



THE IMPACT OF ARTIFICIAL INTELLIGENCE IN CONSUMER ONLINE PURCHASE DECISION MAKING

Dr.S.SOBITHA

Guest Lecturer

PG & Research Department of Commerce

Government Arts College

Paramakudi.

Abstract

This paper proposes the conceptual review of emergence of artificial intelligence in consumer online purchase decision making. With the help of this study it's proved that AI has an impact on consumer online purchase decision making, for this research the primary data is collected using Stratified Sampling technique. The collected data are analyzed using SPSS with suitable tools like T- test, ANOVA and Chi-Square. Data was collected from 77 respondents from this paper its in analyzed that Age factor plays a vital role in impact of artificial intelligence when they buy products through online shopping Especially generation Z are aware of AI and the influence in their decision making but they were strongly agreeing that AI's Personal recommendations are influencing their decision making in online shopping and the respondents were acknowledging Artificial intelligence Helps to automate the repetitive task, Allowing customers to discover new products, Personalized product recommendations, and Helps to deduct fraudulent products. This paper will help the emerging researchers and students who are keen to know the impact of artificial intelligence in consumer purchase decision making.

Keywords: Artificial intelligence, AI, Consumer, Purchase Decision Making

Introduction

The Impact of artificial intelligence in every sector is inevitable, taking charge in each individual sector even in our own decision. Do you think that AI has an impact on your decision? Yes! With the help of this study came to know that AI has an impact in consumer decision making. The major part and the role of AI's occurrence is when you're buying products through online shopping.(Mathieu laliberte)2023,Online shopping is a form of electronic commerce which allows consumers to directly buy goods or services from a seller over the internet. (Harvard university keneeth C griffen) In 1960s online shopping came into existence but it took several decades to take this position Now-a-days public is blindly has the trust over online shopping. From kids to senior citizen everyone is using this mode pre covid era was slight different from now, pandemic has the supreme influence in the online shopping.

One of the main and major impact of AI is personalization AI algorithms analyze consumer data to provide personalized product recommendations. Each and everything which AI recommends will be tailor made. This level of personalization can surely impact the consumer decisions while they purchase online. AI algorithms analyze consumer data, such as past purchases, browsing history, and demographic information, to provide personalized product recommendations. With these techniques AI has become supreme in online shopping. With the help of this research, have discovered that AI has an impact in consumer purchase decision making.

Objective of the study

To Analyze the Impact of Artificial Intelligence in Consumer Online Purchase Decision Making.

Review of Literature

➤ Kavyashree.k (2023) from this study it is understood that to understand consumer buying behavior is not easy it involves psychological concept in this digital era consumers shows their need and wants through search, blogs, videos, web, mobile, face-to-face. AI can covert this into valuable consumer centric insights and through this consumers can get advertisements related to that and the consumer can grab the products which they need in online shopping websites.

➤ Varsha jain(2023) From this article it has proved some strategies has been used to influence consumer decision making Artificial intelligence is grabbing all the consumers attention through personalized recommendations, product information and reviews, virtual Shopping assistant, trend analysis, Virtual-try-on, predictive pricing, chat bots., Through this Technique Virtual Try on it can help consumers to visualize the product before making the purchase this will definitely influence the consumer to buy that product, even though the product which they are ordering through online shop is unnecessary.

➤ Ludovic boisseau(2023) according to this article A.I has emerged as groundbreaking technology and it is inevitable lately artificial intelligence is having predictive analysis has revolutionized how business understand consumer behavior, by analyzing vast amount of data, this predictive analysis can identify patterns

and trends and this enables companies to anticipate customers needs with the help this companies can reach out the customers with tailored products this has become the major part and it has a role in how AI has influenced consumer decision making.

Sample Design

The research design is conclusive and descriptive in nature. The primary data is collected using Stratified Sampling technique. Data was collected from 77 respondents. The collected data are analyzed using SPSS with suitable tools T-Test and Chi-Square.

Over view of Artificial Intelligence

Artificial intelligence has a huge controversy since centuries but its modern form came into shape in the mid-20th century but now its growth is unimaginable and lately its impact in every sector is inevitable even in our own decision making Artificial intelligence has a significant role.

The main and major reason why consumers turned into online shopping is only because of Artificial intelligence's tailor made suggestions. Based on the past interactions in online it can lead more relevant product recommendations, targeted advertisements and tailored shopping experience which can surely have all the capacity to influence in their own decision making while purchasing online.

Artificial intelligence has a powerful hand that is predictive analysis which helps AI to predict consumer behavior and their trends by analyzing large amount of their data AI can identify patterns and make predictions about future purchasing decisions. This will help business to have better understanding and of course consumers can expect the exact product what they wanted lately. AI also helps businesses understand consumer sentiment and preferences by analyzing social media data, customer reviews, and feedback. Natural language processing (NLP) techniques enable AI systems to extract insights from textual data and identify emerging trends, sentiments, and opinions. By monitoring online conversations, businesses can gauge consumer sentiment towards their products or services and make necessary adjustments or improvements. Furthermore, AI-powered predictive analytics enables businesses to forecast consumer behavior based on historical data. By analyzing past consumer interactions, purchase patterns, demographic information, and other relevant variables, AI algorithms can identify trends and patterns that help predict future consumer behavior. This predictive capability allows businesses to anticipate market demands, optimize inventory, develop targeted marketing campaigns, and improve overall business strategies. Another application of AI in predicting consumer behavior is through customer segmentation. By clustering consumers based on their shared characteristics and behaviors, AI algorithms can identify distinct consumer groups with similar preferences and purchase patterns. This segmentation enables businesses to tailor their marketing strategies and offerings to specific consumer segments, resulting in more effective and efficient approach.

To be precise, how we came to the conclusion that the impact is possible in consumer decision making, is through collection of data to the appropriate candidates like those who believe Artificial intelligence has the

greatest move in the society they believe that strongly.

AI algorithms analyze market trends, competitor pricing, and customer data to set optimal prices. This dynamic pricing strategy can attract price-sensitive customers and maximize profits. In this technical era most of the people are still price sensitive those consumers who use artificial intelligence knowingly are unknowingly will get the Apt product that they were in need that too in there price range and the consumer is literally buying that product without any hesitation this is an example number one still we got hundreds of real life testimonies

Overall, Artificial intelligence has a vital role in consumer's online purchase decision making.

Analysis and Findings

This Research has shown that artificial intelligence plays an important role in purchase decision making. This Study examines the impact of artificial intelligence in consumer decision making. In this context the main purpose of this study is to investigate the influencing power of artificial intelligence in customer decision making. Decades back customers decision making was different comparing to the latest purchase decision making, since customers are tech savvy they depend on artificial intelligence to make their decision making.

Analyses and Findings

I. Demographic Variables of the Respondents Hypothesis

H_{01} : μ = Average age of the Respondent belongs to 25-30 years. H_{02} : μ = Average Occupation of the Respondent are Self-Employed. H_{03} : μ = Average Gender of the Respondents are Female

H_{04} : μ = Average monthly income of the respondents belong to Rs.20k-25k

Table1 Demographic factors of the Respondents

Demographic variable	Group of data	No. of Respondents	Percentage	Mean	Standard Deviation	Degree of Freedom	Test Statistic	Sig.. (2 Tailed)	Mean Difference
Age (in Years)	18-25	51	89.5	1.29	0.46	56	21.24	0.000	1.29
	25-30	3	5.3						
	30-35	2	3.5						
	Above35	1	1.8						
Occupation	Private	7	12.3	1.18	0.057	56	15.55	0.000	1.18
	Public	1	1.8						
	Student	46	80.7						
	Self-employed	2	3.5						
	Unemployed	1	1.8						
Gender	Male	40	70.2	2.81	0.77	56	27.66	0.000	2.81
	Female	17	29.8						
Income Per month	10k-15k	20	35.1	2.09	1.12	56	14.04	0.000	2.09
	15k-20k	22	38.6						
	20k-25k	8	14.0						
	25k-30k	4	7.0						
	Above30 K	3	5.3						

(source: primary)

Interpretation:

Table 1 shows Demographic profile of the Respondents

1. The distribution of respondents according to the age is given below.

Since the p value (0.000) is less than ($<$) 0.01. Null Hypothesis is Rejected at 1% level.

Hence, Average age of the respondents belongs to the age group of 18-25 years.

2. The respondents under different levels of Occupations are represented in the below Table Since the p value is (0.001) is less than ($<$) 0.01. Null hypothesis is Rejected at 1% level of significance. Hence, Average Occupation of the respondents are employed in Private companies

3. Classification of respondents on the basis of Genders showed in the below Table.

Since the p value is (0.000) less than ($<$) 0.01. Null Hypothesis is Rejected at 1% level.

Hence, Average Gender of Entrepreneurs is Male.

4. Monthly Income of the respondents are shown in Table, Since the p value is (0.000) less than ($<$) 0.01. Null Hypothesis is Rejected at 1% level. Hence, Average monthly income of the respondents belongs to Rs.15k-20k.

Inter relationship between Demographic variables and Influence of AI in Decision Making Hypothesis:

H_0 : There is no significant relationship between Demographic variable and influence of AI in Decision Making.

H_a : There is a significant relationship between Demographic variable and influence of AI in Decision Making..

Demographic Influence of AI *		Improved personalization	Recommending products based on needs/wants	Captivating discounts	Preferring brand based on my previous history	Value	df	P value
Age	18-25	14	15	18	4	19.806 ^a	9	0.019
	25-30	1	1	0	1			
	30-35	0	0	0	2			
	Above 35	0	1	0	0			
Gender	Male	9	11	16	4	4.565 ^a	3	0.207
	Female	6	6	2	3			
Occupation	Private	1	3	0	3	16.523 ^a	12	0.168
	Public	0	1	0	0			
	Student	13	11	18	4			
	Self-employed	1	1	0	0			
	Unemployed	0	1	0	0			
Monthly Income	10k-15k	6	5	5	4	13.366 ^a	12	0.343
	15k-20k	5	9	7	1			
	20k-25k	3	2	3	0			
	25k-30k	0	1	1	2			

	Above30 k	1	0	2	0			
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(source: primary)

Since p value (0.019) less than 0.05, hence null hypothesis rejected at 5% level of significance. There is a significant association between Age and influence of AI in Decision Making.

Since p value (0.207) greater than 0.05, hence null hypothesis accepted at 5% level of significance. There is no significant association between Gender and influence of AI in Decision Making.

Since p value (0.168) greater than 0.05, hence null hypothesis accepted at 5% level of significance. There is no significant association between Occupation and influence of AI in Decision Making.

Since p value (0.343) greater than 0.05, hence null hypothesis accepted at 5% level of significance. There is no significant association between Monthly income and influence of AI in Decision Making.

Conclusion

This paper has to be concluded with the valuable outputs from this research, as we are all in living in this technically evolving era, Generation X, Y, Z are utilizing AI in their day today life. From this paper it's analyzed that Age factor plays a vital role in impact of artificial intelligence when they buy products through online shopping. Why is it blooming like anything lately, artificial intelligence came into existence in the year of 1950's but it's not the same AI from 1950 but now its life chalk and cheese Every person who uses mobile phones are easily got influenced by AI the main reason behind this are Personalized product recommendations, Allowing customers to discover new products, to be precise out of 77 respondents more than 50 have selected personalized recommendation are impacting their decision making while they shop online and the age factors especially 18-25 category are highly accepting that there is an impact of artificial intelligence in consumer online purchase decision making. Now a day's people are adapting to technologies far quicker than before and they have adopted AI as their regular life pattern and some of them are literally depending on Artificial intelligence as same as companies are also getting benefited by this prediction is done through so many Artificial intelligence tools.

Overall, AI is increasingly becoming a valuable tool for consumers in making informed decisions about what products and services to buy. However, it is important to recognize that AI is not perfect and can still have biases and limitations, and that consumers should always exercise their own judgment and critical thinking when making important purchasing decisions.

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