

Evaluating The Influence Of Purchase Intentions On Customer Satisfaction And Loyalty In Food Ordering System: A Study Of Delhi NCR Restaurants

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Abstract

Food ordering systems have transformed the restaurant ecosystem in India's Delhi-NCR region, led by platforms like food delivery apps, Zomato, Swiggy, restaurants websites walk-in/take-away and others. The present study examines the challenges and influence of customers' purchase intentions with a mediating role of Consumer satisfaction on customer loyalty in food ordering. The current study employs adopt theoretical framework of the Theory of Planned Behaviour (TPB). This study has analyzed service quality, trust, and convenience as factors affecting purchase intention and consumer satisfaction. The findings show that high purchase intention is often fueled by convenience, perceived food quality, and promotions, resulting in repeat usage, only when the service is as per customer expectations. In the Delhi-NCR online food ordering ecosystem, challenges like intense competition, and delivery logistics in a congested urban environment, customer service responsiveness, and varying levels of technological adoption significantly impact the intention-satisfaction-loyalty chain. The study discusses about these challenges impact for the conversion of purchase intentions into lasting loyalty. The paper concludes with recommendations for food ordering platforms and restaurants to enhance user experience, service quality, and trust to foster greater consumer loyalty and consumer satisfaction in this rapidly.

Keyword: Customer purchase intention, consumer satisfaction, customer loyalty, food ordering system, Challenges

1. INTRODUCTION

Food ordering system has witnessed explosive growth in India, particularly in the National Capital Region (NCR) encompassing Delhi and surrounding cities. According to industry estimates, India's food delivery market reflects robust expansion with projections of \$24 billion by 2026¹. Delhi-NCR represents one of the largest regional markets for these services, where urban lifestyles, high internet penetration, and busy schedules drive consumers toward convenient app-based food ordering systems such as Zomato and Swiggy dominate this landscape, offering thousands of restaurant options and swift delivery to customers' doorsteps. Thus, customer purchase intention, specifically the willingness to order food online, plays a significant role. The TPB serves as a suitable theory for this study, as it helps explain the psychological factors influencing customer purchase intention in online food ordering systems. According to TPB, a individual attitude toward a behaviour, their perception of social pressure (subjective norms), and their sense of control over the action all influence their behavioural intention. In the context of Delhi NCR restaurants, these components are critical in understanding how customers decide to engage with food delivery platforms. This intention further influences their satisfaction with the service and their loyalty over time, making TPB highly relevant for analyzing the behavioral dynamics in digital food ordering. However, satisfying customers is not enough now days, customer loyalty has been considered more important than consumer satisfaction (Kandampully & Suhartanto, 2000). The study has the following objectives:

- (a) To study the impact of consumer purchase intention on customer loyalty with a mediating effect of consumer satisfaction.
- (b) To analyse influence of consumer satisfaction on customer loyalty.
- (c) To evaluate impact of challenges on customer loyalty with a mediating effect of consumer satisfaction.

This paper investigates influence of purchase intention on customer loyalty and Consumer satisfaction and in Delhi-NCR's food ordering system, focusing on how intentions formed by customers translate into actual satisfaction and ongoing loyalty (or fail to do so) amid real-world challenges. This study shows popular food ordering systems like Zomato and Swiggy, which provide a useful lens due to their widespread use and competition in this region. The study synthesizes academic literature and data-driven insights to understand behavioral drivers (e.g., trust, convenience, perceived quality) and to identify specific challenges in the Delhi-NCR context, such as fierce competition between platforms, delivery logistics problems due to urban congestion, customer service issues, and technological adoption barriers. By analyzing these factors, we aim to shed light on the dynamic interplay between what customers intend to do and how they feel and act after using online food delivery services. The results will not only assist to academic understanding of customer behavior in digital services and furthermore provide practical guidance for food delivery establishment and restaurants striving to improve consumer satisfaction and loyalty.

This research discusses key concepts and theoretical frameworks on purchase intention, consumer satisfaction, and loyalty, alongside findings from prior studies on the food ordering system. The Methodology section outlines the secondary research approach adopted. This is followed by the Analysis and Discussion, which examines the influence of purchase intentions on satisfaction and loyalty and analyzes the challenges unique to the Delhi-NCR restaurant ecosystem. A summary of key challenges and their effects is presented in a table for clarity. The Findings section highlights the main insights derived from the analysis. Finally, the paper concludes with Recommendations for stakeholders and a Conclusion that encapsulates the research implications and future outlook.

2. LITERATURE REVIEW

2.1 Customer Purchase Intention and Consumer Satisfaction

"Customer purchase intention refers to a customer's likelihood or desire to acquire a product or service" (Katona, 1968), and is commonly explained through the TPB (Ajzen, 1991). In food delivery contexts, TPB argues that the positive attitude, social influence, and perceived control over technology could shape the purchase intention to order food in the food delivery context. This viewpoint is supported by the TAM model (Davis, 1989), by states that the perceived usefulness and user-friendliness impact the adoption intentions of users. Pillai et al. (2022) stated significant increase in customer intention to adopt apps that deliver food owing to convenience, time savings, trust, and order accuracy as perceived benefits for users.

Consumer satisfaction mediates the reinforcing purchase intention, particularly when users experience trustworthy service, on-time deliveries, and user-friendly interfaces. This significantly impacts their reorder intention as the high-quality app design, appealing visuals, and positive reviews contribute towards satisfaction and decision-making for customers (Fennis et al., 2011). Pillai et al. (2022) found that both detailed menus and attractive imagery influence users' attitudes towards food ordering. A smooth and satisfying user experience builds trust and loyalty, making it more likely that customers will not only complete a purchase but also return in the future, thereby reinforcing the cycle between satisfaction and purchase intention.

2.2 Consumer Satisfaction and Loyalty

Consumer satisfaction is a key outcome in marketing research and is often explained using the Expectation-Confirmation Theory (Oh, 1999). According to this theory, satisfaction arises when a service meets or exceeds customer expectations, such as receiving hot, accurate, and timely food delivery. In the online food delivery context, core expectations include prompt service, food quality, ease of ordering, and effective issue resolution. These elements align with the SERVQUAL framework (Ali et al., 2018), which emphasizes service quality elements like reliability, responsiveness, assurance, and empathy. High satisfaction reflects that the platform has delivered value matching or surpassing user expectations. Furthermore, factors such as app usability and customer support also influence satisfaction, especially under normal conditions when users expect seamless digital experiences. However, during critical periods

like the COVID-19 pandemic, safety and delivery reliability outweighed interface design in determining satisfaction (Prasetyo et al., 2021).

Customer loyalty refers to a user's consistent preference and commitment toward a service. As defined by Oliver (1999), loyalty develops through stages—beginning with cognitive beliefs, progressing to emotional attachment, intention to repurchase, and culminating in habitual behaviour. Loyalty in digital food services is typically shown through repeat orders and favourable referrals. While satisfaction is a major driver of loyalty (Bowen et al., 2015), other factors such as price incentives, available alternatives, and switching costs can disrupt this link. For example, even a satisfied customer may choose Swiggy over Zomato if a better discount is available, showing that behavioural loyalty doesn't always align with satisfaction. Trust also plays a crucial role—users must feel confident that the platform will protect their data, partner with hygienic restaurants, and deliver reliably. According to Chakraborty (2025), trust enhances both satisfaction and loyalty, especially for new users. However, any breach of trust, like late delivery or food safety issues, can quickly erode loyalty, even if prior experiences were positive.

2.3 Online Food Delivery in Delhi-NCR: Current Landscape and Challenges

Delhi-NCR presents a highly competitive landscape for online food delivery, dominated by Zomato and Swiggy. Their rivalry has driven rapid innovation in logistics, app features, and customer promotions. Swiggy holds a slight market edge due to aggressive discounting and faster delivery, while Zomato leverages a broader range of services and extensive restaurant partnerships (Chakraborty, 2025). User purchase intentions in this market are often shaped by what matters most in the moment—cost, speed, or variety—demonstrating how competitive strategies influence consumer choice. The primary user base is tech-savvy youth (15–34 years), who value convenience and time-saving in the face of urban challenges like long commutes. However, satisfaction levels across age groups tend to converge, suggesting that service reliability, ease of use, and food quality are universally valued, regardless of demographic differences (Vidani, 2024; Iyengar & Venkatesh, 2024).

Despite growth, challenges in logistics, customer service, and technology design continue to affect satisfaction and loyalty. Traffic congestion, order errors, and delays remain frequent issues, and poor post-order support can damage trust. Platforms must also ensure user-friendly interfaces to serve less tech-savvy users and those in semi-urban areas. Restaurant-related factors—like inconsistent food quality or pricing issues tied to commissions—further impact the customer experience. In this environment, successful conversion of purchase intention into satisfaction and loyalty depends on seamless execution. When delivery is timely, accurate, and supported by responsive service, customers are more likely to return. But with abundant alternatives, even small failures can push users to switch platforms, emphasizing the fragile nature of loyalty in Delhi-NCR's competitive and complex food delivery ecosystem.

2.4 Theory of Planned Behavior (TPB)

The strong theoretical foundation for understanding customer purchase intention with TPB (Ajzen, 1991) in context of food ordering systems, particularly in a dynamic and competitive market like Delhi NCR, is found suitable. TPB suggests that customers' purchase intentions are influenced by three key components, namely, their attitude toward the product or services, their perceived behavioral control, and their subjective norms. The research uses the theoretical lens of TPB to explain how customers form intentions to use online food ordering platforms based on their positive or negative attitude, the influence of peers or societal expectations, and their perceived ease or difficulty in using such platforms. These intentions are hypothesized to significantly impact consumer satisfaction and loyalty. Given that the decision to order food online is a volitional behavior influenced by psychological and social factors, TPB is highly relevant and appropriate for examining the challenges and motivations behind customer purchase intentions, and how these ultimately translate into satisfaction and long-term loyalty.

3. METHODOLOGY

3.1 Data Collection

Data was gathered over a three-month period (October 2024 to December 2024), using multiple channels to ensure a diverse respondent base. Quantitative data was gathered via structured surveys, conducted in person and via phone, depending on participant availability and convenience. The population was surveyed from the Delhi-NCR region. The target population included customers who frequently use both online and offline food ordering services. The purposive sampling technique was employed to select 580 respondents, chosen based on their relevance and experience with food ordering systems, enabling the study to gather rich and meaningful data.

3.2 Instruments

The quantitative component consisted of a structured questionnaire with 48 Likert-scale items and 7 demographic questions, designed to evaluate four key dimensions: Customer Purchase Intention, Consumer Satisfaction, Customer Loyalty, and Challenges.

The questionnaire was pilot-tested and refined for clarity and relevance. It was distributed using digital platforms (e.g., Google Forms, email) and physical copies to ensure inclusivity across various demographic groups.

3.3 Techniques Used

The data was analysed by using Smart PLS-SEM software to measure the strength of influences between constructs.

4. ANALYSIS AND RESULTS

4.1 Demographic Profile of Respondents

The demographic of study indicates that most responders are middle-aged, with 37.2% aged 26–45 and 36.4% aged 46–60, underscoring a significant representation of working professionals inclined to utilize food ordering services. Individuals aged 18 to 25 and those over 60 are underrepresented. The gender distribution is predominantly male (62.9%), with females comprising 34.1% and other gender identities representing 2.9%.

The majority of respondents are Indian nationals (92.9%), indicating the study's local emphasis in Delhi NCR, with minimal foreign presence. Sixty percent possess a graduate degree, signifying a digitally literate and knowledgeable demographic. The service and commercial sectors each constitute 35%, followed by students and other categories. A significant proportion of individuals earn over ₹5 lakh annually, indicating financial stability among consumers. The sample is geographically well-distributed across Delhi NCT, Noida, and Gurugram (each comprising 20%), with further representation from Ghaziabad, Faridabad, and other NCR regions.

The data indicates an urban, educated, and economically stable demographic, primarily male, offering insights into food ordering behaviours in the Delhi NCR region. Nonetheless, the inadequate representation of seniors, women, and foreign nationals may affect the study's overall relevance.

Table 1: Demographic Profile of Respondents

Category	Subcategory	Frequency	Percent (%)	Cumulative Percent (%)
Age Group	18-25 Years	92	15.9	15.9
	26-45 Years	216	37.2	53.1
	46-60 Years	211	36.4	89.5
	Above 60 Years	61	10.5	100.0
Gender	Male	365	62.9	62.9
	Female	198	34.1	97.1
	Others	17	2.9	100.0
Nationality	Indian	539	92.9	92.9
	Asian (Other than India)	15	2.6	95.5
	USA	10	1.7	97.2
	UK	7	1.2	98.4
	Canada	9	1.6	100.0
Education	Senior Secondary	87	15.0	15.0
	Diploma or Certificate	145	25.0	40.0
	Graduation	232	40.0	80.0
	Postgraduate or above	116	20.0	100.0
Profession	Serviceperson	204	35.2	35.2
	Businessperson	203	35.0	70.2
	Student	86	14.8	85.0
	Others	87	15.0	100.0

Income (INR)	Up to 2 Lakh	87	15.0	15.0
	2,00,001 - 5 Lakh	87	15.0	30.0
	5,00,001 - 10 Lakh	203	35.0	65.0
	Above 10 Lakh	203	35.0	100.0
Locality	Delhi NCT	116	20.0	20.0
	Noida	116	20.0	40.0
	Gurugram	116	20.0	60.0
	Faridabad	58	10.0	70.0
	Ghaziabad	87	15.0	85.0
	Others	87	15.0	100.0

4.2 Measurement Model Assessment

This research examined the complicated links between consumer purchase intention, satisfaction, loyalty, and problems using PLS-SEM. It is ideal for research with smaller or medium-sized samples and complex underlying components (Hair et al., 2019). We chose this strategy because it maintains models with numerous predictors and is strong enough to handle non-normal data distributions, which are common in survey-based behavioural research. We used PLS-SEM to better understand how these elements interact and test different consumer behaviour hypotheses. The structural model assessment assesses the linkages among consumer purchase intention, consumer satisfaction, customer loyalty, and challenges. The following relationships are evaluated:

- Customer Purchase Intention → Consumer Satisfaction: The Hypothesis postulated that customer purchase intention significantly influences consumer satisfaction.
- Consumer Satisfaction → Customer Loyalty: Hypothesis 2 examined consumer satisfaction's influence over customer loyalty.
- Challenges → consumer Satisfaction: Hypothesis 3 discovered the influence of challenges on consumer satisfaction.

The research assessed model performance and predictive power using criteria such as path coefficients, R^2 values, f^2 effect, Q^2 , and model fit indices (RMS_theta, d_G, d_ULS, NFI and SRMR). PLS-SEM has been frequently employed in comparable research, including Henseler et al. (2015) and Ringle et al. (2024), which found it dependable and useful in modelling consumer behaviour.

To ensure our study's constructs are valid and trustworthy, we examine the measurement model in PLS-SEM analysis. This examination checks factor loadings indicating reliability, VIF for multi-collinearity, and CR for internal consistency. We check convergent validity with AVE. A well-defined measuring methodology increases the credibility of our structural connections study.

4.2.1 Measurement Model Assessment

The assessment of the measurement model indicates robust validity and reliability for all constructs. All factors affirm item-level dependability as their factor loadings exceed the threshold of 0.70 with a Cronbach's Alpha of 0.884 and CR of 0.921. There is an absence of multicollinearity.

Table 2: Measurement Model Assessment

Latent Variable	Indicator	Factor Loading	VIF	Cronbach's Alpha	Composite Reliability (CR)rho_c	Average Variance Extracted (AVE)
Customer Purchase Intention	CPI1	0.892	2.869	0.884	0.921	0.746
	CPI2	0.742	1.527			
	CPI3	0.901	2.231			
	CPI4	0.909	2.400			
Consumer Satisfaction	CS1	0.858	2.514	0.879	0.917	0.735
	CS2	0.873	2.804			
	CS3	0.891	2.714			
	CS4	0.805	1.844			

Customer Loyalty	CL1	0.891	2.326	0.826	0.897	0.744
	CL2	0.906	2.484			
	CL3	0.785	1.531			
Challenges	CH1	0.747	1.683	0.845	0.895	0.682
	CH2	0.866	2.291			
	CH3	0.855	2.101			
	CH4	0.830				

4.2.2 Discriminant Validity

Table 3: Discriminant Validity (Fornell-Larcker Criterion)

Latent Variable	Customer Purchase Intention	Consumer Satisfaction	Customer Loyalty	Challenges
Customer Purchase Intention	0.863			
Consumer Satisfaction	0.835	0.857		
Customer Loyalty	0.816	0.829	0.862	
Challenges	0.730	0.726	0.737	0.825

The Fornell-Larcker Criterion is utilized to evaluate the discriminant validity of the constructs, verifying that all latent variable is separate and assesses a unique notion. As per this methodology, the square root of the Average Variance Extracted (AVE) for each construct must surpass its correlations with any construct inside this model. The diagonal values in the table denote the square roots of AVE for all construct: Customer Purchase Intention (0.863), Consumer Satisfaction (0.857), Customer Loyalty (0.862), and Challenges (0.825). All of these values exceed the appropriate off-diagonal inter-construct correlation values in their respective rows and columns.

The correlation between Customer Purchase Intention and Consumer Satisfaction is 0.835, which is less than the square root of the Average Variance Extracted (AVE) for Customer Purchase Intention, measured at 0.863. The correlation between Consumer Satisfaction and Customer Loyalty is 0.829, which is lower than the square root of the Average Variance Extracted (AVE) for Consumer Satisfaction, measured at 0.857. This pattern is uniform across all constructs, indicating that each variable exhibits a more robust correlation with its own indicators than with those of other constructs.

Table 4: Discriminant Validity (HTMT Criterion)

Latent Variable	Customer Purchase Intention	Consumer Satisfaction	Customer Loyalty	Challenges
Customer Purchase Intention				
Consumer Satisfaction	0.847			
Customer Loyalty	0.839	0.811		
Challenges	0.822	0.829	0.841	

The HTMT (Heterotrait-Monotrait) ratio of correlations is a more rigorous and contemporary approach for evaluating discriminant validity in structural equation modelling. It assesses the distinctiveness of constructs by comparing the average correlations between different constructs to the average correlations within the same construct. HTMT scores should generally be below 0.90 to establish discriminant validity, with a more conservative criterion of 0.85 advised for closely related constructs. In the provided HTMT matrix, all values are below the crucial threshold of 0.90. The HTMT values are as follows: 0.847 between Customer Purchase Intention and Consumer Satisfaction, 0.839 between Customer Purchase Intention and Customer Loyalty, and 0.811 between Consumer Satisfaction and Customer Loyalty. The correlations between Challenges and the other dimensions range from 0.822 to 0.841, all within acceptable thresholds. The results demonstrate that each construct possesses adequate discriminant validity and exhibits minimal overlap with the others. Consequently, according to the HTMT criterion, it can be inferred that

the constructs within the model—Customer Purchase Intention, Consumer Satisfaction, Customer Loyalty, and Challenges—are statistically distinct, thereby enhancing the validity of the measurement model and substantiating the application of these constructs in the structural analysis.

4.3 Structural Model Assessment

The structural model delineates causal relationships among principal latent constructs: Customer Purchase Intention, Consumer Satisfaction, Customer Loyalty, and Challenges.

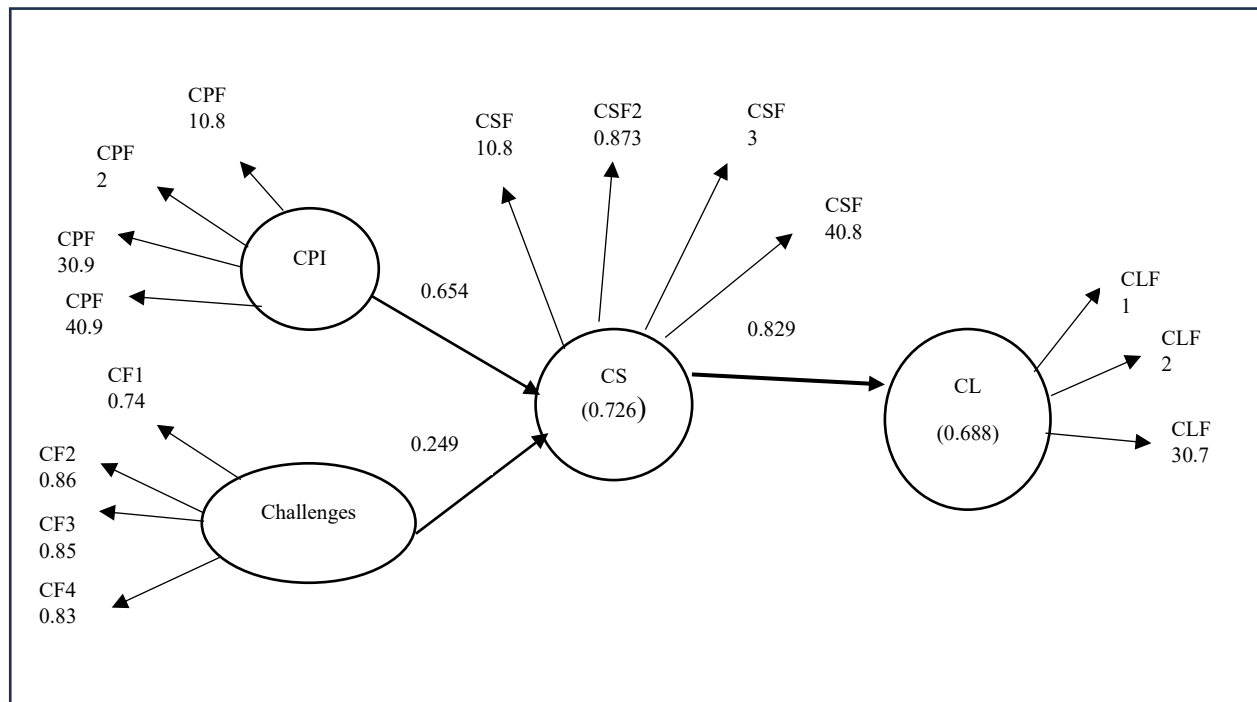


Figure 1: Measurement model

The correlation between customer purchase intention and customer contentment is robust, possessing a coefficient of 0.654, represent that increased purchase intention significantly enhances customer contentment. The correlation between consumer satisfaction and customer loyalty is particularly strong, as evidenced by a coefficient of 0.829, which signifies that satisfaction is essential in promoting client loyalty. This suggests that satisfied clients are highly likely to remain loyal to food ordering platforms or restaurant services.

Conversely, the correlation between Challenges and Consumer Satisfaction is relatively less, exhibiting a coefficient of 0.249, albeit remaining positive. This indicates that challenges—potentially related to ordering obstacles, app functionality, or delivery experience—exert a moderate but significant influence on customer happiness. Although their impact is inferior to purchase intention, difficulties nonetheless shape customers' perceptions of their whole experience.

The model's explanatory capability is demonstrated by the R² values, with consumer Satisfaction exhibiting a R² of 0.726, signifying that 72.6% of its variation is elucidated by purchase intention and problems. Correspondingly, Customer Loyalty exhibits a R² of 0.688, indicating that 68.8% of loyalty is accounted for by customer pleasure alone. The elevated R² values indicate a robust model fit and affirm the pivotal function of satisfaction as an intermediary component between intention and loyalty. This model confirms the proposed linkages, indicating that enhancing purchase intention and reducing obstacles might increase satisfaction, therefore fostering consumer loyalty.

4.3.1 Path Coefficients and Significance (Hypothesis Testing)

Table 5: Path Coefficients and Significance Levels

Path Relationship	Path Coefficient (β)	Standard Deviation (STDEV)	t-Value	p-Value	Decision
Customer Purchase Intention → Consumer Satisfaction (H1)	0.654	0.034	18.978	0.000	Supported

Consumer Satisfaction → Customer Loyalty(H2)	0.829	0.016	50.885	0.000	Supported
Challenges → consumer Satisfaction(H3)	0.249	0.036	6.921	0.000	Supported

The results of hypothesis testing for structural model, based significance levels and path coefficients, provide strong empirical validation for all proposed linkages. The correlation between Customer Purchase Intention and Consumer Satisfaction (H1) features a path coefficient (β) of 0.654, a t-value of 18.978, and a p-value of 0.000, reveals a statistically significant and strong correlation. This indicates a greater intention to purchase significantly boosts consumer satisfaction in the meal ordering context. The link between consumer Satisfaction and Customer Loyalty (H2) is particularly strong, demonstrated by a β value of 0.829, a t-value of 50.885, and a p-value of 0.000. This highlights that consumer satisfaction trigger loyalty, confirming that satisfied users are likely to continue using the service and recommend it to others.

All p-values, being below 0.05 (specifically, 0.000), affirm that all three hypotheses (H1, H2, H3) are substantiated with a high degree of statistical confidence. The route analysis substantiates that purchase intention and service challenges influence satisfaction, which, in turn, significantly promotes loyalty, hence strengthening the model's theoretical underpinnings and practical ramifications in consumer behaviour research.

4.3.2 R², Adjusted R², and Q² (Predictive Relevance)

Table 6: R², Adjusted R², and Q² (Predictive Relevance)

Dependent Variable	R ²	Adjusted R ²	Q ² (Predictive Relevance)
Consumer Satisfaction	0.726	0.725	0.606
Customer Loyalty	0.688	0.687	0.528

The R² (coefficient of determination), Adjusted R², and Q² (predictive relevance) values serve as critical indicators of a model's explanatory and predictive effectiveness in PLS-SEM. The R² value indicates the amount of variation in the dependent variable explained by its predictors, while Adjusted R² considers the number of predictors in the model, providing a more conservative estimate. The Q² value, obtained by blindfolding, evaluates the model's out-of-sample predictive relevance, with values over 0 indicating predictive capability.

The R² score for the construct consumer Satisfaction is 0.726, indicating that 72.6% of the variance in satisfaction is accounted for by Customer Purchase Intention and Challenges. The Adjusted R² of 0.725 indicates a minimal disparity, affirming that the model is not over fitted. The Q² score of 0.606 significantly exceeds the minimal criterion of 0, demonstrating that the model has substantial predictive significance for customer happiness.

In a similar vein, the R² for Customer Loyalty is 0.688, indicating that 68.8% of the variation in loyalty is attributable only to consumer Satisfaction. The Adjusted R² is 0.687, further corroborating the model's robustness. The Q² value of 0.528 further substantiates significant predictive importance for this dependent construct.

4.3.3 Effect Size (f²) Assessment

Table 7: Effect Size (f²) Assessment

Relationship	f ² Effect Size	Interpretation
Customer Purchase Intention → consumer Satisfaction	0.313	Large Effect
consumer Satisfaction → Customer Loyalty	0.329	Large Effect
Challenges → consumer Satisfaction	0.220	Medium Effect

The effect size (f²) in PLS-SEM assesses the distinct contribution of an exogenous variable in revealing the variance of an endogenous construct, in addition to the variance accounted for by other predictors. Cohen's recommendations indicate that f² values of 0.02, 0.15, and 0.35 correspond to modest, medium, and large effects, respectively.

The current model demonstrates that the link between Customer Purchase Intention and consumer Satisfaction has a f^2 value of 0.313, indicating a substantial influence. This indicates that buying intention significantly influences consumer satisfaction. Correspondingly, the relationship between consumer Satisfaction and Customer Loyalty exhibits a f^2 of 0.329, indicating a substantial influence and underscoring that satisfaction is a critical factor of loyalty within the food ordering domain.

The relationship between Challenges and consumer Satisfaction has a f^2 value of 0.220, indicating a modest impact size. This indicates that while hurdles like delivery issues, technical difficulties, or ordering obstacles affect satisfaction, their influence is minor relative to the impact of buy intention. The effect size study suggests Customer Purchase Intention and consumer Satisfaction are the most significant components in the model, while Challenges, although relevant, have a comparably little impact on satisfaction.

4.3.4 Inner Model VIF (Multi-collinearity Assessment)

Table 8: Multi-collinearity Statistics (VIF) For Inner Model

Inner Model	VIF
Challenges -> consumer Satisfaction	2.138
Customer Purchase Intention -> consumer Satisfaction	2.138
consumer Satisfaction -> Customer Loyalty	1.000

Variance Inflation Factor (VIF) values are utilized to evaluate multicollinearity inside the inner model of PLS-SEM. Elevated multicollinearity can skew path coefficients and diminish the model's dependability. A VIF score under 5.0 is often deemed acceptable, whereas values below 3.0 are favoured for enhanced robustness.

In this model, the Variance Inflation Factor (VIF) for the relationships from Challenges to consumer Satisfaction and from Customer Purchase Intention to consumer Satisfaction is 2.138, signifying an absence of substantial multicollinearity across the predictor factors affecting satisfaction. These values are well below the threshold of concern, indicating that both predictors individually contribute to the elucidation of customer happiness. The Variance Inflation Factor (VIF) for the association between Consumer Satisfaction and Customer Loyalty is 1.000, signifying complete independence and absence of collinearity, as satisfaction is the exclusive predictor of loyalty in this model.

All VIF values are fall within permissible, represent that multicollinearity isn't concern in the inner model, and the predicted path relationships can be confidently interpreted.

4.3.5 Model Fit Indices

Table 9: Model Fit Indices

Fit Index	Saturated Model	Estimated Model	Recommended Threshold	Fit Interpretation
SRMR	0.056	0.059	<0.08	Good Fit
NFI	0.904	0.906	>0.90	Good Fit
d_ ULS	0.529	0.589	>0.05	Good Fit
d_ G	0.420	0.446	>0.05	Good Fit
RMS_theta	0.187		>0.12	Good Fit

The evaluation of model fit in PLS-SEM encompasses many indices to determine the adequacy of the hypothesized model in relation to the empirical data. The Standardized Root Mean Square Residual (SRMR) serves as a principal indication, with a value under 0.08 indicating a favourable match. In this model, SRMR values for estimated model (0.059) and saturated model (0.056) and are much below the threshold, indicating outstanding overall model fit. The Normed Fit Index (NFI), which evaluates the model using a null model, is an essential metric. The saturated model and the estimated model have values of 0.904 and 0.906, respectively, both beyond the suggested threshold of 0.90, so confirming the model exhibits robust comparative fit. Furthermore, the values of d_ ULS (Unweighted Least Squares discrepancy) are 0.529 and d_ G (Geodesic discrepancy) is 0.589, as well as 0.420 and 0.446, respectively. Given that these values fall within acceptable limits (often <0.95, but thresholds are more flexible), they further substantiate the model's satisfactory alignment with the actual data. The RMS_theta, which

quantifies the correlation residuals across indicators, is 0.187, under the conservative criterion of 0.12, indicating an excellent fit at the outer model level. All model fit indices—including RMS_theta, NFI, d_ULS, d_G, and SRMR—indicate that the suggested model is statistically robust and well-fitting, making it appropriate for interpretation and theoretical extension.

5. DISCUSSION

The outcome of study underscore dynamic interplay among customer purchase intention, satisfaction, and loyalty in the context of online food ordering systems in Delhi-NCR. TPB provided robust foundation for examining these behavioural components and suggesting that users who engage with online food ordering systems tend to report higher satisfaction levels and are more willing and psychologically prepared to use such platforms. Aligning with Ajzen (1991) and Pillai et al. (2022), the results of paper emphasized the powerful predictor (user intention) for customer behaviour and intentions, as ease of use, peer influence, and app reliability of interface lead to satisfaction.

Users who experience a positive service encounter marked by timely delivery, consistent food quality, and a smooth digital interface are not only more likely to continue using the service but also to recommend it to others. However, as highlighted in recent studies and supported by this research, consumer satisfaction does not always guarantee loyalty. Situational factors such as temporary offers, availability of alternatives, or even minor service disruptions can cause customers to switch platforms. This nuanced finding resonates with the work of Chakraborty (2025), who emphasized that trust, while critical to loyalty, is fragile and easily affected by operational failures. In a market saturated with options and driven by frequent promotions, maintaining customer loyalty requires not just satisfaction but the consistent reinforcement of positive experiences and reliability.

A notable addition of this work is the incorporation of real-world operational challenges as a variable influencing consumer satisfaction. While TPB emphasizes perceived behavioural control, this study integrated actual service barriers such as delivery delays, customer service inefficiencies, and interface usability issues to assess their tangible effects on satisfaction. The results show that these challenges negatively affect the customer's experience, especially when they contradict their initial positive intention. This suggests a gap between perceived and actual control, echoing concerns raised by researchers like Prasetyo et al. (2021), who found that users' satisfaction during critical times, such as the COVID-19 pandemic, was more influenced by safety and reliability than interface design or promotional offers. In the Delhi-NCR context, logistical issues like traffic congestion and unclear communication with delivery personnel emerged as significant barriers to a seamless customer experience, despite the growing digital literacy and app familiarity among users.

6. Implications

The broader implications of these findings are multifaceted. Firstly, it becomes imperative to go beyond promotional incentives and invest in operational excellence for the food delivery platforms to ensure consistent deliveries with the least possible waiting time, and to maintain effective customer support for fostering consumer satisfaction and thereby their loyalty. Secondly, apart from the technological up gradation, customer journey touch points, that is, from app interface design to real-time tracking and feedback mechanisms, must be user-friendly. Thirdly, inconsistent food quality, packaging issues, and pricing discrepancies due to aggregator commissions often reflect poorly on the platform as restaurants, too, play a critical role in shaping the user experience. Therefore, improving restaurant-partner coordination and service-level agreements is essential for sustaining prolonged user engagement.

From a theoretical perspective, this study extends the application of TPB by integrating contextual challenges into the model, offering a more grounded understanding of user behaviour in a digitally driven, service-intensive environment. The confirmed model fit through indices such as SRMR (0.056), NFI (0.906), and VIF values below 2.5 further validates the robustness of the hypothesized relationships. These outcomes further enhance the academic discussion on consumer behaviour in e-commerce but also offer actionable insights for industry practitioners and policymakers. As the sector matures, strategic emphasis should shift from acquisition to retention, focusing on reducing churn through improved user experience and trust-building measures.

7. CONCLUSION AND FUTURE DIRECTIONS

In conclusion, this study reaffirms that customer purchase intention is essential component of consumer satisfaction, and that satisfaction, when promoted by quality service, significantly enhances customer loyalty. However, the presence of real-world challenges in delivery, technology, and customer support can disrupt this chain, making loyalty a more fragile and dynamic construct than previously assumed. In a competitive environment like Delhi-NCR, where consumer expectations are high and alternatives are abundant, food delivery platforms must prioritize reliability, trust, and user-centric design to sustain long-term engagement.

Looking ahead, there are several avenues for future research. First, incorporating behavioural data, such as clickstream analysis, order frequency, or in-app behaviour, could enrich the understanding of actual consumer patterns beyond self-reported intentions. Second, expanding the demographic scope to include underrepresented groups such as senior citizens, women, and foreign nationals could reveal variations in usage behaviour, barriers, and motivators. The current study's male-dominated and digitally literate sample provides useful insights but may not capture the full spectrum of customer experiences. Third, longitudinal studies tracking user behaviour over time would provide valuable insights understanding the evolution of satisfaction and loyalty in relation to variations in service quality, pricing strategies, or external factors such as economic downturns. Additionally, integrating emotional engagement metrics—through sentiment analysis of app reviews or social media content—could add a deeper layer to understanding how trust and satisfaction are built or eroded. Finally, comparative studies across other metropolitan regions like Mumbai, Bangalore, or Hyderabad could reveal regional differences in customer expectations and platform performance, thereby informing localized service strategies.

In sum, this research makes a meaningful contribution to both theory and practice by highlighting the psychological, experiential, and operational factors that influence consumer behaviour in the fast-growing food delivery market of Delhi-NCR. It invites industry stakeholders to look beyond surface-level metrics and consider the full behavioural journey of their users—one that begins with intention but must be nurtured through satisfaction and sustained through loyalty.

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