



A Comprehensive Review of the Indian Public Transport System

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Abstract:

The literature reviews serve as a solid source of information on a particular subject or as the basis for further research. This essay assesses the current state of our country's public transportation system. This paper endeavours to concentrate on the various investigations conducted by a transport sector researcher. It covers the different problems with Indian public transportation.

In today's globalized world, the transportation industry is crucial, impacting not only economies and societies but also the environment. This article provides a comprehensive review of the literature pertaining to various research papers and articles concerning the transportation industry. The review covers a wide range of topics, such as emerging technologies, policy interventions, socioeconomic effects, and sustainable transportation. This article offers insightful information about the status of the transportation industry today, its difficulties, and possible solutions for creating a more effective, sustainable, and fair transportation system through a thorough review of the literature. In order to provide a thorough overview of the past, present, and future of the transportation sector, key findings and trends from the reviewed literature are synthesized. This lays the groundwork for future research and policy development in this crucial area.

Keywords: Transportation System, Congestion, Cab services, Pandemic, Eve-teasing.

Introduction:

The public transport system in India stands as a complex and multifaceted network that plays a pivotal role in the daily lives of millions of citizens. With a population exceeding 1.3 billion and a rapidly urbanizing landscape, India's public transportation infrastructure is under constant scrutiny and evolution. This research article aims to provide a comprehensive review of the Indian public transport system, exploring its historical development, current state, challenges, and potential future directions. As a crucial component of urban and rural mobility, the Indian public transport system not only influences the daily routines of individuals but also has significant implications for the nation's economic, environmental, and social well-being. This review endeavours to shed light on the various aspects of this intricate system,

drawing attention to its strengths and weaknesses, and offering insights that may inform policymakers, urban planners, and researchers alike.

Objectives of the study:

In the transportation industry, a literature review accomplishes multiple important goals. Its primary goal is to present a thorough summary of the field's current research, including the current state of knowledge and key findings. Moreover, it is essential for examining the patterns, advancements, and new problems in the transportation industry, illuminating the dynamic character of this field. Another crucial component is assessing the methods and data sources employed in earlier research projects. This helps to determine the dependability and quality of the work that has already been done, pointing out its advantages and disadvantages. Finding gaps

in the literature is crucial because it directs future studies by highlighting areas that require more research.

A literature review also contributes to policy and decision-making by offering data and perspectives that facilitate well-informed decisions in the transportation industry. It helps to establish theoretical frameworks for further research by synthesizing knowledge and producing an organized summary of the literature. It guarantees that new research builds upon a strong foundation of knowledge and makes a significant contribution to the field by providing context and relevance.

Finally, by disseminating its findings to other scholars, practitioners, and stakeholders, the literature review aids in the dissemination of knowledge and promotes a deeper comprehension of the opportunities, difficulties, and complexities present in the transportation sector.

Methodology:

Exploratory research is the study's main focus. The information was compiled from a number of well-known publications. The research has to do with secondary data collection. The primary goal of the study is to examine various papers along with the hypothesis of the literature review, findings, and recommendations made by various authors in their individual papers.

Literature review

1. Review of Urban Transportation in India.

The primary focus of the article is the various issues with the Indian city transportation system.

The author has covered the rise in two-wheelers and the development of accessible transportation infrastructure in recent years in this article.

Numerous problems arise, including traffic congestion, pollution, accidents and fatalities, parking issues, and more. The author has proposed a few policy measures to mitigate the transportation issues.

The use of public transportation should be encouraged more frequently than driving one's own vehicle.

Second, in order to provide organized, effective, and efficient transportation, coordination between various transportation agencies is necessary. Improvements are required on the supply and demand sides of the equation.

Policies pertaining to parking fees and congestion pricing are examples of demand-side measures, whereas areas under repair and maintenance include bus lanes, intersectional service roads, road networks, signals, and other infrastructure.

The author has made some very significant recommendations, including encouraging people to walk short distances and encouraging the government to invest more in cycling.

2. Informal public transport modes in India: A case study of five city regions.

An analysis of five urban regions' use of unofficial public transportation in India. This article discusses the significance of unofficial transportation in five significant Indian cities. Amritsar, Jaipur, Noida, Ahmedabad-Gandhinagar, and Sanand-Viramgam are the study's locations.

The functioning informal transportation system in these cities was the subject of a brief survey conducted by the researcher. Drivers, users of the roads, and Municipal Corporations were the subjects of the survey. Numerous non-formal modes of transportation are available, including the Force Cruiser, auto rickshaw, jeep, chakda kaduka, Minibus, Vikram, and Mahindra Gio. People use these unsafe and environmentally unfriendly forms of transportation despite the fact that they are flexible and can be used whenever needed. Because of the great demand for the informal modes, their operators had to retrofit them or add seats in order to make more money.

3. The crises of Public transport in India: Overwhelming Needs but Limited Resources.

The author of this paper has talked about the numerous issues that public transportation is dealing with. obstacles on its operating system because of how demanding the growing population is. Because the funding is sufficient, less money is needed for system upgrades and maintenance. This issue mostly arises from each person's low per capita income.

Insufficient funding for the purchase of cutting-edge technology to improve the current setup. The author made a few recommendations to address these problems, including increasing the amount of money or other support given to this industry, inviting more new businesses to enter their market, and privatization.

4. Intelligent Road Traffic control system for Traffic Congestion : A Perspective

The author of this piece has discussed the value of the ITS tool, one of the cutting-edge applications that can help solve issues pertaining to the transportation industry. It is among the most sophisticated and intelligent pieces of technology that connects people, cars, and roads. The environmental issues will not prevail over this model.

5. Air pollution Due to Road Transport in India: A review on Assessment and Reduction Strategies.

The author has provided a brief overview of the rate at which automobiles are being produced, which raises the amount of fumes and air pollutants in the atmosphere. Pollutants that mix with one another in the environment include carbon monoxide, hydrocarbons, and nitrogen oxide. The author offered the following recommendations to reduce and mitigate pollution: use CNG instead of gasoline or diesel in vehicles, and perform routine maintenance on vehicles.

6. Evaluation of perceived stress in bus drivers of Pune city.

The stress level of bus drivers is discussed in the paper. How stress is adversely affecting employees' working environments.

A brief survey comprising 130 employees was carried out. The survey's results were concerning. The investigation was cross-sectional. The survey indicates that the primary focus of the research is stress.

Stress has a detrimental effect on working conditions, leading to things like poor concentration, higher absenteeism, and more health problems among bus drivers than among other office workers.

The results of the survey indicate that field workers experience higher levels of stress than office workers.

7. A study on factors influencing the consumers in selection of cab services.

In this article, the author discussed his opinions on taxi services. According to him, the introduction of taxi services has completely altered the modern world. People are moving in its direction. Because it has safety features and is incredibly comfortable and convenient.

It is a dependable mode of transportation that aids in timely arrival at our destination.

These days, it's thought of as an affordable and practical alternative to bus public transportation.

8. Impact of physical distancing due to novel coronavirus (SARS-COV-2) on daily travel for work during transition to lockdown.

This article focuses on the impact of the COVID-19 pandemic on India's transportation industry. This study examines the services provided during the period leading up to the lockdown. During this period, the services were restricted, but they continued despite the limitations. According to the study, there was a significant decrease in travel behavior during the lockdown transition period. Here, the majority of respondents believed that switching from public transportation to private vehicles would increase safety and reduce the risk of contracting a virus.

9. Rapid assessment of "eve teasing" (sexual harassment) of young women during the commute to college in India-

This essay examines a case study of Chennai, India's female college students. Women in the city who work and attend college frequently experience harassment when riding the city buses.

This study employed a variety of methodologies, including student group discussions, police officer interviews regarding initiatives taken to combat eve-teasing, and safety audits to identify eve-teasing hotspots.

Understanding the various issues and how to resolve them is made easier by the study.

The primary areas of eve testing are the subject of the study. In order for women and girls to feel comfortable entering public spaces, safety is crucial.

Findings and Discussions:

The transportation industry is facing many difficulties and major changes. Its significant environmental impact—road transportation being a major contributor to greenhouse gas emissions is one important finding. As a result, there is now more focus on eco-friendly transportation options and sustainability. Numerous cities continue to struggle with urban congestion, which has prompted research into ways to lessen it, like improving urban planning, investing in public transportation, and encouraging carpooling. Another noteworthy trend is the

digital transformation, which is heavily reliant on driverless cars and ride-sharing services. These developments could improve accessibility, safety, and efficiency in transportation. Governments and private sector organizations continuously invest in port, rail, and road infrastructure projects to enhance connectivity and logistics, making infrastructure investment a crucial priority. Due to the high priority placed on safety and security, technologies such as cybersecurity and collision avoidance systems are being researched. Studies have also focused on the availability of transportation services in rural areas, highlighting the significance of fair access for both economic prospects and standard of living. The transportation industry's economic effects, encompassing its effects on commerce, employment generation, and general economic growth, continue to be crucial subjects of discussion. Researchers also look into alternative fuels as ways to cut emissions and rely less on fossil fuels, such as electric and hydrogen-powered cars. There is debate over how best to balance public and private transportation networks, with effective public transportation possibly lowering emissions and traffic. Finally, the growth of electric and driverless cars, the effect of e-commerce on freight transportation, and the idea of mobility-as-a-service are discussed as future trends in the transportation industry. Technological developments, environmental concerns, societal needs, and economic considerations have shaped these conclusions and discussions.

Conclusion:

The research articles on India's transportation industry offer insightful analyses of the opportunities and problems this vital sector faces. They draw attention to the necessity of effective and sustainable transportation solutions, the influence of technological advancements and legislative changes, and the significance of tackling social and environmental issues. It is clear that in order to satisfy the increasing demands of India's diverse and quickly developing transport landscape, a comprehensive strategy combining innovation, infrastructure development, and policy changes is necessary. These findings highlight the need for continued research and cooperation to influence India's transportation sector's future as it develops.

References:

1. Sanjay K Singh (2005) "Review of Urban transportation in India". Journal of Public Transportation, Vol 8 (1), 2005.
2. Megha K, Seema S, Akshima T. Ghate, Sarbojit Pal and Sangeetha Ann Wilson (2016) Informal public transport modes in India: A case study of five regions, International Association of Traffic & Safety Sciences Research (IATSS), Vol.39 Issue 2, Mar 2016 pg.102-109.
3. John Pucher, Nisha Koratty swaroopam, Neenu Ittyerah, "The Crises of Public Transport in India: Over whelming Needs but Limited Resources", Journal of Public Transportation, Vol.7, No.4, 2004 ISSN-No.1077291X
4. R.K Shrivastava, R. K Saxena and GeetaGautam (2013), Air pollution due to Road Transport in India: A Review on Assessment And Reduction, Journal of Environment Research and Development, Vol.8 (1), July – September 2013.
5. Anuradha R. Joshi and Savita M. Vaidya (2017) Evaluation of perceived stress in bus drivers of Pune city , National Journal of Physiology , Pharmacy & Pharmacology , Vol.7 (1) 2017 pg.90-93.
6. Dr.P. Kishore Kumar and Dr. N. Ramesh Kumar (2016) A study on factors Influencing the consumers in selection of cab services, International Journal of Social Science and Humanities Research, Vol.4 (3) July- Sept 2016 pg. 557-561.
7. Digvijay S Pawar, Ankit K Yadav, Ninad Akolekar and Nagendra R. Velaga (2020) Impact of physical distancing due to novel corona virus (SARS-COV-2) on daily travel for work during transition to lockdown, Transportation Research Interdisciplinary Perspectives 7(2020) 100203.