

Impact of AI on Consumer Decision Making and Behavioural Influence on Attention Economy

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Abstract: *Human attention is an important resource for advertising companies to attract consumers using technology to interact with the attention economy. The power of AI to anticipate preferences and customize marketing tactics can potentially impact customer decision-making and affect purchasing behavior. The descriptive analysis is used as a research design. The stratified sampling method was used with the 76 respondents as a sample survey. Demographic factors of age do not influence consumer decision-making and buying. It concludes the regression analysis fits with the model.*

Keywords: AI, consumer decision, Behavioural influence, attention economy

1. Introduction

Advertising companies pay too much money to spend and attract incentivizing consumers to spend their own time and attention on their products in the attention economy. Human attention is an important resource for advertising companies using their theories to attract consumers to pass the information to the users by using technology to interact with the attention economy.

When making decisions as consumers, attention is the critical cognitive mechanism that allows people to deliberately ignore some stimuli or pieces of information while focusing on others. People's decisions and preferences are significantly shaped by focus and drawn to possibilities that capture their interest. Strategically, this attention may be attracted by using eye-catching marketing strategies, distinctive product characteristics, or well-known brands. Furthermore, emotional appeal, originality, and relevancy all play a major role in grabbing customer's attention and influencing their choice.

Several elements such as biological, psychological, and social are influenced by behavioral influence. An object, person, thing, or event's attitudes are a collection of feelings, convictions, and actions that can be significant in behavior. Behavior change is influenced by knowledge, incentives, and behavioral abilities. Building a solid emotional bond with yourself and others is necessary for influence.

Artificial intelligence can solve problems, comprehend natural language, identify patterns, and make judgments. The power of AI to anticipate preferences and customize marketing tactics can potentially impact customer decision-making and affect purchasing behavior. But it's crucial to the moral ramifications, such as privacy issues and influencing customer preferences.

1.1 Statement of Problem

The research explores the complex relationship between the data-driven insights generated by AI and the cognitive processes of humans. This interaction changes purchasing behaviors, an increased reliance on AI recommendations, and fluctuations in consumer satisfaction levels. The

research aims to uncover any biases or distortions in consumer decision-making arising from AI's influence. By doing so, it seeks to provide valuable insights for establishing ethical practices and shaping policy considerations on AI technologies.

1.2 Objectives of the study

- To ascertain the demographic factors that influence consumer decision-making and behavioral influence.
- To measure the impact of consumer decision-making and behavioral influence on AI.

1.3 Limitations of the study:

- It is limited to Chennai city only.
- The study is based on a questionnaire, the respondents' opinions influence the results.

2. Review of Literature

Ramachandran T et al (2024) assess those customers who said artificial intelligence (AI) affects their decisions by making tailored recommendations for goods and services and has no impact on their final purchases. The findings imply that AI affects environmentally friendly customer behavior.

Anayat S et al (2023) discovered consumer attitude is an independent factor impacting artificial intelligence-based and work as autonomous. Customer values are influenced positively by adopting the intention towards AI-based voice assistants.

Yadav G et al (2023) analyzing Artificial intelligence did not impact the factors of the customer purchasing decision-making process. Customers' choices, preferences, and ability to make consumer choices are the impacting factors in decision-making.

Gkikas DC et al (2022) determined AI helps to forecast and gives a better tool for analyzing consumer behavior. The marketing tools given by AI help to achieve the goal of the organization to meet consumer needs.

Cao G et al (2021) explain the dark side of artificial intelligence and how it is linked to improving organizational decision-making. The integrated AI acceptance avoidance model is built to improve the decision-making of the managers' attitudes and behavioral intentions by affecting the utilization of AI. The model helps to create a better decision-making environment and gives a better system to the managers.

3. Research Methodology

The research design used for the study is descriptive analysis. Primary data is original data to collect primary data, the respondents filled out questionnaires. Secondary data is collected from different articles, journals, and websites. The size of the sample is 76 respondents. A stratified sampling method is used in this research.

4. Data Analysis and Interpretation

H01: Consumer decision-making and behavioral influence of AI with Age

In the factor, AI recommendation in shopping online valued at $F = 1.018$ $P = 0.390$ does not significantly influence

consumer decision-making and behavioral influence with Age at 5%. Consumers' online shopping recommendation of AI is not based on age as it depends on shopping habits and buying power.

At $F = 1.530$ $P = 0.214$, the consumers' purchasing decision does not influence the age factor at 5%. The effort of artificial intelligence to make decisions to remind the past consumer preferences but the consumers' decisions may change frequently.

The purchase is based on an advertisement on a social media platform on a factor valued $F = 0.281$ $P = 0.839$ and is not significantly influenced by age at 5%. Advertisement in social media creates celebrity endorsement, and emotional appeal, and grab the consumers' attention factors attract consumers to make the purchasing decision but these factors are not affected by the age factor.

The factor valued at $F = 4.460$ $P = 0.006$ is significantly influenced by age at 5%. Consumers' preferences in AI algorithms enhance consumers' decision-making power with the help of recommendations of data analysis given by the AI.

Table 1: ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
AI-driven recommendations while shopping online	Between Groups	7.896	3	2.632	1.018	.390
	Within Groups	186.104	72	2.585		
	Total	194.000	75			
AI-driven recommendations influence purchasing decisions	Between Groups	6.356	3	2.119	1.530	.214
	Within Groups	99.684	72	1.384		
	Total	106.039	75			
purchases based on advertisements seen on social media platforms	Between Groups	1.874	3	.625	.281	.839
	Within Groups	160.060	72	2.223		
	Total	161.934	75			
AI algorithms on social media platforms understand preferences	Between Groups	7.324	3	2.441	4.460	.006
	Within Groups	39.413	72	.547		
	Total	46.737	75			

H02: Impact of AI on consumer decision-making and behavioral influence

The table explains the low positive between consumers' decisions and behavioral influences on AI in a value of R of 0.327.

Table 2: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.327 ^a	.107	.069	1.147
a. Predictors: (Constant) privacy of your data when interacting with AI-driven platforms? AI algorithms on social media platforms understand your preferences and purchases based on advertisements seen on the social media platform				

R squared value of 10.7% is not strong enough to represent the variability prediction because AI impacts consumer decisions and behavior and including these factors impacts user engagement, predictive analysis, and marketing strategies.

Table ANOVA explains the regression sum of square 11.307 indicates a higher value proving the model is fit and effective in the variability of the dependent variable. A high F value of 2.865 shows that the model is fit and the p-value is less than 0.05 ($p = 0.043$) is statistically significant.

Table 3: ANOVA^a

	Model	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	11.307	3	3.769	2.865	.043 ^b
	Residual	94.733	72	1.316		
	Total	106.039	75			
a. Dependent Variable: AI-driven recommendations influence purchasing decisions						
b. Predictors: (Constant), the privacy of data interacting with AI-driven platforms? AI algorithms on social media platforms understand preferences and purchases based on advertisements seen on social media platform						

Table coefficient shows a P value less than 0.013, the independent variable preferences of AI are strongly statistically significant to the dependent variables.

Table 4: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.011	1.014		.997	.322
	Purchases based on advertisements seen on social media platforms	-.024	.094	-.029	-.251	.802
	AI algorithms on social media platforms understand preferences	.442	.174	.293	2.542	.013
	privacy of data when interacting with AI-driven platforms?	.149	.131	.128	1.138	.259
a. Dependent Variable: AI-driven recommendations influence purchasing decisions						

The other variables are not statistically significant with the dependent variable AI purchasing decision. The higher t value indicates a positive effect on the dependent variable.

5. Conclusions

For increasing loyalty and satisfaction of products in their business, the growth of AI helps the organization meet consumers' needs and requires transparency and fairness. In the attention economy, the business shapes the consumer through customer engagement and visions of data-driven with the help of AI. It makes the preference of social media platforms statistically significant in the consumer purchasing decision. The higher value of the regression sum of the square indicates the model fit.

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