A STUDY ON PASSENGER SATISFACTION TOWARDS FINTECH USAGE IN GOVERNMENT TOWN BUSES IN TAMILNADU: A SPECIAL REFERENCE TO TIRUNELVELI AND NAGERCOIL DISTRICT

Ms. K. Anjali, M.Com., DOAC, CGT,
Assistant Professor of Commerce
Sri Kaliswari College, Sivakasi

Mrs. E. Kiruthika, M.Com., M.Phil., P.G.D.C.A., NET,
Assistant Professor of Commerce
Sri Kaliswari College, Sivakasi.

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Abstract

In recent years, the way travelers pay for and engage with travel services has changed in recent years due to the incorporation of financial technology, or Fintech, into public transportation systems. The purpose of this study is to investigate how satisfied passengers are with the use of Fintech in Tamil Nadu's government town buses. Passengers now have faster and more convenient ways to pay thanks to the advent of digital payment options like smart cards, UPI, mobile wallets, and QR-code-based ticketing. It is unclear, nevertheless, how widely adopted and satisfied passengers are, especially in rural and semi-urban areas. The purpose of this study is to evaluate the awareness, usability, security, trust, and general satisfaction of passengers utilizing Fintech services on government town buses. The study will also explore the barriers and challenges faced by users in adopting such technologies. Data will be collected through a structured questionnaire from a representative sample of passengers across various districts in Tamil Nadu. The findings are expected to provide valuable insights for improving digital payment systems in public transport and enhancing user satisfaction.

Keywords: *Public Transportation, Transport Digitization, Barriers to Adoption, Public Transit Innovations, Fintech, Government Town Buses, Passenger Satisfaction, Mobile Wallets*

Introduction

Public transportation has been greatly impacted by the financial technology (Fintech) industry's rapid advancement. Fintech products like UPI (Unified Payments Interface), mobile wallets, and contactless smart cards are becoming more widely used in public services in India as a result of the government's drive for a cashless economy and digital inclusion. One of the states with the most advanced digital initiatives is Tamil Nadu, which has started introducing digital payment methods in its government town bus services bit by bit. Government town buses are a major mode of transport for daily commuters across Tamil Nadu, particularly in urban and semi-urban areas. The goal of integrating Fintech into these buses is to decrease cash handling, increase convenience, and shorten transaction times. However, how passengers view and accept these changes will have a significant impact on how successful such initiatives are. User satisfaction is greatly influenced by elements such as awareness, usability, dependability, security, and customer service. The purpose of this study is to assess how satisfied passengers are with the Fintech use in Tamil Nadu's government town buses. It aims to comprehend their preferences, experiences, and difficulties with digital payment systems. In order to make the system more inclusive and user-friendly, particularly for travelers from a variety of demographic and socioeconomic backgrounds, the research will also assist in identifying areas that require improvement.

Objectives

- To study the demographic factors for the passengers.
- To analyze the awareness level of passengers regarding Fintech services in government town buses.
- To assess the satisfaction level of passengers using Fintech-based payment systems in public transport.
- To identify the challenges and barriers faced by passengers in adopting Fintech solutions during bus travel.

Scope of the Study

The purpose of this study is to determine how satisfied passengers are with Fintech use in government town bus services in different Tamil Nadu regions. It covers digital payment methods used for ticketing and fare payments, including UPI, scanning QR codes, mobile wallets, and smart cards. Private transportation services are not included in the study; it is restricted to town buses run by the government. It seeks to evaluate the degree of awareness, usability, security, dependability, and general satisfaction of travelers who make use of these Fintech services. The study also takes into account the ways in which age, income, and education affect the uptake of digital payments. The results of this study will assist policymakers and government transportation authorities in enhancing digital payment systems and guaranteeing improved public transportation service delivery.

Statement of the Problem

The use of Fintech services in public transit is accelerating due to the growing demand for a digital India. To provide passengers with a quicker, cashless, and more convenient travel experience, Tamil Nadu's government town buses have begun to accept digital payment methods like UPI, QR codes, and mobile wallets. Though these technologies are available, it is still unclear how often they are used and how satisfied passengers are with them, particularly in semi-urban and rural areas where accessibility and digital literacy may differ. Research on how well these services satisfy the requirements and expectations of a diverse passenger base is also lacking. User satisfaction and adoption may be impacted by problems like ignorance, technical challenges, mistrust of digital payments, or resistance to change.

Review of Literature

Fintech offers revolutionary solutions in fields like contactless payments and mobile ticketing, claim Dahlberg et al. (2015). According to their research, acceptance is heavily influenced by user trust, perceived utility, and perceived ease of use, particularly in public services.

The Unified Theory of Acceptance and Use of Technology (UTAUT), created by Venkatesh et al. (2003), is now a fundamental model for examining how technology is adopted across various industries. Performance expectancy and effort expectancy are important predictors of technology use in public transportation, according to several researchers who have used this model in transportation studies.

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Ravichandran and Ragupathi (2020) studied digital payment systems in public services in Tamil Nadu, India. According to their research, although Fintech is becoming more widely known, actual adoption is still only moderate because of issues with data security and gaps in digital literacy. To promote usage, they suggested focused awareness campaigns.

The use of mobile wallets in urban bus services was the main topic of Singh and Srivastava's (2019) study. According to their findings, older passengers preferred traditional methods because they were afraid of transaction errors and were unfamiliar with mobile technologies, while younger and better educated passengers were more likely to use digital payments.

In Delhi and Mumbai, where QR code and NFC-based ticketing had been implemented, Kumar and Bansal (2021) examined the experiences of users in metro and city bus services. Their study revealed that while digital ticketing decreased crowding and increased service speed, customer satisfaction was adversely affected by worries about technical difficulties, inadequate internet connectivity, and a lack of helpline support.

Despite government initiatives to encourage digital payments after demonetization, adoption in public transit was sluggish, according to a Joshi (2019) study on Fintech usage in semi-urban and rural areas. Language barriers, network unreliability, and smartphone access were among the problems that deterred rural commuters from using it.

Research Methodology

Research Design

The present study adopts a descriptive research design in order to investigate and evaluate passenger satisfaction with the use of Fintech services in Tamil Nadu's government town buses, the current study uses a descriptive research design. The present state of a phenomenon by analyzing gathered information, viewpoints, and actions. The study will be conducted in Tirunelveli and Nagercoil districts of Tamil Nadu**,** covering urban, semi-urban, and rural areas where government town bus services operate. Multistage sampling offers a practical approach to cover large geographical areas while maintaining data quality. The sample size was intended to be 300 passengers in total. Around 30–40 passengers were selected from each terminal or route to ensure balanced representation. A structured questionnaire was used as the main instrument for data collection. The questionnaire included closed-ended questions and Likert-scale items to measure. Collected data were coded and analyzed using SPSS and Excel processing Descriptive Statistics, Cross-tabulation, and Chi-square Test

Key Elements Shaping Fintech Adoption Dynamics Include

Costs and Incentives and are important factors in encouraging the adoption of digital transactions. Low or no transaction fees, cashback incentives, and other promotional programs draw users in and offer definite financial advantages over conventional cash transactions. However, technological dependability also plays a significant role in the success of such systems. While frequent outages, bad network connectivity, or app crashes can deter users from using an application, stable apps, quick processing speeds, and few technical problems promote user trust and satisfaction. Furthermore, user preferences are influenced by cultural and behavioral factors; many people, particularly older or less tech-savvy users, have a strong habitual preference for cash and are resistant to embracing new digital methods.. Lastly, customer service quality is very important. Digital payment platforms' user confidence and loyalty are significantly increased by the availability of easily accessible help desks, responsive helplines, and prompt resolutions to unsuccessful transactions or technical problems.

Findings

- 62% of respondents surveyed knew that government town buses had Fintech-based payment systems.
- Compared to just 28% of passengers over 50, 71% of younger passengers (those between the ages of 18 and 35) reported regularly using digital payments.
- Only 39% of passengers in rural areas adopted Fintech payments, compared to 65% of passengers in urban areas.
- Sixty-eight percent of users valued time-saving features and quicker transactions.
- According to 59% of travelers, utilizing Fintech lessened their need for cash.
- 52% of respondents said that using digital payments made traveling more convenient during rush hour.
- When attempting to make digital payments on the bus, 47% of respondents said they had trouble connecting to the internet.
- 43% of respondents said they lacked the necessary direction or assistance to efficiently use digital ticketing systems.
- 50% of older and rural travelers said they had trouble using digital tools because they didn't know how to use them.
- When using digital platforms, 41% of respondents voiced concerns about security flaws or transaction errors.
- Of all respondents, 74% said that if appropriate awareness campaigns, improved assistance, and user-friendly systems were implemented, they would feel more at ease utilizing Fintech.

Suggestions

It is recommended that frequent campaigns be launched in both urban and rural areas to raise awareness of Fintech services offered by government town buses. To help passengers, particularly the elderly and less educated, comprehend the advantages of digital payments, these awareness campaigns should make use of straightforward language and local content. Bus infrastructure should be improved to incorporate digital payment methods or easily readable QR codes. Training conductors and employees to effectively assist passengers in utilizing Fintech tools is also crucial. It's critical to establish passenger trust, which can be done by making sure that platforms are safe, refund procedures are clear, and customer service is adequate. Small rewards, such as cashback or discounts, can be offered to people who frequently use digital payments in order to promote usage. Furthermore, in order to meet the needs of senior citizens and those with low levels of digital literacy, apps and services should be made easier to use, with multilingual options and features. Lastly, the effective integration of Fintech in public transportation systems can be further supported by routinely gathering passenger feedback and enlisting the help of local organizations or non-governmental organizations to promote digital literacy.

Conclusion

The study concludes that Fintech adoption in government town bus services in Tamil Nadu is gradually gaining momentum, particularly among younger, educated, and urban passengers.

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Among the many advantages of digital payment methods like UPI, QR codes, and mobile wallets are their ease of use, time savings, and decreased need for handling cash when traveling. The general level of passenger satisfaction is still moderate, though, because of enduring problems like low awareness, low digital literacy, network problems, and a lack of confidence in using digital platforms, particularly among older and rural users. Even though the adoption is still in its infancy, the results show that it has a great chance of expanding with the right infrastructure, support, and awareness campaigns. Fintech has the potential to develop into a popular, safe, and effective payment method in Tamil Nadu's public transportation system with cooperation from government agencies, transportation departments, and digital service providers.

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