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"Behavioural Drivers Of Frequent Food Delivery App Usage: Evidence From Students In Tier-3 Cities Of India"

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Abstract
There have been notable changes in the pattern of consumption behaviour due to the fast growth of food delivery apps in India, not just in metropolitan cities but even Tier-3 cities. Nevertheless, few studies have been done to understand the factors affecting the frequency of usage of these apps in emerging urban markets. This study aims to determine the behavioural determinants of frequent usage of food delivery apps for consumption among university students in Tier-3 Indian cities. A cross-sectional study design utilizing a survey method was used to gather data from 312 student respondents. Binary logistic regression was employed for data analysis. The results show that habit was found to be the most significant factor affecting the frequency of usage of food delivery apps, followed by discount and convenience. Moreover, impulse order also significantly influenced the frequency of usage. Price sensitivity was found to have a negative impact on the frequency of usage, showing that price sensitivity acts as a barrier towards habitual app usage. The model showed excellent explanatory ability (Nagelkerke $R^2 = 0.576$) with 86% accurate classification.

Keywords: *Food delivery apps, frequent usage behaviour, habit formation, discount attractiveness, convenience perception, impulse ordering, price sensitivity, Tier-3 cities, consumer behaviour.*

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I. Introduction

The consumption behaviour across India is dramatically reshaped due rapid rise in digital food delivery platforms. Firstly it was mostly concentrated in metropolitan regions, but now it expands its root into Tier-3 cities has profoundly transformed consumption patterns among young consumers, particularly university students. With rising smartphone usage, affordable internet charges, and uses of intense platform-based promotional strategies have made food delivery applications to become ingrained in everyday life even in smaller urban centres. Despite this outreach, existing academic studies has largely focused on Tier-1 and Tier-2 metropolitan contexts, leaving the behavioural dynamics of digital food consumption in Tier-3 cities underexplored which make huge part of India.

As 3 tier cities make huge portion of Indian demographic it is both economically and theoretically important to understand frequent usage behaviour of FDA. the market structure is different from tier-1 and tier-2 cites in context of disposable income level, price sensitivity is higher in tier-3 cities, evolving retail infrastructure, and student communities is strongly influenced by their peer-driven consumption pattern. Subsequently, the psychological factor of frequent usage of FDA may not matched with the tier-1 and tier-2 cities surrounding. For starter the initial technological adoption model provided interpretation of initial usage decision, but they provided limited understanding for sustained and habitual engagement. As digital platforms saturated, consumer behaviour increasingly shifts from intentional evaluation to automatic repetition, necessitating theoretical frameworks that account for behavioural automation, reinforcement mechanisms, and economic evaluation simultaneously.

Drawing upon Habit Formation Theory, Reinforcement Theory, Dual-Process Theory, and the Perceived Value Framework, this study develops an integrated model to explain frequent food delivery app usage among Indian students in Tier-3 cities. Habit formation theory indicate that repeated behaviour performed in stable environment over time it becomes instinctive, reduce dependence on conscious decision- making. The Reinforcement theory demonstrate that the role of promotional incentives and discounts in strongly induce repeated behaviour. Dual-process perspectives differentiate between affect-driven impulsive actions and deliberate cognitive evaluation, while perceived value frameworks emphasize the trade-off between convenience benefits and monetary sacrifice. By synthesizing these perspectives, the present research examines how habit, convenience perception, discount attractiveness, impulse ordering tendency, and price sensitivity jointly influence the likelihood of frequent food delivery app usage.

This study makes three primary contributions. First, it extends consumer psychology literature by integrating automatic and evaluative decision-making mechanisms into a unified behavioural model of digital food consumption. Second, it provides empirical evidence from Tier-3 Indian cities, thereby addressing a significant contextual gap in platform-based consumption research. Third, by employing binary logistic regression to model frequent usage as a categorical behavioural outcome, the study offers interpretable probability-based insights into repeated digital engagement. In doing so, it advances understanding of how emerging urban markets internalize and routinize platform-mediated consumption behaviour.

II. Literature Review

Habit as a Determinant of Continued and Frequent Food Delivery App Usage

Habit has consistently emerged as one of the strongest predictors of continued and frequent use of food delivery applications across diverse national contexts. Drawing primarily on UTAUT2-based frameworks, prior research conceptualizes habit as an automatic behavioural tendency formed through repeated prior usage, reducing the role of conscious deliberation in subsequent decisions. Empirical evidence from Brazil indicates that habit significantly predicts continuance intention, in some cases emerging as the strongest determinant of intention to use food delivery apps (Christino et al., 2021; Zanetta et al., 2021). Similar findings are reported in South Africa, where habit significantly influenced continued mobile food delivery app usage during the pandemic (Munday & Humbani, 2024), and in China, where habit predicted both continuance intention and actual post-pandemic usage behaviour in O2O food delivery services (Yao et al., 2023). Additional evidence from Indonesia further confirms the positive role of habit in repeat usage intention (Wahid et al., 2024). Although an earlier study suggested that habit effects may be weaker in early-stage adoption contexts where perceived usefulness dominates (Lee et al., 2019), more recent research consistently demonstrates that as markets mature and usage frequency increases, habitual mechanisms become increasingly influential. Overall, the literature suggests that repeated engagement strengthens automatic behavioural responses, making habit a robust and cross-culturally validated determinant of frequent and continued food delivery app usage.

H1: *Habit positively influences frequent food delivery app usage.*

Reinforcement Mechanism

Perceived discount attractiveness plays a significant role in increasing platform usage and purchase frequency in digital commerce environments, including food delivery contexts. Empirical evidence suggests that high and salient discounts—such as deep price cuts, coupons, and quantity-based promotions—positively influence purchase incidence, quantity, and total spending, particularly when discount levels surpass meaningful thresholds (Liu et al., 2020; Niu et al., 2024; Ren et al., 2022). In app-based ecosystems, discounts not only increase intention to use but also strengthen the relationship between perceived ease of use, attitude, and actual usage behavior (Saksono & Untoro, 2023; Butar et al., 2023; Utami et al., 2025). Promotional campaigns and large-scale discount events further amplify purchase intentions by activating hedonic motives such as enjoyment, social interaction, and experiential value (Çavuşoğlu et al., 2020; Lee & Chen-Yu, 2018). Moreover, larger discounts have been shown to stimulate impulse buying behavior in digital marketplaces, reinforcing short-term increases in transaction frequency (Saputra et al., 2025; Wanda & Pasaribu, 2023).

However, the literature also highlights important boundary conditions. Over-frequent or permanent discounting may erode perceived quality, brand equity, and consumer trust, particularly for premium offerings (Vatta & Chehan, 2025; Lee & Chen-Yu, 2018; Butar et al., 2023). Evidence further suggests non-linear effects, where small or constant discounts may reduce spending, whereas sufficiently large discounts increase purchase likelihood (Liu et al., 2020). Excessive promotional reliance may also condition consumers to delay purchases until discounts appear, potentially undermining long-term pricing power (Vatta & Chehan, 2025; Liu et al., 2020). Additionally, the perceived attractiveness of discounts depends heavily on design factors such as presentation format (percentage vs. absolute reduction), stacking strategies, and alignment with product type and hedonic expectations (Büyükdağ et al., 2020; Qin et al., 2025; Lee & Chen-Yu, 2018). Overall, while attractive discounts generally increase purchase and platform usage frequency, their effectiveness is contingent upon depth, framing, product context, and strategic moderation to avoid long-term value erosion.

H2: Discount attractiveness positively influences frequent usage.

Utilitarian Value Perspective

Perceived convenience has consistently been identified as a central driver of both initial adoption and frequent use of online food delivery (OFD) applications across diverse national contexts. Conceptually rooted in technology acceptance and service convenience frameworks, convenience reflects consumers' perceptions of time savings, effort reduction, and procedural simplicity. Empirical evidence demonstrates that perceived convenience directly increases behavioural and continuance intentions toward OFD apps (Yeo et al., 2017; Wiastuti et al., 2022; Chowdhury, 2023; Karahan, 2025). Service convenience dimensions—including ordering, payment,

delivery, and post-purchase benefits—have also been shown to significantly enhance usage intention (Wang et al., 2025). Meta-analytic structural modeling further confirms that convenience strengthens perceived ease of use, which subsequently enhances perceived usefulness and intention to use OFD services (Chiu et al., 2024). Studies across Indonesia, Bangladesh, Lebanon, Turkey, and other markets consistently find that convenience positively shapes attitudes and, through attitudinal pathways, influences behavioural and continuance intention (An et al., 2023; Hong et al., 2021; Maalouf et al., 2025; Huang et al., 2025). Importantly, longitudinal and continuance-focused research indicates that convenience remains critical not only for first-time adoption but also for sustained and frequent usage behavior (Foroughi et al., 2023; Huang et al., 2025). A post-pandemic Malaysian study reports that perceived convenience exerts the strongest influence on overall customer behavior, including usage frequency, compared with promotional incentives and service quality (Lok et al., 2025). Qualitative evidence similarly identifies convenience, speed, and accessibility as primary reasons for regular weekly usage among students and urban consumers (Varsini & Ranjani, 2025; Barcelona et al., 2024). Overall, the literature consistently supports the conclusion that perceived convenience is a robust and cross-contextual predictor of continued and frequent food delivery app use.

H3: Convenience perception positively influences frequent usage.

Dual-Process Perspective

Impulsive ordering behaviour on food delivery applications reflects a dual-process decision pattern in which affective and deliberative mechanisms operate simultaneously. Drawing on stimulus–organism–response (S–O–R) and dual-process theories, several studies demonstrate that affective drivers such as pleasure, arousal, cravings, and hedonic value significantly shape ordering behaviour. App aesthetics and convenience quality evoke emotional responses that increase continuance intentions (Kumar & Shah, 2021; Handayani et al., 2022). Hedonic value and social influence have been linked to over-ordering behavior, suggesting that emotionally driven consumption may extend beyond immediate need (Shamim & Misra, 2025). Positive anticipated emotions also predict mobile food app purchase intention more strongly than stable food values, reinforcing the role of affective forecasting in app-based consumption (Núñez-Fernández et al., 2021). Additionally, both internal stimuli (e.g., late-night cravings) and external stimuli (e.g., deals, reviews, and promotions) inspire spontaneous ordering decisions and satisfaction outcomes (Malik et al., 2024).

At the same time, cognitive and utilitarian factors exert a robust influence on decision-making, indicating that impulsivity is embedded within broader rational evaluations. Determinants such as price value, trust, safety, performance expectancy, delivery time, information quality, and perceived usefulness significantly shape adoption and continuance intentions (Tandon et al., 2021; Chakraborty et al., 2022; Tran et al., 2024; Jun et al., 2021; Lee et al., 2019; Hong et al., 2023; Muangmee et al., 2021; Gunden et al., 2020; Cuong, 2024; Burlea-Schiopoiu et al., 2021). Promotional visibility and discount framing can trigger fast, affect-laden choices, yet their effectiveness often depends on perceived value and trust considerations (Sharma et al., 2021; Shah et al., 2021).

Overall, food delivery app usage reflects a dual-system structure: impulsive, emotion-driven decisions—particularly during deal-driven campaigns or craving-based moments—coexist with deliberative evaluations of price, quality, and reliability. Thus, impulsive ordering is not purely irrational; rather, it operates within a hybrid decision environment where affective triggers accelerate behavior while cognitive assessments provide structural boundaries.

H4: Impulse ordering positively influences frequent usage.

Economic Restraint Mechanism

Price sensitivity is consistently associated with stricter evaluation standards and lower purchase likelihood unless value is clearly justified. The literature suggests that price-sensitive consumers engage in more intensive price–benefit trade-off analysis, effectively raising the threshold a product must meet before purchase. For instance, price-conscious consumers devote greater attention to price information and carefully weigh benefits against costs, which significantly reduces purchase likelihood when perceived value is insufficient (Rihn et al., 2018). Experimental and neurobehavioral research further shows that when price information becomes salient (price primacy), consumers shift toward monetary evaluation rather than pure desirability, tightening their internal decision criteria (Karmarkar et al., 2015; Levrini & Santos, 2021).

Across product categories—including fast fashion, FMCG, ethical, and green products—price sensitivity exhibits a negative relationship with purchase intention, particularly when prices exceed consumers' internal reference points (Emirat et al., 2025; Mamuaya, 2024; Mahajan, 2025). Even when consumers express positive attitudes toward ethical or local products, high price sensitivity dampens intention due to perceived price premiums (Rehman et al., 2024; Toukabri & Shili, 2025). Moreover, perceptions of "cheapness" or price fairness mediate the effect of price sensitivity on buying decisions; without strong value cues, intention declines significantly (Çakici & Tekeli, 2021; Medina et al., 2020; Tangri, 2025).

Overall, the evidence supports the conclusion that price-sensitive consumers impose higher evaluation thresholds, scrutinize monetary value more rigorously, and require clearer signals of economic advantage before committing to purchase.

H5: Price sensitivity negatively influences frequent usage.

III. Conceptual Framework

This study proposes an integrated conceptual framework to explain frequent food delivery application usage among students in Tier-3 Indian cities. Relying on the habit formation theory, reinforcement theory, dual-process theory, and perceived value framework, this study add both instinctive and intentional behavioural pattern.

Habit represents instinctive behavioural trend that developed because of frequent past usage, which subsequently reduces the need for conscious decision-making. Attractive discount offers which fully grasp concept of promotion reinforcement mechanisms that eventually induce repeated engagement through perceived economic savings. Convenience perception shows the practical value of FDA, which facilities time saving, ease to use and reduce hassle in getting food. Impulse ordering reflect emotional -driven behaviour which was induce by emotional states, cravings, or promotional techniques that used by these FDA. In other hand, the price sensitivity shows an economic huddles that may reduce usage frequency when consumers perceive prices are higher and not fall within their budget.

Therefore, above stated variables shows the interplay between behavioural instinctive, promotional reinforcement, utilitarian benefits, emotional triggers, and economic evaluation, which all influence the tendency of frequent food delivery app usage. Age is included as a control variable to account for potential differences in financial independence and lifestyle patterns among students.

Control Variable: Age

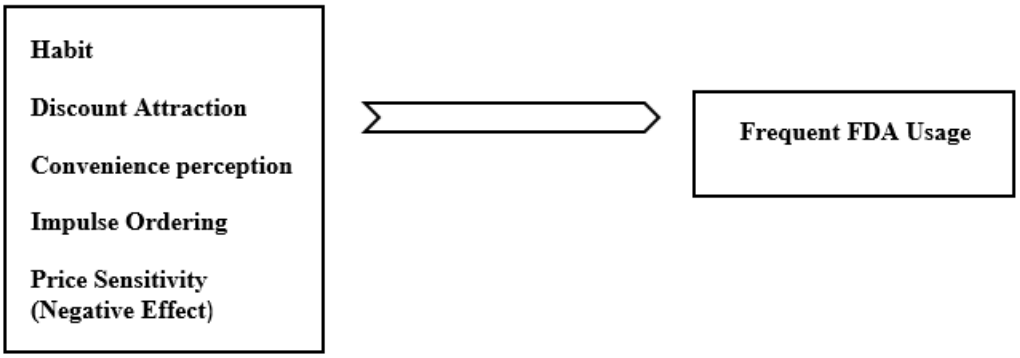

Figure 1. Conceptual Framework

IV. Methodology

Research Design: This study adopts a quantitative, cross-sectional research design to examine the factors influencing frequent use of food delivery applications among students in Tier 3 cities of India. A positivist research paradigm was employed to test theoretically derived hypotheses using structured survey data and multivariate statistical analysis. The design is explanatory in nature, as it seeks to establish relationships between independent variables (Convenience, Discount Attractiveness, Impulse Ordering, Habit, and Price Sensitivity) and the dependent variable (Frequent Use).

Population and Sampling: The target population comprised university and college students residing in Tier 3 cities in India who had prior experience using food delivery applications (e.g., Swiggy, Zomato). Students were selected because they represent a digitally active segment with high adoption of app-based consumption services.

A non-probability convenience sampling technique was used due to accessibility considerations. Data were collected through an online questionnaire distributed via student networks and institutional groups.

Table 1. Demographic Profile of Respondents (N = 312)

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	162	51.9
	Female	145	46.5
	Other	5	1.6
Age (years)	18–20	104	33.3

Variable	Category	Frequency (n)	Percentage (%)
	21–23	148	47.4
	24–26	46	14.7
	Above 26	14	4.6
Education Level	Undergraduate	228	73.1
	Postgraduate	72	23.1
	Diploma/Other	12	3.8
Monthly Allowance / Income (INR)	Below ₹5,000	86	27.6
	₹5,001–₹10,000	124	39.7
	₹10,001–₹15,000	64	20.5
	Above ₹15,000	38	12.2
Frequency of Food Delivery App Use	Once a month	42	13.5
	2–3 times/month	96	30.8
	Once a week	118	37.8
	More than once a week	56	17.9

The sample consisted primarily of undergraduate students (73.1%), with a relatively balanced gender distribution. Most respondents were aged between 21–23 years (47.4%), followed by 18–20 years (33.3%). A majority reported a monthly allowance between ₹5,001–₹10,000 (39.7%). In terms of usage behavior, 55.7% of respondents reported using food delivery applications at least once per week, indicating moderate to high engagement with app-based food services.

Measurement of Variables

All study constructs were measured using multi-item scales adapted from previously validated instruments in the online food delivery and consumer behaviour literature. The questionnaire consisted of statements measuring habit, discount attractiveness, convenience perception, impulse ordering tendency, and price sensitivity. Respondents indicated their agreement with each statement using a five-point Likert scale, where 1 = strongly disagree and 5 = strongly agree.

The items were adapted to suit the context of food delivery applications while retaining their conceptual meaning. Habit was measured using items reflecting the automatic and routine use of food delivery applications in everyday life, adapted from established technology continuance studies (Lee et al., 2019; Foroughi et al., 2023). Convenience perception was assessed through items capturing perceived time savings, ease of ordering, and reduction of effort associated with app-based food ordering, based on the service convenience framework proposed by Yeo et al. (2017) and subsequent online food delivery studies.

Discount attractiveness was measured through items evaluating consumers' perceptions of the appeal and value of promotional offers, coupons, and price reductions available on food delivery platforms. These items were adapted from price promotion research examining perceived discount attractiveness and savings (Büyükdağ et al., 2020; Liu et al., 2020). Impulse ordering tendency was measured using items reflecting spontaneous and emotion-driven ordering behaviour when using food delivery applications, adapted from studies examining affective responses and impulsive consumption in digital food ordering contexts (Kumar & Shah, 2021; Malik et al., 2024).

Price sensitivity was measured through items assessing the extent to which respondents are attentive to food prices and sensitive to price increases when ordering through delivery platforms. The scale was adapted from consumer price sensitivity literature (Rihn et al., 2018; Karmarkar et al., 2015).

The dependent variable, frequent food delivery app usage, was operationalized as a binary variable. Respondents who reported ordering food once per week or more frequently were classified as frequent users (coded as 1), whereas those who reported ordering less than once per week were classified as non-frequent users (coded as 0). This operationalization is consistent with prior behavioural research examining repeated digital platform usage.

Reliability Analysis

Prior to conducting the regression analysis, the internal consistency reliability of the multi-item constructs was assessed using Cronbach's alpha coefficient. Reliability analysis was conducted to ensure that the measurement items for each construct consistently captured the underlying theoretical concept.

The results indicate satisfactory levels of internal consistency for all constructs. Cronbach's alpha values ranged from 0.78 to 0.88, exceeding the commonly recommended threshold of 0.70 for exploratory and behavioural research (Hair et al., 2019). These results confirm that the measurement scales demonstrate acceptable reliability and are suitable for further statistical analysis.

Table 2. Reliability Analysis of Measurement Scales

Construct	Number of Items	Cronbach's Alpha
Habit	4	0.88
Convenience Perception	4	0.85
Discount Attractiveness	3	0.83
Impulse Ordering	4	0.81
Price Sensitivity	3	0.78

The high reliability coefficients suggest that the items within each construct are strongly correlated and collectively measure the intended behavioural dimensions. Consequently, composite scores for each construct were calculated by averaging the corresponding item responses, and these composite variables were subsequently used as predictors in the binary logistic regression analysis.

Binary Logistic Regression Model

Since the dependent variable (Frequent_User) is dichotomous (e.g., 1 = Frequent User, 0 = Non-Frequent User), a binary logistic regression model is used to estimate the probability that a respondent is a frequent user of food delivery apps.

Model Specification

Let

$$Y=\begin{cases} 1, & \text{if respondent is Frequent} \\ 0, & \text{if respondent is Non-Frequent User} \end{cases}$$

The logistic regression model is expressed as:

$$\ln(P/1-P)=\beta 0+\beta 1(Habit)+\beta 2(Discount\ Attractiveness)+\beta 3(Convenience)+\beta 4(Impulse\ Ordering)+\beta 5(Price\ Sensitivity)+\beta 6(Age)+\varepsilon$$

Where:

- P = Probability of being a frequent user
- P/1-P = Odds of being a frequent user
- ln (P/1−P) = Log-odds (logit transformation)
- β0 = Intercept
- β1−β6 = Regression coefficients
- ε = Error term

Table 3. Model Fit Statistics

Statistic	Value
Omnibus χ^2 (6)	179.979***
Nagelkerke R^2	.576
Cox & Snell R^2	.402
Hosmer–Lemeshow χ^2	10.949 (p = .205)
Classification Accuracy	86%

The logistic regression results indicate that the model provides a strong and statistically significant fit to the data. The Omnibus Test of Model Coefficients is significant, $\chi^2(6) = 179.979$, $p < .001$, demonstrating that the set of predictors collectively improves the prediction of frequent food delivery app usage compared to the null model. The Nagelkerke R^2 value of .576 suggests that approximately 57.6% of the variance in frequent usage is explained by the model, indicating substantial explanatory power, while the Cox & Snell R^2 of .402 reflects moderate variance explained. The non-significant Hosmer–Lemeshow test, $\chi^2 = 10.949$, $p = .205$, confirms good model fit, as there is no significant difference between observed and predicted classifications. Furthermore, the overall classification accuracy of 86% indicates strong predictive performance, suggesting that the model reliably distinguishes between frequent and non-frequent users. Collectively, these findings support the robustness and adequacy of the regression model for explaining frequent food delivery app usage behaviour.

Table 4. Logistic Regression Results

Predictor	B	SE	Wald	p	Exp(B)	Interpretation
Habit	1.021	.147	47.873	.000	2.775	Strongest predictor

Predictor	B	SE	Wald	p	Exp(B)	Interpretation
Discount Attractiveness	.877	.140	39.220	.000	2.403	Reinforcement effect
Convenience	.822	.143	33.015	.000	2.274	Utilitarian driver
Impulse Ordering	.592	.130	20.665	.000	1.808	Affective driver
Price Sensitivity	-.752	.136	30.484	.000	.472	Economic restraint
Age	.148	.074	3.978	.046	1.159	Control

The logistic regression results reveal that all predictors are statistically significant at the 5% level. Habit emerges as the strongest predictor ($B = 1.021$, $p < .001$), with an odds ratio of 2.775, indicating that a one-unit increase in habit increases the likelihood of being a frequent user by approximately 177.5%, holding other variables constant. Discount Attractiveness ($B = .877$, $p < .001$; $Exp(B) = 2.403$) and Convenience ($B = .822$, $p < .001$; $Exp(B) = 2.274$) also substantially increase the odds of frequent usage, suggesting strong reinforcement and utilitarian effects, respectively. Impulse Ordering ($B = .592$, $p < .001$; $Exp(B) = 1.808$) positively influences frequent use, reflecting the role of affect-driven behaviour in increasing usage likelihood. In contrast, Price Sensitivity shows a significant negative effect ($B = -.752$, $p < .001$; $Exp(B) = .472$), indicating that higher price sensitivity reduces the odds of frequent usage by approximately 52.8%, functioning as an economic restraint. Among control variables, Age ($B = .148$, $p = .046$; $Exp(B) = 1.159$) has a modest but significant positive effect, suggesting that older students are slightly more likely to be frequent users. Overall, the findings indicate that habitual behaviour, promotional reinforcement, and convenience are key drivers of frequent app usage, while price sensitivity constrains repeated engagement.

V. Discussion

The findings of this study provide strong empirical support for the proposed model explaining frequent use of food delivery applications among students in Tier 3 cities of India. The logistic regression results demonstrate that habit, discount attractiveness, convenience, impulse ordering, and price sensitivity significantly influence frequent usage behaviour, collectively explaining substantial variance and achieving high predictive accuracy. The results align closely with prior theoretical and empirical literature.

First, habit emerged as the strongest predictor of frequent usage. This finding is consistent with continuance intention models and UTAUT2-based research, which emphasize habit as a critical determinant of repeated technology use (Lee et al., 2019; Foroughi et al., 2023). Habit reflects automaticity in behaviour, suggesting that once students integrate food delivery apps into their routine consumption patterns, usage becomes less deliberative and more reflexive. This supports dual-process perspectives, where repeated exposure reduces cognitive effort and strengthens behavioural consistency over time.

Second, discount attractiveness significantly increased the likelihood of frequent use, reinforcing the role of promotional stimuli in digital consumption environments. This finding aligns with research demonstrating that salient and well-designed discounts increase purchase incidence, usage intensity, and impulsive buying (Liu et al., 2020; Niu et al., 2024; Büyükdağ et al., 2020). In line with stimulus–organism–response (S–O–R) theory, discounts function as external stimuli that trigger positive affect and perceived savings, thereby reinforcing repeated engagement. However, prior literature also warns of non-linear and long-term risks of over-discounting (Vatta & Chehan, 2025), suggesting that while discounts drive frequency in the short term, sustainability of such strategies requires strategic moderation.

Third, convenience emerged as a strong utilitarian driver, supporting extensive prior evidence that perceived convenience directly enhances behavioural and continuance intentions (Yeo et al., 2017; Chiu et al., 2024; Wang et al., 2025). For students in Tier 3 cities—who may face time constraints, limited restaurant access, or transportation barriers—convenience reduces effort and transaction costs, making app-based ordering a rational and efficiency-driven choice. The findings reinforce technology acceptance theory (TAM), where perceived ease of use and usefulness translate into sustained engagement (An et al., 2023; Hong et al., 2021).

Fourth, impulse ordering positively influenced frequent use, confirming that affect-driven mechanisms play a meaningful role in app-based food consumption. Prior research highlights how hedonic value, cravings, app aesthetics, and emotional arousal stimulate spontaneous purchases (Kumar & Shah, 2021; Malik et al., 2024; Shamim & Misra, 2025). The present findings support a dual-process framework, wherein impulsive tendencies complement habitual and convenience-based motivations, particularly in digitally immersive environments characterized by personalized recommendations and promotional triggers.

In contrast, price sensitivity exerted a significant negative effect, functioning as an economic restraint on frequent usage. This result is consistent with evidence that price-conscious consumers apply stricter evaluation thresholds and are less likely to purchase unless clear value justification is present (Rihn et al., 2018; Karmarkar et al., 2015; Mamuaya, 2024). In the context of student consumers—who often operate within limited disposable income constraints—heightened price sensitivity may reduce frequency unless supported by discounts or

perceived savings. This finding complements the positive effect of discount attractiveness, highlighting a dynamic tension between economic restraint and promotional reinforcement.

Finally, the positive effect of age (control variable) suggests that slightly older students are more likely to be frequent users, potentially due to greater financial autonomy or lifestyle independence.

Theoretical Implications: The study advances the literature by integrating habit formation theory, technology acceptance models, price promotion research, and dual-process decision theory into a unified framework explaining frequent usage behaviour in emerging market contexts. Specifically, it demonstrates that frequent app usage is not driven by a single mechanism but rather by a combination of automatic (habit), utilitarian (convenience), affective (impulse), and economic (price-related) drivers. This multidimensional explanation extends existing OFD research, which often focuses primarily on adoption rather than frequency or habitual engagement.

Practical Implications: For platform managers targeting Tier 3 city students, the results suggest that strategies should prioritize: Habit formation mechanisms (loyalty programs, streak rewards, push notifications). Strategic discount design to reinforce frequency without eroding long-term value. Operational convenience improvements (faster delivery, seamless UI). Emotion-triggering features (limited-time offers, personalized recommendations). However, pricing strategies must remain sensitive to student income constraints, as excessive pricing without perceived value may suppress repeated engagement. Overall, the findings confirm that frequent food delivery app use among students in Tier 3 Indian cities is shaped by an interplay of behavioural automaticity, promotional reinforcement, convenience-based rationality, affective impulses, and economic evaluation thresholds, providing both theoretical depth and managerial relevance.

VI. Conclusion

This study examined the factors influencing frequent usage of food delivery applications among students in Tier-3 cities of India. Using survey data from 312 respondents and binary logistic regression analysis, the findings reveal that habit is the strongest predictor of frequent usage, followed by discount attractiveness and perceived convenience. Impulse ordering also positively influences usage, indicating the role of affect-driven decision making in digital food consumption. In contrast, price sensitivity negatively affects frequent usage, suggesting that economic constraints limit repeated engagement among student consumers.

Overall, the results indicate that frequent food delivery app usage in Tier-3 cities is shaped by a combination of habitual behaviour, promotional reinforcement, convenience benefits, and economic considerations. The study contributes to consumer behaviour literature by providing empirical evidence from an emerging urban context and offers practical insights for platform managers seeking to enhance user engagement in developing markets.

VII. Limitations Of The Study

This study has several limitations. First, the use of convenience sampling may limit the generalizability of the findings beyond the student population. Second, the cross-sectional research design captures behaviour at a single point in time and cannot explain how usage patterns evolve over time. Third, the study relies on self-reported survey responses, which may be subject to response bias. Finally, the model focuses on selected behavioural and economic factors, while other variables such as service quality, trust, and social influence were not included.

VIII. Future Research Directions

Future studies could extend this research by using larger and more diverse samples across multiple cities to enhance generalizability. Longitudinal research designs may also help examine how habit formation and platform usage evolve over time. Additionally, incorporating variables such as service quality, trust, delivery reliability, and social influence could provide a more comprehensive understanding of food delivery app usage behaviour. Comparative studies across different tiers of cities may further reveal structural differences in digital consumption patterns.

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