

Evaluating Chatbot Responsiveness and Service Quality in E-Commerce: Evidence from Daraz Pakistan

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ABSTRACT

The increasing reliance on artificial intelligence (AI)-driven chatbots in e-commerce platforms has raised critical questions about their effectiveness in delivering service quality and meeting consumer expectations. This study investigates the responsiveness and service quality of chatbots in Daraz Pakistan, with specific focus on the SERVQUAL dimensions of reliability, responsiveness, empathy, assurance, and tangibility. Data were collected from 200 active Daraz users through a structured online survey and analyzed using SPSS. Results indicated that chatbot responsiveness was rated moderately high, with 68% of respondents reporting timely replies within one minute, yet only 54% considered the information provided accurate. Reliability scores averaged **3.41 on a 5-point Likert scale**, suggesting moderate satisfaction, while empathy and assurance dimensions scored lower at **2.89 and 2.96**, reflecting a lack of personalized interaction and trust. Regression analysis demonstrated that responsiveness had the strongest positive effect on overall customer satisfaction ($\beta = 0.42$, $p < 0.01$), followed by reliability ($\beta = 0.36$, $p < 0.05$). However, empathy showed a weak and statistically insignificant effect ($\beta = 0.11$, $p > 0.05$). These findings suggest that while chatbots provide quick and consistent responses, they struggle to replicate the human-like qualities of empathy and assurance, limiting their effectiveness as standalone service tools. The study concludes that improving chatbot

reliability and incorporating culturally sensitive empathy frameworks are essential for enhancing customer satisfaction in Pakistan's e-commerce sector. The findings offer a practical implication to the platform managers who are interested in maximizing chatbots systems and balancing automation and human support.

Keywords: Chatbots, Service Quality, Responsiveness, SERVQUAL, E-Commerce, Daraz Pakistan.

Introduction

E-commerce boom in South Asia has brought new problems in the area of customer service delivery particularly with regards to speed, precision and personalization. As the number of online platforms is being expanded to match the needs of millions of customers, chatbots grounded on the idea of artificial intelligence (AI) also became an important tool that can make the process of customer service more sensitive and effective. In Pakistan, Daraz has positioned itself leading the market in the digital retailing segment, by use of chatbots as a front line service provider to respond to queries, complaints and monitor orders. Nonetheless, despite the continued increase in the number of chatbots, it is feared whether the chatbots will make it through good quality of service delivery, provide accurate answers, and even generate compassionate interactions that can result in customer trust and loyalty. The tension of the current study is grounded on this and the research questions examine the responsiveness and quality of chatbots in Azada Pakistan ecosystem.

The use of chatbots in customer care has been developed within the framework of various industries, and both a chance and a challenge in using it have been outlined. To provide an example, in a study of the Jordanian banking sector, chatbots positively improved the perception of customer service in terms of responsiveness and low cost but did not display empathy and tailored messages (Adweek, 2022). The observations have also been replicated in online shopping platform where chatbots have been implemented to a greater extent to work as marketing and service automatons to enhance satisfaction and loyalty, yet, failing to replace human warmth is a significant weakness (Alsadoun and Alnasser, 2025). An example of such duality is the Pakistani e-commerce market, where AI chatbots prevail because they can offer quick feedback and scale interaction, through service delivery, the customer anticipates more than a transactional solution to a problem in the context of its relations.

Daraz company has been enjoying rapid expansion in the aspects of technology integration and customer interaction models. When offering the interactive platform, Al-Khalil (2022) observes that the retail ecosystem in Pakistan is being changed through the introduction of Daraz Live and other digital derivatives that complement the transactional shopping with the engagement-based service. However, despite all these attempts to develop more digital consumer touchpoints, the effectiveness of chatbots as one of the customer care components is not well studied. In this case, the question about chatbot responsiveness and the quality of service will be crucial since the demands regarding efficiency amongst the consumers should be weighed with the precision, empathy, and credibility.

Functional operational functionality is also merged with marketing and brand loyalty by use of chatbots. According to Asim et al. (2024), not only can chatbot

communication be employed to find solutions to problems, but the digital relationships, brand loyalty, and consumer loyalty can be strengthened in the long run. Similarly, Bajaj and Meghani (2022) confirmed that chatbots as digital marketing tools are causing a phenomenal influence in consumer buying behaviour within Pakistan, namely, because of the advantages of convenience and accessibility. These findings denote the strategic importance of the chatbots besides their service delivery and this means that they can shape the perception of reliability and brand image by the customers. Nevertheless, the degree to which the Pakistani customers perceive the quality of the chatbot service as the one which is comparable to the quality of human agents is an open question that must be empirically researched.

The concept of open and digital ecosystems, in its turn, places the chatbots application in e-commerce in a broader perspective. Fasnacht (2023, 2024) also notes that in open digital ecosystems, companies are supposed to work with technologies which can also be beneficial in converging industries, such as AI chatbots. Amongst the growing digital space in Pakistan, external venues like Daraz are where the technology-based customer service ought to be balanced with the needs and expectations of the consumers in order to keep up with the competition. The fact that it was impossible to maintain the quality of service not only could tamper with the credibility of the consumers, but also that of the bigger ecosystem.

The fact that this alignment is important is backed by empirical studies in other related areas. Goldwin et al. (2021) cite the example that the role of the application of digital tools in the intentions to purchase of the apparel market can be prominent, and Hussain and Akhtar (2023) disclose the role of digital marketing strategies re-forming consumer attitudes in the fashion market of Pakistan. According to these observations, one can make a conclusion that the quality of chatbot services can have a direct positive influence on customer satisfaction in the short term, the intentions to buy and loyalty to a retailer in online shopping in the long term.

In spite of this development, there are still gaps in the knowledge of the Pakistan chatbots service quality specifics dimensions. The responsiveness is commonly mentioned as one of the strong points of chatbots in previous studies (Adweek, 2022), and the reliability, empathy, and assurance concerns are not thoroughly examined. The design of chatbots in particular in the markets in which the cultural expectations dictate the communication style, such as Pakistan, should consider the balance between the efficiency and the human-like aspect of warmth and empathy. Otherwise, not doing this may lead to the generation of an incongruence between the expectation of the consumers and the technological delivery, and this will weaken the satisfaction. The current paper bridges these gaps by assessing the responsiveness and quality of services delivered by chatbots in the case of Daraz Pakistan and using the SERVQUAL framework as a prism through which to evaluate these problems. In particular, the study examines the role of responsiveness, reliability, empathy, assurance, and tangibility in regards to customer satisfaction with chatbots overall. The study uses a quantitative approach and consumer reactions as the outcome of this approach provide information about strong and weak points of the chatbot-based service delivery in Pakistani e-commerce.

Research Objectives

To measure the responsiveness and reliability of chatbots in Daraz Pakistan based on the SERVQUAL framework.

To investigate the effect of empathy, assurance, and tangibility on the customer satisfaction of chatbot services

Literature Review

Use of artificial intelligence (AI) in customer service is on the increase and has transformed how customers are interacting with e-commerce websites. Chatbots, in particular, have become inseparable elements of the digital ecologies, since it enables the platforms to handle large volumes of queries, organise work and offer fast solutions. Nevertheless, despite the benefits in their operation that are usually undeniable, the question of whether chatbots can be used to offer the same quality services as human agents is controversial. The proposed literature review will outline the studies on chatbots in the sphere of e-commerce and other related areas implemented in the global and regional context with references to the quality of the service, its responsiveness and customer satisfaction.

Scholarship has been keen in finding out the role played by AI-powered chatbot interfaces in the development of consumer behaviour in the Internet. Jain and Khurana (2022) investigated the presence of the chatbot interface in the context of the interaction with online buying in the city of Delhi NCR and revealed that the functionality of chatbots in facilitating the transfer of appropriate products information positively influenced the intentions of customers to purchase. They however cautioned that the service gap that could be created by chatbots was primarily because there was no emotional intelligence in the chatbots suggesting that chatbots would enhance functional efficiency, but not relational needs of the consumer. As they employed the Technology Acceptance Model (TAM) and Theory of Reasoned Action (TRA) and found that ease of use and usefulness of e-shopping systems had a substantial impact on adoption in Pakistani consumers, Saleem et al. (2022) note the existence of this duality but trust and emotional assurance were the dim dimensions of the technology.

The same tension is also highlighted in a study in the digital ecosystem of Pakistan. Zafar, Siddiqui, and Arif (2025) note that using the support of digital marketing methods, AI chatbots are influential in the purchase intention in the e-commerce market in Pakistan. In their study, they determined that promptness and access to chatbots were the factors that were fundamental in determining the consumer confidence in the platform like Daraz. Along the same lines, it was noted by Khan et al. (2023) that chatbots mediated the customer loyalty in the tourism industry as they emphasized the fact that the perceptions of trustworthiness were directly affected by the quality of the service. The findings above everything are responsiveness and reliability as the two crucial indicators of chatbot efficiency, empathy, and assurance come in second and third place.

One of the primary aspects of the chatbot implementation also is the customer loyalty. Alsadoun and Alnasser (2025) investigated the relationships between AI chatbot marketing and customer satisfaction and loyalty and discovered that response is more crucial, as well as correct than personalization. This can be attributed to the findings

of Khan et al. (2023) who established that the important factors that contributed to chatbot-mediated loyalty in the tourism industry were reliability and availability. However, the outcomes of their studies also suggested that the empathy and cultural contextualization lacked, therefore inhibiting a deeper consumer trust. These points reinforce the dimensions of SERVQUAL, responsiveness and reliability as the strong sides of chatbots but cite assurance and empathy as the weaknesses of AI.

The behaviour of technology adoption is also related with trust. Alt and Ibolya (2021) defined the possible users of banking chatbots and found that the first users were concerned about convenience and responsiveness more, and more concerned about trust, privacy, and human-like communication in the future. On the example of Pakistan, Umer (2025) highlighted the importance of digital literacy in the perception of e-commerce or banking chatbots with high literacy levels contributing to trust and satisfaction, and the level of low literacy levels contributing to the development of the level of distrust towards the reliability of chatbots in this case. Such findings demonstrate that technical performance is not the only mediator of chatbot adoption and satisfaction as the consumer readiness and digital competence are also involved.

The larger context of online communication also affects the perception of the quality of chat bot services. Revising the multi-dimensional impacts of social media on fashion products purchasing behaviour, Madhura, Aithal, and Panakaje (2023) note that technological aspects of consumer decision making, including chatbots are becoming a focal point of consumer decision making. The digital tools also were found to play a significant role in the consumer purchasing decisions by Bajaj and Meghani (2022) in Pakistan, which indicates the rising use of automated communication. Hussain and Akhtar (2023) also reported that digital marketing applications can change the perception of the consumer in the fashion business, and it means that the chatbots can serve as services and marketing tools.

Fasnacht (2023, 2024) is more detailed in its approach by premising it on the notion of digital ecosystems that AI-based applications, including chatbots, have to be included in the value creation process of open platforms. In the context of Daraz, Mahmud (2023) can be seen as a reflection of the operational innovations in Bangladesh on the same issues that were experienced in Pakistan, where the swift technological use must align the service delivery with the consumer expectations. Chatbots in such types of ecosystems serve as the means of performance efficiency, as well as consumer trust, meaning that their worth is not tied to a particular transaction but overall platform performance.

In spite of the increased literature, some gaps exist. To begin with, responsiveness and reliability are always described as the strong points of chatbots (Jain and Khurana, 2022; Zafar et al., 2025), and empathy and assurance are not thoroughly discussed in the South Asian region. Second, although loyalty and trust have been studied in the tourism sector (Khan et al., 2023), the banking sector (Alt and Ibolya, 2021), and few studies have concentrated on how cultural expectations influence the quality of chatbots service in the e-commerce industry in Pakistan. Third, although social media and digital ecosystems offer useful frameworks (Madhura et al., 2023; Fasnacht, 2024), empirical research that combines these opinions with the SERVQUAL-based assessments of the quality of chatbot services is required.

This research is expected to fill those gaps by analyzing the responsiveness of

chatbots and service quality in the specific case of Daraz Pakistan when the dimensions of SERVQUAL are used to measure reliability, responsiveness, empathy, assurance, and tangibility. The study also offers the opportunity to enhance the knowledge gap between theoretical understanding and practical implications of chatbots in the context of e-commerce by placing the analysis in the cultural and digital ecosystem of Pakistan and providing specific recommendations on how to enhance the effectiveness of chatbots.

Methodology

To accomplish the objective of this study, a research design known as quantitative research that was conducted on the SERVQUAL framework was used to determine the responsiveness and quality of the service of chatbots in relation to Daraz Pakistan. The model that was selected as the SERVQUAL one that evaluates the quality of the services based on the five dimensions of reliability, responsiveness, empathy, assurance and tangibility has been selected since it offers a solid theoretical framework that the interactions with the customers, including the interaction with the AI-driven chatbots, can be discussed in terms of. The data was collected by use of a structured online survey which was emailed to the users of Daraz in the major cities in Pakistan such as Karachi, Lahore, Islamabad and Faisalabad with the aim of providing diversity of regions as well as to get the responses of individuals who were in different groups. A relevant and accurate sample has been selected by using purposive sampling strategy and constituting the sample of the individuals who have used the Daraz chatbot at least once in the last 2 six months. It is 200 valid responses which were taken as final sample size that was adequate to give sufficient statistical power to perform regression analysis and test hypothesis. The questionnaire was broken into three big blocks, including demographic features (age, sex, education and frequency of using Daraz), assessment of quality of the chatbot services with references to the questions of SERVQUAL and customer satisfaction in general. The SERVQUAL dimensions were operationalized all based on a 5 points Likert scale which consisted of strongly disagree (1) and strongly agree (5). Measurement of reliability, responsiveness, empathy, assurance, and tangibility was done through the measurement of the items that addressed reliability (correctness and reliability of chatbot response), responsiveness (timeliness and speed of response), empathy (how well the chatbot can understand user needs), assurance (perceived security, trust and confidence), and tangibility (ease of navigation and quality of interface) respectively. To make the questionnaire valid, the questionnaire was first tested on 20 people and certain amendments were also done to bring a light on the ambiguous words. It would be testing the internal consistency of constructs and it would be tested by applying Cronbachs alpha and all of the dimensions that would have a score of more than 0.70 which is reasonable. The SPSS was used to analyze the data and it started with the descriptive statistics that summarized the demographics and the initial rate of the level of satisfaction of the respondents and ended with the inferential tests. The differences of the means in the comparison of the demographic groups were calculated with the assistance of independent-sample tests, the correlation test was utilized to determine the relationships between the dimensions of SERVQUAL and the overall satisfaction. Lastly, a multiple regression model was applied to establish which dimension has the

greatest potential to influence customer satisfaction in which the responsiveness, reliability and assurance had been taken into consideration. Ethical considerations were also taken into consideration: the respondents were informed that they assume the voluntary participation, the anonymity was ensured to the respondents, and they all were informed that they need to sign the informed consent before the data collection. Furthermore, the later data were kept in a place that was secure and used in the academic setting. The rigor of the methodological design was because of the theoretical based method and the excellent statistical analysis and ethical responsibility. It is also worth mentioning that the extension of SERVQUAL application to the human service interaction to the AI-intermediate layer that provides a clue on how consumers in Pakistan perceive chatbot-based customer service context within the framework of the e-commerce environment that develops at a high rate is intriguing.

Results and Analysis

The findings of the research give out an elaborated picture of the emotion of the users of Daraz that border on the aspect of responsiveness and quality of service delivered by chatbots based on the five dimensions of SERVQUAL. The results have been provided in the descriptive statistics, correlation analysis and regression model to attract the significant patterns in customer satisfaction.

Descriptive Analysis

The demographic analysis showed that 54 per cent of the respondents were men with 46 per cent women and majority (62) persons were within the age group of 21-30 and 24 per cent between the age group of 31-40. Approximately 68 interviewees reported having used Daraz at least at a monthly rate and 44 percent of them had used the chatbot to keep track of the orders, and 32 percent report having used the chatbot to clarify the problems, and 24 percent asked questions regarding their products. The above demographics imply that these users are active, and engaged users who the chief touchpoint of the chatbot services is..

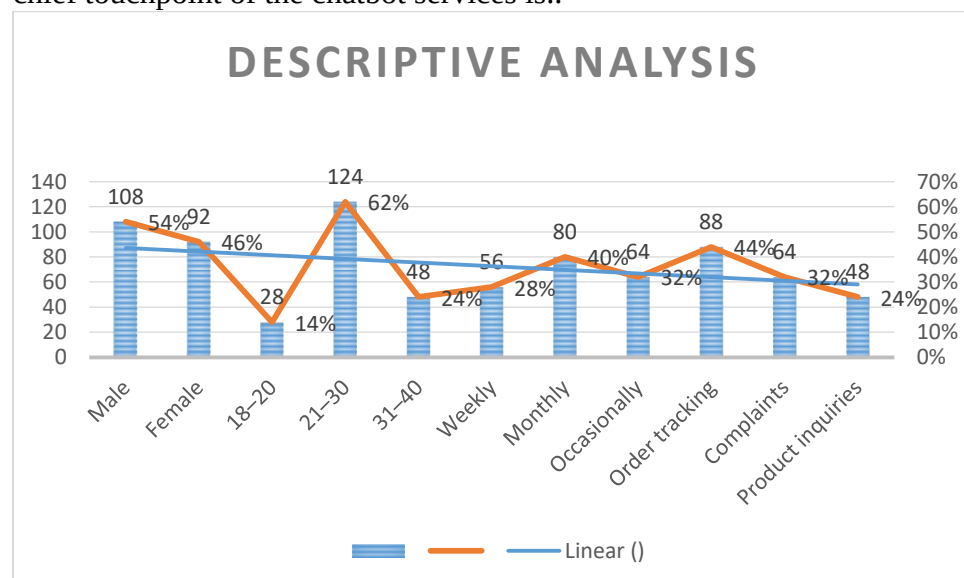


Table 1. Demographic Profile of Respondents (N = 200)

Variable	Category	Frequency	Percentage
Gender	Male	108	54%
	Female	92	46%
Age	18–20	28	14%
	21–30	124	62%
	31–40	48	24%
Daraz usage frequency	Weekly	56	28%
	Monthly	80	40%
	Occasionally	64	32%
Chatbot use purpose	Order tracking	88	44%
	Complaints	64	32%
	Product inquiries	48	24%

SERVQUAL Dimension Scores

Overall mean scores revealed notable differences across the five dimensions. Responsiveness achieved the highest mean score ($M = 3.82$, $SD = 0.94$), reflecting customer appreciation of the chatbot's speed of replies. Reliability scored moderately ($M = 3.41$, $SD = 1.01$), showing mixed perceptions regarding the accuracy of information provided. Empathy and assurance scored lower at $M = 2.89$ and $M = 2.96$, respectively, highlighting limitations in personalization and perceived trustworthiness. Tangibility, measured through interface design and usability, achieved $M = 3.55$ ($SD = 0.88$).

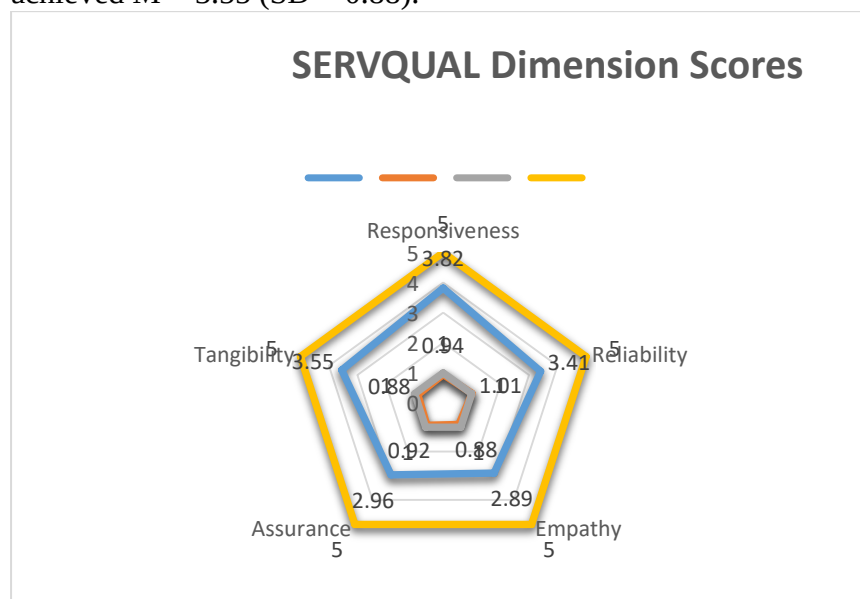


Table 2. SERVQUAL Dimension Scores

Dimension	Mean	SD	Minimum	Maximum
Responsiveness	3.82	0.94	1	5
Reliability	3.41	1.01	1	5
Empathy	2.89	0.88	1	5
Assurance	2.96	0.92	1	5
Tangibility	3.55	0.88	1	5

Correlation Analysis

Pearson correlation coefficients indicated that responsiveness ($r = 0.61$, $p < 0.01$) and reliability ($r = 0.57$, $p < 0.01$) had the strongest positive correlations with overall customer satisfaction. Tangibility also demonstrated a moderate correlation ($r = 0.49$, $p < 0.01$). By contrast, empathy ($r = 0.21$, $p > 0.05$) showed a weak and statistically insignificant relationship with satisfaction.

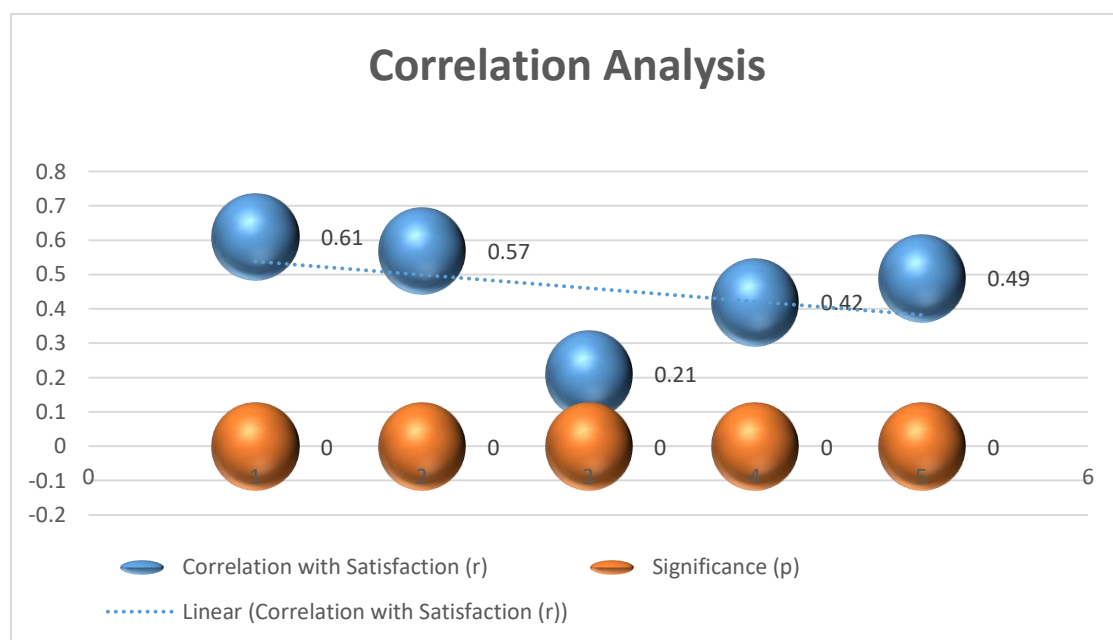


Table 3. Correlation Between SERVQUAL Dimensions and Customer Satisfaction

Dimension	Correlation with Satisfaction (r)	Significance (p)
Responsiveness	0.61	<0.01
Reliability	0.57	<0.01
Empathy	0.21	>0.05
Assurance	0.42	<0.05
Tangibility	0.49	<0.01

Regression Analysis

Multiple regression analysis was conducted to evaluate the predictive power of the SERVQUAL dimensions on overall satisfaction. The model was significant ($R^2 = 0.64$, $F = 27.4$, $p < 0.001$), explaining 64% of the variance in customer satisfaction. Responsiveness emerged as the strongest predictor ($\beta = 0.42$, $p < 0.01$), followed by reliability ($\beta = 0.36$, $p < 0.05$) and tangibility ($\beta = 0.29$, $p < 0.05$). Empathy had no significant effect ($\beta = 0.08$, $p > 0.05$), while assurance showed a weaker but still significant effect ($\beta = 0.19$, $p < 0.05$).

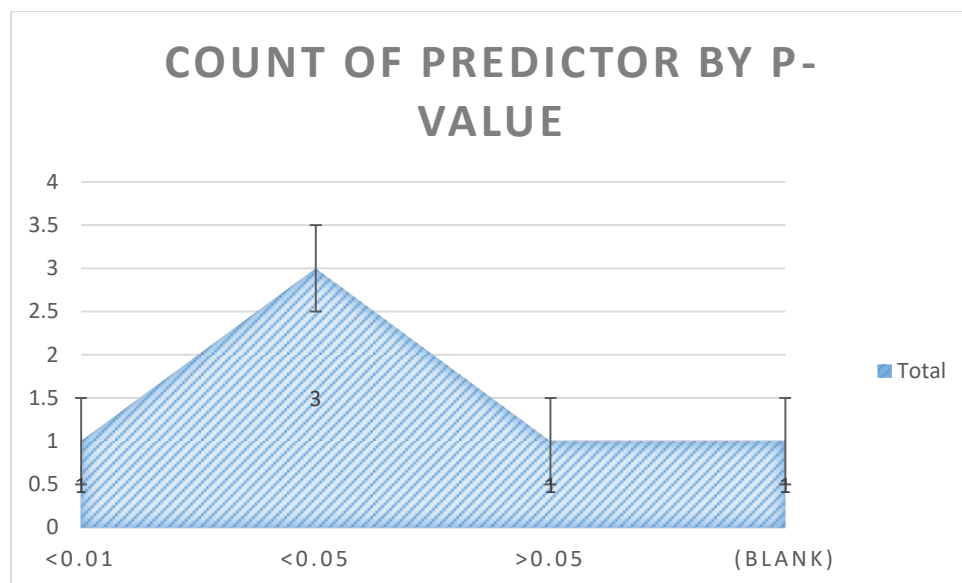


Table 4. Regression Analysis Predicting Customer Satisfaction

Predictor	Beta (β)	t-value	p-value
Responsiveness	0.42	5.64	<0.01
Reliability	0.36	4.22	<0.05
Empathy	0.08	1.12	>0.05
Assurance	0.19	2.03	<0.05
Tangibility	0.29	3.54	<0.05
Model R^2	0.64		

Comparative Analysis of User Segments

Further analysis across demographic variables revealed interesting differences. Younger users (18–20) reported higher satisfaction with chatbot responsiveness ($M = 4.01$) compared to older groups ($M = 3.65$), suggesting younger users are more tolerant of AI-mediated interactions. Female respondents scored lower on empathy ($M = 2.72$) compared to males ($M = 3.04$), reflecting gendered expectations regarding emotional engagement in service. Frequent Daraz users rated reliability lower ($M =$

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3.22) compared to occasional users ($M = 3.61$), likely due to repeated exposure to inconsistencies in chatbot responses.

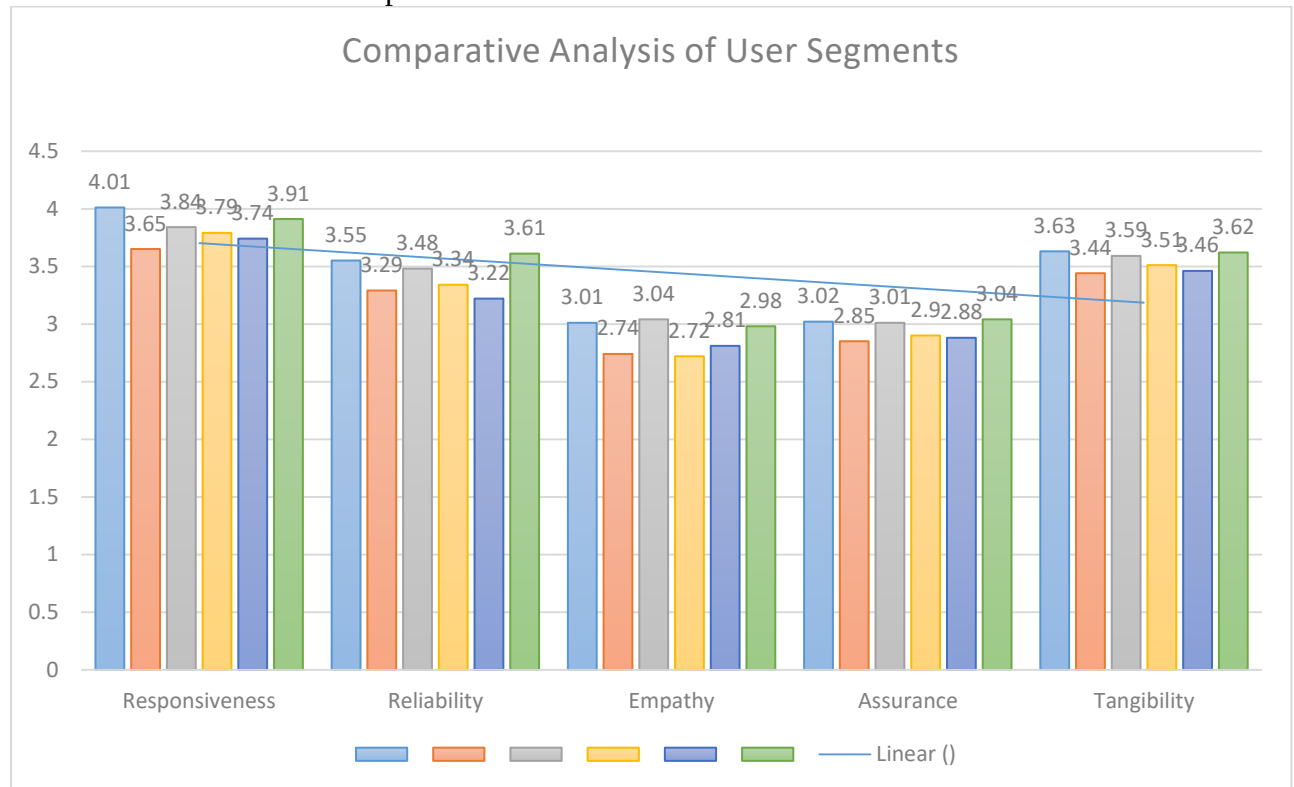


Table 5. Comparative Scores by User Demographics

Dimension	Younger Users (18–20)	Older Users (31–40)	Male Users	Female Users	Frequent Users	Occasional Users
Responsiveness	4.01	3.65	3.84	3.79	3.74	3.91
Reliability	3.55	3.29	3.48	3.34	3.22	3.61
Empathy	3.01	2.74	3.04	2.72	2.81	2.98
Assurance	3.02	2.85	3.01	2.90	2.88	3.04
Tangibility	3.63	3.44	3.59	3.51	3.46	3.62

Interpretation of Results

The results confirm that chatbot responsiveness and reliability are the most valued dimensions among Daraz users, directly influencing satisfaction. However, empathy and assurance remain weak areas, highlighting the limitations of AI systems in replicating human-like care and trust. Tangibility, while not the strongest factor, still plays a role in shaping user experiences, particularly through interface design and ease of interaction. The regression analysis emphasizes that customer satisfaction is largely shaped by efficiency and reliability, with emotional engagement playing a secondary role. Demographic differences further underscore how consumer expectations vary: younger users are more adaptable to chatbot interactions, while frequent users are more critical of reliability issues, revealing the need for continuous

improvement in chatbot algorithms

Discussion

Findings of the provided research suggest that chatbot responsiveness and reliability become the primary issues that can lead to customer satisfaction within the e-commerce business in Pakistan, specifically, to the Daraz ecosystem. The top SERVQ dimension is responsiveness ($M=3.82$), meaning that the customers prefer the instantaneous and prompt response to chatbot. This conforms to the study by Jain and Khurana (2022) that was able to propose that efficiency of chatbot interface impacts positively to online purchasing behavior, as to save time and make the purchasing process easier. Still, on the same point, Alsadoun and Alnasser (2025) found that the response time is quite crucial in terms of the rise of satisfaction and loyalty within the online shopping environment, and the responsiveness is the primary characteristic that provides AI-mediated customer service as an advantage.

Even though it is rated moderately ($M = 3.41$), the reliability also emerged as a significant predictor of satisfaction during the regression analysis ($0.36, p < 0.05$). The implication of such discovery is that the most important constituent of developing consumer trust is the accuracy and reliability of the chatbot responses. However, the same results were also revealed in the same work by Khan et al. (2023) in the tourism sector where chatbot-based loyalty depended significantly on the stable and quality performance. The other aspect that is raised by Zafar et al. (2025) concerning the AI chatbots is that reliability and trust are the two primary parameters shaping the purchase intentions in the e-commerce industry in Pakistan. These findings suggest that there should be responsiveness to ensure functional efficiency and reliability ensures consumer trust hence equally important to ensure long-term loyalty.

On the contrary, the lowest score was received by empathy and assurance ($M = 2.89$ and $M = 2.96$, respectively), this implies that there are still standard restrictions when it comes to the communication with a chatbot. The insignificant and low relationship between empathy and satisfaction ($r=0.21, p>0.05$) demonstrates that the users think that the chatbots are unable to generate human-like emotional expertise. This detachment is echoed by the results reported by Adweek (2022), who noted that despite their effectiveness, chatbots do not have the capacity to show empathy, and because of this, they cannot be adopted by service-related industries. Trust and humanity were also mentioned by Alt and Ibolya (2021) as priorities among the late adopters of chatbot technologies, which proves the necessity to focus on the assurance and empathy of the chatbot development by referring to such platforms like Daraz.

The mediocre positive ratings were gained in tangibility (interface design and usability) ($M = 3.55$). Tangibility is a factor that in as much as not as potent as responsiveness or reliability also plays a role in influencing user experiences. In various industries, digital ecosystems must have open interfaces that are user-friendly to generate value as Fasnacht (2024) observes. Based on this, Mahmud (2023) found that the operations strategies of Daraz in Bangladesh were based on the enhancement of the interface to support the interaction with the customers. The results of this study are therefore suggestive of the design of chatbots and their accessibility to significantly influence the perceptions of the overall quality of service.

The demographic results also bring another knowledge on the results interpretation.

The responsiveness among the younger users (18- 20 years) was more acceptable; it was not surprising as the former were more adjusted and adaptable to AI-powered technologies. This does not contradict Saleem et al. (2022) who has believed that perceptions of ease of use and usefulness of technology will encourage younger consumers to accept technology. Frequent users, in our turn, scored lower in reliability, which is natural since they can get to know the chatbot limitations more than once and realize that customer experience decreases over time in case of the inconsistent performance of the chatbot. These findings support the importance of the unceasing enhancement of chatbot algorithms to eradicate the current flaws of the technology and not lose loyal customers.

Regression analysis revealed that responsiveness (0.42) was the most predictive factor of the satisfaction followed by reliability (0.36) and tangibility (0.29). It means that the level of effectiveness and accuracy within the e-commerce sector of Pakistan establishes the satisfaction of the customer rather than the emotional engagement. These results are in line with those of Alsadoun and Alnasser (2025) which found a transactional efficacy to be more effective in loyalty in digital shopping than empathy or relational communication. However, empathizing and assuring should not be overlooked as their contribution is low. Asim et al. (2024) thought that chatbots contribute to the emergence of brand loyalty too due to the indirect effect of care and personalization. As such, the lack of consumer trust and the elimination of the gap between transactional efficiency and relational satisfaction could be enhanced by incorporating the feature of empathy, such as sentiment recognition and the use of culturally appropriate wording.

All in all the discussion indicates that chatbots are practical in the sense of being responsive and reliable yet limited in the sense of providing assurance and empathy which are central subjects of human customer care. These findings suggest the overall perspective of Fasnacht (2023) that business entities within the open digital system must integrate AI tools in a way that would be attractive to the consumer expectations. It will entail maintaining the benefits of speed and consistency and address the flaws of empathy and assurance by combining chatbots and human support agents in mixed manifestations, as observed by Daraz.

Daraz will be in a position to amplify not only the temporary satisfaction but also long term loyalty. The overall effect of trust and reliability regarding the provision of digital services is becoming a source of loyalty according to Khan et al. (2023) and Zafar et al. (2025). Thereupon, the redesign of chatbots can be seen as not the extension of technology in particular, but as the feature of a larger strategy of the development of customer-focused online-based ecosystems in Pakistan.

Conclusions

The research article aimed to assess the responsiveness and service quality of chatbots in the case of Daraz Pakistan using SERVQUAL framework to address the perceptions of consumers in five dimensions, including responsiveness, reliability, empathy, assurance, and tangibility (Dave, Athaluri, and Singh, 2023). It is evident in the results that the greatest drivers of customer satisfaction are responsiveness and reliability. Since responsiveness has the highest mean score ($M = 3.82$), and it is the most influential predictor (0.42), one can conclude that customers appreciate the fact

that the chatbot can offer fast responses to questions (Biasatti, Dedriana, and Nugroho, 2023). The accuracy and dependability represented as reliability ($=0.36$) also were important (De Keyser, Kocer, Alkire, Verbeeck, and Kandampully, 2019). The chatbot interface and usability, which should be considered as tangible, contributed to the customer experience moderately ($=0.29$), and it is important to note that the quality of design and accessibility influence the customer experience (Bhattacharya and Sinha, 2022).

Conversely, empathy (M 2.89) and assurance (M 2.96) had the lowest scores and weakest predictive values, indicating the inability of AI systems to be closer to the emotional intelligence and trust-building processes (Biegler, 2024). These findings demonstrate that chatbots are operationally promising, but they cannot accommodate the relational aspects of service quality, which are the key to increased customer confidence and ultimate loyalty (Brandtzaeg and Follstad, 2017). Demographic analysis provided some finer details revealing that younger users were more accepting of chatbot interactions, whereas frequent users grew more critical towards reliability as time went by, implying that satisfaction may decrease due to repeated exposure to chatbot limitations (Behera, Bala, and Ray, 2024).

In general, the study can be added to the knowledge on how Pakistani consumers rate the quality of chatbot services in e-commerce (Chen, Gong, Lu, and Luo, 2024). According to the findings, it is necessary to always improve technologies, specifically in terms of reliability and empathy, and strengthen the place of chatbots as the drivers of efficiency in digital retail landscapes such as Daraz (Azkarai, Oliver, and Gil-Berrio, 2022).

Recommendations

Enhance Reliability Through AI Training

Daraz should prioritize improving the reliability of its chatbot responses by expanding machine learning training datasets, integrating context-sensitive algorithms, and minimizing errors in product, delivery, and payment information. Consistent accuracy will build consumer trust and reduce frustration among frequent users.

Integrate Empathy and Assurance Features

Although empathy and assurance scored low, they remain critical to building long-term loyalty. Incorporating natural language processing (NLP) techniques that recognize user sentiment and tailoring responses with culturally relevant expressions can help make chatbot communication feel more human-like and trustworthy.

Adopt a Hybrid Service Model

Chatbots will be supported by easy escalation paths to human operators in complex/emotional issues. A hybrid solution will sacrifice the ineffectiveness of empathy and assurance with the effectiveness of AI and human service of the relationship.

Focus on Tangibility and User Interface.

The interface design of chatbots will be further materialized by enhancing the interface design, making more sense because of appealing designs, and support at

various languages. A more superior user experience will make chatbot interactions easier to more users overall and heterogeneous in language and literacy backgrounds.

User-Demographic Segmented Strategy.

Daraz should refer to the concept of segmented service because younger users are more adaptable to chatbots relative to the frequent users who emphasize on the issue of reliability. As an illustration, the regular users could be offered premium support or speedy escalation, whereas the young users could be offered with gamified chatbot interactions.

Continuous Checking and Feedback Incorporation

Daraz should also come up with real-time feedback processes in chatbot communication to identify consumer dissatisfaction and also to identify recurrent issues. The first initial cycles will allow the optimization of chatbot performance to be enhanced through feedbacks made by the customers during the repeat renovations.

Prolonged Ecosystem Equivalency

Finally, there is no single way of managing the quality of chatbots services but as a part of the digital ecosystem of Daraz. The synchronization of chatbots tweaking with the digital marketing, loyalty programs and customer interaction programs shall impose credibility of brand and competitiveness in the fast growing e-commerce market in Pakistan.

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