

The Impact of AI-Driven Marketing on Gen Z Consumer Buying Decisions: Helpful or Creepy?

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Abstract

Artificial Intelligence (AI) is now a vital part of modern marketing strategy, helping businesses to make personalised product recommendations, target ads and interact with AI-driven chatbots. They belong to a generation that is often referred to as Gen Z, and they are one of the most impacted generations by the social media and online shopping. Personalisation brings convenience and product discovery, but also increased awareness and concern about the amount of data collected and what this means for consumers' privacy. Although the literature has focused on the adoption of AI in marketing, little research has considered this dual perception of the AI among the Gen Z consumer; where the same technology can be perceived as beneficial and intrusive at the same time.

It is this gap that this study will focus on by studying the influence of the personalisation driven by AI on the purchase decision of Gen Z consumers, as well as the influence of privacy concerns and data security on consumers' trust and the threshold at which helpfulness becomes intrusiveness for Gen Z consumers. The study employs a mixed method approach with primary data gathered using an online structured questionnaire to Gen Z participants in combination with secondary data sourced from academic journals, industry reports and literature.

The study assumes that AI-driven personalisation positively affects consumers' purchase intention, while increased privacy concerns had a significant negative effect on consumer trust in AI-driven marketing practices. Descriptive statistical analysis (frequency distribution and cross tabulation) will be used to analyse the proposed relationships and correlation analysis will be used to measure the strength and direction of the relationship between privacy concerns, consumer trust and purchase intention.

The results will be expected to prove the impact of relevant and transparent AI marketing in a positive way on the reaction of Gen Z consumers. But that good impression goes down the drain when personalisation becomes “too much or too little” or when it is not transparent. The goals of this research are to aid businesses in creating AI-based marketing strategies that are both personalized and respecting of consumer's privacy and trust.

Keywords: Artificial Intelligence, AI-Driven Marketing, Gen Z, Consumer Buying Behaviour, Personalisation, Privacy Concerns, Consumer Trust, Purchase Intention, Correlation Analysis.

1. Introduction

Over the past 10 years, the journey that consumers take from discovering a product to evaluating and buying it has undergone an enormous change. Old marketing methods, such as television ads and newspaper promotions, and old online marketing methods like generic marketing campaigns have been slowly phased out and replaced with smart digital marketing systems that know the individual consumer [2]. Artificial Intelligence (AI) has now emerged as a key element of contemporary marketing, allowing companies to gain insights into consumer behaviour, anticipate customer buying trends, and provide highly tailored product suggestions [12].

From Instagram recommendations to YouTube video suggestions to the product suggestions on Amazon and Flipkart, people are constantly surprised by the things that AI suggests to them. From people who get product suggestions on Amazon and Flipkart to those who are shown videos on YouTube that they wouldn't

even have looked for to the people who get suggested items on Instagram, people are always finding themselves surprised by what AI is recommending for them. This shift has revolutionised marketing to be more precise, efficient and customer-focused than ever before.

As AI-powered marketing becomes the norm, it has had a profound impact on Generation Z (Gen Z) – a generation that is raised in a fully digital world [3]. Whereas, Gen Z consumers spend significant time on social media, shopping apps and online platforms. However, Gen Z consumers are spending an increasing amount of their daily lives on social media, shopping apps, and online platforms. They are more influenced by the personalised advertisements, recommendation algorithms, influencer content and predictive marketing methods in their purchasing decisions.

Leveraging AI, businesses can design suggestions for items based on the browsing history, prior buying, location, search pattern, and even the length of time users spend on specific content [5]. This has made buying easier, more individualised and more responsive, and granted a seamless shopping journey that can often shorten the consumers' search and decision time [8].

With AI's increasing ability in predicting consumer preferences, however, a significant question arises. Many customers like the convenience that personalised recommendations have to offer, but others become more aware of what personal information is being collected so that these recommendations are personalised. If consumers are inundated with ads for a product they just heard about in a show or talk or a product that is very similar to what they just saw online, consumers feel like they are being watched and targeted. This creates two opposing impressions for consumers regarding AI marketing. On the other hand, it is considered useful, as it offers relevant suggestions, saves time and enhances the shopping process. However, over-personalisation could be seen as intrusive or even "creepy", with implications for privacy, surveillance and ethical practices of personal data. Today, this two-way perception has become one of the biggest hurdles for digital marketers.

One of the most suitable groups to look at this phenomenon is Gen Z, as it is one of the populations commonly noted among consumer groups. They are digital natives, who are well versed with AI-enabled platforms and engage with personalised content daily. Meanwhile, they are becoming more and more aware of data protection, transparency of algorithms, and digital ethics issues [6]. Thus, their purchasing behaviour is not only shaped by the pertinence of the AI suggestions they are given, but in addition by the level of trust they have in organisations that gather and use their personal data. To craft meaningful and responsible AI marketing strategies, it is vital to comprehend the dual nature of Gen Z's preferences for convenience and privacy.

Previous research has studied the concepts of personalisation, consumer trust and privacy protection with AI technologies but the majority of the literature has studied them separately or in specific digital contexts [2]. The studies have confirmed that customised recommendations can improve customer engagement, increase purchase intention and draw attention to problems of data collection and consumer mistrust. On the other hand, only a few empirical studies have simultaneously investigated the perceived helpfulness and intrusiveness of AI marketing for Gen Z consumers, as well as explored the joint effects of personalisation, consumers' trust in AI marketing, concerns about privacy, and purchase intention using primary survey data. Thus, the need for research that brings these interrelated aspects together in a single analytical framework remains [9].

To fill this gap, the current study examines helpfulness or creepiness of AI-driven marketing on Gen Z consumer buying decisions. The study utilizes a hybrid research design that integrates secondary research methods (literature review) and primary research methods (structured questionnaire survey of 142 respondents of the Gen Z generation). The relationship between the variables of AI-driven personalisation, consumer trust, consumer privacy concerns, and purchase intention is examined through statistical analysis such as descriptive analysis, Chi-square tests and Pearson's correlation analysis [5].

To gain a rounded perspective of how personalized intelligence affects today's digital generation's buying choices and discuss the pros and cons of AI in marketing [9]. The findings will be disseminated and made

available to the public to contribute to the existing body of knowledge in the field and useful insights for businesses aiming to develop successful AI-powered marketing campaigns that are transparent, ethical, and customer-centric [3].

1.1 Statement of the Problem

In digital marketing, Artificial Intelligence has transformed the way businesses interact with customers and influence their purchasing decisions. AI has grown widely used in digital marketing and has transformed the ways companies are interacting with their customers and influencing their purchasing decisions. Incorporating AI into digital marketing has changed the way organisations interact with customers and drive sales [12]. Companies can now suggest highly relevant content, which can be tailored to individual preferences, browsing behaviour, and online interactions, thanks to AI recommendation systems, personalised ads, and predictive marketing strategies.

It has enabled businesses to deliver personalized content that aligns with user preferences, browsing behaviour, and digital interactions through AI-powered recommendation engines, targeted advertising, and predictive analytics. These developments have increased the convenience of consumers and boosted the effectiveness of marketing strategies, but also have raised issues related to the collection, use and protection of personal data. The line between effective personalisation and invasion of privacy is becoming more and more blurry as AI grows in its ability to grasp consumer behaviour [8].

This is particularly true for Gen Z shoppers, one of the most tech-savvy generations, who are always met with AI-driven marketing tactics. Personalised recommendations ease product discovery, cut down on search time and enhance shopping experiences on one hand.

After being targeted with a lot of personal ads, however, users can feel the sense of being “spied on,” monitored, and have their information used for inappropriate purposes, which can be a violation of their privacy, surveillance, and consumer information misuse.

This is a big problem for businesses to overcome as they have to maintain the customers' satisfaction without bothering them with personalized marketing experiences. It is a significant business challenge to keep consumers' trust without being intrusive and give them the experience of the customization of marketing.

The constructs of AI-driven personalisation and consumer trust and privacy concerns have been the subject of several studies, but they have tended to be studied in isolation and in a particular digital context. There has been little empirical research that has examined the combined effect of these factors on Gen Z consumers' purchase decisions, especially when they consider AI powered marketing to be helpful or creepy. Furthermore, the rise of the development of AI technologies has changed the way consumers deal with digital platforms to a great extent, requiring new and fresh empirical evidence to capture the changed consumer behaviour.

Given all these challenges, the main one is that there is no empirical, comprehensive understanding of how AI in marketing affects the consumption decision of generation Z, taking into account both the personalisation advantage and privacy and trust aspects. This study aims to fill this gap by studying the relationship between AI-driven personalisation, consumer trust, privacy concerns, and purchase intention based on primary data obtained from Gen Z consumers. The outcome will provide valuable insights for marketers, companies, and researchers seeking to develop effective and ethical marketing strategies with AI.

1.2 Research Objectives

1. To assess the influence of AI-driven personalisation on Gen Z consumers' purchase intention.
2. To examine the relationship between AI-driven personalisation, privacy concern, and consumer trust.
3. To identify the point at which AI-driven marketing shifts from being perceived as helpful to intrusive among Gen Z consumers.

1.3 Research Hypotheses

H1: AI-driven personalisation has a significant positive relationship with Generation Z consumers' purchase intention.

H2: AI-driven personalisation has a significant positive relationship with consumer trust among Generation Z consumers.

H3: Consumer trust has a significant positive relationship with purchase intention among Generation Z consumers.

H4: Privacy concerns significantly influence consumer trust in AI-driven marketing among Generation Z consumers.

1.4 Scope of the Study

The present study aims to investigate the effect of AI Marketing on the purchasing decision of Gen Z consumers and how they feel about the use of AI-powered personalisation. It examines the interactions between four constructs: AI-driven personalisation, consumer trust, privacy concerns, and purchase intention, to grasp their combined effect on consumer actions in the digital environment.

The research focuses on Generation Z users (18-26 years) as they have one of the highest levels of digital engagement and are frequent users of AI-driven platforms like Instagram, YouTube, Amazon and Flipkart. Structured online questionnaire, peer reviewed journals and relevant academic sources were used to gather primary and secondary data respectively. The empirical analysis has been conducted on 142 valid responses which have been subjected to descriptive statistics, Chi-square analysis and Pearson correlation analysis to study the proposed relationship.

The study focuses on the perception and action of consumers on the use of AI in marketing, and not on the performance of the AI algorithms or the recommendation systems of the platforms used. While the results are representative of this particular sample, they offer insight for researchers and marketers on the potential of using AI to improve the customer experience by personalising it while ensuring privacy protection and building trust with the Gen Z consumer.

1.5 Significance of the Study

AI has changed digital marketing significantly. It offers personalized experiences and recommendations to consumers, making it a helpful tool for businesses. However, the increased use of AI has raised concerns about consumer privacy, trust, and the ethical treatment of consumer data. Understanding how Generation Z perceives AI-powered marketing is becoming increasingly important. Previous studies have looked at these issues individually; this study provides evidence of how these factors are connected based on primary data from Generation Z consumers.

The findings will assist marketers, e-commerce platforms, and business organizations in creating AI-driven marketing strategies that enhance customer engagement while upholding trust and privacy. The study stresses the need for personalized recommendations, emphasizing transparency and ethical data handling to build stronger customer relationships.

Additionally, for policymakers and researchers, the study offers practical insights by underscoring the importance of using AI responsibly in digital marketing. It also serves as a foundation for further research into AI's effects on consumer behavior across different demographics, sectors, and regions. In conclusion, this study adds significant value to the field of AI marketing and provides insights that will support the development of more effective, customer-focused, and responsible marketing strategies using AI.

1.6 Limitations of the Study

- The study is limited to Generation Z respondents (18–26 years), restricting the generalizability of the findings to other age groups.
- The findings are based on self-reported questionnaire responses, which may be subject to response bias.
- The study employs a cross-sectional design, capturing consumer perceptions at a single point in time rather than over an extended period.

2 Literature Review

2.1 Review of Literature

2.1.1 Aguirre, Mahr, Grewal, de Ruyter, and Wetzels (2015)

Aguirre et al. (2015) examined the personalisation paradox by investigating how the collection of consumer information influences the effectiveness of online personalised advertisements. The study revealed that personalised advertising mostly improves the relevance of advertising and consumers' engagement. But, consumers' reactions are highly dependent on the methods used to gather and use their personal information. Personalised ads are seen positively when they are seen as transparent and trusted in data collection. On the other hand, if consumers feel that they have too much or an inappropriate amount of data being collected, personalisation causes a loss of trust and advertising effectiveness [1]. The study revealed that consumer trust is a key factor in the success of personalised marketing or its invasion of consumer privacy. The results offer insights for theory-driven research on the relationship between personalisation and privacy in AI-supported marketing.

2.1.2 Davenport, Guha, Grewal, and Bressgott (2020)

Davenport et al. (2020) explored that the evolving landscape of artificial intelligence in today's marketing and the impact it is having on customers' experience in the marketing journey. The authors highlighted that AI has the power to examine vast amounts of customer data, automate marketing choices, forecast customer choices, and provide personalised recommendations [4]. In conclusion, the study found that AI has the potential to be a valuable asset to marketing teams, improving efficiency, customer experience, and data-driven decision-making. If AI is to be a success, then organisations have to make sure that transparency and consumer privacy are maintained and that trust is built if they are to keep up long-term customer relationships. The study found that AI has become a strategic tool altering the way marketing is carried out today.

2.1.3 Puntoni, Reczek, Giesler, and Botti (2021)

Puntoni et al. (2021) in 2021 investigated people's experience and perception of AI in everyday life. Their study showed that AI has a number of advantages, including personalised recommendations, convenience, improved decision making, and better customer experiences. The authors also observed that at times consumers feel uncomfortable when AI systems appear to know too much about their tastes and/or actions. This creates a inconsistent experience where AI is measured very useful and yet it is also intrusive [13]. Ultimately, the study found that trust in the use of AI is contingent upon the perception of its usefulness, transparency, and handling of personal information. The findings of this study are in line with the key finding of the present study: whether AI marketing is seen as “helpful or creepy”.

2.1.4 Tanawat Teepapal (2025)

Teepapal (2025) looked at how personalisation through AI impacts consumer engagement on social media. The findings revealed that engaging and relevant (relevant + personalised) content positively impacts consumer engagement, perceived usefulness and trust in brands. When recommendations were relevant to the consumers' interests and expectations, they were more likely to interact with the personalised marketing. But when consumers felt that too much personal information was being gathered, the personalisation effect was less pronounced, due to issues of privacy [15]. The study showed that it is important for organisations to achieve a balance between personalisation and transparency if they are to secure consumer trust and encourage positive engagement. The findings underline the importance of trust in an AI-driven marketing environment.

2.1.5 Lili Suryati and Edison Parulian (2026)

Suryati and Parulian (2026) conducted a systematic literature review on the association between consumer privacy paradox and marketing personalisation through AI. The review synthesized previous research and found that the effectiveness of personalization through AI is mainly driven by consumer trust. The authors found that personalized marketing increases engagement and intention to purchase but gathering too much information can raise privacy concerns and reduce consumer trust. The study highlighted the need for transparent communication, ethical use and data stewardship in an effort to keep customer trust in AI [14]. Another important finding of this study was the need for further empirical research based on primary data on these links between various segments of consumers, and this is an important gap in the literature the present study would address.

2.2 Research Gap

While prior research has confirmed that AI-powered marketing impacts consumer behaviours in terms of personalisation and recommendation systems [1] [4] [6], there is a gap in the literature that also investigates the multi-faceted nature of AI-driven personalisation on consumers' trust, privacy concerns and purchase intention specifically among Gen Z consumers [13] [14] [15] [5]. Moreover, there is limited empirical evidence in Indian context on the perception of AI based marketing as helpful or intrusive. To fill this gap, this study explores the interrelationship among these key variables and analyses the impact of AI-based marketing on the purchasing decision of Generation Z customers using primary survey data and statistical analysis.

3. Research Methodology

This study is conducted using quantitative research because it focuses on how AI-driven marketing affects Generation Z consumers' purchasing behaviours. A mixed research methodology was adopted, involving primary and secondary data in an effort to provide empirical data and theoretical support. The methodology aimed to investigate the connections between AI-based personalization, trust, privacy concerns and purchase intention through the application of relevant statistical techniques.

3.1 Research Design

The study is descriptive research design, because it is designed to describe and analyse the perception of Generation Z consumers about AI marketing, in addition, it is used to find out the relationships between the variables that were determined in the study. A quantitative method was used in order to be able to analyse and interpret the collected data statistically and objectively.

3.2 Method of Data Collection

Data for the study was collected through primary and secondary sources.

- **Primary Data:** The primary data were collected through a structured questionnaire online on Google forms. The questionnaire was separated into three parts: Demographic questions, Yes/No questions and five-point Likert scale statements on personalisation with AI, consumer trust, purchase intention and privacy concerns.
- **Secondary Data:** Peer-reviewed journal articles, conference papers, books, research reports and other credible academic sources were used to provide theoretical support and identify gaps in the research.

3.3 Sampling Technique

The study used a non-probability convenience sampling technique, as respondents were those who were easily accessible and willing to participate in an online survey. This sampling method was deemed to be appropriate for this study because of the exploratory nature of the study and the ease of access to digitally active Generation Z consumers.

3.4 Population and Sample Size of the Study

The sample population was the Generation Z consumers aged between 18 and 26 years who actively use AI-enabled digital platforms like Instagram, YouTube, Amazon and Flipkart. The online survey received 142 valid responses which were included in the final analysis after checking the completeness of the responses.

3.5 Statistical Tools Used

The collected data were analysed using Microsoft Excel. The following statistical techniques were employed:

- Frequency Distribution
- Percentage Analysis
- Cross-tabulation
- Chi-square Test
- Pearson Correlation Analysis

These statistical tools were used to describe respondent characteristics, investigate relationships between categorical variables and analyse the relationships between AI-driven personalisation, consumer trust, privacy concerns and purchase intention.

3.6 Data Preparation and Cleaning

The responses collected were checked for data quality and consistency before undergoing analysis. To avoid incomplete submissions, Google Forms had built-in validation and to check for duplicate responses, the response sheet was checked manually for duplicates based on the time stamp, and the pattern of the responses (no duplicate responses were found). Answers that were incomplete and inconsistent were not included in the responses. Responses using a Likert scale (Strongly Disagree to Strongly Agree) were digitised in order to undertake a statistical analysis (1 = Strongly Disagree, 5 = Strongly Agree) and categorical responses (e.g. gender, age band, Yes/No items) were coded as discrete categories for frequency

and cross-tabulation analysis. Following screening and cleaning, 142 responses remained that were used for the final analysis.

3.7 Ethical Considerations

The ethical practices for research were followed as per the standard. The survey was voluntary and respondents could choose not to take part or withdraw at any time, without giving a reason. At the start of the questionnaire respondents were informed of the purpose of the study before they continued. None of the answers to the questionnaires were written with names or personal details and the information gathered was only for academic research purposes. The anonymity of the answers was respected during the gathering, analyzing and reporting of data.

4 Data Analysis and Interpretation

4.1 Frequency Distribution

4.1.1 Age Group of Respondents

Table 1: Age Group of Respondents

Age Group	Count	Percentage
18–20	44	31.0%
21–23	74	52.1%
24–26	24	16.9%
Total	142	100%

The age distribution of the 142 respondents included in this study is shown in Table 1. Most of the respondents were aged 21–23 years with 74 respondents (52.1%) followed by 18–20 years with 44 respondents (31.0%) and 24–26 years with 24 respondents (16.9%). The results show that the sample is mainly composed of young individuals belonging to Generation Z, frequent users of digital platforms and often exposed to marketing practices based on AI. The distribution confirms the importance of the study in analyzing the impact of AI based marketing on the purchasing decisions of digitally active consumers.

4.1.2 Gender Distribution of Respondents

Table 2: Gender Distribution of Respondents

Gender	Count	Percentage
Male	49	34.5%
Female	93	65.5%
Total	142	100%

Table 2 shows the gender distribution of the respondents. Of the 142 participants, 93 respondents (65.5%) were female and 49 respondents (34.5%) were male. The results show that most of the sample are female respondents. The presence of both male and female respondents gives a wider perspective of consumers' attitudes towards AI-enabled marketing and increases the reliability of the demographic representation in the study.

4.1.3 Platform Most Frequently Used by Respondents

Table 3: Platform Most Frequently Used by Respondents

Platform	Count	Percentage
Amazon	56	39.4%
Flipkart	51	35.9%
Instagram	30	21.1%
YouTube	5	3.5%
Total	142	100%

Table 3 below contains the digital platform used by the respondents. It shows that Amazon was the most preferred digital platform among the respondents. Specifically, 56 or 39.4% chose Amazon, while 51 or 35.9% selected Flipkart. In contrast, 30 or 21.1% chose Instagram, and only 5 or 3.5% selected YouTube. Overall, the results show that e-commerce websites are the most common place where respondents encounter AI technology, particularly in the form of product recommendation and/or personalized marketing. It aligns with the research question on AI-driven marketing and consumer buying behaviours. Table 3: Distribution of respondents' according to their preferred digital platform.

4.1.4 Purchase Due to AI Recommendations

Table 4: Purchase Due to AI Recommendations

Response	Count	Percentage
Yes	64	45.1%
No	78	54.9%
Total	142	100%

Table 4 represents the percentage of respondents who purchased a product influenced by AI-based recommendation. From the data below, 64 or 45.1% of the participants answered yes, and 78 or 54.9% answered no. Thus, the results illustrate that although the influence from this particular genre of recommendations has an apparent effect, it seems to affect only slightly more than half of the target population. It can be concluded that AI-based marketing affects the purchasing behaviour of this generation only conditionally.

4.1.5 Feeling Uncomfortable Due to Personalised Ads

Table 5: Feeling Uncomfortable or Watched Due to Personalised Ads

Response	Count	Percentage
Yes	69	48.6%
No	73	51.4%
Total	142	100%

Table 5 below contains the respondents' evaluation of the discomfort caused by highly personalised advertisements. 69 participants or 48.6% answered that they do feel uncomfortable or like they are "watched," while 73 respondents or 51.4% indicated the opposite. The almost equal distribution of the answers shows the ambiguity of Gen Z's opinion on being observed via AI-driven personalisation. Besides, multiple participants mentioned privacy concerns, which implies the necessity to investigate the balance between personalisation and perceived intrusiveness.

4.1.6 Trust in AI-Based Product Recommendations

Table 6: Trust in AI-Based Product Recommendations

Response	Count	Percentage
Yes	63	44.4%
No	79	55.6%
Total	142	100%

Table 6 presents the respondents' levels of trust in the recommendations made by artificial intelligence. The results indicate that 63 participants (44.4%) are generally trusting of AI recommendations, while 79 respondents (55.6%) are not. This implies that the level of trust in the recommendations of artificial intelligence is moderate among Generation Z consumers. Moreover, the results suggest that a significant proportion of respondents are sceptical about the recommendations made by artificial intelligence. Thus, the study reveals the importance of the trust level in the recommendations made by artificial intelligence as a key factor influencing the effectiveness of marketing and purchase intention.

4.2 Cross-Tabulation and Chi-Square Test

4.2.1 Gender vs General Trust in AI Recommendations

Table 7: Gender vs General Trust in AI Recommendations

Gender	Trust: Yes	Trust: No	Total
Male	24	25	49
Female	39	54	93
Total	63	79	142

According to the cross-tabulation results, the data show that out of the 49 male respondents, 24 trusted AI recommendations while 25 did not. On the other hand, out of the 93 respondents who identify as female, 39 said that they trust AI recommendations while 54 did not. Overall, it may be concluded that the percentage of male respondents who state their trust in AI recommendations is slightly higher than the percentage of female respondents who express the same opinion. The p-value of 0.422 from the Chi-square test is greater than the significance level of 0.05. Hence, the link between gender and overall trust in AI recommendations is not statistically significant. This suggests that trust in AI-based recommendations by respondents does not vary much by gender in the present sample.

4.2.2 Age Group vs Felt Uncomfortable Due to AI Personalisation

Table 8: Age Group vs Felt Uncomfortable/Watched Due to AI Personalisation

Age Group	Felt Watched: Yes	Felt Watched: No	Total
18–20	18	26	44
21–23	39	35	74
24–26	12	12	24
Total	69	73	142

The cross tabulation reveals that a total of 18 respondents in the age group of 18-20 reported feeling uncomfortable or watched because of AI personalisation, while 26 did not. The 21 – 23 age group had 39

respondents that felt uncomfortable as opposed to 35 that did not. This shows relatively higher concern in this category. Respondents aged 24–26 were split evenly with 12 reporting feeling uncomfortable and 12 reporting no feeling of discomfort. However, Chi-square test provided a p-value of 0.459 which is more than significance level of 0.05. Therefore, there is no statistical significance relation between respondents' age group and their perception of discomfort or being watched as a result of AI-driven personalisation. The observed differences between the age groups are therefore probably due to random variation.

4.2.3 Age Group vs AI-Driven Purchase Decision

Table 9: Age Group vs AI-Driven Purchase Decision

Age Group	Purchased: Yes	Purchased: No	Total
18–20	20	24	44
21–23	37	37	74
24–26	7	17	24
Total	64	78	142

Cross-Tabulation The cross-tabulation shows that in the age group of 18-20, 20 respondents mentioned that they made purchases based on the AI recommendations, and 24 did not. For 21-23, 37 people said they bought something because of an AI recommendation and 37 people said they did not. Only 7 out of 24–26 age group reported AI-driven purchases compared to 17 who did not, suggesting relatively lower influence of AI recommendations within this group. However, the chi-square test yielded a p-value of 0.204, which is greater than 0.05. The relationship between age group and AI driven purchasing behaviour is not statistically significant. This means that, statistically, age has no significant impact on the purchase decisions made via AI among the respondents in this present study.

Overall Interpretation of Cross-tabulation Analysis & Chi Square

Chi-square analyses did not show any statistically significant association between any of the demographic variables investigated (gender and age group) and trust in AI recommendations, feelings of discomfort from AI personalisation or AI-driven purchase behaviour ($p > 0.05$ in all cases). There are small differences between demographic groups, but they are not large enough to find statistically significant relationships. Therefore, the results of the study suggest that these behavioural responses towards AI-driven marketing are relatively similar across the different gender and age groups within the sampled generation Z population.

4.3 Correlation Analysis

Table 10: Correlation Analysis

Relationship	Pearson r	Strength
Personalisation ↔ Purchase Intention	0.627	Moderate positive
Personalisation ↔ Trust	0.653	Moderate positive
Trust ↔ Purchase Intention	0.776	Strong positive
Privacy Concern ↔ Trust	0.236	Weak positive

Relationship	Pearson r	Strength
Privacy Concern ↔ Purchase Intention	0.210	Weak positive

1. Personalisation and Purchase Intention ($r = 0.627$)

The Pearson correlation coefficient between AI-driven personalisation and purchase intention was 0.627, which indicated a moderately strong positive correlation. This suggests that as consumers perceive AI recommendations as more personalised and relevant to their own preferences, their intention to purchase the products also increases. Personalised recommendations appear to enhance the overall shopping experience by making product suggestions more helpful and attractive. Although the relationship is not perfect, the coefficient indicates that personalisation is an important factor in influencing the purchase decisions of Generation Z consumers. This finding suggests that AI-powered personalisation can be a successful way to foster consumer engagement and purchasing behaviour.

2. Personalisation and Trust ($r = 0.653$)

Moderate positive association ($r=0.653$) was found between AI driven personalisation and consumer trust. This implies that participants who were provided with more relevant and personalised recommendations were also more inclined to trust AI recommendation systems. The results suggest that personalisation increases the confidence of users, by giving them recommendations that are closely related to their interests and previous shopping behaviour. As consumers find AI recommendations to be accurate and useful, their trust in AI-enabled marketing platforms increases slowly. This indicates that personalisation is not only useful in enhancing customer experience but also has an important role in building trust towards AI technologies.

3. Trust and Purchase Intention ($r = 0.776$)

The strongest relationship found in the study was between consumer trust and purchase intention. The Pearson correlation coefficient was 0.776 which is a strong positive relationship. This means that the more people trust recommendations made by AI, the more likely they are to buy the products that are recommended. Consumers are more likely to adopt AI recommendations when they find them trustworthy, accurate and helpful in the decision-making process for their purchases. “The result highlights that trust is one of the most influential factors affecting AI-driven consumer behaviour and a critical determinant of purchase intention among Generation Z consumers.

4. Privacy Concern and Trust ($r = 0.236$)

The correlation between privacy concern and consumer trust was 0.236 which showed a weak positive relationship. The coefficient is low, which means that in the current sample, there is a weak connection between the level of privacy concerns and the trust of consumers in artificial intelligence recommendation systems. Although the respondents were aware of the potential issues regarding privacy, they do not seem to influence their attitude toward AI marketing. Therefore, it can be concluded that Gen Z consumers are highly likely to continue to trust advertising recommendations provided by AI, despite their concerns about privacy and data protection being present.

5. Privacy Concern and Purchase Intention ($r = 0.210$)

The Pearson correlation coefficient was 0.210, indicating a weak positive relationship between privacy concern and purchase intention. This indicates that privacy concerns have limited impact on consumers’ willingness to buy products recommended by AI systems. Although respondents are aware of issues relating to the collection and use of personal data, these issues do not have a significant impact on their

purchasing behaviour. The finding indicates that Generation Z consumers are typically more concerned with convenience, personalised experiences and relevant product recommendations than privacy-related concerns. Therefore, privacy concern is a relatively less important factor than personalisation and trust in influencing AI-driven purchase intentions.

4.4 Hypothesis Testing Summary

Table 11: Summary of Hypothesis Testing

Hypothesis	Statistical Test	Test Statistic	Conclusion
H1: Personalisation → Purchase Intention	Pearson Correlation	$r = 0.627, p < 0.001$	Supported
H2: Personalisation → Trust	Pearson Correlation	$r = 0.653, p < 0.001$	Supported
H3: Trust → Purchase Intention	Pearson Correlation	$r = 0.776, p < 0.001$	Supported
H4: Privacy Concern → Trust	Pearson Correlation	$r = 0.236, p = 0.005$	Partially Supported

AI-driven personalisation and consumer trust were positively found to have a statistically significant impact on purchase intention, with H3: Trust being the most powerful predictor, followed by H2: AI-driven personalisation and finally by H1: Knowledge of the AI system. H4 was supported, as for the Gen Z sample, privacy concern had a statistically significant positive relationship with consumer trust ($p = 0.005$), but the relationship was weak, suggesting that while privacy concern negatively affects consumer trust, by a lesser magnitude than believed.

5 Findings, Discussion and Conclusion

5.1 Findings of the Study

1. The study showed that the majority of the respondents were in the 21-to-23-year age range, which means that young adults make up the main group of participants in the research. A greater number of the respondents were female than male.

Amazon was the most favoured shopping platform among the respondents from Generation Z, with Flipkart coming next, whereas Instagram and YouTube were preferred to a lesser extent for shopping-related activities.

3. Over half of the respondents stated that they do not buy products just because of AI recommendations, which indicates that even though AI has an effect on consumer behaviour it is not the only thing that influences purchase decisions.

4. The significant number of participants have responded that they felt uncomfortable or noticed that they were being treated in such a way that made them aware of being watched because of the personalization operated by artificial intelligence. This can demonstrate that consumers of Generation Z are concerned about privacy issues.

5. In addition, the results of the study also reveal that the majority of the respondents do not have full confidence in AI-provided recommendations, which display their hesitations regarding the application of artificial intelligence in marketing, despite its growing popularity.

6. The cross-tabulation analysis showed that there was no statistically significant association between gender and trust in AI recommendations ($p > 0.05$), which means that the different levels of trust are the same for both male and female respondents.
 7. In a similar way, there was no significant relationship between age group and the feeling of discomfort caused by AI personalisation ($p > 0.05$), which indicates that concerns relating to privacy are common among the various age groups in Generation Z.
 8. The analysis also showed that there was no statistically significant association between age group and AI-driven purchase behaviour ($p > 0.05$), which means that age has no significant effect on purchasing decisions based on AI recommendations.
 9. A correlation analysis showed that there was a moderate positive relationship between AI personalisation and purchase intention ($r = 0.627$), which means that the higher the level of personalisation, the greater the consumers' willingness to make a purchase.
 10. There was also a moderate positive relationship between AI personalisation and trust ($r = 0.653$), which indicates that personalised recommendations help in building consumers' confidence in AI systems.
 11. The most significant relationship in the study was between trust and purchase intention ($r = 0.776$), which shows that trust is the most important factor influencing consumers' decision to buy products that are recommended by AI.
 12. The concern regarding privacy showed only weak positive correlations with both trust ($r = 0.236$) and purchase intention ($r = 0.210$), which means that even though the respondents were aware of privacy issues, these concerns have only a relatively limited effect on their decisions about purchasing.
 13. In fact, the findings show that personalisation and trust are the main factors influencing AI-driven purchase intention, while demographic features such as age and gender have only a small effect on consumers' responses to AI-powered marketing.
- Taken together, these findings indicate that for consumers in Generation Z, it is more important than demographic factors or worries about privacy to build up trust through accurate and personalised AI recommendations when it comes to influencing their purchasing behaviour.

5.2 Suggestions for the Study

Based on the findings of the study, the following recommendations are proposed:

5.2.1 Enhance AI Personalisation While Maintaining Relevance

Organisations should use advanced machine learning techniques together with an analysis of consumer preferences in order to improve the accuracy and relevance of their AI-powered recommendation systems [9]. Providing highly personalised recommendations can lead to greater user satisfaction, increased engagement, and a positive effect on the purchase intention of Generation Z consumers.

5.2.2 Build Consumer Trust Through Transparency

Businesses should enhance the transparency of the way that their AI recommendation systems work and explain how customer data is gathered and used. Giving customers clear explanations, following ethical practices in relation to AI, and offering reliable recommendations can help to build consumer trust, since consumer trust was found to be the strongest predictor of purchase intention in this study.

5.2.3 Strengthen Data Privacy and Consumer Control

Even though concerns about privacy show a poor relationship with purchase intentions, exposed data and privacy violation issues have a huge and detrimental effect on long-term customer trust [2]. To combat this violation and increase long-term trust of the consumers towards the marketing systems powered by AI, businesses should improve privacy policies, allow consumers control over their data and implement provisions.

5.2.4. Continuously Monitor Consumer Behaviour

While concerns about privacy reveal an adverse relation to the intention of purchases, instances of data exposure and privacy breach have a considerable negative impact on the customer trust level in the business

sphere. Therefore, to counter these breaches and increase clients' trust in the marketing systems based on AI, businesses should revise their policies [9].

5.2.5 Expand AI Adoption Responsibly Across Digital Platforms

E-commerce players and digital marketers have to incorporate AI recommendation systems into various online platforms in a just and ethical way, pursuing fair, correct, and ethical decision-making [2]. The responsible use of AI increases customer satisfaction and engenders involvement in and adoption of sustainable AI-based marketing methods.

5.3 Conclusion

The advent of artificial intelligence has changed the face of digital marketing by allowing brands to create custom-tailored experiences, useful suggestions for products, and data-fueled interactions with their customers. It is crucial for businesses to research their target audience and be aware of their outlook on AI-led marketing campaigns as Generation Z is one of the most digitally savvy consumer groups at the present time. Considering this, the focus of the current research paper was to investigate whether or not consumers perceive AI-based marketing as insightful or annoying [7].

According to the results of the current study, personalization brought by AI is seen to be beneficial by consumers, leading them to trust a recommendation system more and feel the urge to buy a suggested item. The consumers who found the recommendations to be more relevant to them were inclined to trust the AI-powered recommendation systems more and to buy what these systems suggested. Consumer trust stands out as one of the most vital factors in determining purchasing willingness according to the results of the research [7]. It has been shown by the research that a successful usage of AI marketing does not only depend on its technical.

Moreover, it was found that even though many of the respondents expressed worries about personalisation of ads and privacy, there existed a weak correlation between privacy concern and trust as well as purchase intention [8]. It appears that despite Generation Z individuals being worried about privacy problems, they continue to use AI-based marketing systems provided that they can obtain some sort of benefit from their use, such as convenience, relevance, and better shopping experience. Lastly, according to the results of Chi-square test, demographic factors like age and gender were not found to have any significant impact on people's attitudes towards AI recommendations, personalisation, or purchases via AI.

Based on the information provided, it is possible to conclude that there is a pressing need to create artificial intelligence-based marketing approaches, which will offer more personalization, transparency, and responsible use of data [8]. In this regard, the company should prioritize the improvement of the recommendation system efficiency and work on providing customers with an understanding of how their data is being used by the system. As a result, enhanced transparency, ethical use of data, and a more personalized approach will lead to building customer trust and loyalty to the brand. The companies that will be able to combine all of these factors will see higher levels of customer satisfaction, purchase intentions, and competitive advantage [9].

Still, despite the value of this research, it is worth saying that the study is limited to Generation Z consumers aged between 18 and 26 and relies on a cross-sectional design of a survey with self-reported data. That is why the results should be considered under the conditions of the selected population. Further research can be continued in order to test these hypotheses in more diverse populations using longitudinal studies and regression analysis.

Overall, the research results show that the AI marketing strategy is viewed as more beneficial than creepy when it comes to the use of personalization provided with the element of trust and responsible handling of data [9]. Despite the existence of the privacy problem, it does not play the main role in the decision-making process for Generation Z consumers.

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