

# The Game Changing Impact of Artificial intelligence in consumer decision making in online shopping: A post COVID Analysis

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## ARTICLE INFO

## ABSTRACT

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This paper proposes the conceptual evaluation of the emergence of artificial intelligence in client conduct and their selection-making in online purchasing and the game-converting impact of artificial intelligence: A post-COVID analysis. The COVID-19 Pandemic has shifted each sector, online buying isn't always top-notch. This observation has explored the function of AI along with personalized recommendation machines, predictive analysis, and virtual help it's proved that AI has an impact on consumer online purchase selection making, for this study the number one information is accrued the use of Stratified sampling technique. The amassed facts are analyzed in the usage of SPSS with suitable gear like T-check, ANOVA, and Chi-Square. Data was accumulated from 50 respondents for this paper It is analyzed that the pandemic has extraordinarily modified our history. Era Z is especially privy to AI and its effect on their decision-making making but they had been strongly agreeing that AI's recommendations are influencing their choice-making in online purchasing and the respondents had been acknowledging Artificial intelligence Helps to automate the repetitive undertaking, Allowing customers to find out new products, Personalized product recommendations, And Helps to deduct fraudulent products. This paper will help the rising researchers and students who are keen to understand the game-converting impact of synthetic intelligence in customer decision-making.

**Keywords:** products, strongly, ANOVA, information

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## INTRODUCTION

Artificial intelligence isn't always a choice anymore, without our knowledge, AI has taken our decision-making potential maximum of this takes place in the E-trade platform in which human beings have begun their month-to-month groceries. The COVID-19 pandemic has completely shifted online buying options have become mandatory. This article examines The Game-Changing Impact of Artificial intelligence in patron decision making especially in the post Covid-19. The extended dependence on online purchasing has made the e-trade platform to be more attractive, with the help of customized revel in, efficient and dependable buying enjoy.

Artificial intelligence can examine a massive quantity of facts to deliver personalized recommendations. This has not most effectively changed buying revel in it has changed the purchaser's shopping sample. In the yr of the Sixties, online purchasing came into existence however it took numerous decades to take this position nowadays public blindly believes the net purchasing. From children to senior citizens all people are using this mode COVID technology has been moderately exceptional from now on, and the pandemic has had a superb impact on online buying. Through the particular examination of the contemporary literature review and collected facts this newsletter seeks how the impact of AI is game-changing in online buying. By knowledge of this paper, researchers can get a view of the function of artificial intelligence in customer choice-making.

## Objectives of the study

- To Analyze the evolution of AI in online shopping post-COVID
- To Investigate the impact of AI on consumer decision-making

## REVIEW OF LITERATURE

Pragati Agarwal (2024) According to this look it's far understood that AI-enabled technologies impacted various enterprises, particularly in the E-trade zone in which the impact is unavoidable for both patron and manufacturer it has also mentioned hassle of the impact of AI, where humans had been followed in the direction of the brand new technologies and established this intelligence of their daily lifestyles that too in the duration of pandemic AI has been emerging as important in e-commerce region.

Dutta, Surjadeep, Arivazhagan, R(2024) consistent with this study it is understood that the impact on electronics in e-commerce is plain. The integration of AI technologies has ushered in a brand new generation of personalized, efficient, and fact-driven procedures that significantly decorate the general e-trade panorama. This information-driven technique complements operational efficiency and ensures higher alignment with patron alternatives. AI empowers e-advertising techniques with dynamic and adaptive approaches, allowing businesses to respond to market adjustments and purchaser behaviors in actual time. Consumers in which attracted to the direction of AI while shopping for electronics due to the dynamic pricing from AI, AI algorithms can analyze marketplace traits, competitor pricing, and consumer calls to optimize pricing strategies dynamically. This has helped the patron to choose wisely in their decision-making in online buying.

Bhumi Singhal (2024) from this have a look at it's far understood that AI is like magic in today's generation and AI has emerged as a recreation changer the manner e-commerce has changed is brilliant. It has taken part in our choice-making procedure as well. AI is like Sherlock Holmes of your choices and analyzes your records. This personalization has greater customer enjoyment. This purchaser experience is new to this era customer right from the start they've by no means seen this kind of revel in in market ever. As this text mentions, AI is like magic in these days's generation people commenced falling for AI features in online shopping for instance dynamic pricing, tailor-made personalized advice, and so forth.

Varsha Jain (2023) From this text it has proved a few strategies have been used to influence purchaser choice Artificial intelligence is grabbing all the customer's attention via personalized guidelines, product records and opinions, virtual Shopping assistant, fashion analysis, Virtual-try-on, predictive pricing, chatbots., This Technique Virtual Try can help customers visualize the product before making the purchase this will truly affect the patron to buy that product, even though the product they are ordering online makes no sense.

## Sample Design

The study's design is conclusive and descriptive. The primary records are accrued through the usage of the Stratified Sampling technique. Data was accrued from 50 respondents. The gathered records are analyzed using SPSS with appropriate tools like ANOVA and Chi-Square.

Overview of the effect of A. I in consumer choice making a submit COVID analysis

The COVID pandemic was one of the vast crises of the twenty-first century it has taken a lot of lives and introduced down complete international economics and health care devices worldwide.

The submit COVID has shifted our whole surroundings to the following stage, For example, healthcare is ready for destiny pandemics and synthetic intelligence has surrounded the area of hospitals in which E-trade wherein fantasy at the sooner level but the pandemic is like big bang theory inside in few months every purchaser in which desired to purchase thru online buying. Initially, online purchasing was used simplest for getting digital gadgets and the products which need to be bought via export and people who have ordered can be ready period was inevitable but now an afternoon clients who have ordered their product can get the product within few days a number of the instances can deliver the product on that day itself. Consumers who started moving into the attachment of artificial intelligence in a day-to-day manner without their know-how it is collecting information via their search records based totally on that it's far suggesting as a result where you could see your wanted product inside the advertisements and mechanically your choice-making manner might be within the hands of synthetic intelligence.

AI-powered chatbots and digital assistants have furnished 24/7 help wherein clients can get the assist for queries and few purchasers aren't happy with this and that they follow vintage school techniques however most of the clients are glad with this technological advancement and they're accepting AI of their day to day existence. Artificial intelligence has a powerful hand this is predictive evaluation which allows AI to expect purchaser conduct and their developments through analyzing large quantities of their information AI can pick out styles and make predictions approximately future buying decisions. This will help commercial enterprises to have a better understanding of the direction purchasers can expect the precise product that they want currently.

Artificial intelligence has impacted patron decision-making whilst they purchase online buying this has made it feasible because of the pandemic without knowing people have begun having blind agree with over Artificial intelligence and it has impacted the everyday life of the customers with the help of the evaluation it has proved statistically.

### Analysis and findings

Research has shown that artificial intelligence plays an important role in consumer decision-making. This Study examines the game-changing impact of artificial intelligence in consumer decision-making in online shopping: A post-COVID analysis. In this context, the main purpose of this study is to investigate the influencing impact of artificial intelligence on consumer decision-making. Decades back customers' decision-making was different compared to the latest purchase decision making, since customers are tech savvy they depend on artificial intelligence to make their decision making.

To be precise,

#### ANOVA on Consumer's Buying Decision-Making

H<sub>01</sub>: There is no relationship between Gender and consumer purchasing decisions.

H<sub>02</sub>: There is no relationship between Income and consumer purchasing decisions.

H<sub>03</sub>: There is no relationship between Age and consumer purchasing decisions.

**Table 1: Relationship between Gender and consumer purchasing decision**

Consumer Purchasing Decision	Gender		Df	F Value	P Value
	Male	Female			
I frequently purchase items recommended by AI.	27 (45%)	31 (55%)	56	3.530	<0.001**
My buying patterns have changed due to AI suggestions.					
AI helps me stick to my budget by suggesting cost-effective options.					
I trust AI recommendations more than human recommendations.					
AI recommendations align well with my purchasing habits.					
I rely on AI to find the best deals and discounts.					
AI influences my decision on when to buy electronic gadgets.					
Consumers are increasingly using smartphones and tablets for shopping.					
AI algorithms analyze browsing and purchasing history to provide personalized recommendations.					
Targeted promotions and discounts based on individual shopping behavior.					
Events like Deepavali and Christmas see significant spikes in online shopping.					
Buy now pay later					
I rely on AI to find the best deals and discounts.					

AI influences my decision on when to buy electronic gadgets.					
The pandemic had the shift to online shopping and made Consumers prefer home delivery.					
Preference towards online shopping is due to health and safety concerns.					
Influencer partnerships and increased collaboration with social media influencers are driving the products into sales.					

( Source: Primary)

The p-value for gender and patron shopping choice is (zero.000) less than ( $<$ ) 0.01.  $H_0$  is rejected at the 1% stage. Hence, there may be a sizeable relationship between gender and purchaser shopping choice.

**Table 2: Relationship between Age and consumer purchasing decision**

Consumer Purchasing Decision	Age				Df	F Value	P Value
	18-25	26-30	31- 40	Above 40			
I frequently purchase items recommended by AI.	32 (54%)	18 (31%)	7 (11%)	1 (3%)	54	4.421	0.007**
My buying patterns have changed due to AI suggestions.							
AI helps me stick to my budget by suggesting cost-effective options.							
I trust AI recommendations more than human recommendations.							
AI recommendations align well with my purchasing habits.							
I rely on AI to find the best deals and discounts.							
AI influences my decision on when to buy electronic gadgets.							
Consumers are increasingly using smartphones and tablets for shopping.							
AI algorithms analyze browsing and purchasing history to provide personalized recommendations.							
Targeted promotions and discounts based on individual shopping behavior.							
Events like Deepavali and Christmas see significant spikes in online shopping.							
Buy now pay later							
I rely on AI to find the best deals and discounts.							
AI influences my decision on when to buy electronic gadgets.							
The pandemic had the shift to online shopping and made Consumers prefer home delivery.							
Preference towards online shopping is							

due to health and safety concerns.							
Influencer partnerships and increased collaboration with social media influencers are driving the products into sales.							

( Source: Primary)

The p cost for age and patron buying decision is (0.007) is much less than ( $<$ ) 0.01.  $H_01$  is rejected at the 1% level. Hence, there is a great dating between age and patron buying choice.

**Table 3: Relationship between Income and consumer purchasing decision**

Consumer Purchasing Decision	Income					Df	F Value	P Value
	10K-15K	15K-20K	20K-25K	25K-30K	Above 30K			
I frequently purchase items recommended by AI.	15 (26%)	35 (60%)	3 (5%)	4 (7%)	1 (2%)	53	3.472	<b>0.014*</b>
My buying patterns have changed due to AI suggestions.								
AI helps me stick to my budget by suggesting cost-effective options.								
I trust AI recommendations more than human recommendations.								
AI recommendations align well with my purchasing habits.								
I rely on AI to find the best deals and discounts.								
AI influences my decision on when to buy electronic gadgets.								
Consumers are increasingly using smartphones and tablets for shopping.								
AI algorithms analyze browsing and purchasing history to provide personalized recommendations.								
Targeted promotions and discounts based on individual shopping behavior.								
Events like Deepavali and Christmas see significant spikes in online shopping.								
Buy now pay later								
I rely on AI to find the best deals and discounts.								
AI influences my decision on when to buy electronic gadgets.								
The pandemic had the shift to online shopping and made Consumers prefer home delivery.								
Preference towards online shopping is due to health and safety concerns.								
Influencer partnerships and increased collaboration with social media influencers are driving the products into sales.								

( Source: Primary)

The p fee for earnings and consumer buying selection is (0.014) is much less than ( $<$ ) 0.05.  $H_02$  is rejected at five degrees. Hence, there is a good-sized relationship between income and client shopping selections.

### Chi-Square

H<sub>01</sub>: There is no association between AI recommendations making online shopping more enjoyable and reasons for relying more on AI after the Pandemic period.

H<sub>02</sub>: There is no association between trust in AI-generated product recommendations and human recommendations and reasons for relying more on AI after the Pandemic period.

H<sub>03</sub>: There is no association between COVID-19 relying more on Artificial Intelligence and reasons for relying more on AI after the Pandemic period.

H<sub>04</sub>: There is no association between AI-driven product recommendations tailored to customer preferences and reasons for relying more on AI after the Pandemic period.

H<sub>05</sub>: There is no association between an increase in the purchase of products recommended by AI during COVID-19 and reasons for relying more on AI after the Pandemic period.

H<sub>06</sub>: There is no association between post-COVID COVID has made consumers rely more on Artificial Intelligence and reasons for relying more on AI after the Pandemic period.

Variables	Reasons for relying more on AI after the Pandemic period	Chi-Square Value	df	P Value
AI recommendations make my online shopping more enjoyable.	Increased Demand for Automation	35.042 <sup>a</sup>	16	<b>0.004**</b>
	Shift to Online Commerce and Services			
	Data-Driven Decision Making Became Essential			
	Enhanced Customer Expectations and Digital Engagement			
	Governments and Public Sectors Embracing AI			
I trust AI-generated product recommendations as human recommendations.	Increased Demand for Automation	232.000 <sup>a</sup>	16	<b>&lt;0.001**</b>
	Shift to Online Commerce and Services			
	Data-Driven Decision Making Became Essential			
	Enhanced Customer Expectations and Digital Engagement			
	Governments and Public Sectors Embracing AI			
Since COVID-19 I have relied more on artificial intelligence	Increased Demand for Automation	17.128 <sup>a</sup>	16	<b>0.377</b>
	Shift to Online Commerce and Services			
	Data-Driven Decision Making Became Essential			
	Enhanced Customer Expectations and Digital Engagement			
	Governments and Public Sectors Embracing AI			
AI-driven product recommendations are tailored to my personal preferences	Increased Demand for Automation	41.662 <sup>a</sup>	12	<b>&lt;0.001**</b>
	Shift to Online Commerce and Services			
	Data-Driven Decision Making Became Essential			
	Enhanced Customer Expectations and Digital Engagement			
	Governments and Public Sectors Embracing AI			
I am more likely to purchase products recommended by AI during COVID-19	Increased Demand for Automation	35.042 <sup>a</sup>	16	<b>0.004**</b>
	Shift to Online Commerce and Services			
	Data-Driven Decision Making Became Essential			
	Enhanced Customer Expectations and Digital Engagement			
	Governments and Public Sectors Embracing AI			
Post-COVID has	Increased Demand for Automation	232.000 <sup>a</sup>	16	<b>&lt;0.001**</b>

made consumers rely more on Artificial Intelligence	Shift to Online Commerce and Services			
	Data-Driven Decision Making Became Essential			
	Enhanced Customer Expectations and Digital Engagement			
	Governments and Public Sectors Embracing AI			

(Source: Primary)

The p cost for AI recommendations makes online purchasing greater exciting and the motives for relying extra on AI after the Pandemic length is (0.004) is much less than ( $<$ ) 0.01.  $H_{01}$  is rejected at 1% degree. Hence, there is a full-size association between AI pointers making online shopping extra enjoyable and reasons for depending more on AI after the Pandemic period.

The p price for trust AI-generated product advice as a human recommendation and motives for relying more on AI after the Pandemic duration is (0.000) is less than ( $<$ ) 0.01.  $H_{02}$  is rejected at the 1% level. Hence, there is a significant association between trust AI AI-generated product recommendations and human recommendations and reasons for relying more on AI after the Pandemic period.

The p-value since COVID-19 makes us rely more on Artificial Intelligence and the reason for relying more on AI after the Pandemic period is (0.377) is more than ( $>$ ) 0.05.  $H_{03}$  is established at a 5 % level. Hence, there is no extensive affiliation between the reason that COVID-19 depends extra on Artificial Intelligence and motives for relying extra on AI after the Pandemic duration.

The p fee for AI-pushed product recommendations is tailor-made to patron alternatives and the reasons for relying more on AI after the Pandemic duration and motives for relying more on AI after the Pandemic length is (0.000) is less than ( $<$ ) zero.01.  $H_{04}$  is rejected at the 1% stage. Hence, there may be a full-size affiliation between AI-driven product recommendations that are tailor-made to patron possibilities and motives for depending extra on AI after the Pandemic length and reasons for relying more on AI after the Pandemic period.

The p cost for an increase in the purchase of products encouraged through AI for the duration of COVID-19 and motives for depending more on AI after the Pandemic duration is (zero.004) is much less than ( $<$ ) 0.01.  $H_{05}$  is rejected at the 1% stage. Hence, there's a great affiliation between growth in buying products encouraged by utilizing AI at some stage in COVID-19 and reasons for relying more on AI after the Pandemic length.

The p price for post-COVID has made consumers depend more on Artificial Intelligence and the reason for depending more on AI after the Pandemic period is (0.000) is less than ( $<$ ) zero.01.  $H_{06}$  is rejected at the 1% stage. Hence, there is a tremendous association among post-COVID has made the clients depend more on Artificial Intelligence and motives for relying more on AI after the Pandemic period.

## CONCLUSION

This paper needs to be concluded with valuable outputs as we are all living in this technically evolving era, Generation X, Y, and Z are making use of AI in their day these days lifestyles. It has ended up being critical in the pandemic duration. With the assistance of information, evaluation came to recognize that ages institution between 18 and 25 have the best impact on their decision-making while purchasing in online shopping, and as in keeping with the data evaluation purchasers who get mid-variety earnings are the main sources of Artificial intelligence who have got the impact of their client decision making as a substitute client. In this chapter with the assistance of analysis, we have the facts that customers have authorized the effect of A. I and the effect of A. I is inescapable. Despite the praising issue of AI and its impact on customer selection making AI have some matters with a view to no longer come below the roof of blessings, still, people are still fearful of completely relying upon AI even though the effect is inevitable people are nonetheless heading off this technological development, as privacy and security, ethical issues, facts privateness problem, technological dependence, this technological dependence have started from using the calculator in a smartphone that has started out evolving like for every and every solutions were rechecked with an artificial intelligence device (Google) Even Though it has given the crystal clean solutions people were started out lagging in their expertise and talents. One of the riskiest durations in history changed due to COVID-19 The pandemic duration was an eye-opener for this technical Era it started from Generation X, Y, and Z however it has captivated Generation Alpha As well, which is unavoidable. However, it's far crucial to apprehend

that AI is not the best and can still have biases and barriers and that consumers need to always work on their judgment and vital wondering whilst making important purchasing decisions.

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