DATA TO DELIGHT: LEVERAGING AI IN ENHANCING CUSTOMER JOURNEYS

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ABSTRACT

Artificial Intelligence (AI) has emerged as a transformative force in shaping customer experiences by enhancing personalization, improving service efficiency, and fostering engagement. As businesses increasingly integrate AI-driven solutions such as chatbots, predictive analytics, and recommendation systems, understanding their impact on customer satisfaction and experience becomes critical. This study explores how AI influences customer journeys by analyzing secondary data on two key variables: AI endorsement and AI-enhanced experience. A significant challenge in AI adoption is understanding how people feel AI has enhanced their experience and how easily they get used to AI in their daily shopping experiences. This study assesses whether AI endorsement and AI-enhanced experience lead to higher satisfaction levels. The research is structured around hypotheses linking AI endorsement and AI-enhanced experience to AI satisfaction. Specifically, the study investigates whether AI endorsement positively influences customer satisfaction and whether AI-enhanced experience affects

the degree of this influence. By leveraging existing data sources, the study provides insights into AI adoption trends and customer satisfaction with the help of the chi-square test and Pearson correlation using Python's libraries—NumPy, Pandas, and SciPy stats. The findings from the study inform how AI endorsement and AI-enhanced experience can influence AI satisfaction. Ultimately, the research contributes to the broader discourse on AI's role in enhancing customer experiences, highlighting challenges and opportunities for leveraging AI to create delightful customer journeys.

Keywords: Artificial Intelligence, AI endorsement, AI Satisfaction, AI-enhanced experience, Delightful experience.

INTRODUCTION

Al is changing the way businesses serve by offering an easy, efficient, and more personalized experience (Peruchini, M., da Silva, G.M. & Teixeira, J.M., 2024)^[1]. Chatbots, virtual assistants, recommendation engines, and other AI solutions help companies predict what customers want, facilitate automated interactions, and provide satisfaction in all areas of engagement (Chen, Y., & Prentice, C., 2024)^[2]. Al transforms traditional customer journeys by assessing huge volumes of data in real time, giving businesses a chance to offer tailored recommendations, proactive support, and frictionless experiences (T. Khvatova, F. P. Appio, S. Ray and F. Schiavone, 2024)^[4]. Meaningful engagement by businesses is being taken to the next level with Al-driven chatbots, sentiment analysis tools, and other advanced technologies that offer swift replies to queries. The most noteworthy advantage is probably personalization. Customer choices, preferences, and past interactions are monitored by ML algorithms to provide tailored suggestions and offer more engagement with your business. Furthermore, Alpowered automation eliminates mundane tasks, from order tracking to simple queries, accelerating the process and allowing human agents to handle issues that require more complex thought. Al is a critical enabler of prescriptive analytics since it allows businesses to predict customers' needs before the customers are even aware of them. Organizations can gain actionable insights through AI.

Two critical variables shaping Al-driven CX are Al endorsement and Al-enhanced experience. Al endorsement refers to the level of trust, acceptance, and willingness that customers demonstrate towards using Al systems. It reflects how comfortable and confident customers are in engaging with Al-powered touchpoints. In contrast, Al-enhanced experience captures the customer's perception of how Al has improved their interaction- whether through personalized recommendations, reduced response times, or



better service quality. These constructs are central to understand whether Al-driven systems truly lead to greater customer satisfaction.

LITERATURE REVIEW

Artificial Intelligence (AI) has transformed user experience across industries, influencing engagement, satisfaction, and trust. Several studies have explored the relationship between AI-enhanced experiences and user satisfaction, highlighting key factors that drive AI adoption and user perceptions. One notable study, "Between Artificial Intelligence and Customer Experience: A Literature Review" (Metsai, A.I. et al. 2022)^[3], examines the intersection of AI and customer experience (CX). The authors highlight how AI technologies, such as chatbots and personalized recommendation systems, are transforming customer interactions, streamlining service delivery, and creating more personalized and engaging experiences. The research emphasizes the importance of thoughtfully integrating AI to enhance CX without compromising the human touch (Venkatesh et. AI., 2012)^[8] (Gefen et. al. 2000)^[11]

Artificial Intelligence (AI) has significantly transformed how customers interact with businesses, leading to widespread research on its role in enhancing customer experiences (Chen & Prentice, 2024). Technologies such as chatbots, recommendation engines, and virtual assistants contribute to faster response times, tailored service, and improved satisfaction (Khvatova et al., 2024). However, most of the literature has emphasized the technological and operational capabilities of AI, with limited attention to customers' psychological perceptions and behavioral responses toward AI systems.

A growing body of research has explored Al-enhanced experiences, showing that Al systems can personalize journeys and increase user engagement (Metsai et al., 2022: Vijayakumar, 2023). These experiences include real-time recommendation, ease of use, and interactive features that create a sense of delight. Desipite these benefits, most studies have treated experience as a general construct, without isolating how perceived Al enhancement specifically contributes to satisfaction levels.

Some research (Huang & Rust, 2021: Schneider et al., 2024) points to the importance of AI-human collaboration, indicating that hybrid systems yield higher satisfaction. However, these studies rarely evaluate how endorsement and perceived enhancement work together as joint predictors of satisfaction.

Additionally, most existing studies rely on primary data collected via surveys or experiments and are largely based in western economies. There is limited research that

uses secondary data to analyze these constructs in emerging markets like India, where AI adoption is rapidly accelerating but customer perceptions may differ culturally.

Therefore, a clear research gap exists in examining the combined impact of AI endorsement and AI-enhanced experience on customer satisfaction, especially using secondary data from the Indian context.

OBJECTIVES OF THE STUDY

- To analyse the influence of AI endorsement on customer satisfaction in AI-driven interactions, particularly focusing on how customer trust and willingness to use AI shape their overall satisfaction.
- To evaluate the impact of Al-enhanced customer experiences on satisfaction, assessing whether personalized, efficient, and seamless interactions through Al contribute to grater satisfaction.
- To explore the combined effect of AI endorsement and AI-enhanced experience on the overall customer journey, identifying how these factors jointly shape customer perceptions and decision making in digital retail environments.

Hypotheses

- H1 The AI endorsement significantly impacts user's satisfaction with AI.
- H2 Al-enhanced experience has a significant impact on Al satisfaction.

Research gap

Most studies related to AI satisfaction focus on primary data, while variables like AI endorsement and AI-enhanced experience and their combined effect on customer satisfaction remain underexplored. Additionally, the Indian digital ecosystem, one of the fastest-growing AI consumer markets, remains underrepresented in global research. Cultural, behavioral, and technological differences make it imperative to study AI endorsement and experience from an Indian perspective, which this paper uniquely provides.

Research question

Does AI-enhanced experience and AI endorsement have a significant effect on AI satisfaction?



RESEARCH METHODOLOGY

Research Design

The study adopts a quantitative research technique to examine the role of AI endorsement and customer experiences with AI in their satisfaction with their journey with AI. It employs a descriptive study to understand how leveraging AI has enhanced customer journeys.

Data Collection

The study utilizes secondary data obtained from Kaggle. Secondary data analysis allows for the examination of patterns and relationships between AI endorsement, AI-enhanced experience, and satisfaction with AI. The dataset contained 450 records holding responses from diversified regions. The study, being focused on the Indian perspective, resulted in the researcher, after cleaning the data, ending up with 173 records used for analysis.

Data Analysis

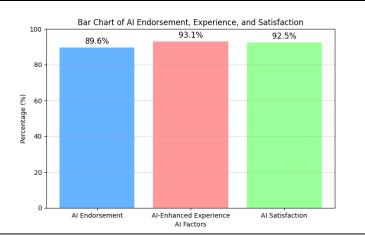
The study uses Python's libraries—NumPy, Pandas, Matplotlib, Seaborn, NetworkX, and SciPy. Stats—for designing contingency tables, analyzing the data, and creating plots. The first hypothesis was tested using the Chi-Square test, and the second hypothesis was tested using correlation.

Parameters	AI Endorsement	Al-enhanced Experience	AI Satisfaction
Count	173	173	173
Mean	0.895954	0.930636	0.924855
Median	1	1	1
Minimum	0	0	0
Maximum	1	1	1

ANALYSIS AND DISCUSSION

Table 1 : Descriptive statistics of key variables





Graph 1: Visualization of Summary Statistics

Chi-Square Test

Contingency table:

Al-Endorsement	AI-Satisfaction=0 (Not satisfied)	Al-Satisfaction=1 (Satisfied)	Total
0 (not satisfied)	6	12	18
1 (satisfied)	7	148	155
Total	13	160	173

Table 2: Contingency table for the relationship between AI-endorsement and AI-satisfaction

The *Table 2* shows the relationship between AI-endorsement and AI-satisfaction, the rows represent whether a respondent endorses AI or not and the columns represent whether a respondent is satisfied (1) or not (0) with AI-enhanced experiences. 95.5% of those who endorsed AI are satisfied. Non-endorsers are more split in satisfaction, only 66.7% are satisfied, thus overall AI satisfaction is high being 92.5%. The *Table 3* shows that the Chi-square test results indicate a significant association between the variables under study. The Chi-square statistic is 15.35, with 1 degree of freedom, and the corresponding p-value is 0.0000895, which is well below the significance level (alpha) of 0.05. This suggests that the null hypothesis, which assumes no relationship between the variables, can be rejected. The observed and expected frequencies demonstrate a deviation that supports the presence of a meaningful relationship. Therefore, the findings suggest that the variables are not independent, implying a statistically significant association in the dataset. The study rejects the null hypothesis and concludes that "AI endorsement significantly impacts AI satisfaction."

Al-endorsement and Al-satisfaction Test values



Chi-square static	15.35
P-Value	0.0000895
Degree of freedom	1
Significance level (alpha)	0.05

Table 3: Chi-Square Test between Variables

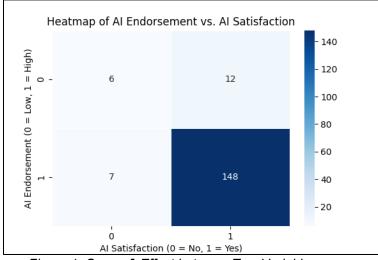


Figure 1: Cause & Effect between Two Variables

The *Figure 1* shows a heat map illustrating the cause and effect between the two variables, revealing that 148 individuals had both high AI endorsement and high AI satisfaction, which is the most populated category. Seven individuals had high AI endorsement but low AI satisfaction. Twelve individuals had low AI endorsement but high AI satisfaction, and lastly, six individuals had low AI endorsement and low AI satisfaction.

The *Table 4* presents the Spearman correlation analysis between AI-enhanced experience and AI satisfaction. The correlation coefficient is 0.7851, indicating a very strong cause-and-effect relationship between the variables. This suggests that as AI-enhanced experience increases, AI satisfaction also tends to increase. Additionally, the p-value (0.000000119) is extremely small (almost 0), meaning the correlation is statistically significant. This confirms that the observed relationship is unlikely due to random chance and supports the claim that AI-enhanced experience significantly influences AI satisfaction. Thus, the study rejects the null hypothesis.

Correlation test

Parameter	Spearman correlation	P-Value	
Al-enhanced Experience and Al-satisfaction	0.7851	0.0000000000119	



Table 4: Spearman Correlation Analysis

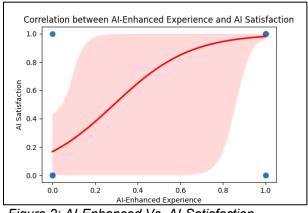
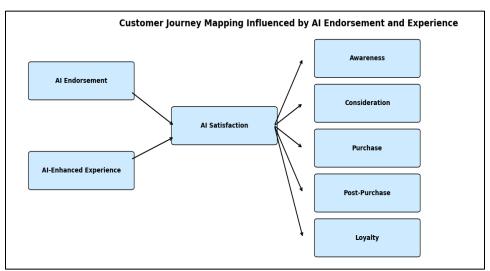


Figure 2: AI-Enhanced Vs. AI-Satisfaction

The *Figure 2* shows a scatter plot that visualizes the relationship between AI-enhanced experience and AI satisfaction using a logistic regression trend line (red line). The red curve shows an upward trend, meaning that as AI-enhanced experience increases, AI satisfaction also tends to increase. The logistic regression curve smoothly transitions between the two categories.



FINDINGS

Figure 3 : (Showing the connections between key Variables to Customer journeys)

Figure 3, shows the relationship between the key variables, showing that AI-endorsement AI-enhanced experience, both together affecting AI-satisfaction, which finally impacts on Overall Customer journeys, starting from awareness, their consideration, purchase, Post purchase and ending up with loyalty.



The study found a significant association between AI endorsement and AI satisfaction. 95.5% of those who endorsed AI reported being satisfied with AI-enhanced experiences. Only 66.7% of those who did not endorse AI reported satisfaction, indicating that AI endorsement plays a key role in shaping positive experiences. The Chi-square test confirmed a statistically significant relationship, leading to rejection of the null hypothesis.

- High AI endorsement contributes to customers being open to AI recommendations, chatbots, and search tools, thereby influencing product discovery and evaluation.
- Al- enhanced experiences, such as personalized recommendations, quick checkouts, and proactive support, improve satisfaction and reduce friction.
- When customers feel both confident in AI and perceive the experience as valuable, they are more likely to return, give positive feedback, and develop long-term loyalty.

CONCLUSION

The study highlights the crucial role of AI-enhanced experiences and AI endorsements in shaping customer satisfaction with AI. How customers trust AI and how willing they are to adopt it in their daily shopping habits tends to affect AI satisfaction. The study's findings are particularly relevant to companies operating in the Indian market, offering practical guidance for enhancing AI adoption and satisfaction strategies. As AI transforms customer engagement, companies prioritizing innovation and user-centric design will gain a competitive edge in delivering delightful, satisfying, and trustworthy experiences. Future research could build upon these findings by exploring the long-term impact of AI satisfaction on customer loyalty. Since the study is based on secondary data, future studies can rely on primary data and focus on other variables such as privacy concerns, generational differences, and so on. By deepening the understanding of these dynamics, businesses can continue to refine AI strategies and strengthen customer relationships in the digital world.



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