



## **Click, Order, Eat: A Critical Assessment of Online Food Aggregators' Mobile Apps in the Indian Dining Landscape**

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### **Abstract**

The rapid growth of online food delivery (OFD) applications has revolutionised consumer food consumption patterns, making mobile applications a key driver in modern food ordering experiences. The current study focuses on identifying the dimensions that influence consumers' attitudes towards using OFD applications in the Delhi-NCR region of India. A structured questionnaire was used for quantitative research with 310 OFD users, collected through convenience sampling. The three factors – Ease of Use and App Utility (54.46% of the total variance), Social Influence and Perceived Support (44.38% of the total variance), and Delivery and Service Effectiveness (5.63% of the total variance)- were identified in an exploratory factor analysis using principal component analysis with varimax rotation. The results indicate that the factors influencing the consumers' usage behaviour are convenience, social interaction and service efficiency. The findings of the study enrich the current literature on food delivery application services and recommend practical suggestions for food aggregators and app developers to enhance application usability, social engagement, and service effectiveness.

**Keywords:** Online food delivery, Mobile Applications, Consumer Behaviour, Exploratory Factor Analysis, Food Aggregators, India

### **Introduction**

Digital technologies have greatly transformed consumers' use and consumption of food services. An increasingly important phenomenon in this domain is the development of online food delivery (OFD) platforms, which have completely reshaped consumers' traditional food and drink consumption patterns by enabling them to order online via mobile devices. Zomato and Swiggy, for instance, have become popular platforms in India, offering an extensive choice of restaurants, live order tracking, digital payments, and personalised offers. They are platforms that rely on mobile applications, are a significant part of urban and semi-urban lifestyles, and

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have made it easy for consumers to view menus, compare food options, and place orders in seconds (Sethu, 2019; Ray et al., 2019). Consumers have embraced smartphones, affordable internet connections, and changing habits, which continue to increase the number of OFD applications they use as part of their modern dining experience.

The top channel for consumers to engage with online food aggregators is mobile apps. These applications not only enable transactions but also shape users' perceptions through their usability, interface design, information quality, and service-related features. Consumers have come to expect that their applications will be convenient, navigable, reliable, and offer interactive features that improve the ordering experience. Therefore, it is of great interest to researchers and practitioners to understand the factors affecting the use of OFD applications.

Food delivery via online platforms in India is among the fastest-growing segments, with metros seeing increased consumer adoption. The Delhi-NCR region, in particular, is home to a very diverse consumer base with high digital penetration and heavy use of online food aggregators. With increasing competition among food aggregator platforms, it has become critical to understand the dimensions that affect users' perceptions and, consequently, their usage behaviour to keep them engaged with the service and drive improvements in its performance.

Accordingly, the study focuses on consumers in the Delhi-NCR region to identify the factors influencing the use of these food delivery applications. The study uses Exploratory Factor Analysis to gain empirical insights into the factors influencing OFD application and to understand consumer behaviour in the rapidly evolving digital food delivery landscape.

## **Literature Review**

### **2.1. Evolution of Online Food Delivery Platforms**

The pace of development of digital technology has fundamentally changed the trajectory of the food service industry, and thus the food aggregator platforms have emerged and grown. In the past, food delivery was mainly dependent on telephone ordering and restaurant-run delivery services. But with the rise in internet penetration, the acceptance of smartphones and the changing lifestyles of the consumers, the shift towards using technology for food ordering and delivery of food has been hastened. The advent of mobile apps in the food service industry has revolutionised the way people now interact with restaurants and gain access to food services.

The growth of e-commerce and digital ecosystems has been closely linked to the emergence of OFD platforms. Most websites for online orders were initially the restaurant's own. As time went on, third-party aggregators

entered the scene, offering customers access to several restaurants via a single application and adding extra functionality such as digital payments, order tracking, ratings and reviews, and other recommendations. All these developments have led to lowering the friction of food consumption, as a result, usage of food delivery aggregators has become popular amongst consumers.

As per Kapoor and Vij (2018), the dining experience has been revolutionised with the help of mobile applications, which incorporate features that include visual design, navigational options, information quality, and collaborative features which impact consumers' buying decisions. They pointed out the mobile application's growing importance as a tool for converting customers in the Indian food delivery industry. Similarly, Belanche et al. (2020) emphasised the importance of lifestyle adaptation and technological match for the increase in use and adoption of food delivery apps. Mobile applications, the authors said, are convenient and flexible, and fit ongoing busy consumer lifestyles.

Recent evidence indicates that OFD research is no longer about ordering systems over the Web, but is emerging into full-fledged mobile app ecosystems with new and emerging technologies. The online food delivery services have been transformed from traditional internet-based platforms to mobile application-based platforms and, recently, technologically enhanced services such as artificial intelligence and drone delivery systems (Prentice et al., 2022). The transition reflects the growing impact of digital innovations on consumer behaviour and the contemporary dining scene.

Food delivery platforms have become more than just a channel for delivery; it is a digital ecosystem that affects the customer experience, service interactions and restaurant operations. As they continue to expand, there is a new demand to gain empirical insights into the factors that influence consumer usage behaviour and define the future of technology-enabled dining.

## **2.2. Technology Adoption and Consumer Behaviour in Online Food Delivery Applications**

Food delivery aggregators have experienced rapid growth, which has led to increased academic research into the factors influencing consumer adoption and usage behaviour. The adoption and continued use of digital platforms have been widely examined through established theories, including the Technology Acceptance Model (TAM), the Unified Theory of Acceptance and Use of Technology (UTAUT), and the Theory of Planned Behaviour (TPB), which provide insights into the technological and behavioural drivers of user behaviour.

The initial research focused primarily on perceived usefulness and ease of use as the two most important factors in technology adoption. For example, Lee et al. (2019) found that performance expectancy, information quality and social influence have a significant impact on consumers' willingness to keep using food delivery applications. Similarly, Alalwan (2020) highlighted that online reviews, online ratings and tracking facilities are positive factors that affect customer satisfaction and re-usage intention in mobile ordering applications.

Current scholarship indicate that consumer behaviour in the OFD environment goes beyond the traditional technology acceptance measures. The COVID-19 pandemic has hastened the shift towards online food delivery services (OFDS) and reinforced the role of convenience and digital interactions (Troise et al., 2021). Likewise, Pillai et al. (2022) identified perceived benefits such as convenience, trust, order accuracy, and variety as significant factors affecting consumers' purchase intention for OFD services. They have also found that the effect of perceived risk on consumer behaviour is negative, which is contrary to common belief.

Prentice et al. (2022) conducted a systematic review of the literature on online food delivery and noted that, over time, the focus of research has evolved from understanding the initial adoption process to studying a wider range of consumer experience, service quality and digitally mediated interactions. The authors observed that the current literature has been more focused on integrating behavioural and technological approaches to understanding usage patterns in food delivery ecosystems.

Recent studies have shown that perceived value, food safety, task-technology fit, and ease of use are important factors that impact food delivery app consumers' continuance intention (Foroughi et al., 2023). The results showed that consumer behaviour in digital food delivery is multidimensional and will not be fully understood by traditional technology adoption variables. This has made it more important than ever to understand the overall context that affects the application of OFD usage, not just from a research perspective but also from a practitioner perspective, for improving customer engagement and maintaining the competitiveness of the platform.

### **2.3. Ease of Use and App Utility**

The ease of use and utility of the application have always been considered significant factors that impact consumers' adoption and ongoing use of online food delivery (OFD) apps. Perceived ease of use is adapted from the TAM and is the extent to which a consumer believes that using a specific technology will be easy, while app utility is the degree to which the technology will help one complete a task and give users functional benefits.

Previous research has highlighted the importance of digitally oriented platforms being easier to use, more efficient and able to streamline the ordering process. For food delivery applications, Lee et al. (2019) found that perceived ease of use and information quality are significant factors in users' intention to continue using them. Similarly, Alalwan (2020) concluded that the impact of customer satisfaction and the intention of reusing a product were positive for features that include accurate information, order tracking facilities, and ease of navigation.

The ease of use is not just about the simplicity of the interface; there is recent evidence that it has several dimensions: convenience, information accessibility, and information value. Gao et al. (2024) showed that information quality, perceived ease of use, perceived usefulness, and convenience are significant factors affecting customer satisfaction and re-use intention towards online food delivery applications. Their conclusions suggest that consumers want applications to provide consistent information and smooth interactions to aid them in making their choices. In another study, Foroughi et al. (2024) found that the perceived value and task-technology fit dimensions, as well as food safety perception, were significant factors affecting continuance intention among food delivery application users. The researchers emphasised that technological capabilities must match consumers' expectations in order to improve long-term engagement.

Recent meta-analytic research provides additional support for the view that effort expectancy and performance expectancy are among the most important factors driving consumers' behaviour towards OFD platforms. Studies by researchers at the International Journal of Hospitality Management have shown that convenience, usability, and perceived value are important factors consumers consider when assessing food delivery apps.

It is concluded, based on the existing literature, that consumers generally seek applications that are aesthetically pleasing, intuitive, and provide efficient, reliable experiences when using the OFD. Those features boost consumers' sense of usefulness and convenience, which helps to optimise their app experience and lead to higher behavioural engagement with digital food delivery.

#### **2.4. Social Influence and Perceived Support**

Social influence and perceived support have proved to be significant factors affecting consumers' initial intentions to use and their ongoing use of online food delivery (OFD) applications. The social influence model is based on the UTAUT which is the degree to which individuals feel that significant others like family members, friends, peers, and online communities influence their decisions about technology use. Social influence can be understood as extending beyond recommendations between people and encompasses

online reviews and ratings, social media engagement, and community involvement in the context of OFD applications.

Previous research has shown the significance of social relations in influencing users' intentions concerning food delivery apps. Lee et al. (2019) found that social influence plays a significant role in the consumers' continuous intention to use OFD platforms. Likewise, Alalwan (2020) found that electronic word of mouth, ratings and tracking facilities have positive impacts on customer satisfaction and reuse intention. The results indicate that consumers are more likely to use information from others to minimise information uncertainty and increase their confidence in digital transactions.

Emerging studies have shown that social influence has come to the fore in digitally-connected settings. Goyal et al. (2023) found that trust in the food service platform and trust in the user community are positively related to consumers' continuance and sharing intentions. The results indicate that social interaction and user-generated content contribute to customer involvement and long-term relationships with food delivery services. Similarly, the most recent meta-analytic studies have validated social influence as a factor affecting consumers' behavioural intentions toward OFD services, alongside performance expectancy and facilitating conditions.

In addition, recent studies have highlighted the importance of trust and relationship quality in enhancing consumers' engagement with digital platforms. A growing body of contemporary research suggests that trust and commitment among customers are important channels through which social influences manifest in continuance intention and recommendation behaviour. Therefore, the OFD platforms must be efficient and also help build social involvement, transparency, and support from the community, all of which are essential in promoting continued use.

Cumulatively, the existing literature reviewed indicates that social interaction and perceived support in the digital ecosystem can greatly influence consumers' perceptions. These factors help build trust, engage customers, and enhance the adoption of online food delivery apps.

## **2.5. Delivery and Service Effectiveness**

Delivery and service effectiveness are important factors determining customer experiences within the online food delivery (OFD) system. Unlike traditional e-commerce sites, each of the three- restaurant, delivery personnel, and digital platform stakeholders are essential to the entire chain, and service quality and efficiencies are critical to customer satisfaction and usage. As a result, the timeliness of delivery, accuracy of orders, responsiveness, and reliability have come to the fore as critical factors that affect the consumers' perception of OFD applications.

Past research has always focused on the importance of service quality for customer behaviour. According to Alalwan (2020), service-related attributes such as order tracking facilities and delivery reliability significantly affect customer satisfaction and continuance intention. Likewise, Pal et al. (2021) found that delivery time, order fulfilment, and responsiveness of services to the delivery company towards the customer positively influence the customer satisfaction and loyalty of online food delivery app users. They conclude that baseline operational efficiency is corner stone to establish long-term customer relations.

Contemporary studies have further highlighted the importance of service quality and platform effectiveness in enhancing customer experiences. Lin et al. (2024) identified that satisfaction from mobile applications has a positive spillover effect on the perceptions of service quality, which in turn affects consumers' behavioural intentions. Efficient service delivery and seamless interactions are important factors in retaining customers, the authors said. Similarly, Gao et al. (2024) confirmed that convenience, service efficiency, and the ability to consistently satisfy customer expectations are very closely associated with customer satisfaction and reuse intention.

Furthermore, current research indicates a trend toward users being more selective in their use of OFD platforms, depending on reliability and timeliness. In highly competitive digital food delivery markets, service effectiveness is becoming a hot topic in relation to operational excellence. Such factors can enhance user experiences, build trust with users and continue to engage customers with the OFD application, whilst maintaining the efficiency described. In addition to these efficiencies, the factors of user satisfaction and experience, quick order processing, and quick customer support positively influence user trust and engagement with OFD applications, which further foster continued interaction.

In general, the literature suggests that delivery and service effectiveness are critical components of consumer assessments in the OFD context. Platforms that provide reliable, high-quality service are more likely to improve customer satisfaction, encourage customer loyalty, and maintain long term usage habits.

## **2.6. Synthesis of Literature and Research Gap**

Previous research on online food delivery services has primarily examined technology adoption, customer satisfaction, customer loyalty, and continuance intention. Although a number of studies have studied single determinants affecting consumer behaviour, there has been less focus on identifying and categorising the underlying determinants of the use of an online food aggregator (OFA) mobile app. Moreover, empirical evidence of the size parameters that affect the use of OFA in the Indian context,

specifically the Delhi NCR region, is still scarce. Hence, the aim of this study is to find and establish the significant factors influencing the use of OFA mobile applications and to add to the understanding of consumer behaviour in the digital food service ecosystem.

## Research Methodology

### 3.1. Research Design

Consumer responses were analysed through a quantitative research framework, while descriptive and exploratory procedures were employed to uncover the factors shaping the use of online food aggregator mobile applications. To examine consumer behaviour related to online food aggregator applications, primary data were collected from respondents in the Delhi-NCR region through a cross-sectional survey. The study sought to investigate the underlying dimensions of OFA usage and give insight into consumer behaviour in the digital food delivery ecosystem.

### 3.2. Population and Sampling

The study aimed to reach the users of the online food aggregator (OFA) mobile applications in the Delhi-NCR area. Using a convenience sampling approach, the study collected primary data from individuals with prior experience using online food delivery applications. 310 valid responses were received and analysed. The sample size was considered satisfactory for Exploratory Factor Analysis (EFA) based on previous methodological studies.

### 3.3. Questionnaire Development

The questionnaire framework emerged from a review of scholarly work on online food delivery and technology adoption. Indicators used to measure the study constructs were sourced from prior studies and subsequently adapted to align with the context of the OFA mobile app. The questionnaire was organised into two distinct components. The first component recorded participants' demographic characteristics, while the second incorporated scale items intended to examine the dimensions influencing OFA mobile application usage. Responses to the measurement items were captured using a five-point Likert framework, in which higher scores indicated stronger agreement and lower scores reflected stronger disagreement.

**Exhibit 1.1:** Variables & Their Sources

| S. No. | Statements                     | References                                            |
|--------|--------------------------------|-------------------------------------------------------|
| 1.     | The OFD app is easy to operate | Jun <i>et al.</i> (2021), Troise <i>et al.</i> (2020) |
| 2.     | Learning to use OFD is simple  | Jun <i>et al.</i> (2021), Troise <i>et al.</i> (2020) |

|     |                                                      |                                         |
|-----|------------------------------------------------------|-----------------------------------------|
| 3.  | Requires minimal effort to use                       | Troise et al. (2020)                    |
| 4.  | Interaction with the OFD platform is understandable  | Jun et al. (2021),Troise et al. (2020)  |
| 5.  | Reduction in waiting time                            | Rayet al. (2019)                        |
| 6.  | Minimises the need for travel                        | Prasteyo et al.. (2021)                 |
| 7.  | Variety of payment options                           | Troise et al. (2020)                    |
| 8.  | Wide selection of restaurants                        | Troise et al. (2020)                    |
| 9.  | Keyword search has less effort                       | Prasteyo et al. (2021)                  |
| 10. | Provides real-time tracking                          | Prasteyo et al. (2021)                  |
| 11. | Convenient and simple payment process                | Prasteyo et al. (2021)                  |
| 12. | OFD provides photo reviews                           | Rayet al. (2019)                        |
| 13. | Support from the customer service team               | RohandPark (2017)                       |
| 14. | Effective grievance handling                         | RohandPark (2017)                       |
| 15. | Courteous behaviour of delivery staff                | RohandPark (2017)                       |
| 16. | OFD gives product Info in a short time               | Tandon et al. (2017),Yeo et al. (2016)  |
| 17. | Quick Delivery by OFD services                       | RohandPark (2017)                       |
| 18. | Time-saving benefits of OFD                          | Tandonetal. (2017)                      |
| 19. | OFD is available anywhere, anytime                   | Tandonetal. (2017)                      |
| 20. | OFD have security measures                           | Tandonetal. (2017)                      |
| 21. | Confidence in OFD's ability to safeguard information | Sjahroeddin(2018)                       |
| 22. | OFD is useful in Daily life                          | Karulkaretal. (2019),RohandPark (2017)  |
| 23. | OFD makes food ordering efficient                    | Jun et al. (2021)                       |
| 24. | OF Denhances effectiveness in food ordering          | Jun et al. (2021)                       |
| 25. | Recommendations from others to use OFD               | Junet al. (2021),Troiseet al. (2020)    |
| 26. | Influence from peers to place orders                 | Junet al. (2021),Troiseet al. (2020)    |
| 27. | Opinions of people I value                           | Troise et al. (2020)                    |
| 28. | I have seen friends ordering from OFD                | Rayet al. (2019)                        |
| 29. | Assurance of personal control while using OFD        | Troise et al. (2020)                    |
| 30. | Enjoyment derived from OFD                           | Jun et al. (2021)                       |
| 31. | Perception of OFD as an exciting technology          | Rahman et al. (2020), Jun et al. (2021) |

### 3.4. Reliability and Validity Assessment

The quality of the instrument of measurement and the extent of the data set were first assessed before the underlying dimensions were identified. Results of the reliability analysis were satisfactory, with Cronbach's  $\alpha$

values, while the KMO and Bartlett's tests supported the assumption that the observed variables showed strong interrelationships, which warranted factor extraction.

### 3.5. Data Analysis Techniques

The data collected from the survey were analysed using IBM SPSS Statistics (Version 31.0). Demographic and respondent-related data were analysed descriptively, and the consistency of the measurement scales was assessed by Cronbach's alpha. Factor analytic procedures, such as principal component extraction and orthogonal Varimax rotation, were used to explore the underlying structure of mobile application usage of OFA. The dimensions were kept and interpreted based on the eigenvalues that are more than one and the loading coefficient is more than 0.40. Ethical issues were addressed throughout the study, including the voluntary nature of participation, providing information about the study, maintaining the confidentiality of respondents, and limiting the use of information collected for academic purposes.

## Results and Discussions

### 4.1. Profile of Respondents

The demographic profile of respondents who participated in the study is shown in Exhibit 1.2. The sample consisted of users of online food aggregator (OFA) mobile applications from the Delhi-NCR region, with diverse demographic characteristics. Most of the respondents were in the younger age group and had a higher frequency of using food aggregator applications. The diversity of the sample makes the distribution of perceptions of consumers more representative, and the analysis of the factors influencing the use of the OFA mobile applications is more suitable.

**Exhibit 1.2: Respondents Profile**

| Category   | Sub-category           | Percentage (%) |
|------------|------------------------|----------------|
| Gender     | Male                   | 56.1           |
|            | Female                 | 43.9           |
| Age Group  | 18-25 years            | 34.9           |
|            | 26-35 years            | 31.8           |
|            | 36-45 years            | 20.2           |
|            | Above 45 years         | 13.1           |
|            | Graduate               | 41.4           |
| Education  | Postgraduate           | 30.6           |
|            | Diploma/Certificate    | 18.0           |
|            | Others                 | 10.0           |
|            | Service                | 39.8           |
| Occupation | Student                | 25.3           |
|            | Business/Self-employed | 18.8           |
|            | Homemaker              | 16.1           |

|                |                  |      |
|----------------|------------------|------|
| Monthly Income | Below ₹25,000    | 19.6 |
|                | ₹25,001-₹50,000  | 28.8 |
|                | ₹50,001-₹75,000  | 24.5 |
|                | ₹75,001-₹100,000 | 15.5 |
|                | Above ₹100,000   | 11.6 |

## 4.2. Reliability and Validity Assessment

Cronbach's alpha was used to assess the scale's reliability and showed satisfactory internal consistency ranging from 0.834 to 0.912. Before proceeding with factor extraction, the adequacy of the data in Section B was assessed using the KMO index and Bartlett's test of sphericity. As shown in Exhibit 1.3, the results provided evidence for the appropriateness of applying exploratory factor analysis to the variables measuring determinants of online food delivery app usage. These tests are useful for determining if the sample size is adequate and if the variables are meaningful for factor analysis.

**Exhibit 1.3:** Bartlett's Test& KMO Test

| Measure                                  | Value     |
|------------------------------------------|-----------|
| Kaiser-Meyer-Olkin Measure (KMO)         | 0.972     |
| Bartlett's Test of Sphericity - $\chi^2$ | 10735.904 |
| Degrees of Freedom (df)                  | 465       |
| Significance (Sig.)                      | < 0.001   |

When compared with the value of Kaiser (1974), the sampling adequacy is considered an excellent value with a KMO score of 0.972. This implies that the Dataset can be used for factorisation. A significant Bartlett's test statistic ( $\chi^2 = 10735.904$ ,  $df = 465$ ,  $p < 0.001$ ) demonstrated that the observed variables shared adequate associations, providing empirical support for proceeding with exploratory factor analysis. These results corroborate the choice of factor analysis in order to select and cluster the most significant dimensions that have an impact on user adoption and online food delivery application actions.

## 4.3. Exploratory Factor Analysis

### 4.3.1 Factor Extraction and Rotation

Exploratory factor analysis was used to identify factors in OFD mobile application usage. The KMO index was very high (0.972), and Bartlett's test result was significant ( $\chi^2 = 10735.904$ ,  $p < 0.001$ ), which meant that the interrelationships among the variables were appropriate for the extraction of meaningful factors. The process was broken down into three primary components, representing different constructs that can influence user adoption and involvement with the OFD platforms. The items were selected for their high factor loadings ( $> 0.4$ ) and ease of interpretation.

**Exhibit 1.4: Factors affecting usage of Food Aggregators' Mobile Applications**

| Rotated Component Matrix                             |           |      |       |
|------------------------------------------------------|-----------|------|-------|
|                                                      | Component |      |       |
|                                                      | 1         | 2    | 3     |
| Learning to use OFD is simple                        | .751      | .260 | .133  |
| The OFD app is easy to operate                       | .716      | .280 | .113  |
| Wide selection of restaurants                        | .709      | .150 | .296  |
| Minimises the need for travel                        | .706      | .182 | .181  |
| Provides real-time tracking                          | .667      | .341 | .200  |
| Variety of payment options                           | .657      | .173 | .384  |
| Convenient and simple payment process                | .653      | .279 | .322  |
| Keyword search has less effort                       | .633      | .244 | .337  |
| Requires minimal effort to use                       | .620      | .203 | .388  |
| I have seen friends ordering from OFD                | .573      | .529 | -.023 |
| Interaction with the OFD platform is understandable  | .551      | .185 | .499  |
| OFD gives product Info in a short time               | .484      | .353 | .447  |
| Opinions of people I value                           | .155      | .787 | .259  |
| Recommendations from others to use OFD               | .099      | .737 | .358  |
| Influence from peers to place orders                 | .116      | .734 | .327  |
| Enjoyment derived from OFD                           | .385      | .668 | .138  |
| Confidence in OFD's ability to safeguard information | .161      | .623 | .473  |
| Assurance of personal control while using OFD        | .358      | .617 | .236  |
| Perception of OFD as an exciting technology          | .455      | .611 | .109  |
| OFD enhances effectiveness in food ordering          | .417      | .604 | .286  |
| OFD have Security Measures                           | .291      | .597 | .385  |
| OFD is useful in Daily life                          | .329      | .583 | .294  |
| OFD makes food ordering efficient                    | .455      | .568 | .250  |
| OFD provides photo reviews                           | .408      | .450 | .399  |
| Effective grievance handling                         | .232      | .400 | .689  |
| Support from the customer service team               | .163      | .431 | .688  |
| Courteous behaviour of delivery staff                | .355      | .331 | .622  |
| Quick Delivery by OFD services                       | .322      | .401 | .616  |
| Reduction in waiting time                            | .480      | .128 | .527  |
| Time-saving benefits of OFD                          | .409      | .404 | .473  |
| OFD is available anywhere anytime                    | .370      | .417 | .418  |
| Extraction Method: Principal Component Analysis.     |           |      |       |
| Rotation Method: Varimax with Kaiser Normalisation.  |           |      |       |
| a. Rotation converged in 11 iterations.              |           |      |       |

#### 4.3.2. Extracted Factors Affecting OFA Usage

After conducting exploratory factor analysis, three dimensions were found to influence usage of food aggregator (OFA) mobile applications: Ease of Use, Social Influence, and Service Effectiveness.

The **first factor** – Ease of Use – was the most influential and included user-friendliness, convenience and usefulness of OFA applications. The result aligns with previous research, which emphasises ease of use and perceived usefulness as pivotal factors influencing consumers' intention to use the food delivery apps (Lee et al., 2019; Alalwan, 2020; Gao et al., 2024).

### **Factor 1: Perceived Ease of Use and App Utility**

This factor comprises items that strongly emphasise the functional simplicity, navigation, and usefulness of the OFD application. Key elements include:

- Learning to use OFD is simple (.751)
- The OFD app is easy to operate (.716)
- Wide selection of restaurants (.709)
- Minimises the need for travel (.706)
- Provides real-time tracking (.667)
- Convenient and simple payment process (.653)
- Requires minimal effort to use (.620)

The second factor, Social Influence, was related to the influence of recommendations, reviews and peers in influencing consumers to use OFA applications. Lee et al. (2019) and Goyal et al. (2023) reported similar results, highlighting that social interactions and trust affect consumers' continuance intentions.

### **Factor 2: Social Influence and Perceived Support**

This aspect involves various components relating to social norms, peer influence, and the user's belief in the system. The most significant components are:

- Opinions of people I value (.787)
- Recommendations from others to use OFD (.737)
- Influence from peers to place orders (.734)
- Enjoyment derived from OFD (.668)
- Confidence in OFD's ability to safeguard information (.623)
- Assurance of personal control while using OFD (.617)
- Perception of OFD as an exciting technology (.611)

Service Effectiveness encompassed delivery efficiency, reliability, and service quality. This result aligns with previous research that showed that delivery time and service quality are significant factors affecting customer satisfaction and loyalty towards online food delivery services (Pal et al., 2021; Alalwan, 2020).

### **Factor 3: Delivery & Service Effectiveness**

This factor captures user perceptions regarding delivery efficiency, responsiveness, and interactions with the service team. The key aspects include:

- Effective grievance handling (.689)
- Support from the customer service team (.688)
- Courteous behaviour of delivery staff (.622)
- Quick delivery by OFD services (.616)
- Reduction in waiting time (.527)
- Time-saving benefits of OFD (.473)

In general, findings suggest that several factors affecting technology, society, and services can affect consumers' mobile app usage in OFA, pointing to the multifactorial nature of consumer behaviour in the digital food delivery system.

#### 4.3.3. Total Variance Explained

The total variance explained by the extracted factors is shown in Exhibit 1.5. The three factors explained a significant portion of the total variance, as is expected, given that the factor structure reflects the underlying dimensions affecting the use of the online food aggregator (OFA) mobile application. The percentage of variance explained is deemed acceptable for exploratory studies and validates the factor structure obtained.

**Exhibit 1.5: Total Variance Explained**

| Component | Rotation Sums of Squared Loadings | % of Variance | Cumulative % |
|-----------|-----------------------------------|---------------|--------------|
| 1         | 7.173                             | 23.138%       | 23.138%      |
| 2         | 6.813                             | 21.979%       | 45.117%      |
| 3         | 4.698                             | 15.154%       | 60.270%      |

## 5. Conclusion and Implications

### 5.1. Conclusion

Based on the present study, the most important factors influencing the adoption of online food aggregators (OFA) among consumers in the Delhi-NCR region have been identified. Three dimensions, namely Ease of Use, Social Influence and Service Effectiveness, were extracted and validated using Exploratory Factor Analysis. The results show that, in addition to functional and user-friendly properties of the OFA applications, social interactions and the quality of services also influence the use of these applications by the consumers. The study broadens understanding of the factors shaping usage of the OFA mobile application in the Delhi-NCR region and offers practical guidance for platform operators seeking to improve service performance, user satisfaction, and continued adoption.

## **5.2. Managerial Implications**

On the basis of the results of the study, several implications for online food aggregators and application developers can be inferred. Ease of use – For the first one, OFA platforms must improve the simplicity of their interfaces, navigation, and usability to ensure a smooth user experience. Secondly, the importance of social influence means that businesses will need to work to maximise their interaction with customers to create relationships and customer loyalty; this will be achieved through social media, reviews, ratings, and referral programmes to drive repeat business. The importance of delivering services at the right time, by the right people, and in the correct order, and of customer support responsiveness, is the last point highlighted as Service Effectiveness. These dimensions can enhance the user experience, secure a competitive edge in digital food delivery, and enable OFA platforms to contribute effectively to the food delivery market.

## **5.3. Limitations**

It should be noted that some methodological and contextual limitations must be taken into account when interpreting the findings. The results should be interpreted with caution because the participants were selected through convenience sampling. Moreover, the study was conducted in the Delhi-NCR area, so consumer preferences and usage patterns found in this study might vary in other geographic areas. Thirdly, the cross-sectional design of the study restricts the study of changes in consumer behaviour over time. Lastly, the results are self-reported, and respondents' perceptions and biases may influence them.

## **5.4. Future Research Directions**

Findings from future research could be more generalizable through probability sampling and larger sample sizes. Comparative analysis across regions and groups can provide a better understanding of differences in consumer behaviour. Longitudinal studies can be conducted to examine changes over time in OFA use. In addition, future research can be carried out to confirm the factors identified through the use of powerful analysis tools such as Structural Equation Modelling (SEM). Furthermore, other investigations can investigate the influence of emerging technologies and customisation services on the use of an online food aggregator application.

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