



# EXPANSION OF ONLINE FOOD DELIVERY APPS IN RURAL AREAS WITH SPECIAL REFERENCE TO POLLACHI

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## ABSTRACT

The rapid growth of digital infrastructure and smartphone penetration has paved the way for the expansion of online food delivery services beyond metropolitan cities and into rural and semi-urban regions. This study explores the emergence and growth of online food delivery apps in rural areas, with a specific focus on Pollachi, a town in Tamil Nadu known for its agricultural economy and evolving consumer landscape. The research examines key factors driving this expansion, such as improved internet connectivity, changing lifestyle patterns, the influence of youth demographics, and increased digital literacy. It also analyzes challenges such as logistical constraints, limited restaurant partnerships, and consumer trust. By assessing both the opportunities and hurdles faced by food delivery platforms in Pollachi, this study aims to provide insights into how rural markets can be effectively tapped and sustained. The findings contribute to a broader understanding of rural digitization and consumer behavior in the context of the Indian food service sector.

**KEYWORDS:** Online Food Delivery, Rural Expansion, Mobile Apps, Consumer Behavior, Challenges In Rural Expansion, Pollachi.

## I. INTRODUCTION

The expansion of online food delivery apps has significantly transformed the food industry, providing convenience and accessibility to consumers. While these services were initially concentrated in urban areas, they are now making inroads into rural markets, including towns like Pollachi.

Pollachi, a fast-developing town in Tamil Nadu, has witnessed a gradual increase in the adoption of food delivery services due to improved internet penetration, smartphone usage, and changing consumer preferences. However, the expansion of these services in rural areas comes with unique challenges such as logistical constraints, digital literacy, and limited restaurant participation.

This study aims to explore the growth of online food delivery apps in Pollachi, analyzing their impact on local businesses, consumer behavior, and economic development. It will also examine the opportunities and challenges faced by food delivery platforms and suggest strategies for their successful expansion in rural regions. By focusing on Pollachi, this research will provide insights into the potential of digital food services in semi-urban and rural markets, contributing to the broader understanding of rural e-commerce trends in India

## II. REVIEW OF LITERATURE

1. **Romo, M. G. (2024).** ‘Most Favored Nation’ Clauses in the Online Food Delivery Platform Market”. This review proposes a systematic methodology to evaluate MFN effects, considering OFDP market conditions, business models, and the balance between incentivizing platform investment and protecting consumer interests.
2. **Allah Pitchay, A., Ganesan, Y., Zulkifli, N. S., & Khaliq, A. (2022)**” Determinants of customers' intention to use online food delivery application

through smartphone in Malaysia.” This study explores the factors influencing customers' intention to use online food delivery apps via smartphones, based on the Unified Theory of Acceptance and Use of Technology (UTAUT), including performance expectancy, effort expectancy, social influence, information quality, price-saving, and time-saving orientations..

3. **Thamaraiselvan, N., Jayadevan, G. R., & Chandrasekar, K. S. (2019).** “Digital food delivery apps revolutionizing food products marketing in India”. The proliferation of digital food delivery apps has transformed India's food industry, offering consumers diverse cuisines at their fingertips. Features like no minimum order value and multiple payment options enhance convenience. This trend, especially prominent among urban youth, has narrowed the urban-rural divide due to widespread smartphone access in this digital landscape.
4. **Collison, J. (2020).**” The impact of online food delivery services on restaurant sales” This study provides empirical evidence on the crowding-out effects and market expansion caused by the staggered entry of online food delivery services.
5. **Ramesh, R., Prabhu, S. V., Sasikumar, B., Devi, B. K., Prasath, P., & Kamala, S.P. R. (2023).** “An empirical study of online food delivery services from applicationsperspective” The rise of food delivery apps in India is driven by the growing urbanization and secularized culture, catering to the convenience of users and supporting the expansion of the restaurant industry



### III. RESEARCH OBJECTIVES

- To assess the awareness and usage of food delivery apps
- To identify the challenges and limitations faced by the rural residents while using food delivery apps.
- To analyze consumer behavior and preferences towards food delivery apps.
- To gather insights on the demographics and behavior of rural residents.
- To evaluate the potential growth of online food delivery apps in rural areas.

### IV. SCOPE OF THE STUDY

This research project aims to explore the expansion, usage, and potential of online food delivery applications in rural and semi-urban areas, with a particular focus on Pollachi, Tamil Nadu. The study covers various aspects of consumer interaction with food delivery platforms such as Swiggy, Zomato, and other regional apps. It seeks to assess the level of awareness, frequency of usage, customer preferences, and satisfaction among rural residents.

The study also investigates the key challenges faced by users, including technological barriers, delivery limitations, payment options, and service coverage. Additionally, the research considers the demographic characteristics of users such as age, gender, income level, education, and occupation to better understand the behavior and expectations of rural consumers.

### V. RESEARCH METHODOLOGY RESEARCH DESIGN

A research design is a detailed blue print used to guide a research study towards its objective. The process of designing a research study involves many interrelated decisions. The most significant decision is the choice of research approach, because it determines how the information will be obtained. The choice of the research approach depends on the nature of the research that one wants to do.

The present study is descriptive research based on the survey method. The methods adopted in the choice of sample, selection of respondents, collection of data and tools of analysis are briefly discussed in this part

#### AREA OF THE STUDY

The geographical area of the study chosen for this research is pollachi(tk) ,Coimbatore district, tamilnadu

#### POPULATION OF THE STUDY

The population of the study consists of the residents of Pollachi Taluk in Coimbatore District, who have access to smartphones and internet facilities and are familiar with or have used online food delivery apps (e.g., Swiggy, Zomato, or local services) in the last six months. This includes working professionals, college students, homemakers, and small business owners in both semi-urban and rural areas.

#### SAMPLING TECHNIQUE

A convenience sample is a sample where the respondents are

selected, in part or in whole, at the convenience of the researcher. The researcher makes no attempt, or only a limited attempt, to ensure that this sample is an accurate representation of some larger group or population.

#### SAMPLE SIZE

A sample of 142 respondents was selected from different parts of Pollachi Taluk using convenience sampling and stratified random sampling to ensure representation from various income groups, occupations, and age categories. The sample includes users and non-users to gain a holistic understanding of adoption and barriers.

#### HYPOTHESIS OF THE STUDY

H<sub>1</sub>: Awareness of online food delivery apps significantly varies across different age groups in rural Pollachi.

H<sub>0</sub>: Awareness of online food delivery apps does not significantly vary across different age groups in rural Pollachi.

H<sub>1</sub>: Monthly household income has a significant impact on the frequency of using online food delivery apps.

H<sub>0</sub>: Monthly household income has no significant impact on the frequency of using online food delivery apps.

H<sub>1</sub>: There is a significant relationship between gender wise and prefer payment methods. H<sub>0</sub>: There is no significant relationship between gender wise and prefer payment methods.

H<sub>1</sub>: The type of location (village or town) significantly influences the type of challenges faced while using food delivery apps.

H<sub>0</sub>: The type of location does not significantly influence the challenges faced while using food delivery apps.

H<sub>1</sub>: Perception of food delivery apps creating job opportunities significantly differs across occupational groups.

H<sub>0</sub>: Perception of food delivery apps creating job opportunities does not significantly differ across occupational groups.

#### DATA COLLECTION

There are several ways of collecting the appropriate data. While deciding about the method of data collection to be used for the study, the researcher should keep in mind, that there are two types of data viz primary & secondary data.

##### 1. PRIMARY DATA

Primary data are those which are collected a fresh and for the first time and thus happen to be original in character. Primary data for the study has been collected through questionnaire and personal interview from the respondents.

##### 2. SECONDARY DATA

Secondary data on the other hand are those which have already been collected by someone else and which have already been passed through the statistical process. In this study secondary data are collected from the online articles, journals, text books, etc.

#### TOOLS USED FOR DATA ANALYSIS

Data is collected through structured questionnaire by way of circulating the questionnaire to the respondents. The collected data is tabulated and coded, using simple percentage method and statistical methods the data were analysed and interpretation was given. Appropriate charts were used to present the data pictorially.

The following tools were used to draw inference of the study.



➤ **Percentage Analysis**

This is a Univariate analysis where the percentage of a particular factor with different categories is calculated, in order to help one get fair idea regarding the sample and thereby that of the population.

The number of responses of each category is summarized to percentage format for the convenience to use other statistical tools namely pie chart and bar diagrams.

Percentage = ((a portion)/ (the whole)) \*100.

**Statistical Techniques**

Using SPSS statistical analysis software, the following tests were conducted to test the hypothesis.

**Chi-Square Tests**

	Value	df	Asymptotic Significance (2- sided)
Pearson Chi-Square	4.896	4	.298
Likelihood Ratio	5.659	4	.226
Linear-by-Linear Association	3.731	1	.053
N of Valid Cases	142		

$\chi^2$  Value: 4.896 Degree of freedom: 4  
 Signification level: .298

**INTERPRETATION**

As the calculated  $\chi^2$  value (4.896) is significant (.298) at five percent level, there exist an no significant association between Age group is associated with Awareness of online food delivery apps in Pollachi. Hence the null hypothesis is

**Chi-Square Tests**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	14.364	6	.026
Likelihood Ratio	15.933	6	.014
Linear-by-Linear Association	.573	1	.449
N of Valid Cases	142		

Calculated  $\chi^2$  Value: 14.364 Degree of freedom: 6 Signification level: .026

**INTERPRETATION**

As the calculated  $\chi^2$  value (14.364) is not significant (.026) at five percent level, there exist an no significant association between Monthly household income and frequency of using online food delivery apps in Pollachi. Hence the null hypothesis is accepted.

➤ **Chi-Square Test**

Chi-Square test can be used to determine if categorical data shows dependency or the two\ classifications are independent.

$$2 = \sum \{(O_i - E_i)^2 / E_i\}$$

Applying Yate's correction:

$$2 = \sum \{(|O_i - E_i| - 0.5)^2 / E_i\}$$

**VI. DATA ANALYSIS AND INTERPRETATION**

**Chi square test-1**

Ho: Awareness of online food delivery apps does not significantly vary across different age groups in rural Pollachi.

Hi: Awareness of online food delivery apps significantly varies across different age groups in rural Pollachi.

accepted.

**Chi square test-2**

Ho: Monthly household income has no significant impact on the frequency of using online food delivery apps.

Hi: Monthly household income has a significant impact on the frequency of using online food delivery apps

**Chi square test-3**

Ho: There is no significant relationship between gender wise and prefer payment methods. Hi: There is a significant relationship between gender wise and prefer payment methods.



**Chi-Square Tests**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	3.577	4	.466
Likelihood Ratio	3.830	4	.429
Linear-by-Linear Association	.702	1	.402
N of Valid Cases	142		

Calculated  $\chi^2$  Value: 3.577 Degree of freedom: 4 Signification level: .466

**INTERPRETATION**

As the calculated  $\chi^2$  value (3.577) is significant (.466) at five percent level, at five percent level, there exist an no significant association between gender wise and prefer payment methods in Pollachi. Hence the null hypothesis is accepted.

**Chi square test-4**

Ho: The type of location does not significantly influence the challenges faced while using food delivery apps.

H1: The type of location (village or town) significantly influences the type of challenges faced while using food delivery apps

**Chi-Square Tests**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	10.083	4	.039
Likelihood Ratio	10.913	4	.028
Linear-by-Linear Association	.364	1	.546
N of Valid Cases	142		

Calculated  $\chi^2$  Value: 10.083 Degree of freedom: 4 Signification level: .039

**INTERPRETATION**

As the calculated  $\chi^2$  value (10.083) is not significant (.039) at five percent level, there exist no association between type of location does and challenges faced while using food delivery

apps in Pollachi. Hence, the null hypothesis is accepted.

**Chi square test-4**

Ho: age groups do not significantly differ facing issues or missing items. H1: age groups significantly differ facing issues or missing items.

**Chi-Square Tests**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	13.278	12	.349
Likelihood Ratio	12.649	12	.395
Linear-by-Linear Association	.920	1	.337
N of Valid Cases	142		

Calculated  $\chi^2$  Value: 13.278 Degree of freedom: 12 Signification level: .349

**INTERPRETATION**

As the calculated  $\chi^2$  value (13.278) is significant (.349) at five percent level, there exist an association between Age group wise respondents and facing issues or missing items in Pollachi. Hence, the null hypothesis is rejected

**VII. FINDINGS**

**Demographic Profile**

- A majority of respondents (62.7%) are aged between 18–25 years.
- Females (55.6%) slightly outnumber males.
- Most participants are students (42.3%) and postgraduates (37.3%).

**Location and Economic Status**

- 68.3% of respondents are from village areas.
- 36.6% of respondents have a monthly household income between ₹10,000 and ₹25,000.

**Awareness and Usage**

- 83.1% of respondents are aware of online food delivery apps.
- 40.8% of users rarely use these apps, while 16.9% have never used them.

**Platform Preference**

- Zomato (40.1%) and Swiggy (35.9%) are the most commonly used delivery apps.



### Ordering Behavior

- Fast food is the most preferred category (35.9%).
- 40% of users typically spend less than ₹500 per order.
- The majority prefer cash on delivery (55.6%).

### User Satisfaction

- 43% of respondents are satisfied with delivery time.
- 43% rated hygiene and safety standards as good.
- 54.9% of users reported a good overall experience.

### Challenges in Rural Usage

- The most reported issues include limited restaurant options (37.3%) and high delivery charges (29.6%).

### Opportunities and Growth

- 86.6% of respondents believe there is growth potential for food delivery services in rural areas.
- 49.3% are likely to continue using food delivery apps in the future.

## VIII. SUGGESTION

- **Expand Restaurant Availability:**  
Collaborate with more local restaurants and food vendors to increase the variety and accessibility of food options.
- **Enhance Delivery Logistics:**  
Strengthen delivery infrastructure in rural areas to reduce delays and improve customer satisfaction.
- **Offer Targeted Discounts and Promotions:**  
Introduce offers tailored to students and middle-income groups to increase engagement and app usage.
- **Promote Offline and Cash-Friendly Features:**  
Enhance app usability in low-connectivity zones and maintain strong support for cash-on-delivery options.
- **Improve Customer Support Services:**  
Ensure responsive, multilingual, and accessible support to address complaints and service issues effectively.

## IX. CONCLUSION

The study highlights the growing relevance and potential of online food delivery services in rural regions such as Pollachi. While awareness levels are significantly high, actual usage is still limited due to infrastructure challenges, delivery delays, limited restaurant options, and affordability concerns. Platforms like Zomato and Swiggy have made a visible impact, particularly among students and young adults, indicating a promising market segment. Despite the existing barriers, a majority of respondents express optimism about the expansion of these services, with nearly half indicating a willingness to continue using them in the future. This signifies a substantial opportunity for food delivery companies to tailor their strategies to the unique needs and expectations of rural consumers. For online food delivery platforms to truly thrive in rural markets, a localized, inclusive, and cost-effective approach is essential. If these aspects are

addressed, there is strong potential for online food delivery apps to become a permanent and valuable part of rural consumers' lifestyles.

## X. REFERENCE

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