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**A Research on Economic Impact of E-rickshaw**

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Peer Review Information	Abstract
<p><i>Submission: 19 March 2026</i></p> <p><i>Revision: 08 April 2026</i></p> <p><i>Acceptance: 24 April 2026</i></p> <p><b>Keywords</b></p> <p><i>E-Rickshaws, Local Transport, Job Opportunities, Earning Livelihood, Affordable Travel, City Mobility, Eco-Friendly Transport, Everyday Commuters, Small-Town Economy</i></p>	<p>E-rickshaws have become a common and important mode of transport in many parts of India. Over the last decade, their presence has increased rapidly, especially in small cities and semi-urban areas. This study focuses on understanding their economic impact, particularly in terms of employment, income generation, and cost of operation. The paper is based on secondary data collected from reports, articles, and previous studies.</p> <p>The findings suggest that e-rickshaws provide a stable source of income to many people who might otherwise remain unemployed. They also offer affordable transport to the public. However, issues like lack of proper infrastructure, weak regulations, and financial difficulties still exist. Here's a more natural, human-friendly version of your keywords (less technical, more readable).</p>

**Introduction**

Transportation is one of the basic needs in any society. It not only helps people travel from one place to another but also supports economic activities like trade, employment, and access to services. In recent years, there has been a growing shift towards electric vehicles due to rising fuel prices and environmental concerns. Among these, e-rickshaws have gained a lot of popularity. These are battery-operated vehicles mainly used for short distances. They are especially useful for last-mile connectivity, such as traveling from a railway station to a residential area. In many towns and cities, e-rickshaws have replaced traditional cycle rickshaws. This shift has brought noticeable changes in the lives of drivers as well as passengers. This study aims to examine those changes from an economic point of view.

**Literature Review**

Several studies have been conducted on the impact of e-rickshaws. Most of them highlight their importance in improving the economic condition of drivers. Some key observations from earlier studies include:

- Drivers earn more compared to traditional rickshaw pullers
- Physical effort is reduced significantly
- E-rickshaws are more environmentally friendly

At the same time, some researchers have pointed out certain problems. For example, in many cities, there are too many e-rickshaws, which leads to reduced earnings per driver. Also, lack of proper government regulation creates confusion and safety concerns. Overall, previous research shows that e-rickshaws are beneficial but need better management.

## Objectives of the Study

The main objectives of this study are:

- To study the economic benefits of e-rickshaws
- To understand their role in providing employment
- To compare their operating costs with traditional vehicles
- To identify the problems faced by drivers
- To suggest possible improvements

## Research Methodology

This study is based on **secondary data**, meaning the information has been collected from already available sources.

### Sources of Data

- Research papers
- Government publications
- Online articles and reports

### Type of Study

The study is descriptive in nature and also involves some level of analysis.

### Limitations

- No primary survey was conducted
- Data may vary from region to region
- Rapid changes in technology may affect results

## Growth of E-Rickshaws in India

The number of e-rickshaws has increased rapidly over the past few years. One of the main reasons for this growth is the high cost of petrol and diesel. Since e-rickshaws run on electricity, they are much cheaper to operate.

Another reason is that they are easy to drive and do not require advanced skills. Many people who were previously unemployed or earning very little have started driving e-rickshaws.

Government support for electric vehicles has also played a role. In some areas, subsidies and easy loan options have encouraged people to invest in e-rickshaws.

## Economic Impact of E-Rickshaws

### 1. Employment Generation

One of the biggest advantages of e-rickshaws is that they create job opportunities. A person does not need a high level of education to operate an e-rickshaw. This makes it easier for people from economically weaker sections to earn a living.

Many drivers are migrants or individuals who could not find formal jobs. For them, e-rickshaws provide a reliable source of income.

### 2. Increase in Income

Compared to manual rickshaws, e-rickshaws allow drivers to travel longer distances in less time. This increases the number of trips they can make in a day.

As a result, their daily earnings improve. Many drivers have reported that they are now able to support their families better than before.

### 3. Low Operating Cost

E-rickshaws are cheaper to run because they use electricity instead of fuel. Charging a battery costs much less than filling petrol or diesel.

Maintenance is also simpler since there are fewer mechanical parts. This reduces overall expenses and increases savings.

### 4. Promotion of Small Businesses

E-rickshaws have also created opportunities for small businesses. Some people buy multiple vehicles and rent them out to drivers. Others run repair shops or battery charging services.

This helps in boosting the local economy and creates indirect employment.

### 5. Contribution to the National Economy

E-rickshaws reduce the use of fossil fuels, which helps in lowering fuel imports. This is beneficial for the country's economy.

They also support the growth of the electric vehicle sector, which is an important part of future development.

## Social and Environmental Benefits

### 1. Affordable Transport

E-rickshaws are cheaper compared to auto-rickshaws and taxis. This makes them accessible to a large number of people, especially those with low income.

### 2. Better Working Conditions

Drivers do not have to put in as much physical effort as in cycle rickshaws. This improves their health and reduces fatigue.

### 3. Environmental Benefits

E-rickshaws do not produce harmful gases, which helps in reducing air pollution. They are also quieter compared to fuel-based vehicles.

### 4. Women Participation

In recent times, some women have also started driving e-rickshaws. This is a positive step towards gender equality and financial independence.

## Challenges Faced by E-Rickshaw Drivers

### 1. Lack of Proper Regulations

In many areas, there are no clear rules regarding licensing and operation. This creates confusion and sometimes leads to conflicts.

## 2. Charging Infrastructure

There are not enough charging stations available. Drivers often have to depend on home charging, which can be inconvenient.

## 3. Financial Problems

Buying an e-rickshaw requires an initial investment. Some drivers take loans, which can be difficult to repay if income is unstable.

## 4. Market Competition

In some cities, the number of e-rickshaws has increased too much. This reduces the number of passengers available per driver.

## 5. Battery Issues

Batteries need to be replaced after a certain period, which can be expensive. Disposal of old batteries is also an environmental concern.

## Case-Based Observations

In many small cities and towns, e-rickshaws have become the main mode of short-distance transport. Drivers often work long hours but still prefer this job because it offers independence.

In some areas, people have formed informal groups or unions to manage routes and avoid conflicts. This shows how the system is evolving on its own.

## Findings of the Study

Based on the analysis, the following points can be observed:

- E-rickshaws provide employment to a large number of people
- They help in improving income levels
- They are cost-effective and easy to maintain
- They contribute to environmental protection
- However, challenges like lack of infrastructure and regulation remain

## Suggestions and Recommendations

To improve the effectiveness of e-rickshaws, the following steps can be taken:

1. Government should set clear rules and regulations
2. More charging stations should be developed
3. Financial support should be provided to drivers
4. Training programs can be introduced
5. Battery recycling systems should be improved
6. Entry of new e-rickshaws should be controlled in crowded areas

## Conclusion

E-rickshaws have clearly emerged as an important part of the transportation system, especially in developing countries like India. Over the past few years, their presence has grown rapidly, and they have become a common sight in cities, towns, and even rural areas. This growth is not just limited to transportation but is closely linked to economic and social development.

One of the most significant contributions of e-rickshaws is in the area of employment generation. They have provided job opportunities to a large number of people, particularly those who are unskilled or come from economically weaker sections of society. For many individuals, driving an e-rickshaw is not just a job but a primary source of livelihood. It allows them to earn daily income and support their families without requiring a high level of education or technical skills.

In addition to employment, e-rickshaws have also contributed to an increase in income levels. Compared to traditional cycle rickshaws, they are more efficient and allow drivers to complete more trips in less time. This directly leads to higher earnings. Many drivers have experienced an improvement in their standard of living after shifting to e-rickshaws. They are better able to manage household expenses, education costs for their children, and other basic needs.

Another important aspect is the low operating cost of e-rickshaws. Since they run on electricity instead of petrol or diesel, the daily expense is much lower. Maintenance costs are also relatively low, which makes them a cost-effective option for drivers. This combination of low investment and reasonable returns makes e-rickshaws an attractive option for self-employment.

E-rickshaws also play a role in supporting small-scale entrepreneurship. Some individuals invest in multiple vehicles and rent them out, while others run repair shops or battery charging services. This creates indirect employment opportunities and contributes to the growth of the local economy. In this way, the impact of e-rickshaws goes beyond just drivers and extends to other sectors as well.

From a social point of view, e-rickshaws provide affordable transportation to the public. They are especially useful for short distances and last-mile connectivity. People who cannot afford expensive transport options benefit greatly from their low fares. This makes transportation more accessible and inclusive.

Environmental benefits are another important advantage. Since e-rickshaws do not produce harmful emissions, they help in reducing air pollution. In a time when environmental concerns are increasing, this is a significant

benefit. They also produce less noise compared to fuel-based vehicles, which improves the overall quality of life in urban areas.

However, despite all these advantages, there are several challenges that need to be addressed. One of the major issues is the lack of proper regulation. In many areas, there are no clear rules regarding licensing, operation, or safety standards. This creates confusion and sometimes leads to conflicts among drivers.

Another challenge is the lack of proper charging infrastructure. Many drivers depend on home charging, which can be inconvenient and time-consuming. The absence of sufficient charging stations limits the efficiency and convenience of using e-rickshaws.

Financial problems are also a concern. Although e-rickshaws are relatively affordable compared to other vehicles, the initial cost can still be high for low-income individuals. Many drivers take loans, and if their income is not stable, repayment becomes difficult.

In addition, in some areas, the number of e-rickshaws has increased too much, leading to intense competition. This reduces the number of passengers per driver and affects their income. Battery-related issues, such as high replacement costs and disposal problems, also need attention. To fully utilize the potential of e-rickshaws, proper steps need to be taken. The government should introduce clear rules and policies to regulate their operation. Investment in charging infrastructure is also necessary to support their growth. Financial assistance and easy loan options can help more people adopt this mode of transport. At the same time, awareness programs and training can improve safety and efficiency.

E-rickshaws have brought about a positive change in both the economic and social aspects of society. They provide employment, increase income, and offer affordable transportation, while also being environmentally friendly. Although there are certain challenges, they are not impossible to overcome. With proper planning, regulation, and support, e-rickshaws can continue to play a major role in sustainable development.

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