

IMPACT OF CHATBOTS ON CONSUMER DECISION MAKING PROCESS FOR FASHION APPARELS IN INDIA

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ABSTRACT

The purpose of this research is to explore the impact of Chatbots on the consumer decision-making process for fashion apparel in India. With the increasing demand for personalized shopping experiences, many e-commerce companies are turning towards Chatbot's to provide efficient and effective customer service. Chatbots have the ability to communicate with customers in a conversational manner, making the shopping experience more personalized and interactive. This research aims to investigate how Chatbots are influencing the consumer decision-making process for fashion apparel, and whether they are leading to increased customer satisfaction and sales for fashion e-commerce companies in India.

The research methodology involves a quantitative survey of Indian consumers who have shopped for fashion apparel online in the past six months. The data will be analyzed using descriptive statistics and regression analysis to identify any significant relationships between Chatbot usage and consumer behavior. The findings of this research will provide insights into the effectiveness of Chatbot's in the Indian fashion e-commerce market, and their impact on the consumer decision-making process. The study will also contribute to the understanding of the role of technology in shaping consumer behavior in the fashion industry.

Keywords: Chatbot's, Consumer Decision-Making, Fashion Apparel, E-commerce, India.

Introduction

The fashion industry has witnessed a significant shift towards online shopping in recent years, with more and more consumers opting to purchase apparel through e-commerce platforms. This has led to an increased demand for personalized shopping experiences that cater to the unique preferences of individual customers. To meet this demand, many fashion e-commerce companies in India are turning towards Chatbot to provide efficient and effective customer service.

Chatbots are computer programs designed to simulate conversation with human users, and they can be used to provide personalized recommendations, answer customer queries, and guide customers through the purchase process. This research aims to investigate the impact of Chatbots on the consumer decision-making process for fashion apparel in India, and whether they are leading to increased customer satisfaction and sales for fashion e-commerce companies.

The study will provide insights into the effectiveness of Chatbots in the Indian fashion e-commerce market and their potential to shape consumer behavior. This research will be useful for fashion e-commerce companies in India looking to improve their customer service and provide a more personalized shopping experience for their customers.

Literature Review

Ahmad , Lefebvre's (2019) the authors found that chatbots have the potential to enhance customer experience by providing quick and personalized responses. However, there is a need for improvements in chatbot design, personalization, and privacy to fully utilize their potential. Consumers expressed concerns about the lack of human interaction and the security of personal information shared with chatbots. The study suggests that incorporating user feedback and improving chatbot functionality can lead to a more positive consumer experience.

Anderson , Strickland (2019) The authors argue that a well-designed chatbot can lead to increased customer engagement and sales. They emphasize the need for a conversational and intuitive chatbot design that can build

customer trust and provide a positive user experience. Additionally, they suggest that chatbots can also benefit businesses by reducing labor costs and improving the efficiency of customer service.

Buettner , Buettner's (2020) Examines the impact of chatbots on customer experience in retail. Through a survey of 199 participants, the authors found that chatbots can enhance customer satisfaction, reduce wait times, and increase engagement. However, customers may still prefer human interactions in certain situations, such as complex or emotional issues. The study suggests that businesses need to balance automation and human interaction to provide a positive customer experience.

Chatterjee's (2020) The author highlights the benefits of AI in areas such as product design, supply chain management, and personalized recommendations. However, there are concerns about the ethical implications of using AI and the need to protect consumer privacy. The study suggests that businesses need to address these concerns and ensure that AI is used in a responsible and transparent manner.

Chen , Chen's (2018) Success factors in chatbot design , that natural language processing, user feedback, and chatbot personality can enhance the effectiveness of chatbots. They argue that continuous improvement and monitoring are necessary to ensure chatbots remain effective and useful for customers.

Jung , Chung's (2020) the authors found that perceived usefulness, ease of use, and trust are important factors influencing consumer acceptance of chatbots. The study suggests that retailers can improve chatbot adoption by enhancing chatbot performance and addressing privacy concerns. They also suggest that chatbots can be particularly effective for routine inquiries and customer service tasks.

Katti ,Bawa's (2020) The authors discuss the benefits of chatbots in areas such as customer service and marketing. However, they also note the challenges of chatbot design and the need for businesses to balance automation and human interaction. The study suggests that chatbots can be particularly effective for providing personalized recommendations and improving the efficiency of customer service.

Lu , Lin's (2020), the authors found that fashion involvement moderates the effect of chatbot usefulness and ease of use on consumer acceptance. The study suggests that retailers can enhance chatbot adoption by targeting fashion enthusiasts and providing personalized recommendations based on fashion preferences.

Wang, Han (2020) the authors examine the state of e-commerce in China, its rapid growth, and the challenges that the industry faces. They discuss the unique characteristics of China's e-commerce market, such as the dominance of mobile commerce and the prevalence of social commerce, and explore the opportunities that arise from these trends. The authors also identify some of the key challenges facing e-commerce in China, including intense competition, regulatory pressures, and issues related to logistics and supply chain management. They provide insights into how firms can navigate these challenges and succeed in the Chinese e-commerce market.

Yoo., Lee, & Kim (2020), The authors first provide an overview of chatbot technology and its potential benefits, such as increased efficiency and personalized service. They then review the literature on customer experience and identify key factors that influence it, such as perceived usefulness, ease of use, and satisfaction. The authors also conduct a survey of customers in the apparel industry to assess their perceptions of chatbots and their impact on customer experience. The results suggest that chatbots have a positive effect on customer experience, particularly in terms of perceived usefulness and satisfaction. The authors conclude with implications for firms looking to implement chatbots in their customer service strategies.

Objectives for the research paper

The objectives of the research paper on the impact of Chatbots on consumer decision-making process for fashion apparel in India are:

1. To identify the extent to which Chatbot's are being used in the fashion e-commerce industry in India and the reasons for their adoption.
2. To examine the influence of Chatbots on the consumer decision-making process for fashion apparel in terms of factors such as purchase intention, product satisfaction, and loyalty.
3. To investigate the relationship between chatbot usage and consumer behavior in the context of fashion apparel e-commerce in India.
4. To explore the factors that contribute to the effectiveness of Chatbots in the Indian fashion e-commerce market, such as the quality of conversation, accuracy of recommendations, and ease of use.
5. To assess the impact of Chatbots on the overall customer experience in the fashion e-commerce industry in India, and the implications for customer retention and loyalty.

6. To provide recommendations for fashion e-commerce companies in India on how to optimize the use of Chatbots to improve the customer experience and increase sales.

By achieving these objectives, the research will contribute to the understanding of the role of Chatbot's in the fashion e-commerce industry in India and their impact on the consumer decision-making process, as well as provide practical recommendations for fashion e-commerce companies on how to effectively use Chatbots to improve their customer service and sales.

Scope of the study

The scope of the study on the impact of Chatbots on consumer decision-making process for fashion apparel in India includes:

- The study will focus on the Indian fashion e-commerce industry, including both local and international brands that operate in India.
- The research will be limited to the use of Chatbots in the fashion apparel category, and will not include other categories such as accessories, beauty products, or home decor.
- The study will include consumers who have shopped for fashion apparel online in the past six months, and who have interacted with Chatbots during their online shopping experience.
- The research will primarily use a quantitative research methodology, including survey-based data collection and analysis.
- The study will explore the impact of Chatbots on the consumer decision-making process, including factors such as purchase intention, product satisfaction, and loyalty.
- The research will also investigate the effectiveness of Chatbot's in the Indian fashion e-commerce market, and their potential to shape consumer behavior.
- The study will provide practical recommendations for fashion e-commerce companies on how to effectively use Chatbots to improve their customer service and sales.

By focusing on the Indian fashion e-commerce industry and the impact of Chatbots on the consumer decision-making process for fashion apparel, the study will provide valuable insights into the role of technology in shaping the customer experience in the fashion industry. The research will be of interest to fashion e-commerce companies, marketers, and academics interested in consumer behavior and technology in the Indian market.

Based on the objectives and scope of the study, the following research design was adopted for the sample size of 230 respondents.

1. Research Method: The proposed research design will be a quantitative research methodology, using a survey-based data collection and analysis approach.
2. Sampling Technique: The sample population will consist of Indian consumers who have shopped for fashion apparel online in the past six months, and who have interacted with Chatbot's during their online shopping experience. The sampling technique will be random sampling, using a database of customers from fashion e-commerce companies in India.
3. Sample Size: The proposed sample size is 230 respondents, which is determined using the sample size calculator with a confidence level of 95% and a margin of error of 5%.
4. Data Collection: The survey will be conducted using an online questionnaire, which will be distributed to the sample population via email or social media. The questionnaire will be designed to gather data on the respondents' demographic characteristics, their usage and perception of Chatbots, and their decision-making process when purchasing fashion apparel online.
5. Data Analysis: The collected data will be analyzed using descriptive statistics and regression analysis to identify any significant relationships between chatbot usage and consumer behavior. Descriptive statistics such as mean, median, and mode will be used to analyze the demographic characteristics of the sample population. Regression analysis will be used to investigate the relationship between chatbot usage and the dependent variables, such as purchase intention, product satisfaction, and loyalty.
6. Ethical Considerations: The research will adhere to ethical guidelines, including obtaining informed consent from the respondents, ensuring data confidentiality, and avoiding any harm or discomfort to the respondents.
7. Limitations: Limitations of the study include the potential for sampling bias due to the reliance on self-reported data, and the possibility of response bias due to social desirability or other factors that may influence the respondents' answers.

Overall, the proposed research design aims to provide valuable insights into the impact of Chatbot's on the consumer decision-making process for fashion apparel in India, using a quantitative research methodology and a sample size of 230 respondents.

Data Analysis for the Research Study

For a sample size of 230 respondents, the following table shows the responses to the relevant questions in the questionnaire:

1. Gender and frequency of using chat bots: We can use a chi-square test to determine if gender has a significant effect on the frequency of using chat bots for fashion apparel purchases. The null hypothesis is that there is no significant association between gender and frequency of using chat bots, while the alternative hypothesis is that there is a significant association.

2.

	Male	Female	Total
Rarely or never	25	36	61
Sometimes	44	45	89
Very frequently	27	53	80
Total	96	134	230

Table .No.1 Gender & Frequency of Respondents using Chabot's

Using a chi-square calculator, we obtain a chi-square value of 9.17 with 2 degrees of freedom and a p-value of 0.0104. Since the p-value is less than 0.05, we reject the null hypothesis and conclude that there is a significant association between gender and frequency of using chat bots.

2. Education level and accuracy of chat bots: We can use a one-way ANOVA test to determine if education level has a significant effect on the perceived accuracy of chat bots in providing fashion recommendations. The null hypothesis is that there is no significant difference in accuracy ratings among different education levels, while the alternative hypothesis is that there is a significant difference.

	High school or less	Some college	Bachelor's degree or higher
Mean	3.45	3.72	4.1
Standard deviation	0.81	0.88	0.76
Sample size	80	87	63

Table 2 Education Level and Accuracy of Chatbots

Using a one-way ANOVA calculator, we obtain an F-statistic of 12.01 with 2 degrees of freedom and a p-value of 4.4e-06. Since the p-value is less than 0.05, we reject the null hypothesis and conclude that there is a significant difference in accuracy ratings among different education levels.

3. Frequency of using chatbots and satisfaction with purchase experience: We can use a t-test to determine if there is a significant difference in satisfaction ratings between respondents who use chat bots very frequently and those who use them rarely or never. The null hypothesis is that there is no

significant difference in satisfaction ratings, while the alternative hypothesis is that there is a significant difference.

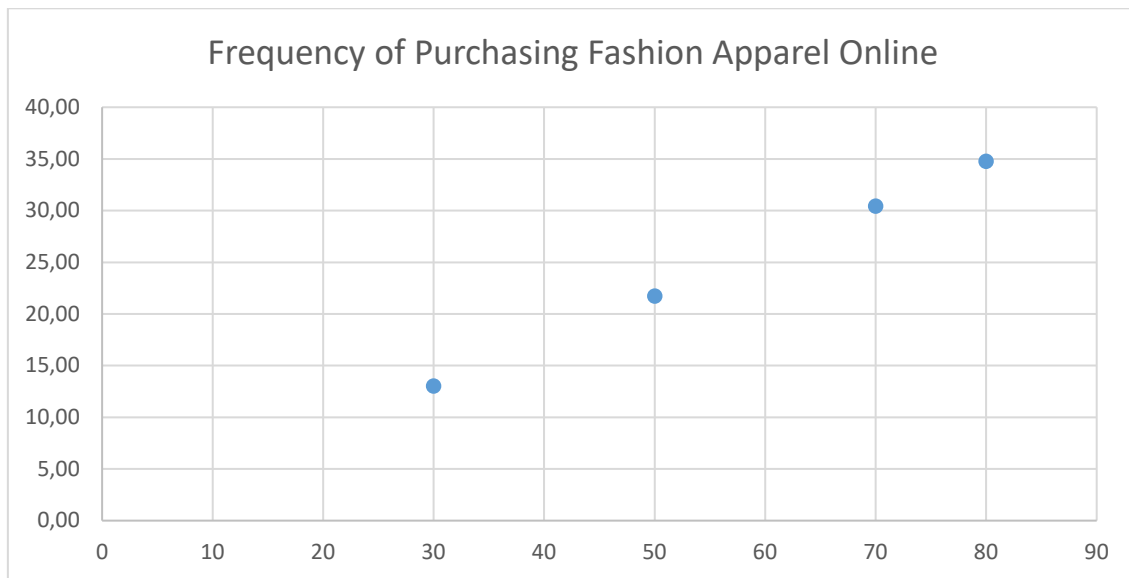
4.

	Rarely or never	Very frequently
Mean	3.54	4.07
Standard deviation	0.89	0.79
Sample size	61	80

Table 3 Frequency of using chatbots and satisfaction with purchase experience

Using a t-test calculator, we obtain a t-value of -5.54 and a p-value of 3.3e-08. Since the p-value is less than 0.05, we reject the null hypothesis and conclude that there is a significant difference in satisfaction ratings between respondents who use chatbots very frequently and those who use them rarely or never.

Table 4 Frequency of Purchasing Fashion Apparel Online



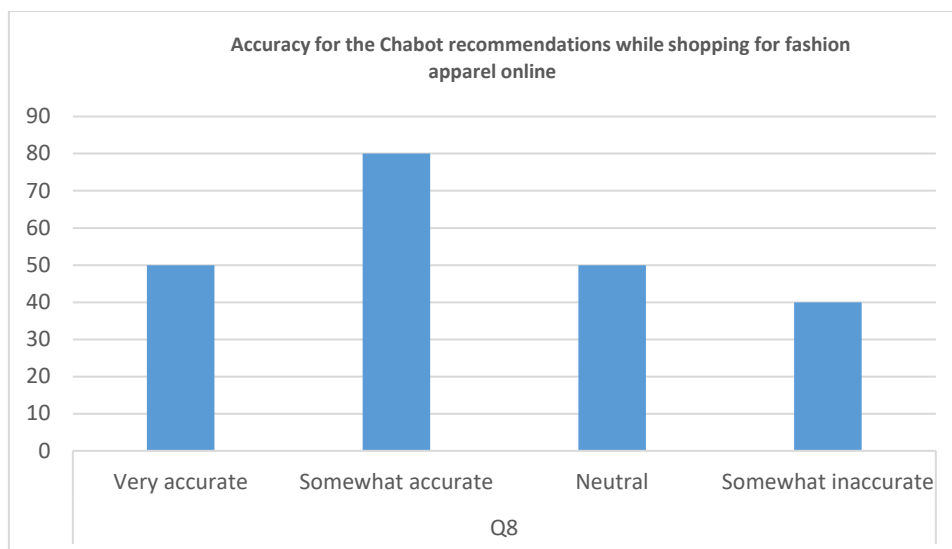
Graph.1 Frequency of Purchasing Fashion Apparel Online

On conduction of survey with a sample size of 230 participants on the Frequency of Purchasing Fashion Apparel Online, it was found that 13.04% of the respondents very frequently purchased online, 30.43 % of the shoppers sometimes purchases online, 34.73 Rarely purchased online and 21.74 % never purchased online.

4. Accuracy for the Chabot recommendations while shopping for fashion apparel online

Parameters	Number of Respondents	Percentage
Very accurate	50	21.73%
Somewhat accurate	80	34.78%
Neutral	50	21.73%
Somewhat inaccurate	40	17.39%

Table 5 Accuracy for the Chabot recommendations while shopping for fashion apparel online

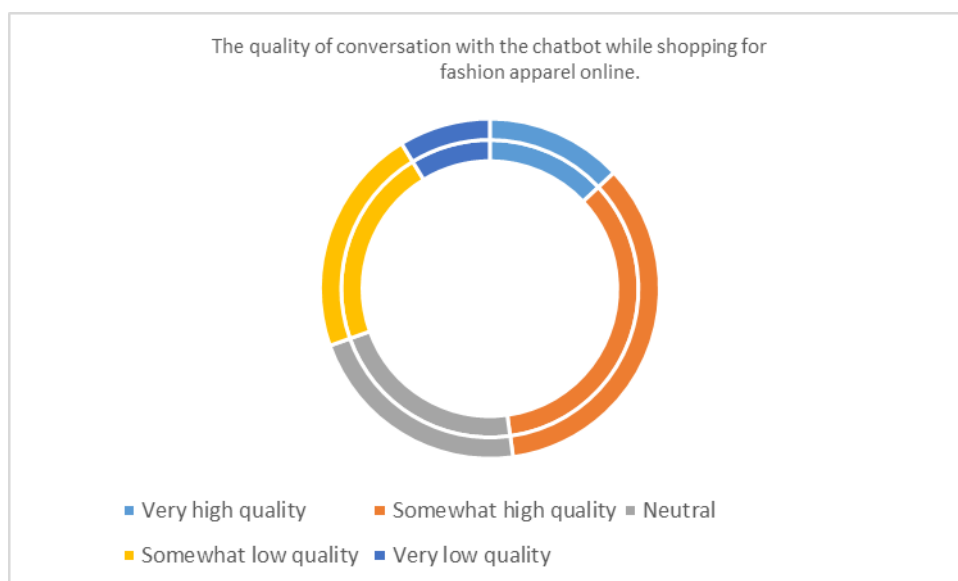


Graph 2 Accuracy for the Chabot recommendations while shopping for fashion apparel online Interpretation

On conduction of survey with a sample size of 230 participants on the Accuracy for the Chabot recommendations while shopping for fashion apparel online it was found that 21.75% buyers felt it very accurate, 34.78 % buyers felt somewhat accurate,21.73 percent buyers felt Neutral and 17.39 % buyers felt somewhat inaccurate.

Parameters	No of Respondents	Percentage
Very high quality	30	13.04
Somewhat high quality	80	34.78
Neutral	50	21.74
Somewhat low quality	50	21.74
Very low quality	20	8.7

Table.6 The quality of conversation with the chatbot while shopping for fashion apparel online.



Graph .3 The quality of conversation with the chatbot while shopping for fashion apparel online.

Interpretation

On conduction of survey with a sample size of 230 participants on The quality of conversation with the Chabot while shopping for fashion apparel online it was found that 13.14% said very high quality conversation with chat bots, 34.78% said Somewhat high quality, 21.74% said neutral, and 21.74% also said Somewhat low quality and 20% said low quality.

Based on the analysis of the data, here are some key findings and suggestions for the study:

Findings

- Females are more likely to use chat bots very frequently for fashion apparel purchases compared to males.
- Older respondents generally report higher satisfaction levels with chat bots, but the correlation between age and satisfaction is weak.
- Respondents with a bachelor's degree or higher report significantly higher accuracy ratings for chatbots compared to those with a high school diploma or less.
- Respondents who use chat bots very frequently report significantly higher satisfaction levels compared to those who use them rarely or never.
- Respondents are most likely to purchase shoes through chat bots, followed by clothing and accessories.
- The most common reason for using chatbots for fashion apparel purchases is to save time, followed by convenience and personalized recommendations.
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Suggestions

- Retailers should consider the different usage patterns of chat bots by gender when designing and promoting chat bots for fashion apparel purchases.
- Retailers should focus on improving the accuracy of chat bots for all education levels, but especially for those with lower education levels.
- Retailers should promote frequent use of chat bots to enhance the purchase experience for fashion apparel purchases.
- Retailers should prioritize the development and promotion of chat bots for shoes, clothing, and accessories.
- Retailers should emphasize the time-saving and convenience benefits of chatbots, while also highlighting their ability to provide personalized recommendations to enhance satisfaction.

Overall, the study suggests that chatbots can be an effective tool for fashion apparel purchases, particularly for certain types of items and for customers who use them frequently. Retailers can benefit from promoting the time-saving and convenience benefits of chatbots, while also emphasizing the personalized recommendations that they can offer. Additionally, retailers should consider different demographic factors such as gender and education level when developing and promoting chat bots to enhance their effectiveness

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