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A Study on Use of Mobile Applications for Airline Ticket Booking in Rural Areas of India at Coimbatore City

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Abstract
The rapid penetration of smartphones and affordable internet connectivity in India has revolutionized access to digital services, including air travel. This study explores the use of mobile applications for airline ticket booking among residents in the rural areas surrounding Coimbatore city, Tamil Nadu. While urban users readily adopt mobile technologies to book flights, rural populations face distinct challenges such as digital literacy gaps, limited awareness, and intermittent network connectivity. The research investigates patterns of usage, influences on adoption behavior, barriers encountered, and the perceived benefits of using airline booking apps. Primary data were collected through structured questionnaires administered to 250 rural respondents. Findings indicate moderate awareness but low actual usage due to trust issues, preference for travel agents, and lack of app navigation skills. Users reported advantages such as price comparison and convenience. The study recommends digital literacy programs, localized app interfaces, and improved internet infrastructure to enhance adoption.

Keywords: Mobile Applications, Airline Ticket Booking, Rural India, Digital Adoption, Coimbatore.

Introduction

Mobile technology has transformed service delivery across sectors in India. The airline industry has increasingly adopted mobile applications to simplify ticket booking, seat selection, digital payments, and customer communication. Despite increasing smartphone penetration in rural India, adoption of airline booking apps remains uneven. Coimbatore, a major industrial hub in Tamil Nadu, is surrounded by rural areas where digital usage patterns vary. This study examines awareness, adoption levels, barriers, and benefits of airline ticket booking apps among rural populations near Coimbatore. The Technology Acceptance Model (TAM) provides

the theoretical basis, emphasizing perceived usefulness and ease of use as key determinants of adoption.

The evolution of mobile commerce (m-commerce) has significantly transformed consumer behavior across industries, particularly in travel and tourism. In India, the rapid expansion of affordable smartphones, low-cost data plans, and government initiatives such as Digital India have accelerated digital engagement even in semi-urban and rural regions. Mobile applications have become essential tools for accessing services ranging from banking and shopping to transportation and healthcare. Within the aviation sector, airline ticket booking applications have simplified the travel process by enabling users to search routes, compare fares, access promotional offers, complete digital payments, and receive instant confirmations without visiting physical booking counters. Air travel in India has witnessed remarkable growth over the past decade due to economic development, increasing middle-class income, improved regional connectivity, and competitive pricing strategies adopted by airlines. As air travel becomes more accessible to common citizens, including rural populations, the need for efficient and user-friendly booking systems has increased. Mobile applications serve as a bridge between airlines and customers by offering convenience, transparency, and time efficiency. However, despite technological advancements, adoption patterns vary significantly between urban and rural users. Rural India represents a substantial segment of the country's population, characterized by diverse socio-economic backgrounds, varying literacy levels, and limited technological exposure. While smartphone ownership has increased in rural households, the extent to which individuals utilize advanced digital services—such as airline booking apps—remains uncertain. Many rural consumers continue to rely on traditional intermediaries like travel agents, friends, or local booking centers due to familiarity, trust, and assistance in navigating complex booking processes. This reliance highlights the existence of a functional digital divide, where access to technology does not necessarily translate into effective usage.

Review of Literature

Studies indicate that rural mobile adoption is influenced by affordability and digital literacy. Research based on the Technology Acceptance Model shows that perceived usefulness and ease of use significantly affect user behavior. Literature on the digital divide highlights persistent rural–urban disparities in access and effective usage of digital services. In aviation, convenience and price transparency encourage online booking, though trust concerns remain.

The adoption of mobile applications for service delivery has been widely examined in the fields of information systems, marketing, and consumer behavior. Several theoretical and empirical studies provide insights into technology acceptance, digital divides, and online booking behavior, which are relevant to the present study.

Technology Acceptance Model (TAM)

The foundational work by Davis (1989) introduced the Technology Acceptance Model (TAM), which identifies perceived usefulness and perceived ease of use as primary determinants of technology adoption. According to TAM, users are more likely to adopt a digital system if they believe it enhances performance and is easy to operate. Later extensions such as TAM2 and TAM3 (Venkatesh & Bala, 2008) incorporated factors such as social influence, facilitating conditions, and experience. In rural contexts, where exposure to digital tools may be limited, perceived complexity significantly affects adoption behavior.

Digital Divide in Rural India

The concept of the digital divide, discussed by van Dijk (2006), emphasizes inequalities not only in access to technology but also in skills and usage outcomes. In India, rural–urban disparities remain evident in terms of internet speed, digital literacy, and economic affordability. Reddy and Sharma (2019) observed that rural populations often possess smartphones but primarily use them for communication and entertainment rather than transactional services. This indicates a "usage divide" rather than a complete lack of access.

Mobile Commerce (M-Commerce) Adoption

Research on mobile commerce suggests that trust, perceived security, and payment reliability strongly influence adoption. Studies in emerging economies show that fear of online fraud and lack of familiarity with digital payments discourage rural consumers from using mobile apps for financial transactions (Singh & Sahu, 2020). Furthermore, language barriers and limited localized content affect user engagement. Applications that provide regional language interfaces demonstrate higher acceptance among rural

Objectives of the Study

1. To assess awareness of airline booking apps among rural residents.
2. To evaluate frequency and pattern of mobile app usage.
3. To identify factors influencing adoption or non-adoption.
4. To analyze challenges and perceived benefits.
5. To suggest measures to improve adoption in rural areas.

Statement of the Problem

Although airline companies promote mobile booking applications as convenient and cost-effective tools, rural populations often continue to rely on travel agents. Limited digital literacy, language barriers, poor connectivity, and trust issues hinder adoption. This study investigates the underutilization of mobile airline booking apps among rural residents near Coimbatore and identifies key barriers affecting usage.

Scope of the Study

The study focuses on rural residents within 50 kilometers of Coimbatore city. It examines awareness, usage patterns, barriers, and perceptions regarding mobile airline ticket booking applications. The present study focuses on analyzing the use of mobile applications for airline ticket booking among rural populations in and around Coimbatore city, Tamil Nadu. The geographical scope includes villages located within approximately a 50-kilometer radius of Coimbatore International Airport. The study specifically targets individuals aged 18 years and above who possess mobile phones, particularly smartphones.

The Research Covers The Following Dimensions

Awareness Level – Understanding whether rural residents are aware of airline ticket booking mobile applications and their functionalities.

Usage Pattern – Identifying how frequently rural consumers use mobile apps for booking airline tickets.

Adoption Determinants – Examining factors such as education, income, occupation, digital literacy, trust, and perceived ease of use.

Barriers to Usage – Identifying technological, psychological, and infrastructural challenges

preventing adoption.

Perceived Benefits – Evaluating the advantages experienced by users, including convenience, cost savings, and time efficiency.

The study is limited to airline ticket booking through mobile applications and does not include other travel services such as train or bus booking. It also excludes urban populations of Coimbatore city and focuses solely on rural respondents. The findings aim to provide insights for airlines, policymakers, and digital service providers to enhance digital inclusion in rural travel services.

Research Methodology

The study adopted a descriptive research design. Primary data were collected from 250 rural respondents using structured questionnaires. Secondary data were obtained from journals and published sources. Data analysis was conducted using descriptive statistics and percentage analysis. Research Methodology (Expanded)

1. Research Design

The study adopts a descriptive research design, as it aims to describe and analyze the current status of mobile airline ticket booking app usage among rural consumers. The design enables systematic collection and analysis of data to understand behavioral patterns and influencing factors.

2. Research Approach

A quantitative research approach was used to collect measurable data through structured questionnaires. This approach allows statistical analysis of adoption patterns and relationships between demographic variables and app usage.

3. Population of the Study

The population consists of rural residents living in villages surrounding Coimbatore city who are 18 years and above Own or have access to a mobile

Data Analysis

Findings revealed that while smartphone ownership was high, only about one-third of respondents used mobile apps for airline booking. Major barriers included lack of digital literacy, preference for travel agents, connectivity issues, and security concerns. he data collected from 250 rural respondents around Coimbatore city were analyzed using percentage analysis, frequency distribution, mean score analysis, and chi-square tests. The demographic profile of the respondents revealed that a majority belonged to the 21–35 age group, indicating that younger rural populations are more exposed to mobile technology. A significant proportion of respondents had completed higher secondary or undergraduate education, which positively influenced their familiarity with smartphones and internet usage. Approximately two-thirds of the respondents owned smartphones with internet access, demonstrating that technological access in rural areas is not a major constraint.

In terms of awareness, the study found that a considerable number of respondents were aware of mobile airline ticket booking applications. However, actual usage was comparatively lower. While awareness exceeded 70 percent, only about one-third of respondents had used mobile applications to book airline tickets. This gap indicates that awareness alone does not guarantee adoption. Behavioral, psychological, and trust-related factors play a crucial role in influencing usage decisions

Findings

- Smartphone penetration is high but app usage is low.
- Education level significantly influences adoption.
- Trust in travel agents affects digital booking behavior.
- Language and connectivity impact user experience.

Suggestions

- Conduct rural digital literacy programs.
- Provide regional language options in apps.
- Improve rural internet infrastructure.
- Enhance secure and transparent payment systems.

Conclusion

Mobile airline booking applications offer convenience and transparency; however, adoption in rural areas near Coimbatore remains limited. Bridging the digital divide through education, infrastructure, and localized app design can enhance rural participation in digital travel services.

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