = 0.287$, $p = 0.004$) and AI-driven personalisation ($\beta = 0.284$, $p = 0.007$). As all the significance values are below 0.05, the three variables significantly contribute to the purchase intention of Generation Z consumers.

9. Findings and Discussion

The study found that AI-driven personalisation, consumer trust and privacy concerns are significantly related to purchase intention among Generation Z consumers. The reliability results showed good internal consistency, with Cronbach's alpha values ranging from 0.883 to 0.905. The correlation analysis revealed significant positive relationships between AI-driven personalisation and purchase intention ($r = 0.666$), consumer trust and purchase intention ($r = 0.644$), and privacy concerns and purchase intention ($r = 0.626$), rejecting Ho1, Ho2 and Ho3. The regression model was also statistically significant ($F = 40.666$, $p < 0.001$) and explained 56.0% of the variation in purchase intention. AI-driven personalisation ($\beta = 0.284$), consumer trust ($\beta = 0.287$) and privacy concerns ($\beta = 0.297$) were significant variables, rejecting Ho4. Privacy concerns showed the highest contribution among the three variables.

The findings indicate that Generation Z consumers value personalised online experiences while also considering trust and privacy. Although privacy concerns exist, they do not necessarily reduce purchase intention when consumers perceive personalisation as beneficial. Hence, businesses should implement AI-driven personalisation in a transparent and responsible manner, supported by effective data protection measures. Overall, personalisation, consumer trust, and privacy concerns are important determinants of Generation Z consumers' purchase intention.

10. Suggestions

Businesses and online platforms should use AI-driven personalisation to provide Generation Z consumers with relevant and useful product recommendations based on their preferences and needs. At the same time, they should maintain transparency regarding the collection, storage, and use of consumer data and adopt appropriate measures to ensure data security. Providing clear and easily understandable privacy policies can help consumers feel more confident about sharing their information and strengthen their trust in the platform. Consumers should also be given greater control over their personal data, while businesses should avoid excessive or unwanted personalisation. A balanced and responsible approach to AI-driven personalisation can improve the overall online shopping experience and encourage Generation Z consumers to make purchase decisions with greater confidence.

11. Conclusion

The study concludes that AI-driven personalisation plays a significant role in influencing the purchase intention of Generation Z consumers in the digital marketplace. Personalised recommendations can enhance the online shopping experience by helping consumers identify products that match their interests, preferences, and needs. The findings also highlight the importance of consumer trust and privacy concerns in shaping purchase decisions. Although Generation Z consumers value relevant and convenient personalised experiences, they are increasingly conscious of how their personal information is collected and used. Therefore, businesses and online platforms should adopt transparent and responsible personalisation practices by ensuring data security, providing clear privacy information, and giving consumers greater control over their personal data. Overall, AI-driven personalisation can contribute positively to consumer purchase intention when it is implemented in a secure, transparent, and consumer-oriented manner, thereby supporting stronger consumer confidence and long-term trust in digital platforms.

12. Scope for Further Research

The study offers several opportunities for future research on AI-driven personalisation and consumer purchase intention. Future studies may use larger and more diverse samples from different regions to enhance the generalisability of the findings. Comparative research involving different age groups may also provide insights into how consumers respond differently to personalised digital marketing. Further research could examine additional factors such as perceived usefulness, perceived risk, customer satisfaction, brand loyalty, and ethical concerns associated with AI-based personalisation. Researchers may also explore consumer responses across different digital platforms, product categories, and online shopping environments. In addition, qualitative, mixed-method, and longitudinal approaches could provide deeper insights into consumers' experiences and changes in trust, privacy concerns, and purchase intention as AI-driven personalisation continues to develop.

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