



Adoption and Usage Patterns of Food Delivery Applications Among Generation Z Consumers in Gujarat: An Empirical Study

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Abstract: The rapid growth of mobile food ordering applications has influenced consumers' eating patterns, especially with Gen Z customers who are increasingly used to digital platforms and mobile devices. This study examines the adoption and usage patterns of food delivery applications among Gen Z consumers aged 18–26 in Gujarat using a convenience sampling technique. Primary data were collected through a structured questionnaire from February 2026 to March 2026 using a convenience sampling technique. The main variables driving utilization were quick delivery (32.5%), convenience (30.5%), and offers (28.5%). For 50.0% of respondents, Zomato was their favorite app, followed by Swiggy (30.9%). The most frequent ordering pattern was weekly (45.0%). Additionally, a strong positive correlation was found between delivery/technical challenges and service quality and satisfaction (Spearman $r = 0.252$, $p = .002$). Geographical area significantly influenced app preference, while delivery and technical issues showed a significant relationship with service quality and customer satisfaction.

Keywords: Generation Z, food delivery applications, consumer behaviour, Zomato, Swiggy, service satisfaction, Gujarat.

INTRODUCTION

The quick development of digital platforms and smartphone technology has drastically changed consumer behavior, especially in the food service sector (Shokeen 2026). The way customers look for, choose, (Kapoor and Vij 2018) and buy food has changed as a result of the increasing usage of smartphone technology investigated how mobile application features affected users' decisions to order food online, emphasising the significance of application-related elements in the buying process. (Shirolkar and Patil 2025) found that the adoption and use of online food delivery services in India are significantly influenced by convenience, time and cost savings, social impact, trust, and application functionality. evaluated the desire of Generation Z consumers to continue using meal delivery apps, highlighting the importance of this consumer segment in comprehending digital food ordering behaviour (Vu et al. 2023).

These apps make it simple for customers to browse restaurant menus, place orders, track delivery, and make online payments using their smartphones. Due to the country's rising internet usage, affordable mobile data connections,

and changing consumer preferences, online meal delivery businesses have expanded significantly in India (Madhuritha and Nedumaran 2025).

Revenue in the Online Food Delivery market is projected to reach US\$61.76bn in 2026. Revenue is expected to show an annual growth rate (CAGR 2026-2031) of 9.70%, resulting in a projected market volume of US\$98.11bn by 2031(statista 2026). Gen Z is already making its mark on the restaurant industry, and will continue to in the future – especially when they surpass millennials as the largest consumer base in the United States by 2026 (Lebouef 2022).

Indian Gen Zs' are the world's largest, the report said about the cohort born into a digital age, that shops, works and eats online. Gen Z is the generation born between 1996 and 2010(Times 2024)and they have become a major area of study in sociology, culture, and education. Their attitudes, lifestyles, learning choices, and purchasing patterns have all been significantly impacted by the broad adoption of digital technologies and changing social dynamics (Wajdi et al. 2024). They live in a reality shaped by economic challenges such as the rising cost of living and student debt, yet they control a significant and growing amount of buying power. Gen Z prefers to shop online due to the high value they place on convenience, speed, and price (Holschuh 2025)

The present study focuses specifically on Gen Z consumers in Gujarat and examines the factors influencing their adoption and continued use of food delivery applications, their satisfaction levels, and the challenges they experience while using these platforms.

REVIEW OF LITERATURE

According to Mudaliar, Mudaliyar, and Vidani (2025) studies on consumer perceptions on food transport applications in the digital world, the consumer group who primarily uses these applications is the youth and students. Empirical studies suggest that convenience, variety of food, and time efficiency are considered to be the driving factors behind using these applications. Zomato and Swiggy have been identified as the maximum preferred food delivery applications. There exist mixed perceptions on food quality, packaging, and the support provided by food delivery apps to local restaurants.

Yadav, Jain, and Lamoria (2025) have conducted research on Generation Z and their preferences towards online diet ordering platforms like Swiggy and Zomato revealed that pricing, discount, and offer play an important role in decision-making. The results of the empirical analysis showed that hygiene, delivery speed, and gender ensure do not have a higher association with the stages. Income levels have an impact on the timeliness of distribution and attractiveness of offers but not hygiene. This indicates that valuing and then promoting to the Gen Z audience is essential to attract and retain them.

Saiyed, Desai, and Vidani (2024) studies carried out on customer behavior towards food delivery services like Zomato and Swiggy show that the factor of age influences customer behavior in suggestively significant terms. Younger consumers show greater affinity towards discounts and offer, as well as the features of the application.

Older consumers show greater loyalty to the brand and the quality of the food delivered. It is evident that the subdivision of the market based on the factor of age is significant to ensure greater satisfaction. Tailor-made marketing strategies can ensure greater loyalty to the brand.

Recent research conducted by Da Costa et al. (2025) regarding the application of meal delivery application in smaller and medium-sized cities indicated significant disparities in areas with regard to the use of the application and involvement of the cafeteria. It is shown that the application is penetrating in trendy and developed places compared to others. Also, snack-type eating places dominate healthy foods. Social economic indicators like urban population density and human development level are definitely associated with the application and establishment.

Tenedero and Ragos (2025) examined that qualitative analysis performed on use of food delivery platforms by students shows that the platform becomes an integrated part of the everyday life of university scholars. Not only convenience but also other reasons such as speed, food variety, and user-friendliness become key motivators. Still, several problems with expensive prices, delayed delivery times, cold food and unrealistic promotions decrease consumer satisfaction.

RESEARCH GAP

Existing studies have examined online food delivery behaviour at national and international levels and have considered factors such as convenience, perceived usefulness, service quality, price, technology acceptance, satisfaction, and continuance intention. However, the available literature provides comparatively limited evidence focused specifically on Gen Z consumers in Gujarat. The current study examines adoption, usage patterns, satisfaction, and challenges among Gen Z consumers in an effort to bridge this contextual gap.

SIGNIFICANCE OF THE STUDY

The study gives information that could help food delivery services, restaurants, marketers, and service managers comprehend the demands and habits of Generation Z customers. The findings can support decisions relating to delivery performance, promotional offers, application usability, customer support, refund processes, and service recovery.

OBJECTIVES OF THE STUDY

1. To identify the key factors influencing adoption and continued use of food delivery applications among Generation Z consumers.
2. To analyse the satisfaction level and challenges faced by Generation Z users while using food delivery applications in Gujarat.

HYPOTHESES OF THE STUDY

1. Null Hypothesis (H_{01}):

There exists no statistically significant relationship between the influencing factors (Demographic factor like age, gender, area, income) and adoption of food delivery applications among Gen Z consumers in Gujarat.

Alternative Hypothesis (H_1):

There exists statistically significant relationship between the influencing factors and adoption of food delivery applications among Gen Z consumers in Gujarat.

2. Null Hypothesis (H_{02}):

There is no significant association between the challenges experienced by Gen Z consumers and their level of satisfaction with food delivery applications in Gujarat.

Alternative Hypothesis (H_2):

There exists a relationship between the problems faced by Generation Z consumers and their degree of satisfaction with food delivery applications in Gujarat.

RESEARCH METHODOLOGY

PROBLEM STATEMENT

Food ordering habits have changed as a result of the quick expansion of online meal delivery services, especially among Generation Z customers. Even though these platforms are becoming more and more popular, customer preferences and usage patterns may differ based on things like delivery speed, convenience, special offers, service quality, and technological dependability. Customer happiness and application preferences, however, may be impacted by delivery performance and technical difficulties. Thus, this study looks at how Generation Z consumers in Gujarat, ages 18 to 26, adopt and use food delivery apps. It focuses on their favorite apps, how frequently they order, what influences them, and how delivery and technical problems relate to service quality and satisfaction. The present research seeks to examine the following key question.

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Table 1 - Research Methodology and Data Analysis Framework

Aspect	Description
Research design	Empirical study based on primary survey data.
Population	Generation Z consumers aged 18–26 in Gujarat, as specified in the study objective.
Data collection	Structured questionnaire, as described in the study context.
Responses collected	152 responses
Valid cases for inferential analysis	151
Sampling technique	Non-probability convenience sampling
Data analysis	Descriptive/demographic analysis, chi-square tests, Spearman’s rank correlation, and regression analysis. Factor analysis is not reported in the supplied results.

Source: Author’s Compilation

SOURCES OF DATA

The study employs the use of Primary Data.

1. Primary data was gathered using a questionnaire survey.
2. The questions in the survey covered aspects such as usage behavior, preference, degree of satisfaction, and problems faced when using food delivery applications.

DATA ANALYSIS AND INTERPRETATION:

Table 2 - Demographic Profile of Respondents

Variables	No of Respondents	%
Age Group		
18–20 years	63	41.4%
21–23 years	64	42.1%
24–26 years	25	16.4%
Gender		
Male	67	44.7%
Female	83	55.3%

Other	0	0.0%
Geographic Location (Gujarat)		
Ahmedabad	27	8.2%
Surat	30	20.3%
Vadodara	58	39.2%
Rajkot	20	13.5%
Gandhinagar	6	8.8%
Other	0	0.0%
Respondent's Education		
10th Standard	34	22.7%
12th Standard	81	54.0%
Undergraduate	26	17.3%
Postgraduate	32	6.0%
Other	1	21.3%
Monthly Income / Pocket Money		
Below ₹5,000	63	41.7%
₹5,000 – ₹10,000	45	29.8%
₹10,000 – ₹20,000	35	23.2%
Above ₹20,000	8	5.3%
Primary App Preference		
Zomato	76	50.0%
Swiggy	47	30.9%
Domino's	27	17.8%
Other	2	1.3%

Source: Author's Compilation

Interpretation

From the above table 2 it is clear that majority of respondents belonged to the 21–23 years age group (42.1%), followed closely by those aged 18–20 years (41.4%). Respondents aged 24–26 years accounted for 16.4% of the total respondents. Female respondents constituted the majority (55.3%), while male respondents accounted for

44.7%. No respondents were reported in the “Other” category. Vadodara had the highest proportion of respondents (39.2%), followed by Surat (20.3%), Rajkot (13.5%), Gandhinagar (8.8%), and Ahmedabad (8.2%). The reported percentages should be verified, as they do not add up to 100%. The largest proportion of respondents (41.7%) reported monthly income or pocket money below ₹5,000. This was followed by respondents receiving ₹5,000–₹10,000 (29.8%), ₹10,000–₹20,000 (23.2%), and above ₹20,000 (5.3%).

RESULT AND DISCUSSION

1. Relationship Between Demographic Factors and Adoption of Food Delivery Applications:

H0₁: There is no statistically significant relationship between the influencing factors (Demographic factor like age, gender, area, income) and adoption of food delivery applications among Gen Z consumers in Gujarat.

Table 3 - Chi-Square Test of Association Between Demographic Factors and Food Delivery Application Preference

Demographic variable	χ^2	df	p-value
Age group	3.354	6	.763
Gender	9.019	3	.029
City/area	40.699	15	< .001
Monthly income/pocket money	5.291	9	.808

Note: Significance level: $\alpha = .05$. χ^2 = chi-square statistic; df = degrees of freedom.

Interpretation

Table 3 shows that the age group analysis showed that the p-value (.763) is greater than .05; therefore, the null hypothesis is not rejected. There is insufficient statistical evidence of an association between age group and Food Delivery Application Preference. For gender, the p-value (.029) is less than .05; therefore, the null hypothesis is rejected, indicating a statistically significant association between gender and Food Delivery Application Preference. Similarly, for city/area, the p-value (< .001) is less than .05; therefore, the null hypothesis is rejected, showing a statistically significant association between city/area and Food Delivery Application Preference. In contrast, the p-value for monthly income/pocket money (.808) is greater than .05; therefore, the null hypothesis is not rejected, as there is insufficient statistical evidence of an association between monthly income/pocket money and Food Delivery Application Preference.

Table 4- Spearman's Correlation

Variable	Ordering frequency	Service quality & satisfaction	Delivery & technical issues	Customer support & recovery
Ordering frequency	1.000	-.119	-.190*	-.085
Service quality & satisfaction	-.119	1.000	.252**	.572**
Delivery & technical issues	-.190*	.252**	1.000	.385**
Customer support & recovery	-.085	.572**	.385**	1.000

Note. Dependent variable: ordering frequency. Predictors: the three service factors listed in the table.

Interpretation

Table 4 shows that the analysis of ordering frequency and delivery/technical issues showed that the p-value (.019) is less than .05; therefore, the null hypothesis is rejected, indicating a statistically significant weak negative correlation ($\rho = -.190$). For service quality/satisfaction and customer support/recovery, the p-value is reported as less than .001; therefore, the null hypothesis is rejected, indicating a statistically significant positive correlation ($\rho = .572$). Similarly, service quality/satisfaction and delivery/technical issues ($\rho = .252$), as well as delivery/technical issues and customer support/recovery ($\rho = .385$), are significant at the .01 level; therefore, the null hypothesis is rejected for both pairs. For the remaining pairs without significance markers, the source table provides no evidence of statistical significance; therefore, the null hypothesis is not rejected, pending confirmation of the exact p-values.

Table 5 - Multiple Linear Regression

R	R ²	Adjusted R ²	Std. error	F	p-value
.210	.044	.025	1.0757	2.262	.084

Note. Predictors: service quality/satisfaction, delivery/technical issues, and customer support/recovery. Dependent variable: self-reported frequency of ordering food through delivery apps.

Interpretation

As presented in Table 5, the p-value (.084) is greater than .05; therefore, **the null hypothesis is failed to rejected**. The overall model is not statistically significant. The predictors explain 4.4% of the variance in ordering frequency ($R^2 = .044$).

Table 6 -Regression Coefficients: Individual Predictors

Predictor	B	SE	β	p	Tolerance	VIF
Constant	3.868	.620	—	< .001	—	—
Service quality & satisfaction	-.196	.190	-.103	.303	.655	1.527
Delivery & technical issues	-.257	.143	-.162	.074	.800	1.250
Customer support & recovery	.019	.153	.013	.902	.586	1.707

Note. B = unstandardized coefficient; SE = standard error; β = standardized coefficient; VIF = variance inflation factor. Statistical significance is assessed at $\alpha = .05$. The source report's $p = .000$ is reported as $p < .001$.

Interpretation

Table 6 reveals that the analysis of service quality/satisfaction showed that the p-value (.303) is greater than .05; therefore, the null hypothesis is not rejected, indicating that this predictor is not statistically significant at the 5% level. Similarly, for delivery/technical issues, the p-value (.074) is greater than .05; therefore, the null hypothesis is not rejected. Although the estimated coefficient is negative, the predictor is not statistically significant at the 5% level. For customer support/recovery, the p-value (.902) is greater than .05; therefore, the null hypothesis is not rejected, indicating that this predictor is also not statistically significant at the 5% level.

2. Measuring client satisfaction with online food delivery services:

Null Hypothesis (H0₂):

There is no significant association between the challenges experienced by Gen Z consumers and their level of satisfaction with food delivery applications in Gujarat.

Table 7- Spearman's Rank Correlation Between Delivery and Technical Issues and Service Quality and Satisfaction

Variables	Spearman's ρ	p-value	N
Delivery and Technical Issues and Service Quality and Satisfaction	.252	.002	151

Interpretation

As reported in Table 7 the correlation coefficient was positive and weak ($\rho = .252$). The p-value (.002) is less than .05; therefore, the null hypothesis is rejected. There is a statistically significant association between Delivery and Technical Issues and Service Quality and Satisfaction. The practical meaning of the positive direction depends on how the Delivery and Technical Issues scale was coded.

Table 8 - Model Summary for Simple Linear Regression

R	R ²	Adjusted R ²	Std. Error of Estimate
.315	.100	.093	.54314

Interpretation

The regression results in Table 8, the R² value (.100) indicates that Delivery and Technical Issues explains 10.0% of the observed variance in Service Quality and Satisfaction. The adjusted R² is .093 (9.3%). These values describe the model's explanatory capacity and do not, by themselves, determine whether the hypothesis is rejected.

Table 9 -ANOVA Test for the Overall Regression Model

Source	Sum of Squares	df	Mean Square	F	p-value
Regression	4.859	1	4.859	16.470	< .001
Residual	43.955	149	.295	—	—
Total	48.814	150	—	—	—

Note: Dependent variable: Service Quality and Satisfaction. Predictor: Delivery and Technical Issues.

Interpretation

Table 9 the p-value is less than .05 ($p < .001$); therefore, **the null hypothesis is rejected**. The overall regression model is statistically significant, $F(1, 149) = 16.470$, $p < .001$, indicating that Delivery and Technical Issues significantly predicts Service Quality and Satisfaction in this fitted model.

Table 10- Regression Coefficients

Predictor	B	SE	Standardized β	t	p-value
Constant	2.797	.213	—	13.137	< .001
Delivery and Technical Issues	.262	.064	.315	4.058	< .001

Note. Dependent variable: Service Quality and Satisfaction. B = unstandardized coefficient; SE = standard error; β = standardized coefficient.

Interpretation

Table 10 demonstrate that the p-value for Delivery and Technical Issues is less than .05 ($p < .001$); therefore, **the null hypothesis for this predictor is rejected**. The coefficient is positive ($B = .262$, $SE = .064$, $\beta = .315$, $t = 4.058$), indicating that a one-unit increase in the predictor score is associated with an estimated .262-unit increase in the predicted Service Quality and Satisfaction score. Interpret the positive direction in line with the questionnaire's coding.

MAJOR FINDINGS AND SUGGESTIONS

MAJOR FINDINGS

1. The chi-square analysis revealed a statistically significant association between gender and food delivery application preference ($p = .029$) and between city/area and app preference ($p < .001$). Age group ($p = .763$) and monthly income/pocket money ($p = .808$) did not show statistically significant associations with app preference.
2. Ordering frequency had a weak but statistically significant negative correlation with delivery and technical issues ($\rho = -.190$, $p = .019$) where as Service quality and satisfaction were positively correlated with customer support and recovery ($\rho = .572$), and the source report identifies this relationship as statistically significant ($p < .001$).
3. Delivery and technical issues were positively correlated with service quality and satisfaction ($\rho = .252$) and with customer support and recovery ($\rho = .385$). Both relationships were reported as statistically significant. Their practical meaning depends on how the variables were coded. And The multiple regression model was not statistically significant ($F = 2.262$, $p = .084$). The three predictors explained 4.4% of the variation in ordering frequency ($R^2 = .044$).

4. Delivery/technical issues and service quality/satisfaction had a statistically significant positive correlation with service quality and satisfaction ($\rho = .252$, $p = .002$, $N = 151$). The simple regression model was significant ($F(1, 149) = 16.470$, $p < .001$) and explained 10.0% of the observed variance ($R^2 = .100$).

SUGGESTIONS

1. To minimize delivery and technical problems and offer a more smooth customer experience, food delivery platforms should concentrate on enhancing delivery accuracy, app performance, order tracking, and payment systems.
2. Businesses should improve customer service by offering prompt responses, efficient complaint handling, clear refund policies, and suitable recovery procedures for purchases that are delayed, wrong, or canceled.
3. Businesses should research variations in consumer preferences across these groups and create appropriate marketing strategies based on real customer demands, as gender and city/area demonstrated statistically significant relationships with meal delivery application preference.
4. Businesses should take a closer look at how delivery and technical problems relate to customer happiness and service quality. The way the variables were measured and categorized should be taken into consideration when interpreting the relationship's direction.

SCOPE FOR FURTHER RESEARCH

Future studies should use larger and more diverse samples from different cities of Gujarat to validate the findings and improve their generalization. Future studies should include other aspects of the customer experience, such as order accuracy, , value for money, app usability, and complaint-handling effectiveness, in order to provide a more complete knowledge of customer satisfaction and the use of food delivery applications.

CONCLUSION

The results show that while the relationships with age and monthly income/pocket money are not statistically significant, the choice for food delivery applications is substantially correlated with gender and city/area. Relationships between delivery and technical problems, customer support and recovery, and service quality and satisfaction are also identified by the investigation. Nevertheless, ordering frequency was not significantly predicted by the multiple regression model. Thus, food delivery services should prioritize dependable delivery, efficient customer service, local preferences, and additional evidence-based research on the variables affecting ordering behavior.

REFERENCES

1. Da Costa, Renata Júlia, Paloma Aparecida Anastacio Barros, Juliana De Paula Matos, and Paula Martins Horta. 2025. "Coverage and Characterization of Food Delivery Services Through a Mobile Application in Small and Medium-Sized Cities in Brazil." *International Journal of Environmental Research and Public Health* 22(2):293. doi:10.3390/ijerph22020293.

2. Holschuh, Anabelle. 2025. "Gen Z Online Shopping Behaviour & Trends: What Brands Need to Know." <https://www.mintel.com/insights/retail/gen-z-online-shopping-behaviour-and-trends-what-brands-need-to-know/>.
3. Kapoor, Anuj Pal, and Madhu Vij. 2018. "Technology at the Dinner Table: Ordering Food Online through Mobile Apps." 43:342–51. doi:10.1016/j.jretconser.2018.04.001.
4. Lebouef, Logan. 2022. "Knit." App-first Gen Z scripting big shifts in consumption trends: Bernstein report.
5. Madhuritha, M., and G. Nedumaran. 2025. "Online Food Delivery Apps in the Modern Era: A Contemporary Perspective." *ComFin Research* 13(1):1–12. doi:10.34293/commerce.v13i1.8357.
6. Mudaliar, Elango, Bharadhan Mudaliyar, and Jignesh Vidani. 2025. "To Study the Impact and Use of Food Delivery Apps on Profit Margins of Local Restaurants in Ahmedabad City as Per Gen-Z Perceptions." *International Journal of Business and Management Practices (IJBMP)* 3(5):283–98. doi:10.59890/ijbmp.v3i5.88.
7. Saiyed, Mohammed Zaid, Manushi Desai, and Jignesh Vidani. 2024. "The Preferences of Gen Z for Food Delivery Services: A Comparative Study of Zomato and Swiggy in Ahmedabad." 655–78. doi:https://doi.org/10.59890/ijgsr.v2i9.2887.
8. Shirolkar, Shweta, and Kanchan Patil. 2025. "ONLINE FOOD DELIVERY APPLICATIONS: QUALITATIVE INQUIRY OF DIMENSIONS IMPACTING CONSUMER INTENTIONS AND USAGE." *New Trends in Qualitative Research* 21(1):e1043. doi:10.36367/ntqr.21.1.2025.e1043.
9. Shokeen, Akshay. 2026. "IMPACT OF DIGITAL FOOD DELIVERY PLATFORMS ON CONSUMER BEHAVIOR: AN INTERNATIONAL PERSPECTIVE." 13(3).
10. statista, statista. 2026. "Online Food Delivery - India India." <https://share.google/slyYmBMPHs8yHe0Ge>.
11. Tenedero, Cynic, and Marie Jo Tess Ragos. 2025. "Beyond Perception of Convenience: Exploring Student Use of Food Delivery Services."
12. Times, The Economi. 2024. "App-First Gen Z Scripting Big Shifts in Consumption Trends: Bernstein Report." September 8.
13. Vu, Tuan Duong, Hoang Viet Nguyen, Phuong Thao Vu, Thi Hoang Ha Tran, and Van Hung Vu. 2023. "Gen Z Customers' Continuance Intention in Using Food Delivery Application in an Emerging Market: Empirical Evidence from Vietnam." *Sustainability* 15(20):14776. doi:10.3390/su152014776.
14. Wajdi, Majid, Budi Susanto, M. Agus Sutiarto, and Wisman Hadi. 2024. "Profile of Generation Z Characteristics: Implications for Contemporary Educational Approaches." *Kajian Pendidikan, Seni, Budaya, Sosial Dan Lingkungan* 1(1):33–44. doi:10.58881/kpsbsl.v1i1.8.
15. Yadav, Jimit, Aachal Jain, and Dr Jayprakash Lamoria. 2025. "Generation Z Consumer's Preferences For Online Food Ordering Application In Vadodara: A Study Of Swiggy Vs Zomato." 13(3).