



The Influence of AI Shopping Assistants on Consumer Trust and Purchase Decisions

Murugan S¹ Archana N² Armesh R³

¹ Associate Professor, Sri Krishna Arts and Science College, Coimbatore, Tamil Nadu, India.

² PG Scholar, Sri Krishna Arts and Science College, Coimbatore, Tamil Nadu, India.

³ PG Scholar, Sri Krishna Arts and Science College, Coimbatore, Tamil Nadu, India.

ABSTRACT

Artificial Intelligence (AI) has advanced rapidly and changed the dynamics of online shopping. Many e-commerce websites are now implementing AI-based shopping assistants that help shoppers discover the right products, answer inquiries, compare various products, and eliminate hurdles during purchases. Some of the best-known AI shopping assistants including ChatGPT Shopping, Amazon Rufus, and Google Gemini Shopping are gaining popularity among users of online shopping. By using machine learning, natural language processing (NLP), and predictive analysis, these systems can identify buyers' needs and personalize their shopping experience. Although these tools enhance shopping efficiency, they also put consumers in a position of uncertainty. Many consumers are still skeptical about the functioning of those systems and the adequacy of the recommendations, while AI shopping systems improve the overall online shopping process.

Trust is essential in deciding whether or not consumers would trust AI-generated recommendations and carry out online transactions. Trust derives from the perception of the system being reliable, the quality of the recommendation, the extent of personalization of the information and ease of interaction, as well as the perceived ethical treatment of personal data. When consumers perceive the AI shopping assistants as being trustworthy and helpful, they are more inclined to adopt and

This research intends to investigate the impact of AI-based shopping assistants on the trust and buying behavior of consumers in the online shopping industry. The research further aims at studying how AI recommendation accuracy, personalization, perceived usefulness, and transparency as the offer characteristics influence consumer trust and online purchase intentions. The nature of the research is quantitative. The information will be collected using a structured questionnaire sent to online shoppers. The data obtained will be analyzed with the use of statistical techniques namely descriptive statistics, reliability analysis, Pearson correlation, and multiple regression analysis. The study is expected to indicate that AI shopping assistants have a positive impact on consumer trust and encourage them to make purchases when they offer accurate, transparent, and personalized recommendations. This research extends the current body of

knowledge in terms of AI technology in marketing and gives important suggestions for businesses, marketers, and political decision-makers that want to create trustworthy environment for customers.

Keywords: Artificial Intelligence, AI Shopping Assistants, Consumer Trust, Purchase Decision, Purchase Intention, E-commerce, Digital Marketing, Personalization, Conversational Commerce.

1.INTRODUCTION

The fast expansion of online commerce has changed how customers seek products, evaluate options, and make purchases. The use of e-commerce sites, apps, and electronic payment systems has made it easier for shoppers to rely on technology. In this context, AI shopping assistants have emerged as a recent development in providing personal product recommendations, 24/7 customer support, and smart buying advice.

AI shopping assistants employ tools like machine learning, natural language processing (NLP), predictive analytics, and generative AI to learn buyers' needs, preferences, and shopping behavior. This data helps AI shopping assistants suggest products according to shoppers' requirements, resolve their queries, and generally make the process fast and easy. They facilitate the process of making informed purchases thanks to their useful recommendations. Some well-known AI



shopping assistants include Amazon Rufus, Google Shopping AI, and AI chatbots, which are used by many online retailers.

The increasing use of AI shopping assistants has undoubtedly contributed to greater customer convenience and engagement. Through their ability to enhance customer experience by minimizing search efforts and providing better customization, these systems have improved customer satisfaction and helped businesses grow. However, the success of AI shopping assistants is largely dependent on consumer trust. Customers are more likely to accept recommendations made by AI shopping assistants if they perceive them as reliable, trustworthy, transparent, and able to ensure their privacy. Due to the inability of customers to physically inspect the items, trust plays a critical role in online purchasing. Although AI shopping assistants are said to help make better decisions, they also cause worries about privacy, data protection counts, algorithm bias, and algorithm transparency. If consumers think that an AI recommendation is biased, they won't want to use this technology or make a purchase online.

The Technology Acceptance Model (TAM) states that consumers will purchase a new technology when it is perceived as both useful and easy to use. AI shopping assistants help in searching for products more efficiently, saving time, and making the online shopping process more effective. Because of these advantages, customers tend to consider AI shopping assistants as useful. From a marketing point of view, AI shopping assistants can improve the relationship between customers and doers by helping in providing personalized recommendations and improving customer experience overall.

In this context, the current research looks into the impact of shopping assistants based on artificial intelligence on consumer trust and buying decisions. The study examines how different factors, including the quality of AI services, personalization, usefulness, transparency, and privacy concerns can influence the level of trust of consumers and their inclination to make purchases. The results gained are expected to be useful for the marketers, retailers, and developers of technology who intend to offer reliable solutions based on artificial intelligence and promote consumer trust.

2.LITERATURE REVIEW

AI has revolutionized digital marketing and e-commerce by providing firms with innovative options to enhance customer experience. The intelligent shopping assistants employ a variety of techniques like machine learning and predictive analytics to recommend products to the customers, reply to their inquiries and streamline the online shopping process. The rapid expansion of applications of AI technologies has led numerous researchers to investigate the influence of AI on customer behavior. The results indicate that the AI shopping assistants are instrumental in customer shopping experiences.

According to Davenport and Ronanki (2018), AI improves business performance owing to the automation of decision-making, the quality of customer service and personalization of recommendations. Their findings proved that AI technologies make operation more efficient and lead to better customer experience through smart interactions.

According to Gefen et al. (2003), consumer trust is one of the most important factors influencing online purchasing decisions. It was discovered that trust minimizes perceived risks in online transactions and has positive effect on customers' buying intentions in the digital sphere. The findings proved that trust is one of the most significant factors affecting technology adoption.

According to Huang and Rust (2021), marketing is being revolutionized by artificial intelligence, which enhances service quality, customization and customer service. The study shows that AI shopping assistants have the ability to learn consumer preferences and make recommendations that improve customer satisfaction and create long-lasting relationships.

McLean and Wilson (2019) studied the effect of chatbots on consumer behavior. Their results have shown that the quality of chatbot services, their responsiveness and ease of use all result in better customer satisfaction and increased intention to buy. Consumers are more inclined to trust AI assistants who give them timely, precise and personalized answers.

In 1989, Davis developed the Technology Acceptance Model, whereby the users' acceptance of new technologies relies on their perceived usefulness and ease of use. The TAM model has been



successfully and widely used in studies on AI adoption. It has been established that customers would embrace AI shopping assistants, provided there are no doubts about their usefulness, reliability, and user-friendliness.

The outcome of the benchmark studies in the field of AI shopping assistants have revealed some issues, such as the absence of transparency, ethical concerns, and the problems related to algorithmic discrimination. Although AI shopping assistants make a lot of personalized recommendations that help shoppers save time, people tend to worry about the collection and processing of their personal information. This clearly shows the priority of ethical practices in AI.

The literature review results show that AI shopping assistants create positive trust in consumers that leads to purchasing decisions with the help of personalized services.

3.RESEARCH GAP

Previous research has explored the effectiveness of the use of Artificial Intelligence (AI) within the scope of digital marketing, e-commerce, recommendation systems, and customer service. The findings prove that AI makes it possible for companies to provide personalized services, improve customer involvement, and enhance the efficiency of their operations. Among other findings, researchers have pointed out that customer trust influences the chances of making purchases and accepting new technologies. Nevertheless, it can be noted that so far some significant aspects related to the use of AI shopping assistants have not been studied thoroughly enough, which means that there is still a lot of room for investigation into the effect of AI shopping assistants on the trust of consumers and their purchasing behavior in contemporary e-commerce.

Earlier literature gives emphasis on the theme of AI-based chatbots, recommendation systems, and acceptance of AI technology. The area of AI-enabled shopping assistants, consumer trust, and buying behavior of users remains unstudied in detail. With the growing implementation of modern AI tools in the fashion of conversational shopping assistants and generative AI systems, the issue is still relevant in terms of empirical research. The study of how the modern AI shopping assistants



affect consumers' decisions and online shopping experience will enable companies to use these technologies more efficiently and enhance customers' level of trust.

Moreover, the previous researches have focused mostly on the technical features of the AI and paid less attention to consumers' perception of the recommendation quality, transparency and personalization, and privacy protection. With AI shopping assistants increasingly gathering and processing consumer data in order to provide tailored recommendations, it has become essential to understand how all of these factors can affect customers' trust.

The next major area that remains unexplored in the literature is the lack of combined studies that have analyzed the customer trust and purchase intention at the same time. The reason for it is a very limited number of works that investigate the link between AI shopping assistants and customers' purchasing behaviours. Moreover, the rapid emergence of generative AI has changed the shopping experience and made it much more interactive requiring further research and validation of the existing concepts.

In this respect, the objectives of the current study are to fill the research gaps by looking at the influence of AI shopping assistants on customer trust and purchase intentions. It aims at exploring the factors, which include AI recommendation quality, personalization, perceived usefulness, transparency, and privacy, contributing to the shaping of consumer trust. It is also necessary to find out how this trust influences consumers' intention to buy products through e-commerce websites.

4. RESEARCH METHODOLOGY

Research Design

In the current research investigation, a quantitative research framework is employed to analyse the impact of AI retail facilitates to build consumer confidence and impact purchasing behaviours. A quantitative approach permits the researcher to investigate consumer perceptions, and examine the connections between variables and hypotheses.



Nature of the Study

The research employs both the descriptive as well as analytical methods of research. The descriptive method serves the purpose of studying the awareness of consumers regarding AI shopping assistants, their use of AI shopping assistants, and their perception of AI shopping assistants. The analytical method is used to determine the correlation between AI shopping assistance, consumer trust, and purchase intention. The study will provide insights into how AI shopping assistants influence consumer behavior while shopping online.

Data Collection

This paper employs the use of both primary sources and secondary sources in the research. Primary data will be gathered through the use of a questionnaire which will be sent to customers who have prior experience with AI shopping assistants in online shopping. The questionnaire contains questions revolving around the quality of AI recommendations, personalization, trust, and purchase intention.

Secondary data will be collected using a variety of credible sources which include research journals, books, scholarly articles, and conference papers. This information helps give background information on the study and has been useful for providing some insight into topics such as Artificial Intelligence, online marketing, commerce, and consumer behavior.

Sampling Technique

The convenience sampling method was utilized. The collected data consists of the responses of the subjects that were easily accessible and that had a prior experience with AI shopping assistants.

Sample Size

The study consists of **250 respondents** who regularly use e-commerce websites and have interacted with AI shopping assistants during their online shopping experiences.

Target Population

The target population includes:

- Online shoppers
- Users of AI shopping assistants
- E-commerce consumers
- Mobile shopping application users
- Consumers aged 18 years and above

Measurement Scale

Within this research, there has been utilized a five-point Likert scale which is designed to assess the views and reactions of the participants. Participants are required to choose one of the presented options to mention their level of agreement with every statement.

Scale	Description
1	Strongly Disagree
2	Disagree
3	Neutral
4	Agree
5	Strongly Agree



Variables of the Study

This research examines three kinds of variables: independent variables, mediating variable, and dependent variable.

Independent Variables The independent variables are the factors specified to affect consumer trust and purchase intention such as:

- AI Recommendation
- Quality Personalization
- Perceived Usefulness
- Transparency,
- Privacy Concerns

Mediating Variable

In this research, Consumer Trust is the mediating variable. It explains how independent variables influence consumers' intention to purchase.

Dependent

Variable

The dependent variable is Purchase Intention (Purchase Decision). It reflects the degree of consumer intent to make purchases through online shopping platforms after usage of AI shopping assistants.

Statistical Methods

The data used in this research will be evaluated using statistical methods to meet research goals and verify hypotheses. The following methods will be utilized:

- Percentage Analysis
- Descriptive Statistics
- Reliability Analysis (Cronbach's Alpha)



- Pearson Correlation Analysis
- Multiple Regression Analysis
- Hypothesis Hypotheses

These statistical methods allow understanding the characteristics of the data collected, checking the reliability of the instrument used for measuring the variables studied, identifying the relationships between the research variables, and assessing how the AI shopping assistants affect consumers' trust and intention to purchase. The obtained research results provide an opportunity to understand the effect AI shopping assistants have on online shopping.

Ethical Considerations

While partaking in the research, individuals take part voluntarily and learn about the aim of the study beforehand. The anonymity of the participants is preserved for the duration of the research. Information that can be linked to any person will not be collected.

5.DATA ANALYSIS AND INTERPRETATION

Demographic Profile of Respondents

Table 1

Gender Distribution (N = 250)

Gender	Frequency	Percentage
Male	116	46.4%
Female	130	52.0%
Others	4	1.6%
Total	250	100%

Interpretation:

The data in Table 1 displays the distribution of the two genders among the respondents in the study. To be precise, 130 respondents (52%) were female, thus consisting of the biggest share.



Male respondents accounted for 116 (46.4%) of the total respondents, while four respondents (1.6%) stated that their gender was something different. Consequently, the results of the survey show that the respondents belong to different genders, according to which more female respondents can be observed. Hence, such a distribution gives some knowledge about consumers' attitudes toward AI shopping assistants.

5.1 Demographic Profile of Respondents

Table 1: Age Distribution

Age Group	Frequency	Percentage
18–25 Years	98	39.2
26–35 Years	84	33.6
36–45 Years	42	16.8
Above 45 Years	26	10.4
Total	250	100.0

Interpretation

According to Table 1, 39.2% of participants belong to the age group of 18-25 years. 33.6%, provide users in the age group of 26-35 years. Thus, implying that young adults are the dominant users of AI shopping assistants as the application of AI technologies is increasing among tech-savvy customers.

Table 2: Educational Qualification

Qualification	Frequency	Percentage
Undergraduate	72	28.8
Postgraduate	118	47.2
Professional Degree	38	15.2
Others	22	8.8
Total	250	100.0



Interpretation

Around 50% (47.2%) of the participants have postgraduate education, which means educated shoppers are more prone to using AI shopping technologies.

Table 3: Frequency of Using AI Shopping Assistants

Usage Frequency	Frequency	Percentage
Daily	58	23.2
Weekly	102	40.8
Monthly	66	26.4
Rarely	24	9.6
Total	250	100.0

Interpretation

More than third (40.8%) of the participants are regular users of AI shopping aides and thus use AI technologies on a regular basis.

5.2 Reliability Analysis

The data in Table 1 displays the distribution of the two genders among the respondents in the study. To be precise, 130 respondents (52%) were female, thus consisting of the biggest share. Male respondents accounted for 116 (46.4%) of the total respondents, while four respondents (1.6%) stated that their gender was something different. Consequently, the results of the survey show that the respondents belong to different genders, according to which more female respondents can be observed. Hence, such a distribution gives some knowledge about consumers' attitudes toward AI shopping assistants.

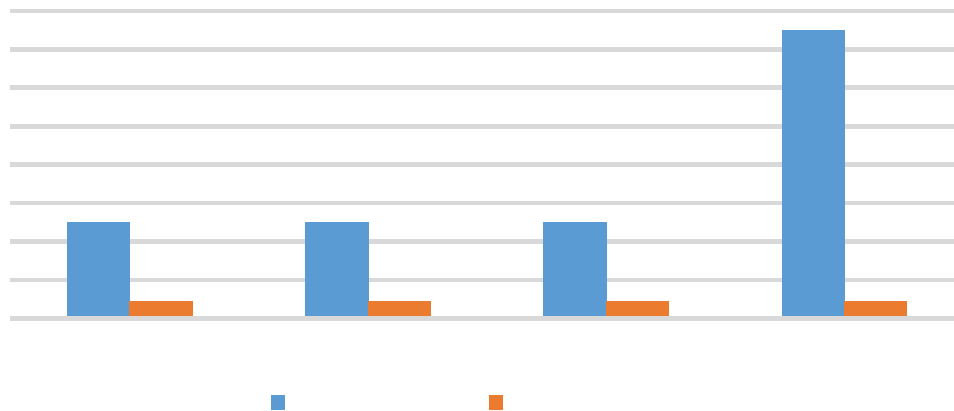
Table 4: Reliability Statistics

Variable	Number of Items	Cronbach's Alpha
AI Shopping Assistants	5	0.872
Consumer Trust	5	0.891
Purchase Intention	5	0.884

Variable	Number of Items	Cronbach's Alpha
Overall Scale	15	0.882

Interpretation

The results of reliability testing reveal that the value of Cronbach's alpha overall is 0.882 and



this shows that the questionnaire has great reliability. Its value for AI Shopping Assistants is 0.872, for Consumer Trust is 0.891, and for Purchase Intention is 0.884, which are all above the minimum recommended value of 0.70. This means that the methods used for measuring these variables are reliable and

stable. Thus, the research instrument is regarded as valid for further statistical analysis in relation to correlation or regression.



5.3Descriptive Statistics

Table 5: Descriptive Statistics

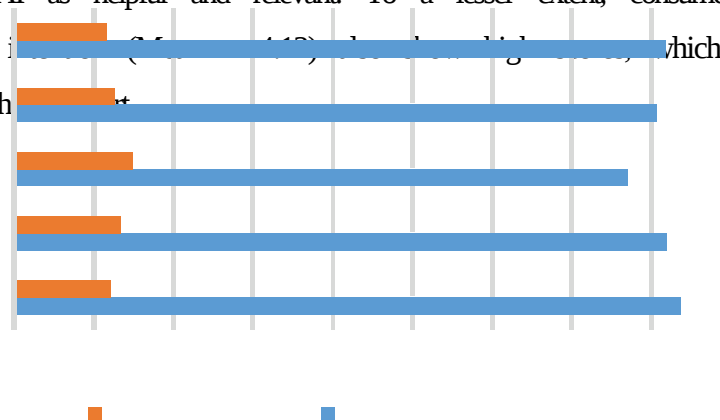
Variable	Mean	Standard Deviation
AI Recommendation Quality	4.18	0.61



Variable	Mean	Standard Deviation
Personalization	4.09	0.67
Transparency	3.88	0.74
Consumer Trust	4.06	0.63
Purchase Intention	4.12	0.58

Interpretation

The mean values suggest that respondents perceive AI shopping assistants positively. The highest mean was recorded for AI recommendation quality (4.18), which implies that consumers consider recommendations provided by AI as helpful and relevant. To a lesser extent, consumer confidence (Mean = 4.06) and purchase intention (Mean = 4.12) also showed high scores, which proves the positive attitude toward shopping with





5.4Pearson Correlation Analysis

Pearson correlation analysis was performed to examine the relationship among AI shopping assistants, consumer trust, and purchase intention.

Table 6: Correlation Matrix

Variables	AI Shopping Assistants	Consumer Trust	Purchase Intention
AI Shopping Assistants	1.000	0.742**	0.698**
Consumer Trust	0.742**	1.000	0.781**
Purchase Intention	0.698**	0.781**	1.000

Note: The correlation is statistically significant at the 0.01 level (2-tailed), indicating that the relationship between the variables is unlikely to have occurred by chance.

Interpretation



The correlation analysis indicates that the relationship between AI shopping assistants and consumer trust is strong and positive ($r = 0.742$, $p < 0.01$). Thus, consumers tend to trust AI shopping assistants more when they find them useful, reliable, and helpful.

Additionally, the results show there is a strong positive connection between the level of consumer trust and purchase intention ($r = 0.781$, $p < 0.01$). This means that those people who have high trust towards AI shopping assistants are also more likely to make an online shopping order.

In general, the results indicate that proper design of AI shopping assistants can enhance consumer trust, and as a result, the readiness of consumers to buy products online.

5.5 Multiple Regression Analysis

The researchers carried out a multiple regression analysis to assess the impact of various elements connected to AI shopping assistants on consumers' intention to purchase. AI recommendation quality, personalization, perceived usefulness, transparency, and privacy issues were the independent variables, while purchase intention constituted the dependent variable. The purpose of this analysis was to examine the contribution each of these variables makes to the intention of consumers to make purchases.



Table 7: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of Estimate
1	0.821	0.674	0.667	0.412

Interpretation

According to the model summary, the coefficient of determination ($R^2 = 0.674$) covers 67.4% of the changes in purchase intention. This implies that AI shopping assistant characteristics strongly impact purchase intentions of consumers.

Table 8: ANOVA

Source	Sum of Squares	df	Mean Square		Sig.
Regression	72.814		14.563	85.792	0.000
Residual	41.431	244	0.170		
Total	114.245	249			

Interpretation

The results of the ANOVA indicate that the regression model is significant ($F = 85.792$, $p < 0.001$). Thus, the independent variables in combination, affect consumers' purchase intention. In other words, AI recommendation quality, personalization, usefulness, transparency, and privacy perceptions influence consumers decisions to buy products through AI shopping assistants.





600					
500					
400					
Total					
300					
Residual					
200					
Regression					
100					
0					
Sum of	df	Mean Square	F	Sig.	
Squares					

Table 9: Regression Coefficients

Variables	Beta (β)	t-value	Sig.
AI Recommendation Quality	0.326	6.812	0.000
Personalization	0.241	5.184	0.000
Perceived Usefulness	0.286	5.923	0.000
Transparency	0.174	3.746	0.001
Privacy Concerns	-0.153	-3.291	0.001

Interpretation

The findings demonstrate that AI recommendation quality, personalization, perceived usefulness, and transparency are positively correlated with consumers' intention to purchase products. These results point at the argument that these factors stimulate customers to complete online purchases via AI shopping assistants. Of all variables, AI recommendation quality shows the strongest pathway coefficient ($\beta = 0.326$), which indicates that customers are highly inclined to buy products when AI shopping assistants provide correct, relevant, and useful recommendations.

■



On the other hand, privacy concerns negatively influence the intention to buy ($\beta = -0.153$). This means that customers that are concerned about the safety and security of their private data are less likely to trust AI shopping assistants and, therefore, make purchases on those platforms.

Regression Coefficients

Variable	Mean	SD	Min	Max
Transparency	0.174	3.746	0.001	0.326
Perceived Usefulness	0.286	5.923	0	0.326
Personalization	0.241	5.184	0	0.326
AI Recommendation Quality	0.326	6.812	0	0.326

Table 9: Regression Coefficients Beta (β) Table 9: Regression Coefficients t-value

Table 9: Regression Coefficients Sig.



5.6Hypothesis Testing

Table 10: Summary of Hypothesis Testing

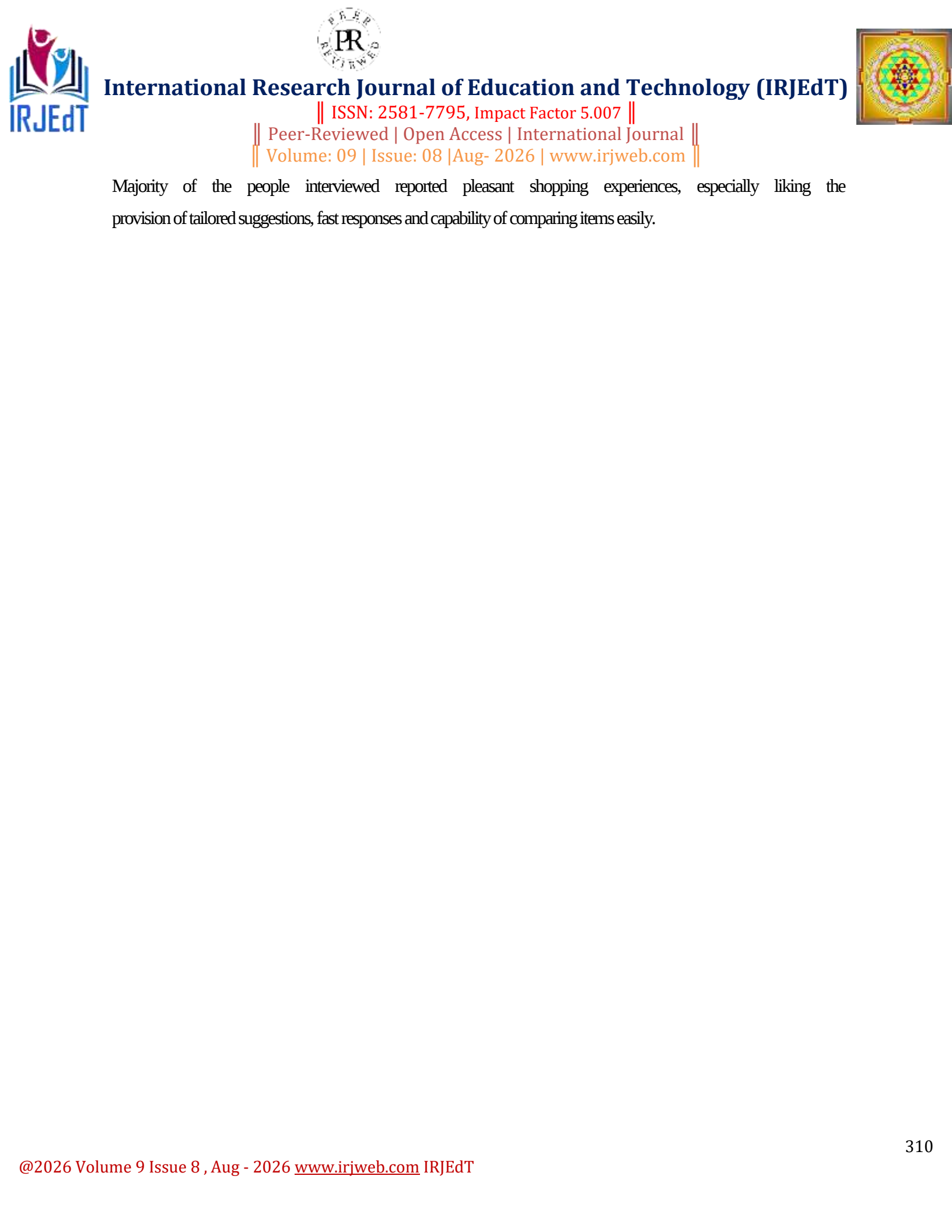
Hypothesis	Statement	Result
H1	AI shopping assistants positively influence consumer trust.	Accepted
H2	AI recommendation quality positively influences consumer trust.	Accepted
H3	Perceived usefulness positively influences purchase intention.	Accepted
H4	Personalization positively influences purchase decisions.	Accepted
H5	Privacy concerns negatively influence consumer trust.	Accepted
H6	Consumer trust positively influences purchase intention.	Accepted

Interpretation

The outcomes of the hypothesis testing show that all six hypotheses are confirmed. The results prove that AI shopping assistants have a positive influence on the level of the consumers' trust through their precise suggestions, personalized shopping experiences, and perceived utility of the assistants as tools. In addition, consumer trust positively influences purchasing intentions and privacy concerns negatively influence trust and purchasing behavior in this case.

6.FINDINGS AND DISCUSSION

As per the analysis, AI Shopping Assistant has emerged as a vital part of contemporary digital commerce, enabling users to have better shopping experiences while undertaking online purchases.



Majority of the people interviewed reported pleasant shopping experiences, especially liking the provision of tailored suggestions, fast responses and capability of comparing items easily.

The results showed that the quality of AI recommendations has the maximum impact on consumer trust and intention to buy. Consumers' trust in AI shopping assistants increases with the accuracy and relevance of suggestions.

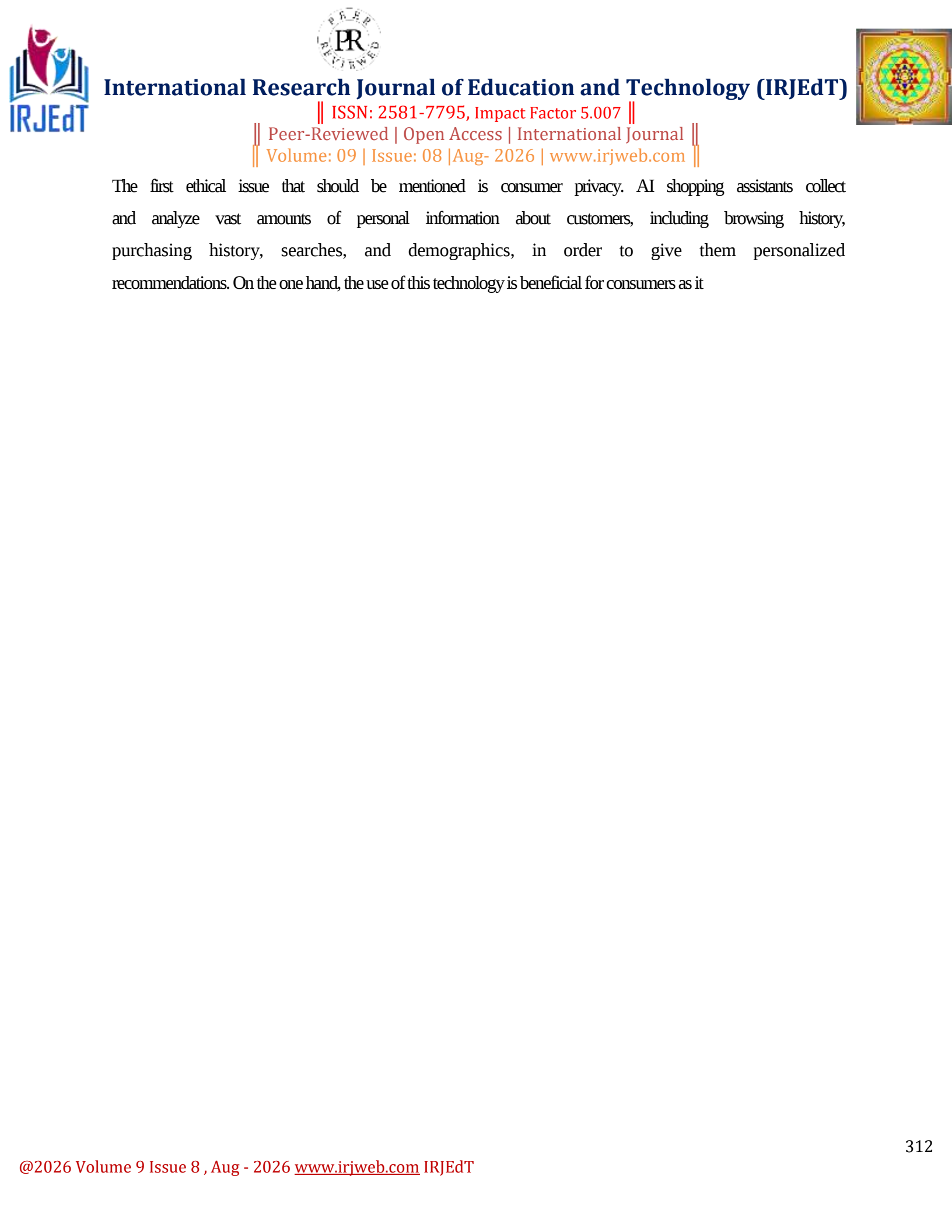
According to the results obtained, perceived usefulness plays a vital role in promoting an individual's willingness to use AI-based shopping assistants. Individuals who feel that AI simplifies their shopping and enhances their decision-making process ultimately use AI-based shopping assistants more often. Such findings are in line with the Technology Acceptance Model as it suggests that perceived usefulness has an important impact on the adoption of technology.

Another important factor contributing to consumer trust is transparency. It has been noted that the respondents had more trust in AI technologies when they know what products are recommended to them and have been informed of how their personal data is utilized. At the same time, privacy issues have become an obstacle for the adoption of AI technology. Consumers not fully knowing how their data is collected and how the decision is made cannot fully trust the AI shopping assistants.

On the whole, the research supports the idea that consumer trust is the main mechanism connecting the AI shopping assistants to purchase decisions. Companies that pay attention to recommendation accuracy, transparency, personalization, and ethically correct usage of the data will thus be able to enhance customer trust and increase the

7. ETHICAL ISSUES AND BUSINESS IMPLICATIONS

The increased use of AI shopping assistants has enabled businesses to improve customer satisfaction by offering personalized recommendations, chat-based communication, and intelligent decision support services. However, the growing dependence on AI technology has raised a number of ethical issues regarding consumer trust, privacy, transparency, and fairness. To be able to use AI responsibly and correctly, these matters must be resolved.



The first ethical issue that should be mentioned is consumer privacy. AI shopping assistants collect and analyze vast amounts of personal information about customers, including browsing history, purchasing history, searches, and demographics, in order to give them personalized recommendations. On the one hand, the use of this technology is beneficial for consumers as it

simplifies shopping for them, but on the other hand, they may become concerned about how their data is collected, stored, shared, and transmitted. Therefore, it is imperative for companies to implement effective data protection policies and make sure they comply with privacy laws.

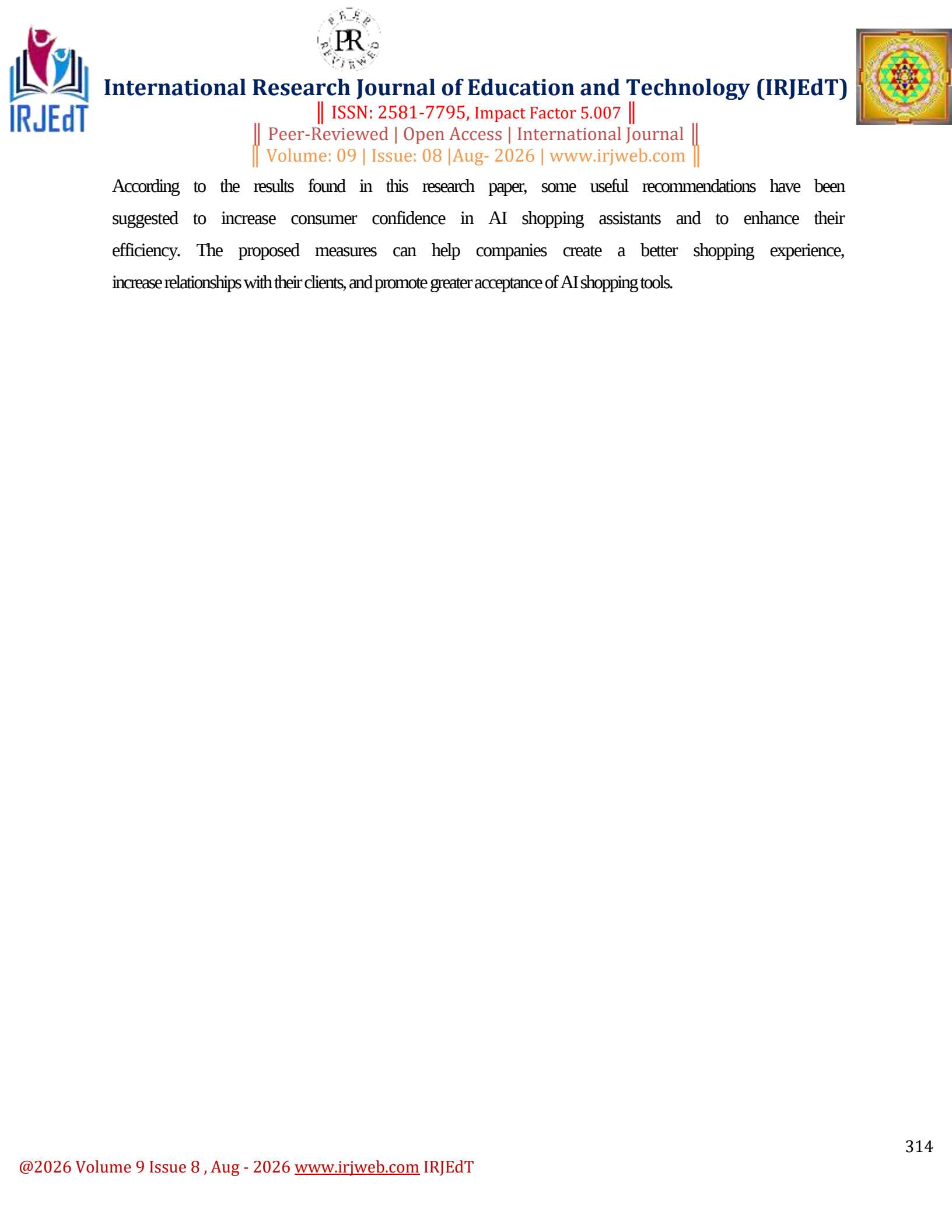
Transparency is also a significant issue in the field of AI shopping assistants. Consumers are often unclear on the methods through which product recommendations are made by AI systems. This ambiguity can lead customers to conclude that algorithms are unfair and manipulative. As a result, companies need to work towards making AI recommendations more transparent and easily understood.

Algorithmic bias is a third problem that AI shopping assistants face. AI shopping assistants are trained on historical data, which may include biases and thereby influence the recommendations made to consumers.

Businesses benefit significantly from the use of AI shopping assistants because they allow them to maintain a competitive edge in the modern e-commerce field through their ability to provide personalized suggestions. AI shopping assistants help customers to enjoy their shopping experience and also save them time and effort associated with searching for particular items as this is an essential factor determining their success, and increased customer satisfaction will lead to higher conversion rates and eventually higher sales.

Nevertheless, when implementing AI devices, companies need to maintain a balance between business aims and ethical requirements. Thus, excessive personalization, invasive advertising, or manipulative recommendations may lead to increase sales in the short run while reducing trust of customers in the long run. Therefore ethical application of AI, transparency and responsible data management are crucial in order to gain success in business due to the ultimate goal.

8.RECOMMENDATIONS



According to the results found in this research paper, some useful recommendations have been suggested to increase consumer confidence in AI shopping assistants and to enhance their efficiency. The proposed measures can help companies create a better shopping experience, increase relationships with their clients, and promote greater acceptance of AI shopping tools.



- Businesses must increase the accuracy and relevance of their AI-based product recommendations to enhance the level of confidence of consumers.
- AI shopping assistants have to lay out the reasoning for their product recommendations.
- Companies must reinforce the measures concerning data security and privacy in order to safeguard information regarding consumers and remain in line with relevant data regulations.
- AI algorithms must be routinely reviewed and updated to avoid biases and ensure fairness in recommendations for all consumers.
- Companies must ensure that while they develop personalized shopping experiences, they should maintain client privacy.
- Programs for educating consumers should be enhanced in order to make consumers aware of the power of AI technologies and the limitations thereof.
- It is important for governments and authorities to provide ethical guidelines for using AI in electronic commerce.
- Feedback from customers should be collected constantly.

9.CONCLUSION

The presence of Artificial Intelligence in e-commerce has notably changed the entire shopping experience. Intelligent shopping assistants have been introduced which enable customers to receive personalized recommendations, have quick customer assistance, and compare products without hassle. Such technologies have contributed to the ease of shopping for customers and allowed businesses to provide a lot more engaging shopping experience.

The results from this study demonstrate that AI shopping assistants are beneficial for consumer trust and purchasing behavior. There are several factors affecting the level of consumer trust and motivating consumers to shop online, for example such variables as AI recommendation quality, personalization, perceived usefulness and transparency. Among all these factors AI

recommendation quality makes the greatest impact on consumer trust which lets people use AI shopping assistants that can provide useful, effective and relevant recommendations. At the same time, privacy issues have a negative influence on consumer trust and willingness to buy online.



This study also underlines the role of consumer trust linking AI shopping assistants and purchasing intention. Consumers being confident in AI-based shopping assistants are more likely to accept recommendations and perform online purchases. Hence, it is necessary for companies to pay attention to developing systems that are reliable and secure.

With progress in the development of AI technology, AI shopping assistants are likely to become an integral component of digital commerce. Give their ability to combine technology and ethics effectively, companies may enhance their competitiveness and secure successful development.

REFERENCES

1. Davenport, T. H., & Ronanki, R. (2018). Artificial intelligence for the real world. *Harvard Business Review*, 96(1), 108–116.
2. Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–340.
3. Gefen, D., Karahanna, E., & Straub, D. W. (2003). Trust and TAM in online shopping: An integrated model. *MIS Quarterly*, 27(1), 51–90.
4. Huang, M. H., & Rust, R. T. (2021). A strategic framework for artificial intelligence in marketing. *Journal of the Academy of Marketing Science*, 49(1), 30–50.
5. McLean, G., & Wilson, A. (2019). Shopping in the digital world: Examining customer engagement through chatbot interaction. *Journal of Business Research*, 100, 387–396.
6. Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3), 425–478.
7. Brynjolfsson, E., & McAfee, A. (2017). *The business of artificial intelligence*. Harvard Business Review Press.
8. Chatterjee, S., Rana, N. P., Tamilmani, K., & Sharma, A. (2021). The adoption of AI in retail and consumer behavior. *Journal of Retailing and Consumer Services*, 63, 102–725.

9. Dwivedi, Y. K., Hughes, L., Ismagilova, E., et al. (2021). Artificial Intelligence (AI): Multidisciplinary perspectives on emerging challenges and opportunities. *International Journal of Information Management*, 57, 101994.
10. Kapoor, K. K., Dwivedi, Y. K., Piercy, N. C., et al. (2022). Artificial intelligence in marketing: Applications, opportunities, and challenges. *Journal of Business Research*, 145, 80–95.