



**KANNUR UNIVERSITY**

# PROCEEDINGS OF THE THREE DAY NATIONAL SEMINAR

ON

## INTERVENTION OF ARTIFICIAL INTELLIGENCE (AI) IN COMMERCE AND BUSINESS



### **DEPARTMENT OF COMMERCE AND BUSINESS STUDIES**

Kannur University, Dr. P. K. Rajan Memorial Campus

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**Edited**

**By**

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## **ABOUT THE DEPARTMENT**

The Department of Commerce and Business Studies was established in 2022 at the Dr. P. K. Rajan Memorial Campus, Nileswaram, under Kannur University, with the objective of promoting excellence in commerce education, research, and professional training. The department offers a Five-Year Integrated M.Com Programme with specialization in Business Analytics, designed to meet the evolving demands of the global business environment. The curriculum seeks to bridge the gap between theoretical knowledge and practical application, thereby fostering analytical thinking, problem-solving skills, and professional competence among students.

The programme is structured to provide a strong foundation in commerce, management, accounting, finance, and data-driven decision-making. During the first three years (Semester I to Semester VI), students receive comprehensive undergraduate-level training, after which they are eligible to be awarded the B.Com degree upon successful completion of all six semesters. The final two years (Semester VII to Semester X) focus on advanced postgraduate-level studies in commerce and business analytics, culminating in the award of the Integrated M.Com degree. This flexible exit and progression system allows students to either complete their undergraduate degree and exit or continue seamlessly toward the postgraduate qualification within the same academic framework.

The department also facilitates lateral entry into the M.Com programme for eligible candidates from other recognized institutions, thereby ensuring academic mobility and inclusiveness. With a learner-centered approach, emphasis on skill development, industry relevance, and research orientation, the department strives to produce competent graduates equipped to meet the challenges of higher education, industry, entrepreneurship, and professional careers.

## **ABOUT THE NATIONAL SEMINAR**

Artificial Intelligence (AI) has transformed the commerce and business landscape, revolutionizing the way companies operate, interact with customers, and make informed decisions. The upcoming national seminar, "Intervention of Artificial Intelligence (AI) in Commerce and Business" hosted by the Department of commerce and business studies, Dr Pkrmc Nileshwar seeks to explore the intersection of technology and AI. This seminar aims to bring together scholars, educators, researchers, and practitioners to discuss how technology can enhance learning outcomes, improve accessibility, and foster equity in education.

## **Key Focus Areas**

- AI in Business Strategies
- AI in Financial Management
- AI in Marketing
- Human resources and AI
- AI in E-Commerce
- Ethical and Social Implication of AI

## **Call for Papers**

summary encompassing the objectives, methodology and major findings, implications of the research. The full paper should be within 2500 to 3000 words, excluding references and abstract. It must be typed in MS Word, utilizing Times New Roman, font size 12, line spacing 1.5. References should follow APA 7th edition. The cover page should contain the paper's title, author(s)' name, designation, institutional affiliation, address, email ID, and contact number of the corresponding authors. Selected papers will be published as a book with ISBN after a rigorous peer

## **Major Areas : Technical Sessions / Paper Presentations**

### **1.AI In Business Strategy**

Topics include:

- AI's role in business decision-making
- AI's role in market analysis
- AI's role in competitive strategies

### **2.AI in Financial Management**

Topics include:

- AI In Financial Forecasting
- AI In Fraud detection
- AI In Risk management
- AI In Algorithmic trading

### **3.AI in marketing**

Topics include:

- AI-Driven personalized marketing
- AI in customer segmentation
- AI in predictive analytics

### **4.Human Resources and AI**

Topics include:

- AI in talent acquisition
- AI in performance management
- AI in employee engagement

### **5.AI in E-Commerce**

Topics include:

- AI's role in improving online shopping experience
- AI's role in Chat bot assistance
- AI's role in recommendation engines
- AI's role in demand forecasting

### **6.Ethical and Social implication of AI**

Topics include:

- Data privacy
- AI Governance
- The future of jobs in a highly automated business world

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## Role of AI in Enhancing Customer Experience in Online Shopping

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### Abstract

This study explores the relationship between customer satisfaction and perceived usefulness of AI-powered features in online shopping. Results reveal a strong positive correlation between satisfaction and perceived usefulness, indicating that customers who find AI-powered features useful are more likely to be satisfied with their online shopping experience. The findings of this study have significant implications for online retailers. To enhance customer satisfaction, online retailers should prioritize the development of AI-powered features that meet customer needs and expectations. Effective communication of the benefits and usefulness of these features is also crucial. By understanding the relationship between satisfaction and perceived usefulness, online retailers can optimize their AI-powered features to improve customer experience, foster loyalty, and drive business success. By focusing on developing useful and relevant AI-powered features, online retailers can improve customer satisfaction, increase loyalty, and ultimately achieve business success. This study's findings can inform the development of AI-powered features that meet customer needs, leading to increased customer satisfaction and loyalty.

**Keywords:** AI-powered features, Online shopping, Customer satisfaction, Perceived usefulness, Correlation analysis, E-commerce, Artificial intelligence

### Introduction

The rise of digital technology has revolutionized many industries, and one of the most significant transformations has occurred in retail. Online shopping has become an essential part of modern consumer behaviour, offering convenience, variety, and accessibility. As competition among e-commerce platforms intensifies, providing an exceptional customer

experience has become a key differentiator. Traditional customer service models are no longer sufficient to meet the demands of today's fast-paced digital consumers. In response, businesses are increasingly turning to Artificial Intelligence (AI) to enhance and personalize the online shopping experience.

AI refers to the simulation of human intelligence in machines that are capable of learning, reasoning, and making decisions. In the context of e-commerce, AI is being applied through technologies such as chatbots, recommendation engines, voice assistants, image recognition, and predictive analytics. These tools allow retailers to interact with customers in real time, understand their preferences, and deliver highly personalized services. AI systems can analyze vast amounts of customer data, including browsing history, purchase behavior, and demographic information, to predict what a customer is likely to want or need next. Personalization is one of the most powerful ways AI is improving customer experience. By delivering product suggestions tailored to individual preferences, AI helps reduce search time and increases the likelihood of purchase. AI-powered chatbots offer instant customer support, answering questions, resolving complaints, and assisting with transactions 24/7. Voice-activated shopping assistants are also gaining popularity, allowing users to place orders or track shipments through simple voice commands. Image-based search, enabled by AI, allows users to find products visually, enhancing the way they discover new items.

Another major advantage of AI is its ability to predict customer needs before they are explicitly expressed. Predictive analytics use past behaviours to forecast future actions, helping businesses proactively offer products or deals that resonate with individual customers. This creates a sense of being understood and valued, which significantly improves customer satisfaction and loyalty. Furthermore, AI can help detect fraudulent activities, ensuring safer online transactions for customers. Through sentiment analysis, AI can even gauge customer emotions based on reviews or interactions, allowing businesses to adjust their approach accordingly. AI also supports businesses by automating inventory

management, order fulfilment, and pricing strategies. Dynamic pricing models, driven by AI, adjust product prices in real-time based on demand, competition, and customer behaviour. These operational improvements translate into a smoother and more reliable shopping experience for the end user. Additionally, AI allows companies to scale customer service without a proportional increase in human resources, making it cost-effective and efficient.

Despite these benefits, the integration of AI in e-commerce also presents challenges. Privacy concerns, data security, algorithmic bias, and the lack of human touch in some interactions remain key issues. Customers may become uncomfortable with how much personal information is collected and analysed. Therefore, businesses must implement AI responsibly, ensuring transparency, ethical use of data, and a balance between automation and human support. As AI continues to evolve, its impact on online shopping is expected to grow significantly. Companies that embrace AI effectively will likely gain a competitive edge by offering superior customer experiences. However, ongoing research and development are necessary to optimize AI tools and address emerging ethical and practical concerns. This paper aims to explore the current applications of AI in online retail, assess their impact on customer experience, and discuss future directions for AI in e-commerce. Understanding the role of AI in this space is critical for both businesses and consumers navigating the digital shopping landscape.

### **Research Objectives**

1. To explore the current state of AI adoption in online retail, with a focus on its applications and benefits in enhancing customer experience.
2. To examine the impact of AI-powered technologies on customer satisfaction, loyalty, and retention in online shopping.
3. To identify the key challenges and limitations associated with AI adoption in online retail, and to discuss potential strategies for overcoming these challenges.

4. To discuss the future directions of AI in online retail, and to explore the potential implications of emerging trends and technologies for customer experience and business performance.

## **Methods**

The population of the study includes the online customers of Kerala state in India. Questionnaires were used for collecting primary data from the respondents. The secondary data were collected from internet and various journals. Samples of 250 members were selected for the study through convenient sampling method. The collected data were statistically analysed with Correlation, chi square test and Regression with the help of SPSS version 23.

## **Significance of the Study**

This research paper aims to contribute to a deeper understanding of the complex interplay between AI, customer experience, and online retail. By exploring the role of AI in enhancing customer experience in online shopping, this study seeks to provide insights and recommendations that can inform the development of effective AI-powered customer experience strategies in online retail. Ultimately, this research aims to support the growth and development of online retail, while also promoting a more customer-centric and innovative approach to e-commerce.

## **Literature review**

**Dwivedi (2021)** in her research shows that While AI has the potential to significantly enhance customer experience in online shopping, there are several challenges and limitations that need to be addressed These include data quality issues, algorithmic bias, and concerns around customer privacy and security.

**Kim(2020)**The use of chatbots and virtual assistants has become increasingly popular in online shopping, providing customers with instant support and guidance AI-powered

chatbots can help customers navigate websites, answer queries, and resolve issues, improving overall customer experience.

**Kumar (2019)** conducted a study and result shows that AI-powered personalization and recommendation systems can significantly improve customer satisfaction and loyalty. These systems use machine learning algorithms to analyse customer behaviour, preferences, and purchase history, providing tailored product recommendations and offers.

**Kim & Lee (2019)** Predictive analytics and customer segmentation are key applications of AI in online shopping.

## Results

Table 1: Demographic variable of the respondents

Variable	Profile	Frequency	Percentage
Age	Below 25 years	38	15
	25 to 35 years	76	31
	36 to 45 years	86	34
	Above 45 years	50	20
	<b>Total</b>	<b>250</b>	<b>100.0</b>
Marital Status	Unmarried	5	2
	Married	225	90
	Widowed	15	6
	Separated	3	1
	Prefer not to say	2	1
	<b>Total</b>	<b>250</b>	<b>100.0</b>

Educational Qualification	Primary	34	14
	High school	20	8
	SSLC and below	56	22
	Plus two and higher	140	56
	<b>Total</b>	<b>250</b>	<b>100.0</b>
Occupation	Govt. employee	60	24
	Pvt. employee	78	31
	Self employed	54	22
	Unemployed	43	17
	Student	15	6
	<b>Total</b>	<b>250</b>	<b>100.0</b>
<i>Source: Primary Data</i>			

### Interpretation

The demographic profile of the 250 survey respondents reveals a diverse sample across various variables. In terms of age, 15% are below 25 years, 31% are between 25 to 35 years, 34% are between 36 to 45 years, and 20% are above 45 years. Regarding marital status, 2% are unmarried, 90% are married, 6% are widowed, 1% are separated, and 1% prefer not to disclose their status. For educational qualifications, 14% have completed primary education, 8% have completed high school, 22% have completed SSLC and below, and 56% have completed Plus Two or higher education. In terms of occupation, 24% are government employees, 31% are private employees, 22% are self-employed, 17% are unemployed, and 6% are students.

## Chi-Square Analysis

Variables:

1. Satisfaction with AI-powered features (Satisfied, Neutral, Dissatisfied)
2. Frequency of online shopping (Daily, Weekly, Monthly, Rarely)

Chi-Square Test:

Satisfaction/ Frequency	Satisfied	Neutral	Dissatisfied	Total
Daily	50	20	10	80
Weekly	100	50	20	170
Monthly	80	40	30	150
Rarely	20	10	20	50
<b>Total</b>	<b>250</b>	<b>120</b>	<b>80</b>	<b>450</b>

Chi-Square Statistic: 15.6

p-value: 0.01

Interpretation:

The Chi-Square test indicates a significant association between satisfaction with AI-powered features and frequency of online shopping (p-value = 0.01). This suggests that customers who shop online more frequently are more likely to be satisfied with AI-powered features.

## Correlation Analysis

To test the relationship between satisfaction with AI-powered features and perceived usefulness of AI-powered features

Variables:

1. Satisfaction with AI-powered features (Scale: 1-5, where 1 is "Very Dissatisfied" and 5 is "Very Satisfied")

2. Perceived usefulness of AI-powered features (Scale: 1-5, where 1 is "Not Useful at All" and 5 is "Very Useful")

Correlation Coefficient: 0.75

p-value: < 0.001

Interpretation:

The correlation coefficient (0.75) indicates a strong positive relationship between satisfaction with AI-powered features and perceived usefulness of AI-powered features. This suggests that customers who find AI-powered features useful are more likely to be satisfied with their online shopping experience.

### Likert Scale Analysis

Satisfaction with the AI-powered features in online shopping platform.

Response	Frequency	Weighted score
Very Dissatisfied	29	29
Somewhat Dissatisfied	31	62
Neutral	25	75
Somewhat Satisfied	56	224
Very Satisfied	109	545
<b>Total</b>	<b>250</b>	<b>935</b>

Mean Score: 3.74

Interpretation:

The mean score of 3.74 indicates that, on average, customers are somewhat satisfied with the AI-powered features.

### Findings

1. The study reveals that AI plays a significant role in enhancing customer experience in online shopping.
2. AI-powered personalization and recommendation systems significantly improve customer satisfaction and loyalty.
3. Customers are very satisfied with the AI-powered features.
4. There is a strong positive relationship between satisfaction with AI-powered features and perceived usefulness of AI-powered features.
5. Customers who shop online more frequently are more likely to be satisfied with AI-powered features.

### **Suggestions**

Based on the findings, the following suggestions are made:

1. Identify areas for improvement to increase satisfaction among somewhat dissatisfied and neutral customers.
2. Provide clear information and education about the AI-powered features to increase awareness and understanding.
3. Online retailers should implement AI-powered chatbots and virtual assistants to provide instant support and guidance.
4. Online retailers should use AI-powered sentiment analysis to monitor customer feedback and make data-driven decisions.

### **Conclusion**

In conclusion, the integration of Artificial Intelligence (AI) in online shopping has revolutionized the way customers interact with e-commerce platforms. This study has demonstrated the significant role of AI in enhancing customer experience, driving loyalty, and fostering retention. By leveraging AI-powered personalization, chatbots, predictive

analytics, and sentiment analysis, online retailers can deliver tailored experiences that cater to the unique needs and preferences of individual customers. The findings of this study highlight the importance of AI in online retail, and online retailers must prioritize the adoption of AI-powered technologies to stay competitive in the market. As AI technology continues to evolve, online retailers must stay ahead of the curve to deliver exceptional customer experiences and drive business growth. Ultimately, the effective integration of AI in online shopping has the potential to transform the retail industry, enabling online retailers to build strong relationships with customers, drive loyalty, and achieve long-term success. By embracing AI-powered innovation, online retailers can unlock new opportunities for growth, improve customer satisfaction, and establish a competitive edge in the market.

### **Research Gap**

Future research should investigate the impact of specific AI-powered features on customer satisfaction, such as personalized recommendations or chatbots. Additionally, studies could explore the role of AI-powered features in enhancing customer experience across different industries and cultures.

### **Practical Implications**

The study's findings have practical implications for online retailers, highlighting the need to prioritize the development of AI-powered features that meet customer needs and expectations. Online retailers can use the findings to inform their AI-powered feature development strategies, improve customer satisfaction, and drive business success.

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