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## A Study On Passenger Preference Towards The Usage Of Fastag In Coimbatore City

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### ABSTRACT :

The introduction of FASTag, an electronic toll collection system, has significantly transformed the way toll payments are made across Indian highways. This study explores passenger preferences, awareness, and satisfaction levels concerning the usage of FASTag in Coimbatore City. The research aims to understand the adoption rate, ease of use, perceived benefits, and challenges faced by users. Data was collected through structured questionnaires targeting vehicle owners and frequent commuters. The findings indicate that while a majority of respondents recognize the time-saving and cashless convenience offered by FASTag, concerns such as technical glitches and inadequate awareness remain. The study also highlights demographic factors influencing user acceptance and suggests strategies for wider adoption and improved user experience. This research provides valuable insights for policymakers, toll operators, and technology providers to enhance the effectiveness of the FASTag system.

**Keywords:** FASTag, Electronic Toll Collection, Passenger Preference, Coimbatore City, Digital Payment, Transportation, User Awareness, Adoption Factors.

### INTRODUCTION :

The transportation sector in India has witnessed significant modernization in recent years, with one of the major developments being the introduction of the FASTag system. FASTag is an electronic toll collection system operated by the National Highway Authority of India (NHAI), aimed at reducing congestion at toll plazas and promoting cashless transactions. By using Radio Frequency Identification (RFID) technology, FASTag enables automatic deduction of toll charges as vehicles pass through toll gates, thus ensuring smoother and faster transit. In urban centers like Coimbatore—a rapidly growing city in Tamil Nadu known for its industrial and commercial activities—the adoption of FASTag is especially relevant. With increasing vehicle density and traffic movement, efficient toll management is crucial to reduce delays, fuel consumption, and environmental impact. While FASTag has been made mandatory for all vehicles in India, its effectiveness largely depends on user acceptance and satisfaction. This study seeks to analyze the preferences of passengers and vehicle owners in Coimbatore regarding the use of FASTag. It explores their awareness, usage patterns, perceived benefits, and any challenges they encounter. Understanding these factors will help in identifying the key drivers and barriers to FASTag adoption and can contribute to policy recommendations for improving user experience and system efficiency.

### STATEMENT OF PROBLEM :

The implementation of FASTag, an electronic toll collection system, has brought about a dramatic transformation in India's toll payment procedure. Notwithstanding the advantages of the system, such as shortened wait times and cashless transactions, car owners' acceptance and utilization of it differ. The purpose of this study is to Investigate the opinions and preferences of Coimbatore city's passengers regarding the use of FASTag. It looks for elements including convenience, knowledge, faith in the technology, and the system's perceived value that are influencing people's decisions to use or not utilize FASTag. Gaining an understanding of these preferences will facilitate the deployment of FASTag and increase the general effectiveness of Coimbatore's toll management system.

### OBJECTIVES :

- To assess the awareness level of passengers in Coimbatore city regarding the FASTag system.
- To identify the factors influencing the preference for using FASTag among passengers

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### SCOPE OF THE STUDY :

This study focuses on understanding the preferences and satisfaction levels of passengers using Fastag services in Coimbatore city. The scope of the study encompasses the following areas:

- **Geographical Scope:** The study is limited to Coimbatore city, a major urban center in Tamil Nadu, India. The findings and conclusions will be specific to the transportation dynamics and passenger behaviors within this city.
- **Demographic Scope:** The study will include a diverse range of respondents, covering various age groups, genders, occupations, and income levels. This will allow for an in-depth analysis of how demographic factors influence passenger preferences for Fastag.
- **Service Aspects:** The study will examine several key aspects of Fastag services, such as affordability, accessibility, safety, punctuality, comfort, and customer service. These elements will be analysed to determine their impact on passenger preference and satisfaction.

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### REVIEW OF THE LITERATURE :

**Davis (2000)** Many studies apply the technology acceptance model (TAM) to understand user acceptance of technologies like FASTAG. This model examines the perceived ease of use and perceived usefulness as critical factors that influence technology adoption.

**Venkatesh et al (2003)** This theory which expands on TAM, can be applied to study FASTAG adoption by analyzing performance expectancy, effort expectancy, social influence and facilitating conditions.

**Shivani Sawarkar, Vidhita kamble, et.al (2017)** conduct a study to review on online toll collection system based on optical character recognition the main objective of the project is to improve the efficiency and performance of the system the objective is which it will detect the number plate of the vehicle and through that, it will grasp all the information of the owner such as owner name owner contact details account no of the particular bank, etc.

**Nayan Parmar, et.al. (2018)** made a comparison study between conventional toll collection and automatic toll collection systems. The study arrived at a conclusion that automatic toll collection systems facilitate quick and easy payment at toll plazas without standing in lengthy lines on highways. This method can not only lessen the traffic congestion, but it can also help in loss of fuel.

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### RESEARCH METHODOLOGY :

Primary data has been collected for the purpose of the study through the questionnaire. Secondary data has been collected through the measurable and qualitative data and also through the various sources including the various research articles, books and websites is used for the purpose of study. The Methodology of the study includes:

- Area of the study
- Data collection
- Sample procedure
- Sample size
- Statistical tools

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### LIMITATIONS :

1. **Geographical Restriction:** The study is limited to Coimbatore city and may not reflect the preferences of passengers in other regions or rural areas.
2. **Sample Size:** The research is based on responses from a limited number of passengers, which may not represent the entire population using FASTag.
3. **Time Constraints:** Due to time limitations, the study was conducted within a specific time frame, which may not capture seasonal or long-term behavioural changes.
4. **Respondent Bias:** The data is based on self-reported information, which may be subject to personal bias, exaggeration, or lack of full awareness.
5. **Technological Changes:** With the FASTag system evolving, any future improvements or policy changes will not be reflected in this study.
6. **Focus Area:** The study focuses only on passenger preference and does not include perspectives of toll operators, service providers, or government authorities.

**ANALYSIS AND INTERPRETATION OF DATA :****TABLE 4.1****Exhibit showing the awareness about fastag**

Awareness	Frequency	Percentage
Advertisement	99	15
Social media	28	42
Agent	23	21
Friends/Relatives	36	34
Self	48	38
<b>Total</b>	<b>150</b>	<b>100</b>

**Source :** Primary data**Interpretation :**

The above exhibit indicates that 15% of the respondents are advertisement, 42% of the respondents are social media, 21% of the respondents are agent, 34% of the respondents are friends/relatives, 38% of the respondents are self.

**TABLE 4.2****Exhibit showing the preference on open fastag**

Preference	Frequency	Percentage
Saves time	21	14
Saves fuel	9	6
E-Access	25	17
Avoidance of Long Queue	11	7
Cashless Transaction	14	9
Accident Free Zone	1	1
<b>Total</b>	<b>150</b>	<b>100</b>

**Source :** Primary data**Interpretation :**

The above exhibit indicates that 14% of the respondents are saves time , 6% of the respondents are saves fuel , 17% of the respondents are E-Access, 7% of the respondents are avoidance of long queue, 9% of the respondents are cashless transaction, 1% of the respondents are Accident free zone.

**FINDINGS :**

- ✚ 42% of the respondents are awared on social media.
- ✚ 17% of the respondents are prefer E-Access.

**SUGGESTIONS :**

Recharge Fastag platforms have several opportunities to improve their services and enhance customer satisfaction. Key improvements include offering more discounts and special offers to attract new customers and encourage loyalty. Introducing multiple payment options, such as credit/debit cards, mobile wallets, and UPI, would ensure convenience for a broader audience. Enhancing the recharge management features, like automatic top-ups and scheduled recharges, would provide customers more control over their Fastag recharges.

Additional features, such as notifications for low balance alerts or expiry dates, and a track-and-trace option for recharged amounts, can further improve the user experience. Expanding support to multiple Fastag providers would allow customers to recharge across various networks, providing more flexibility. Platforms should also streamline the refund process for failed transactions and offer quicker resolutions to boost customer satisfaction. Improved marketing strategies can raise visibility, while competitive pricing and value-added services would offer customers the best value. Stock management for Fastag issuance and replacement should be optimized to reduce delays, and better customer support should be available for troubleshooting issues. Finally, ensuring timely updates to account balances and transaction histories will enhance the overall experience. By addressing these areas, platforms can create a more efficient and customer-friendly service for Fastag recharge.

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## CONCLUSION :

Recharge platforms for FASTag have several opportunities to boost customer satisfaction. Key improvements include offering discounts and special offers, supporting multiple payment methods (like UPI, cards, and wallets), and enabling features such as auto top-ups, low balance alerts, and transaction tracking. Expanding support to multiple FASTag providers and streamlining refunds for failed transactions can increase convenience and trust. Improved customer support, faster account updates, better stock management for tag issuance, and competitive pricing will further enhance the overall user experience.

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