

## “Effect of AI-Based Customer Service has on Customer Satisfaction and Loyalty as Applied to Quick Commerce”

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### ABSTRACT

The evolution of Artificial Intelligence has redefined the foundations of business success in today's VUCA world. In the context of Quick commerce industry, which exists mainly due to the speed and convenience of operations, the AI-based customer service has emerged as a great competitive advantage. The study investigates the role of AI-based customer services on customer satisfaction and customer loyalty in the quick commerce sector. The focus is on exploring how personalization, emotional intelligence and quick response provided through AI-enabled customer service solutions, impact the consumer satisfaction and customer loyalty. The study uses data collected from 191 users of specific quick commerce platforms from selected metropolitan cities of India through stratified random sampling. Structural Equation Modelling using AMOS is performed to analyze the data and evaluate the relationships. The findings disclose that personalization and emotional intelligence of AI-powered services significantly increase the customer satisfaction. Also, the customer satisfaction is found to be mediating the relationship between personalization and emotional intelligence of AI on customer loyalty. Also, quick response does not significantly impact customer satisfaction, indicating that speed alone is not sufficient to satisfy the customer. The study underlines the importance of going more personalized and embracing the emotional aspect of AI- driven services to bring more customer satisfaction. Knowing these patterns is not only crucial but essential because it is responsible in observing user perceptions and interactions with quick commerce as well as their overall satisfaction which determines whether or not they will patronize them again

**Keywords** *AI-powered customer service, customer loyalty, quick response, personalization, emotional intelligence, customer satisfaction, and Quick commerce.*

### INTRODUCTION:

The high uptake of mobile phones and stable internet connection has revolutionized immensely the way customers are gathering information on products and services. Consequently, a colossal increase in the provision of services and goods via online services has been seen through the rise of e-commerce (Xu et al., 2013). This move has led to revolutionary technology that is currently rewriting the manner in which companies convey messages to their consumers; artificial intelligence (McLean & Osei-Frimpong, 2019). Artificial intelligence, including Emotional intelligence, Quick response and custom in customer service--which is helping business to automate the interaction between it and a client, and the same is helping business to make service delivery quicker and more efficient. By using the data of customers, customized suggestions and adverts can be done in a special format and an attractive experience of every customer (Dwivedi et al., 2021).

E-commerce has seen incredible growth among Millennials and Gen Z customers due to technological innovation, who now account for most online shopping sales (Chevalier, 2024b). Quick commerce sector, where platforms like Blinkit provides

fast delivery and instance service is a high-demand sector. AI help such companies in enhancing the operating efficiency, bringing more personalization, and reduce the response time. In today's dynamic era, AI-driven customer service has emerged as a great tool to boost customer satisfaction, enhancing revenue growth and reducing operational costs through automation (Davenport et al., 2019). Platforms have been increasingly adapting AI- powered tools to enhance the customer service for further fostering customer satisfaction and loyalty contributing to the long-term business growth (Belhadi et al., 2023). Service co-creation concept where both customer and service provider create value in a collaborative manner, is also getting influenced by AI adoption specifically by bringing more personalization and reducing response time ((Xu et al., 2023). Customer service in the traditional context heavily depended on human interactions, whereas, these days it is completely being reshaped by AI through shifting human-to-human interactions to human-to-machine interactions (Jarrahi, 2018). Although much advancement is taking in this field, literature exploring the influence of AI-powered customer service is still limited to the areas of service quality enhancement. This research aims to address this gap by exploring the influence of AI-powered customer service

drivers such as personalization, emotional intelligence and quick response on customer satisfaction and loyalty.

**RESEARCH OBJECTIVES**

This research seeks to assess the role of AI-powered customer services in enhancing customer satisfaction as well as loyalty in context of the quick commerce sector. The study aims to provide a detailed understanding on how personalization, emotional intelligence and quick response provided through AI-powered service contribute to a higher customer experience and satisfaction.

To explore the impact of personalization brought in AI-based customer service on customer satisfaction and loyalty in context of quick commerce.

To assess the influence of AI- based customer service features namely emotional intelligence and quick response on customer satisfaction and loyalty.

To assess the mediating effect of customer satisfaction between the relationship of AI-based customer service features and customer loyalty.

**2 REVIEWS OF LITERATURE**

**2.1 Technology in service**

AI technology has dramatically changed the quick commerce industry by bringing more personalized, emotionally intelligent, effective and prompt service experiences for the customers.

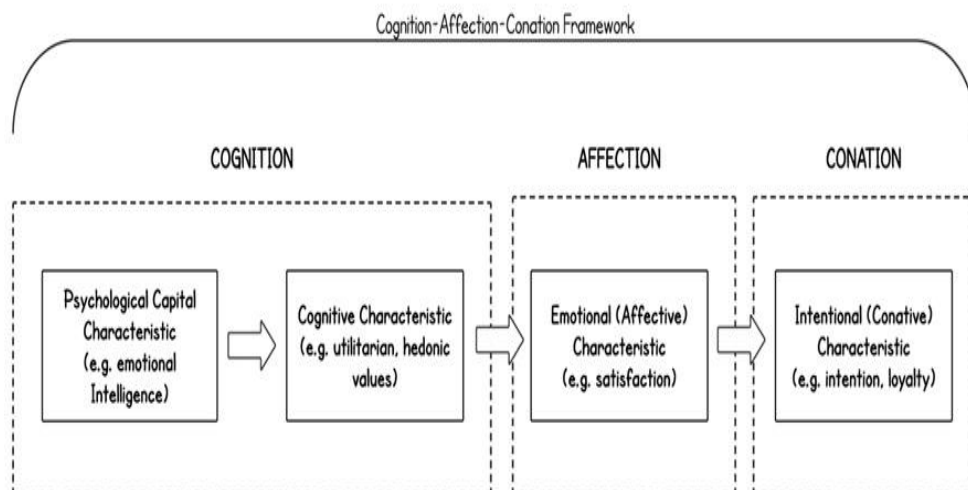
Chatbots, automated service interactions, and personalized communication are AI-driven features that expedite the customer journey and contribute to quick commerce, defined by lightning-fast delivery of goods. Features like round-the-clock assistance, fast response times, and personalized product recommendations provided by AI has reshaped the e-commerce platforms by facilitating smooth customer interactions (Kasilingam, 2020; Liu et al., 2021). Studies have found that chatbots and other AI-driven service components assist consumers in finding products, determining availability, and comparing options that further helps businesses to lower

operating costs by minimizing the need for human interaction and improving decision-making (Lin, 2019).

Additionally, rapid commerce platforms may optimize resource allocation and concentrate on complicated client needs, increasing customer happiness and loyalty, thanks to AI's ability to handle repetitive activities and improve labor efficiency (Sun & Lu, 2019). Businesses may automate crucial procedures and obtain valuable insights by utilizing machine learning and data analytics, ultimately improving the customer experience. This customized service strategy meets the growing need for quicker, more dependable, and more individualized customer support in quick commerce, making AI a crucial component of the industry's competitiveness and sustained growth (Pallathadka et al., 2023).

**2.2 Cognition-affection-conation frameworks**

This study utilizes the cognition-affection connection framework to illustrate the relationships between emotional intelligence (EI) as a consumer's psychological capital, perceived purchase values, satisfaction, continued intention to use an e-commerce platform, and e-loyalty. The theoretical model of cognition-affection-conation has been widely used in this research as an underlying theory to describe how consumers cognitively process their emotions and make purchasing decisions. (Hilgard, 1980 ; Kidwell et al., 2008) . For instance employing this approach, Kim et al. (2013) verified the connections between user engagement incentives (conation), perceived value (cognition), and contentment (affection) in a mobile environment. Likewise, Davis (1993) expanded upon the initial notion of technological adoption. (Davis, 1989 ; Davis, 1993) Technology adoption is described as a conscious and intentional cognitive, emotional, and behavioral response to external system stimuli. With reference to e-commerce, customers' cognitive elements include emotional intelligence (EI) and purchasing values, such as hedonic and utilitarian values. Shopping satisfaction, linked to affective responses based on shopping experiences, is connected to conative factors like continuous intention to use the e-channel and e-loyalty. We consider psychological capital as a key cognitive antecedent in this process.



## 2.3 Hypothesis Development

### 2.3.1 Personalization impact on customer satisfaction

Personalization is defined as the degree to which information is customized to meet the specific requirements of a single user, and it is essential for creating satisfying experiences (Bilgihan et al., 2016). Studies have proved that personalization can lead to clients favorable feelings (Pappas et al., 2014). During encounters, personalization aids in controlling the emotional reactions of the clients. Perceived personalization of service experiences is often linked to the friendliness and competence of virtual agents, resulting in more socially engaged encounters and higher levels of customer satisfaction (Verhagen et al., 2014). By using data mining techniques, businesses can use the information to know each customer's interests, needs, and preferences while buying a product (Zhang et al., 2018). Personalization is a core aspect frequently connected with AI-enabled services (Zanker, Rook, & Jannach, 2019). The primary goal of machine learning and artificial intelligence systems is to make more reliable models for improving personalization, which results in efficient decision-making (Zanker et al., 2019). "Content personalization" is the process of presenting information to users differently depending on their particular profile. This includes changes to prices, products, and services (Zanker et al., 2019). The performance of personalization opportunities has grown dramatically with the introduction of automation technologies like AI because it is now easier to gather more individual data and identify patterns for more effective matching (Ameen et al., 2021).

*H1 In AI-powered customer service, personalized responses have a favorable impact on customer satisfaction.*

### 2.3.2 Effectiveness of emotional intelligence on customer satisfaction

In e-commerce, consumers' shopping satisfaction is described as their affective state following order fulfilment, resulting from prior e-commerce transactions (McKinney et al., 2002). From the customer's perspective, satisfaction with a previous purchase decision represents a specific evaluation of the value or worth of what has been provided. Emotional intelligence (EI), as defined by Goleman (2006), is the capacity to control and utilize emotions to build rapport among various individuals, impacting the formation of relationships between consumers and sellers (Kidwell et al., 2008). Salovey et al. (2002) further conceptualized emotional intelligence as comprising the abilities to recognize one's own and others' emotions, accurately express emotions, use emotions to aid thought and problem-solving, understand the causes and interconnections of emotional experiences, and manage one's own and others' feelings. These skills of emotional intelligence are a critical factor in fostering positive communication and evaluation in customer service contexts, influencing customer satisfaction.

*H2: Emotional intelligence in AI-powered customer service positively influences customer satisfaction*

*Advances in Consumer Research*

### 2.3.3 Quick response to Customer satisfaction

AI-powered chatbots have revolutionized customer care by providing 24/7, quick, and effective assistance that increases client happiness. According to studies, AI chatbots may respond to consumer inquiries with remarkable speed and accuracy when using cutting-edge technology like big data, machine learning, and natural language processing. (Chen et al., 202; Cheng et al., 2021). Chatbots' quick reactivity makes them an efficient tool combined with other human traits like friendliness and empathy for enhancing high service standards, which is essential for customer satisfaction. (Araujo, 2018). AI Chariot's ability to process substantial amount of data without experiencing burnout guarantees that customer inquiries are consistently and continuously answered with resilience. According to studies, availability and quick response are crucial in AI Service communication as they directly affect customer satisfaction and the level of trust in the offering. (Ashfaq et al., 2020; Chen et al., 2021). Customers are rapidly becoming loyal to this consistent and quick service, which improves their collective experience and leads to customer satisfaction.

*H3: Quick response times in AI-powered customer service positively influence customer satisfaction.*

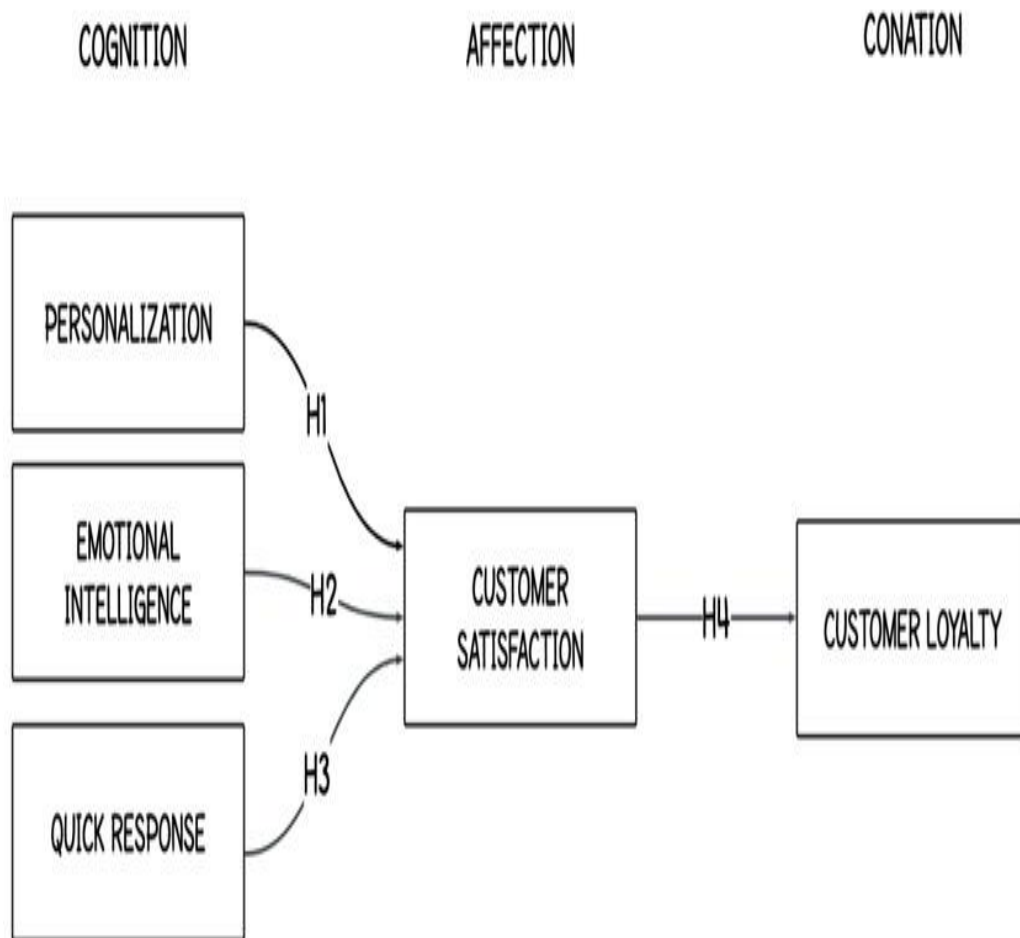
### 2.3.4 Customer satisfaction and customer loyalty

In the realm of AI-technology, companies are increasingly using the AI- powered tools to enhance customer support. Customer satisfaction has always been a vital metric to assess the service quality which directly influences customer loyalty. The research has proven that customer satisfaction is closely linked with customer loyalty, higher satisfaction leads to strong trust and greater loyalty (McAlexander et al., 2003). AI- driven Chatbots have proven that providing 24/7 prompt support and relevant problem-solving responses to the customer leads to enhanced satisfaction levels (Nicolescu & Tudorache, 2022).

AI technology based on machine learning and natural language processing, help businesses in interpreting customer data to further gain insights, bringing personalization, streamlining the processes and design strategic initiatives to facilitate comparative edge and in turn increase customer loyalty (Patel & Trivedi, 2020). Highly efficient AI-powered customer service can help organizations in bringing more satisfaction, boosting loyalty through repeat purchases and positive recommendations (Zeithaml et al., 1996). The loyalty thus gained not only helps in gaining customer attention but also upheaval the company's reputation and long-term profitability (Akil & Urgan, 2022). Also, AI systems offer convenience, personalization and a rapid and smooth experience for customers. This makes organizations to adopt AI based customer service as a powerful strategy for bringing in more satisfaction and loyalty in customers (Yang et al., 2023; Zhao et al., 2022).

On the basis of above discussion, the following hypothesis is developed-

*H4: Customer satisfaction, driven by AI-powered customer service, positively impacts customer loyalty*



### 3 RESEARCH METHODOLOGY

#### 3.1 Participants

The research considers the population comprises of all those Indians who have used quick commerce apps at least once and made a purchase through it. To ensure this, a filter question was asked about their quick commerce shopping experience. The selected participants were individual shoppers from various gender, age groups and locations so as to represent a diverse sample.

To know more about the demographic details, the participants responded to focused questions and to find the usage pattern. These included-

**Location:** This research focussed on top 4 Metropolitan cities namely such as Delhi, Chennai, Bangalore, Cochin.

**Preferred Quick Commerce Platform:** To understand the respondent's usage behavior, individuals were asked which platform they preferred to use. The options given in the questionnaire were Swiggy Instacart, Blinkit, Zepto,

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BigBasket Instant, Dunzo, and an "Others" option for additional platforms.

These questionnaires helped segment the respondents based on their Geographic and platform preferences which provided insights into their behavior and usage of AI-powered customer service in the commerce industry

#### 3.2 Sample Selection

To select the participants, four Metropolitan cities namely Chennai, Bangalore, Delhi, and Cochin were chosen as strata. From each city, 50 participants were chosen randomly from the list of customers obtained from specific quick commerce app (blinkit). In this way, stratified random sampling was adopted. Invitations were given out to participants to fill Google forms through emails. In total, 200 responses were collected, and 191 were used for the study. In this, 9 were omitted due to submission without complete fillings.

The following table 1 shows the demographic profile of respondents

**Table 1. Respondents' Profile and Buying pattern**

Characteristic	Options	Count (F)	Percentage (%)
<b>Gender</b>	Male	80	42
	Female	110	57.4
	Others	1	0.5
<b>Age</b>	0-18	11	5.9
	18-24	101	53.7
	25-24	47	23.4
	34-44	28	14.9
	Above 44	4	2.1
<b>Location in India</b>	Delhi	39	15.4
	Chennai	73	33.5
	Bangalore	46	18.1
	Kochi	33	13.8
<b>Platforms</b>	Swiggy Instamart	32	16
	Blinkit	68	36.2
	Big Basket	25	12.8
	Dunzo	25	13.3
	Zepto	33	17.6
	others	8	4.3

### 3.3 Questionnaire Development:

Following the literature review, a structured closed-ended questionnaire was developed to assess the impact of AI-driven customer service on the satisfaction and loyalty of customers within the quick commerce sector. In addition to demographic questions, the study measures responses across five key constructs: personalization, quick response, emotional intelligence, customer satisfaction, and customer loyalty. 19 items constructed on 7-point

Likert scale ranging from "Strongly Disagree" (1) to "Strongly Agree" (7) were used to measure the variables. The scale was sourced from the studies of Rose et al. (2012) and Bianchi and Andrews (2012). This systematic approach enables us to capture the subtle details of each construct in the questionnaire, providing valuable insights towards the relationship between AI-powered customer service on customer satisfaction and customer loyalty in quick commerce. Table 2 shows the details of measurement scale used.

**Table 2. Measurement Scale**

<b>Constructs</b>	<b>Items</b>	<b>Adopted from source</b>	<b>Cronbach's alpha</b>
<b>Customer Satisfaction</b>	<p>I feel satisfied by the interaction with AI-powered customer service of this quick commerce app.</p> <p>AI-powered customer service of this app meets my expectations for quality customer service</p> <p>AI-powered customer service of this app enhances my overall satisfaction as a customer.</p> <p>I feel valued as a customer while interacting with the AI-powered customer service of this app.</p> <p>Overall, I am satisfied with my experiences with AI-powered customer service of this app.</p>	(Singh & Singh, 2024)	0.680
<b>Loyalty</b>	<p>I am more loyal to this company as the AI-powered customer service of this app gives me positive experience.</p> <p>Efficient AI-powered customer service of this app enhances my loyalty to the company.</p> <p>AI-powered customer service of this app positively influences my long-term commitment to this company.</p>	(Singh & Singh, 2024)	0.680
<b>Quick Response</b>	<p>The chatbot's sensitivity in responding quickly makes me feel valued as a customer.</p> <p>The sociability of the chatbot contributes to my overall satisfaction with the quick response.</p> <p>The speed and accuracy of AI-powered chatbot service contribute to my perception of its efficiency</p>	(Chen et al., 2023)	0.839
<b>Emotional Intelligence</b>	<p>I believe my emotions are noticed and considered in communication.</p> <p>I feel that my past preferences are considered thoughtfully when new products are recommended to me.</p> <p>I feel that the service adjusts its communication style based on my current mood or behaviour.</p> <p>I find that the AI's emotional intelligence has an impact on my buying decision</p>	(Lim & Kim, 2020)	0.938
<b>Personalization</b>	<p>Personalized recommendations have a positive impact on my overall experience.</p> <p>Accurate personalization brings greater relevance to the product I use.</p> <p>Personalized ads of products offer a tailored experience that suits my needs.</p> <p>The level of personalness in the interaction with the chatbot meets my expectations.</p>	(Wang et al., 2023)	0.879

Questionnaires were protested among the sample of 50 respondents. The question link was mailed to those 50 respondents, and genuine feedback was collected about the length of the question, the understanding of the questionnaire, and its structure. According to the suggestions received, the questions were modified for their error. Reliability analysis for Cronbach's Alpha was conducted, and based on the results, it was confirmed that all scales showed one-dimensionality. The final version of the measurement scale is presented in Table 2.

### 3.4 Data collection

The research design conducted is descriptive. To collect the data of the current study, an online google form was also designed, and the study was carried out within two months in August and October 2024. The participants of the study were chosen using stratified sampling, i.e., the participants were emailed and invitations were placed on social media. This sampling strategy adopts the primary sources of Dara referring to the possible new sources of primary data to be used in the study. In the present research, questionnaire was distributed to 50 random individuals of the said metropolitan cities through the online means, which were asked to complete and send to

their familiar respondents. A total of 201 responses have been received out of which 191 correct responses were used in further analysis. According to Kline, a SEM needs a sample size of 10:1 i.e. minimum 10 responses per item (2011). In this study, 19 items are to conduct the study thus 190 were the minimal responses needed.

### 3.5 Analysis Tools

Having eliminated data of outliers and responses that were incomplete, 191 valid responses were recorded. SPSS 22 and AMOS 20 software were used to analyse the data and a structural equation model was created.

## 4 DATA ANALYSIS

The following table 3 shows the descriptive statistics and reliability for various items. Cronbach alpha and composite reliability of items as analysed was found to be more than 0.7 which is more than the suggested threshold value as per Hair et al. (2013). The AVE of all the constructs was obtained to be more than 0.50, and this implied that the survey tool has sufficient convergent validity.

**Table 3. Descriptive Statistics & Reliability**

Construct (C)	Item (I)	Mean (M)	Standard Deviation (SI)	Factor	AVE	CR	Cronbach's Alpha
<b>Customer Satisfaction</b>	CS1	4.9628	4.9628	0.877	0.775	0.945	0.950
	CS2	5.2553	1.67993	0.884			
	CS3	5.3032	1.46933	0.910			
	CS4	5.2287	1.53596	0.860			
	CS5	4.9947	1.55286	0.870			
<b>Loyalty</b>	LOY2	6.2287	0.51275	0.715	0.552	0.787	0.680
	LOY4	6.3564	0.65047	0.789			
	LOY5	6.6383	0.76489	0.722			
<b>Quick Response</b>	QR1	6.2074	0.80410	0.878	0.732	0.891	0.839
	QR2	6.4734	0.75596	0.882			
	QR3	6.2766	0.77258	0.804			

<b>Emotional Intelligence</b>	EI1	5.8245	1.37434	0.877	0.786	0.936	0.938
	EI2	6.0638	1.43157	0.835			
	EI3	5.7128	1.41891	0.939			
	EI4	5.5904	1.54688	0.892			
<b>Personalization</b>	PI1	5.8883	1.17153	0.905	0.706	0.905	0.879
	P12	5.5426	1.34176	0.808			
	PI3	6.0000	1.33244	0.769			
	P14	5.8138	1.37682	0.871			

AVE= Average Variance Explained, CR= Composite Reliability

As per Table 3, based on descriptive statistics, the Customer satisfaction means value varies from (4.9628 - 5.3032), where it says Overall, the customers are comparatively highly satisfied with AI-powered customer service, and also respondents have conveyed they are also feeling valued through AI-powered service. Result also shows a high level of customer loyalty (mean ranging between 6.2287- 6.6383) by using AI-powered services; this shows the impact of AI in long-term relationships. The mean score of quick response ranges between (6.2074 and 6.4734). This shows the customers value the speed and accuracy of powerful customer service. They also appreciate the sociability and emotional intelligence of the chat bot and highlight the importance of both efficiency and satisfaction. The overall results also give certainty. The customers believe that emotions are considered and noticed, and the interaction adjusts their communication style and responses based on their current

mood and behavior. In general, Personalization is a key factor in customer satisfaction as we can witness the result score of the mean (5.426 to 6.0000) suggests that customers feel valued through personalized recommendations and tailored ads, which boost satisfaction and loyalty.

The findings of the table 3 also show that all of the item loading exceed the recommended limit of 0.7 and that they are significant ( $p < .01$ ).

#### Validity Testing

The criteria given by by Fornell and Larcker (1981) was used to check on the discriminant validity. As per the criteria, the value of AVE should be more than the square value of correlation between constructs. Table 4 shows the cross- correlations of the constructs. The off-diagonal components of the same rows and columns were lower than the diagonal terms of the matrix, i.e. square root of an AVE in each of the constructs. This shows that there is a discriminant validity.

**Table 4. Cross Correlations.**

Construct	KMO	Personalization	Emotional intelligence	Quick response	Customer satisfaction	Customer loyalty
<b>Personalization</b>	<b>0.729</b>	<b>0.880341</b>				
<b>Emotional intelligence</b>	<b>0.770</b>	0.243	<b>0.742967</b>			

<b>Quick response</b>	<b>0.707</b>	0.201	0.157	<b>0.85557</b>		
<b>Customer satisfaction</b>	<b>0.863</b>	0.336	0.444	0.059	<b>0.886566</b>	
<b>Customer loyalty</b>	<b>0.620</b>	0.033	0.038	0.035	-0.159	<b>0.840238</b>

### Structural Model Fit Analysis

The theoretical model was tested for absolute model fit by assessing goodness-of-fit index (GFI), Adjusted GFI, relative chi-square value ( $\chi^2/df$ ), and root mean square error of approximation (RMSEA). Also, comparative model fit was assessed using comparative fit index (CFI). Research have suggested relative chi-square should fall below 3 for good model fit (Wheaton et al., 1977). Other acceptable values of metrics are GFI > 0.8, AGFI > 0.80,

RMSEA < 0.08 (Byrne, 2012; Chau and Hu, 2001) and, CFI > 0.90 (Hu and Bentler, 1999). In the study,  $\chi^2/df$ , GFI, AGFI, CFI, and RMSEA values were 2.24, 0.841, 0.884, 0.903, and 0.074, respectively. This indicated that the model fit is acceptable.

### Path Analysis

After checking the reliability, validity and fitness of the measurement model, path analysis was performed to evaluate the hypotheses. The following table 5 represents the results of path analysis-

**Table 5: Results of Path Analysis**

Path	Hypothesis	Estimate	Critical Ratio	Significance Level	Decision
PS → CS	H1	0.303	3.636	0.000*	Accept
EI → CS	H2	0.417	5.515	0.000*	Accept
QR → CS	H3	0.081	0.618	0.536	Failed to Accept
CS → LOY	H4	0.044	2.24	0.025**	Accept

**Source:** Output generated from AMOS 20. \* $p < 0.01$  \*\* $p < 0.05$

The table showed a direct positive impact of personalization on customer satisfaction ( $\beta = .303, p < .01$ ) that led to acceptance of hypothesis (H1). Another result showed the significant impact of emotional intelligence on customer satisfaction ( $\beta = .417, p < 0.01$ ) leading to acceptance of hypothesis (H2). However, the impact of quick response time on customer satisfaction was found insignificant ( $\beta = 0.081, p > .01$ ) further failing to accept the hypothesis (H3). Also, the impact of customer satisfaction on customer loyalty was positive

and significant ( $\beta = 0.044, p < .05$ ); therefore, hypothesis (H4) was accepted.

### Mediation Analysis

A structural model was generated keeping in view to see the mediating role of customer satisfaction in the connection between personalization, emotional intelligence quick response and customer loyalty in quick commerce. It applied bootstrapping whereby 95 percent of the original sample was sampled using 5000 samples with replacement as bootstrap samples. Table 8 indicates the direct and indirect relationship results and mediating effect.

**Table-6: Mediation Effect**

Path	Direct	Indirect	Total	Mediation Effect
PS → CS → LOY	0.025(0.245)	0.404(0.003*)	0.429	Full Mediation
EI → CS → LOY	0.018(0.006*)	0.241(0.004*)	0.259	Partial Mediation
QR → CS → LOY	0.005(0.045**)	0.004(0.624)	0.009	No Mediation

**Note-** \*  $p < 0.01$  \*\* $p < 0.05$

The analysis revealed that customer satisfaction fully mediates the relationship between personalization and customer loyalty in quick commerce. Also customer satisfaction was found to be a partially mediating variable between the relationship of emotional intelligence of AI and customer loyalty in quick commerce. However, there was found to be no mediation of customer satisfaction on the relationship between the quick response of AI on customer loyalty

## 5 DISCUSSION

The study reveals that most of the commerce users are female and also males, standing closely in the age group 18-24 years. The findings of the Demographic profile are in line with previous literature (Chevalier, 2024b) . The majority of respondents have used Blinkit. At least 10 randomly chosen individuals from each city use Blinkit as the primary Quick commerce platform. The findings of the script to statistics are in line with previous literature and imply that AI powered personalization and customer satisfaction, the strong mediation factor, leads to customer loyalty; on the other side, it is also noted that there was a less significant impact on loyalty by personalization when the direct impact was calculated. it is also revealed that most people, consider emotional intelligence as a key feature. Customers believe that their emotions are considered and noticed, and the interaction adjusts their communication style and responses based on their current mood and behavior, which leads to customer satisfaction and loyalty (Lim & Kim, 2020) . It is also found that majority of the participants are considering quick response it's not being effective in terms of customer service . Though there might be quick replies through chat bots Quick responses may not satisfy users if they feel the response is generic or lacks genuine problem-solving. Respondents may prioritize thoughtful, personalized replies over rapid responses, especially if quick responses seem automated or impersonal.

The objective of the study was to observe and determine the relationship between powered customer service features such as personalization quick response, emotional intelligence on customer satisfaction, and customer loyalty among online quick commerce buyers, for which CFA and path analysis was done.

The results show that personalization and emotional intelligence have a significant impact on customer satisfaction through AI-powered services; customer satisfaction has a fully mediating effect on the phone relationship between customer loyalty towards personalization, and emotional intelligence. It also observed that quick response does not have any impact towards customer satisfaction, reason could have been Customers likely have higher expectations regarding prompt assistants in quick commerce. Quick Response alone may not provide enough cognitive value, as speed does not inherently enhance the thoughtfulness or depth of the service experience. When Quick Response is disconnected from Personalization or Emotional Intelligence, customers may simply view it as a functional necessity rather than a factor that significantly enhances their perception of the service. While quick responses may provide efficiency, they don't contribute

meaningfully to the customer's cognitive assessment unless paired with thoughtful, relevant information. This finding is more important as it shows more customer satisfaction through AI-powered customer service and enhanced customer loyalty. Therefore, the commerce platform should work on developing customer satisfaction through AI services that will make customers feel valued through the service being personalized by observing the pattern of purchases and also developing quick responses being more specific than being generic by understanding emotions through emotional intelligence and interaction being tailored according to their mood and behavior so that the buyers feel valued may become loyal to them and visit the app regularly for purchases in the future. In other words, increased utilization of AI-powered features will result in understanding more about customers. Utilizing these services can be fast and tailored, which results in client satisfaction and allows customers to feel valued; subsequently, the customer becomes more loyal and maintains a long-term relationship.

### 5.1 Managerial Implications

AI powered customer service in Online shopping has intruded into the day-to-day life of the customers and will continue to grow faster. in this aspect, online shopping has taken a new face through the concept of quick commerce, where groceries are delivered in less than 15 minutes. The implication of AI-powered services has both opportunities and challenges in this current digital era. This paper talks about the role of a component of AI-powered features in service quality and investigates the connection with customers satisfaction and loyalty. Specifically, the research determines three aspects of AI-enabled services within the framework of quick commerce within which the CFA results are of high value. The study has important practical implications where AI power tools provide convenience for customers, and by making them feel valuable, the services do represent a comparative advantage and gain favourable customer satisfaction. The study presents several implications for managers. First, the study investigates the AI-powered features like personalization and quick response, along with EI, are crucial to improving service quality and effective customer service. In the analysis, it is observed that Quick response is not having an impactful result on customer satisfaction. The majority of respondents have shown a negative impact reason could have been most of the chatbots are pre-structured or programmed with common answers for the questions. This generic approach may not solve the customer query, so there is high requirement and opportunity for companies to use chatbots as a key differentiator by developing a chatbot to respond in a way that understands human emotions while giving answers and also by understanding the root cause for their query. Second the study may help encourage E-Commerce providers to focus more on developing customer satisfaction through efficient customer service by enabling AI Technology. AI Technology results in making clients feel valuable through personalized recommendations by understanding customer emotions and also by responding quickly, thus imposing the repurchase Intentions this can be achieved by investing in digital infrastructure and dedicative analyst team etc. Data

are the more valuable resource in this digital age where it can play a vital role in gaining advantage over competitors. Finally, in order to achieve this, companies should collectively invest in AI tools to gain a cognitive advantage by offering the best service to customers.

## 5.2 Limitations and Directions for Future Research

The study is conducted among Indian customers only, which is the primary limitation of the study. Quick commerce shopping in India is still in its nascent stage, yet the recent growth has been seen increasing, especially after the pandemic. The finding might be different in the more mature markets because quick commerce has shown its major growth in Tier 1 cities, and the response also shows the same. Therefore, researchers may conduct studies in other cities of the market specifically to understand the actual impact. Further research can be done by validating the data with actual purchase behavior. Missing values were identified in the dataset, due to which the sum of the responses was omitted. Also, the sample size used in the research is 191, which is also a major limitation of the study.

**Disclosure of competing interest-** The authors declare that they do not have any competing interest, be it their own or financial, which influenced the results of this research.

**Announcement of generative AI translatable to writing-** During the preparation of this document, the author(s) made use of Grammarly and Quill Bot to improve the readability of his/her/their manuscript. After the utilization of these tools, the content was checked and edited properly by the author(s) and assume(s) full responsibility of the published work.

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