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Analysing Public Perception Of Free Transport: A Case Study Of Telangana, India

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Abstract: *Public transport is a significant pillar in developing countries like India due to heavy dependency on transport systems. Public transport accessibility significantly impacts the public's daily life, increasing access to other facilities like educational institutes, hospitality, workplaces, and public places. This paper investigates the public perception of free women's transport provided by the Telangana government. One hundred twenty-six sample data records were collected from daily commuters through questionnaires and analyzed using MS Excel for detailed descriptive statistics. The Analysis shows that providing free transport increases the labour force, helps provide monetary support to families, enhances academic performance for students, and opens multiple opportunities for the overall growth of individuals. However, free public transport has financial and operational management issues, such as budget allocation, resource management, and infrastructure development. This study found a considerable impact of free transport on individuals and society. This study also gave suggestions to the government on effectively managing public transport.*
Keywords: *Public transport, Perception, Policy making, Academic performance, Resource management*

1. INTRODUCTION

1.1 Public Transport in India

A public transport service serves the basic needs of the rural and urban areas. The government provides these services to improve overall development (Polat 2012). Singh (2005) reviewed the urban transport system in India by focusing on the policy-making point of view. The author discussed the infrastructure development in India, including the roads, pollution, and congestion in the urban areas. The author concluded that Indian infrastructure should not support more personal vehicles and that the government should offer better quality services. Various researchers explored the public transport systems in India (Harsha et al. 2020; Shah & Adhvaryu 2016; Adhvaryu 2019). As per a report in Coach Builders India [11], six states in India offer free transport with different schemes. Table (1) summarizes different schemes launched by various states' chief ministers in India offering free public transport for women during their working period.

Table 1: Different states in India offering free transport for women [Coach Builders India, (11)]

BASIS	TELANGANA	KARNATAKA	KERALA	TAMIL NADU	PUNJAB	DELHI
Name of the scheme	Maha Lakshmi scheme	Shakti Scheme	Samudra Bus Service	Zero-Ticket Bus Scheme for Women	Free Bus Travel for Women in Punjab	Pink Ticket Scheme

Launched by	A Revanth Reddy, The Indian National Congress (INC)	Sidda Ramaiah, The Indian National Congress (INC)	Pinarayivijayan, The Communist Party of India(CPI)	MK Stalin, Dravida Munnetra Kazhagam (DMK)	Amarinder Singh, The Indian National Congress (INC)	Aravind Kejriwal, The Aam Aadmi Party (AAP)
Month & Year of Launch	December 2023	June 2023	August 2021	May 2021	April 2021	October 2019
Facilities & offerings	Free bus rides for girls, women, and transgender persons in TSRTC City buses, Palle-Velugu, and Express buses.	Free bus rides for women on state-owned non-premium buses.	Free bus rides for women fish vendors from coastal areas.	Free bus rides on state-owned ordinary buses up to 30 km (about 18.64 mi).	Free bus rides for women of Punjab in non-luxury buses	Free bus rides for women on DTC and cluster buses. (both AC and Non-AC)

1.2 Public Transport in Telangana

Public transport in Telangana, India, plays a pivotal role in supporting the mobility needs of its urban and rural populations. Since its formation in June 2014, Telangana has prioritized infrastructure development, focusing on enhancing its public transport systems to cope with rapid urbanization and economic growth. Hyderabad, the state capital, is at the heart of these efforts, boasting an extensive network that includes buses, metro rail, and intermediate public transport options. The Telangana State Road Transport Corporation (TSRTC) is the backbone of the state's public transport, operating an extensive bus network connecting urban, semi-urban, and rural areas. TSRTC's services are integral for daily commuters, offering a cost-effective mode of transport across the state. The corporation runs city buses in Hyderabad, which cover the metropolitan area comprehensively, facilitating the movement of millions of passengers daily. Research highlights the efficiency and reach of TSRTC buses, noting their critical role in reducing traffic congestion and pollution in urban centers. Kumar et al. (2016) reviewed the public transport system in India. They concluded that the transport system should follow legitimate practices to improve the service and bridge the inter-city supply gaps.

TSRTC also provides intercity and interstate services, linking Hyderabad with other significant cities and promoting regional connectivity and economic integration. The buses are designed to cater to different passenger needs, including luxury and semi-luxury services for long-distance travel. Despite these efforts, TSRTC faces challenges such as aging fleets, financial constraints, and technological upgrades to improve service reliability and passenger comfort (Anjaneyulu & Rao, 2024). Hyderabad Metro Rail, inaugurated in 2017, represents a significant leap in the city's public transport infrastructure. The metro network operates on three lines, spanning over 69 kilometers (about 42.87 mi) and covering key city areas. The metro has reduced commuter travel time and alleviated the burden on the city's congested roads. Studies indicate that the metro system has improved urban mobility efficiency and contributed to lowering vehicular emissions (Whitworth 2015).

The Hyderabad Metro is lauded for its modern infrastructure, safety standards, and integration with other modes of transport, such as buses and auto-rickshaws, providing a seamless travel experience (Sudhakar & Rao, 2019). Future expansion plans aim to extend the metro lines to underserved areas, enhancing accessibility and coverage. Intermediate Public Transport, including auto-rickshaws, taxis, and shared mobility options, provides last-mile connectivity in Telangana. Auto-rickshaws and taxis are ubiquitous in urban and

rural settings, offering flexible and convenient transport options (Jasti & Ram, 2019). According to Polat (2012), enormous waiting time reduces the reliability of public transport services.

In Hyderabad, the proliferation of app-based ride-hailing services like Ola and Uber has transformed the urban mobility landscape, offering on-demand services that cater to a wide range of passengers. Shared auto-rickshaws and mini-vans are particularly important in areas with sparse conventional public transport services (Anjaneyulu & Rao, 2024). These modes of transport are vital for short-distance travel and are commonly used by daily-wage workers, students, and older people. However, the IPT sector faces regulatory oversight, safety standards, and fare regulation challenges, necessitating a balanced policy formulation and implementation approach. Despite progress, Telangana's public transport system faces significant challenges, including traffic congestion, especially in Hyderabad. The city's rapid urbanization has led to a 7% increase in private vehicle ownership, exacerbating traffic woes and environmental pollution. Ensuring efficient first- and last-mile connectivity remains a priority in encouraging public transport usage. Initiatives like feeder bus services to metro stations and improved pedestrian infrastructure are critical to addressing this issue (Kumar 2020).

The government of Telangana has been proactive in implementing various projects under the Smart City Mission, aiming to enhance urban mobility through intelligent transport systems, integrated ticketing, and real-time passenger information systems (Krishna & Chattaraj 2020). These initiatives are expected to improve the public transport network's efficiency and user experience (Devasena & Urkude, 2024). Public-private partnerships (PPPs) are encouraged to attract investment in transport infrastructure, ensuring sustainable and scalable solutions. Introducing electric buses is an initiative to reduce public transport's carbon footprint and operational costs (Gahlot 2013). Additionally, the government provides subsidies and fare concessions to make public transport affordable and accessible to all socioeconomic groups, including students, senior citizens, and individuals.

Public transport in Telangana, especially in Hyderabad, is a cornerstone of the state's urban development strategy. While significant strides have been made in expanding and modernizing the transport network, continuous efforts are needed to address existing challenges such as congestion, first and last-mile connectivity, and integration of various transport modes. Ensuring that public transport remains affordable, reliable, and sustainable is essential for the state's long-term economic growth and environmental sustainability. Jasti & Ram (2019) developed a benchmarking framework for the urban population in the Indian context, consisting of 29 evaluators, and found a 74% performance rate. Madhu et al. (2024) proposed a Fuzzy method to find an alternative route for traffic diversion in Bangalore. The study identifies the worthiness of the route by reducing travel time and giving suggestions to the traffic controller to help them make proper decisions in traffic diversions.

1.3 Overview of Free Travel Scheme for Women: MahaLakshmi

The MahaLakshmi scheme, implemented in Telangana and effective from December 9, 2023, provides free travel for girls, women of all age groups, and transgender persons on state-run city ordinary, metro express, PalleVelugu, and rural express buses operated by the Telangana State Road Transport Corporation (TSRTC) within the state. This benefit does not extend to females whose origin is from other states. Women and transgender persons traveling on TSRTC buses must present a hard or soft copy of their Aadhar card to receive a zero-rupee ticket. Under the MahaLakshmi scheme, women will also get benefits such as a 2500 Rs monthly pension and liquid petroleum gas (LPG) for 500 Rs. [10]. Telangana's current population is approximately 3.964 crore (nearly four crore), with a gender ratio of 988 females for every 1000 males. While the scheme significantly benefits poor, lower-middle-class, upper-middle-class females, college-going girls, and transgender persons, it has inadvertently caused issues for other groups, such as auto and cab drivers, as well as male passengers who depend on TSRTC buses. The free travel scheme has led to a sharp increase in female occupancy on these buses. As a result, women now constitute about 62% of passengers, leading to a 53% rise in overall occupancy. According to TSRTC records, nearly full occupancy is reported from almost all the 97 bus depots across Telangana. The high occupancy rate by female travelers in city ordinary, metro express,

PalleVelugu, and rural express buses has created problems, chaos, and frustration for male passengers who rely on these services. It is important to respect women, particularly pregnant women or those who are physically challenged, and to allocate seats to them on humanitarian grounds. Males should not occupy seats reserved exclusively for females unless they are vacant. TSRTC operates approximately 9,384 buses across Telangana, including a few hired ones.

2. LITERATURE REVIEW

2.1 Public Transport Policies and Welfare Schemes

Public transport policies and welfare schemes have been pivotal in shaping the mobility landscape, particularly in urban environments. These policies aim to improve accessibility, reduce congestion, and promote sustainable transport modes. In many cities, subsidies and welfare schemes have been implemented to make public transport more affordable and inclusive (Urkude S & Jigeesh, N. 2025). A significant body of literature discusses the benefits of subsidizing public transport. According to studies, such subsidies can lead to environmental and economic benefits by reducing private vehicle usage and associated emissions (McCollum et al., 2017; Creutzig et al., 2020). Zhu et al. (2025) analysed traffic incidents in China based on various factors such as traffic networks, transport facilities, land area, and social demographics. The author found that different factors are responsible for the incidents in other areas. The number of incidents is higher during working days than on holidays because of employment. The author gave some suggestions for the safety measures and infrastructure development.

In Beijing, public transport subsidies were found to enhance social welfare and reduce traffic congestion through a spatial Computable General Equilibrium (CGE) model, highlighting the positive economic impacts of these policies (Robson et al., 2018; Shahrokhi Shahraki & Bachmann, 2018). Moreover, integrating gender considerations into public transport policies has become increasingly important. The Union Internationale des Transports Publics (UITP) and World Bank report emphasize the need for gender-sensitive approaches to ensure safety and inclusivity in public transport systems. Policies that address the specific needs of women, such as secure travel options and improved accessibility, contribute to more significant equity in public transportation [12] (UITP, 2023).

2.2 Perceptions and Comparative Analysis in Public Transport

Perceptions of public transport vary significantly across different demographic groups and regions. The comparative analyses reveal that reliability, affordability, and safety influence depend on public satisfaction with transport services. Studies have shown that users prioritize these factors differently based on their socioeconomic status and daily travel needs (Tattini et al., 2018). A comparative study across European cities found that cities with higher investments in public transport infrastructure and better service quality had higher user satisfaction rates. Cities like Zurich and Vienna, which have well-developed public transport systems, report higher user satisfaction than towns with less developed infrastructure.

Furthermore, a systematic review by Javaid et al. (2020) on adopting low-carbon transport modes highlights the importance of user perceptions in successfully implementing public transport policies. The study underscores the need for continuous engagement with the public to understand their needs and preferences, ensuring that policies are user-centric and effective in promoting sustainable transport modes. Sudhakar & Rao 2019 analyzed the public perception and its impact on customer satisfaction and found that price, journey comfort, and services provided influence customer satisfaction most.

2.3 Review on Free Travel Schemes

Various regions have implemented free travel schemes to promote public transport usage and reduce traffic congestion. Introducing free travel schemes results in increased ridership, particularly among low-income groups and students. For example, Telangana's "MahaLakshmi" scheme, which provides free bus travel for women, girls, and transgender persons, has significantly increased bus occupancy and overall ridership.

A case study from Tallinn, Estonia, where free public transport was introduced for residents, showed a notable increase in public transport usage and a decrease in private car trips. This policy also had positive social equity

implications, making transportation more accessible to economically disadvantaged groups (Creutzig et al., 2015). However, these schemes also present challenges. In Telangana, the increase in female ridership has led to many issues like overcrowding, creating problems for male passengers who rely on the same services. These issues highlight the need for careful planning and balancing service provisions to effectively cater to all user groups.

2.4 Reform Imperatives in Public Transport

Reforming public transport systems is essential to address the dynamic needs of urban populations and enhance service efficiency. Key reform imperatives include improving service quality, integrating technology, and ensuring financial sustainability. Improving service quality involves enhancing public transport services' reliability, frequency, and coverage. Studies suggest that investments in infrastructure, such as dedicated bus lanes and modernized fleets, can significantly improve service quality and user satisfaction (Amponsah & Adams, 2016).

According to Creutzig et al. (2020), incorporating user feedback into service planning helps tailor services to meet passengers' needs. Integrating technology in public transport systems has also been identified as a critical reform area. Smart ticketing systems, real-time tracking, and data analytics can enhance operational efficiency and provide better user experiences. For instance, implementing digital payment systems in London's public transport network has streamlined fare collection and reduced boarding times, contributing to overall service efficiency (Edelenbosch et al., 2017). Financial sustainability remains a crucial challenge for public transport systems. Various funding models, including public-private partnerships and value-capture financing, have been proposed to ensure the long-term viability of public transport services.

In conclusion, public transport policies and welfare schemes are vital in promoting sustainable and inclusive urban mobility. Implementing these policies requires a comprehensive understanding of user perceptions, continuous stakeholder engagement, and innovative funding mechanisms. By addressing these aspects, public transport systems should be reformed to serve the needs of diverse populations in better way and contribute to the overall sustainability of urban environments.

3. RESEARCH METHODOLOGY

The main goal of this study is to identify the public perception of the free women's transport provided in Telangana, as well as the cost and benefit analysis and budget allocation challenges faced by the government. The study employed quantitative data analysis by collecting the sample data through electronic questionnaires.

3.1 Questionnaire Design

A sample questionnaire was circulated manually and through Google Forms to the respondents from March to June 2024 for collecting data. Only daily commuters from Hyderabad city in Telangana were selected to perform the analysis. The people taking public transport daily for routine work were considered the respondents. They mostly fall into the different employment categories, such as full-time/ part-time/self-employed/ students, and household help. The survey questionnaire was translated into English and the local language (Telugu) to make it convenient for data collection. Only the urban population was targeted to collect the required data, and some male respondents also participated in giving their general opinion on the free public transport system.

The questionnaire was divided into five sections; the first contains a demographic profile of respondents, and the second deals with travel habits and daily travel expenditure. The third section deals with technology awareness and use of travel apps, the fourth section deals with users' opinions on free travel, and the fifth section discusses the challenges faced by the government and their implications. Using Microsoft Excel, descriptive statistics were applied to the entire dataset to understand public opinion on various aspects.

3.2 Sampling and Data Collection

For data collection, a survey form was circulated to daily commuters in Hyderabad through manual distribution, and also through Google form. A random sampling technique was used further to select the data for analysis. Table (2), shows the demographic details of 126 respondents used for analysis, and a random sampling technique was applied to the quantitative data. A total of 130 responses were collected, out of which 126 responses were used for Analysis.

Table 2: Demographic profile of respondents (N=126)

Demographic	*Category*	*Frequency*	*Percentage*
Gender	Male	51	40%
	Female	75	59%
Age in years	10-20	39	31%
	21-30	31	24%
	31-40	23	18%
	41-50	28	22%
	>50	5	4%
Occupation	Full-time employee	36	28%
	Part time employee	12	9%
	Self employed	30	24%
	Student	48	38%

4. ANALYSIS RESULT AND DISCUSSION

Figure 1 shows the frequency of using public transport. In this chart, 25% of the respondents used public transport daily for their routine tasks, whereas 30% used it rarely, and 7% used it twice a week. Table (3) shows the travel patterns of respondents. Surprisingly, more females (59%) use public transport than males (41%). There could be various reasons, such as the unavailability of their own transport, own vehicle not affordable, and they do not know how to drive, etc.

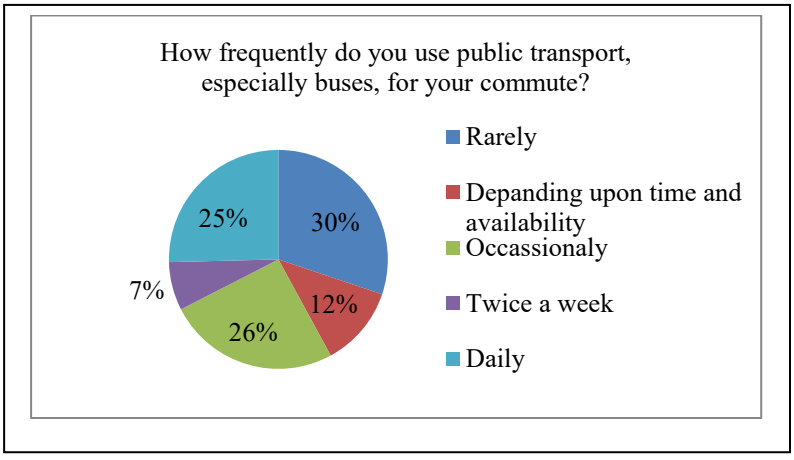

Figure 1: Frequency of using public transport

Table 3: Travel pattern of respondents

Travel pattern	*Female*	*Male*	*Grand Total*	*Percentage*
Daily	21(28%)	11(21%)	32	25%
Depending upon time and availability	6(8%)	9(17%)	15	12%
Occasionally	20(27%)	11(21%)	31	26%
Rarely	25(34%)	14(27%)	39	30%

Twice a week	2(3%)	7(14%)	9	7%
Grand Total	**74**(59%)	**52**(41%)	**126**	

Table (4) shows the frequency of respondents with different occupations. Analysis shows that 46% of daily travelers are full-time employees, 38% are self-employed, and 60% are students, out of 74 females. According to this study, more self-employed individuals and students benefit from this facility. So free transport will help improve their financial condition and allow them to focus on their studies.

Table 4: Respondents with different occupations

How many respondents with different occupations use public transport daily?	*Female*	*Male*	*Grand Total*
Full-time employee	12	24	36
Part-time employee	4	9	13
Self employed	22	8	30
Student	36	11	47
Grand Total	**74**	**52**	**126**

Figure 2 shows the money saved by female respondents on daily travel. This bar chart shows that out of 74 female respondents, 10-50 rupees are saved by 14 females, 50-70 rupees are saved by 10, and 18 female saves 70-120 rupees and 11 female respondents save more than 120 rupees daily. This study implies that more female respondents benefited, and a significant amount spent on travelling can be used for other activities.

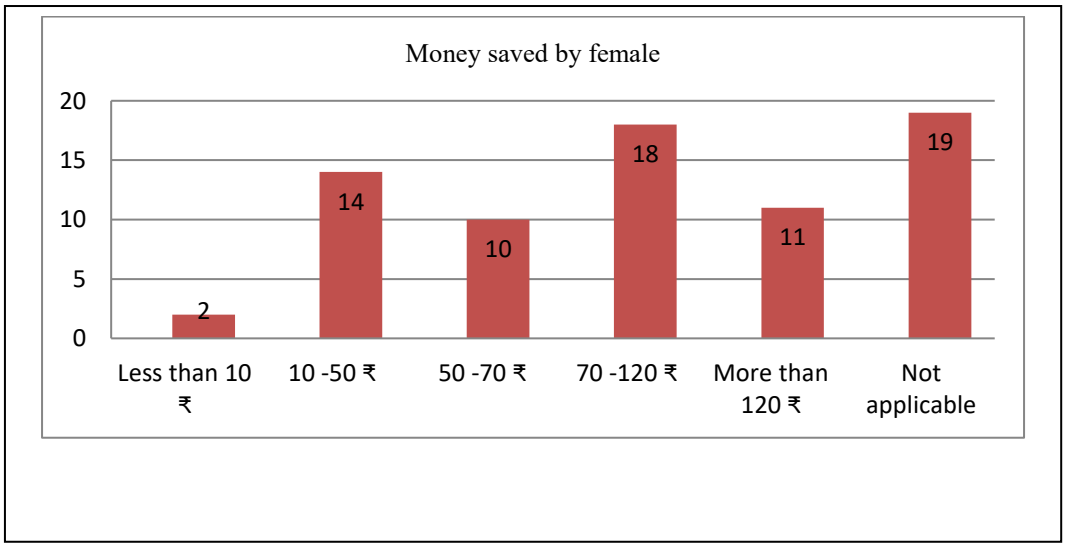

Figure 2: Money saved by female respondents on daily travel

Public Opinion on Free Travel

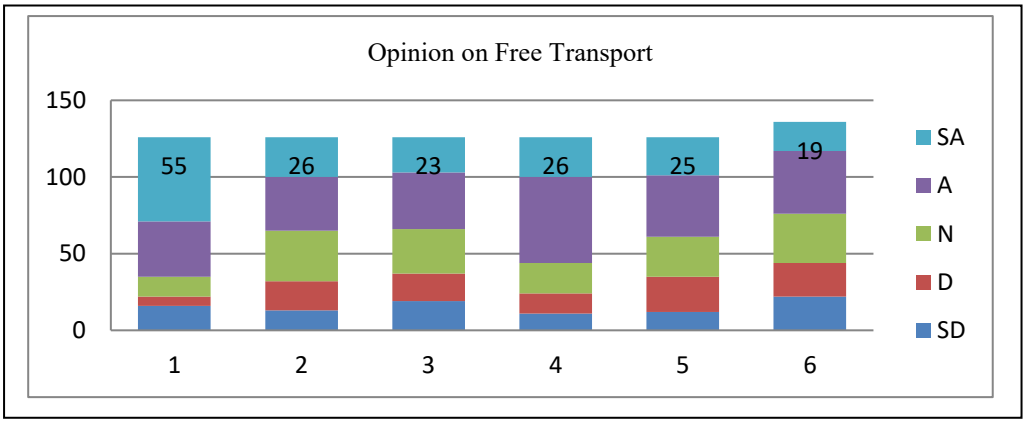

Figure 3: Public opinion on free transport

Figure 3 shows the public opinion on free travel. The X-axis in the bar chart shows six questions asked to grab public opinion on free travel facilities, as mentioned in Table (5), and the Y-axis shows the frequency of responses.

Table 5: Questions Related to Public Opinion

Series	Questions
1	Did you observe increased labor force participation due to the free travel scheme for women?
2	Does free bus travel help women save money?
3	Do you think there are more benefits than loopholes in this scheme?
4	Do you think the free travel scheme benefits the lower-income group of society, who cannot afford their vehicles?
5	Do you think there are environmental benefits to using public transport? (Decrease in Air Pollution, noise pollution, etc.)
6	Do initiatives like the Mahalakshmi Program contribute to gender equality in society?

Table (5) shows the questions asked of the respondents to determine their opinion on free public transport offered for women in Telangana, and the results are shown in Figure 3. Responses are collected on a Likert scale of 5, such as SD-Strongly Disagree, D-Disagree, N-Neutral, A-Agree, and SA-Strongly Agree. The result shows that most of the respondents strongly agree that free travel contributes to an increased labour force, saves money, and has more benefits than loopholes, is suitable for ladies who cannot afford their own transport, decreases pollution, and creates gender equality. As per questions 55, 26, 23, 26, 25, and 19, respondents strongly agree with all the questions asked to find public opinion on free transport. According to the Analysis, more than 50% of the respondents agreed on the various benefits of free transport for women.

Government Initiatives

Figure 4 represents the pie chart related to increasing the frequency of buses. According to the chart, 36% of respondents strongly agree, 25% agree, 21% are neutral, and 18% disagree & strongly disagree with the initiative that the government should increase the frequency of buses on busy routes to facilitate daily travellers. This indicates that the public is happy with the government initiative, provided that more buses should be added.

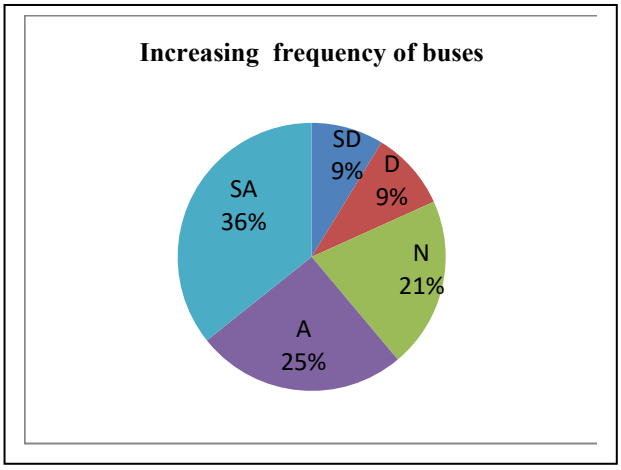

Figure 4: Increasing frequency of buses

Figure 5 represents a pie chart for providing new buses to new areas. As per the respondents, the government should start new buses to provide service in new places. As per the Analysis, 66% of respondents agree that new buses should be provided to unserved areas, and 16% are neutral. Government should provide transport facilities to such areas, and daily travel will be easy.

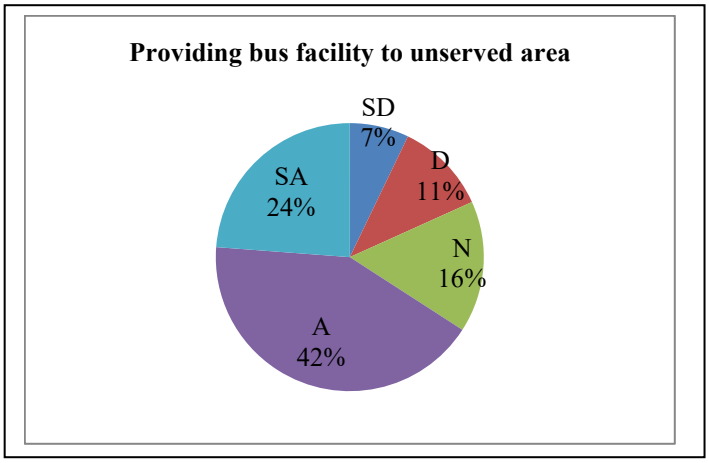

Figure 5: Providing bus facility to an un-served area

Figure 6 shows opinions on infrastructure development. As per the chart, 29% of respondents strongly agree, 40% agree, 16% are neutral, and 15% disagree with developing new infrastructure. From the data analysis based on government initiatives, the respondents feel that the government should focus on infrastructure development so that new buses can run to provide transport facilities and serve more people.

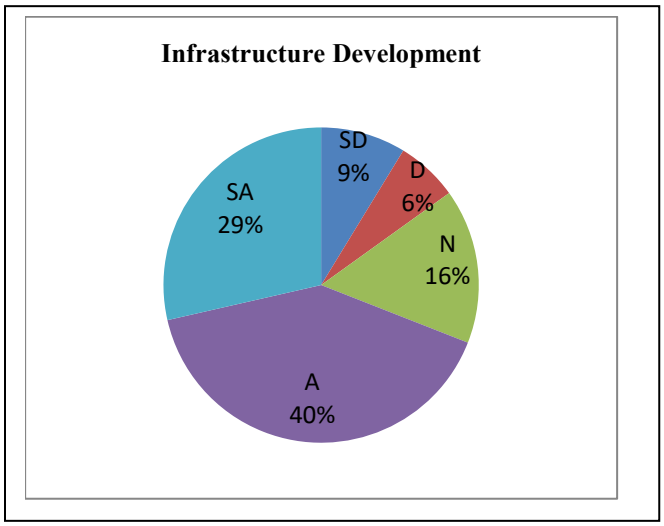

Figure 6: Infrastructure development

4.1 Management Challenges Faced by Government

Providing free public transport was the most significant management challenge for the government. This process includes various activities such as budget allocation, handling management and logical challenges, availability of buses, and so on. Public opinion on preventing misuse of the system is shown in Figure 7. As per the chart, 23% of respondents strongly agreed, 39% agreed that avoiding misuse of the system was a significant challenge for the government, and 26% had a neutral opinion.

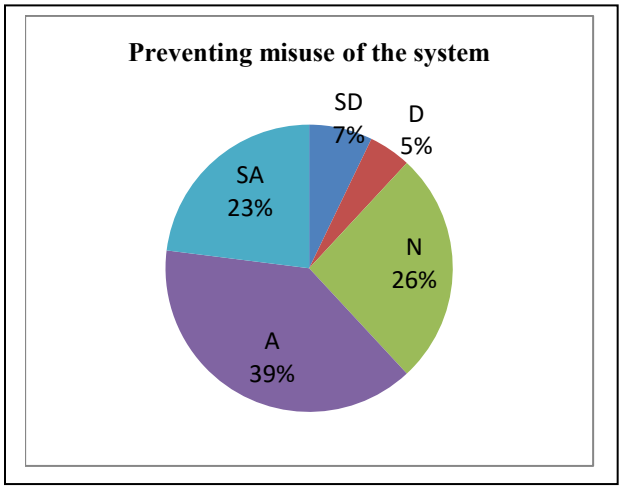

Figure 7: Preventing misuse of the system

Effective budget allocation to manage bus services throughout the year is also challenging for the government, as shown in Figure 8. As per the chart, 13% of respondents strongly agreed, 36% agreed, and 33% were neutral on ensuring efficient budget allocation. This indicates that budget allocation for free public transport schemes is crucial and should be done efficiently to facilitate needy people and fulfil other tasks.

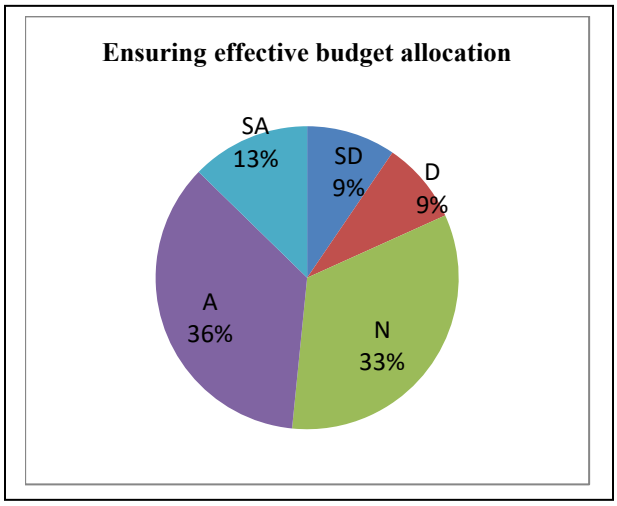

Figure 8: Effective budget allocation for the transport system

Figure 9 shows the availability of the buses on different routes as per the demand. As per the chart, around 53% of respondents agreed that buses should be made available as per demand. 30% of respondents have a neutral opinion, and 16% disagree with the need to check the availability of the buses to provide transport facilities.

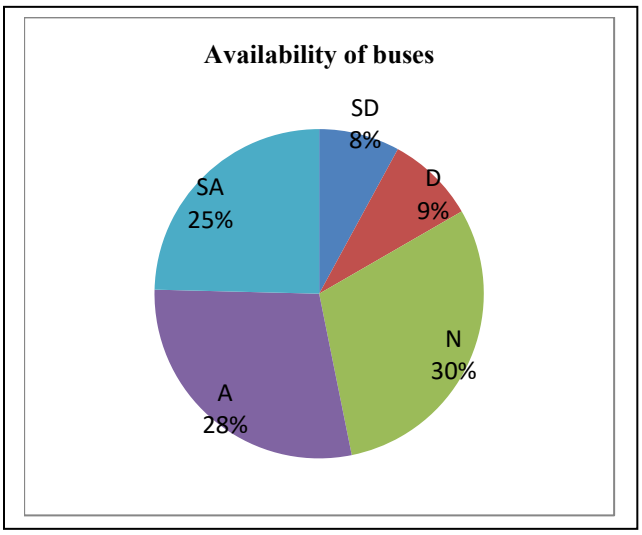

Figure 9: Availability of buses

Managerial Implications

Theoretical Implications

The government may allocate all available buses, drivers, and other supporting staff required to provide services systematically. The transport department can focus more on constructing and maintaining roads and bus bays, and increasing the frequency of buses according to demand. Timely payment of all the workers with sufficient benefits should be the focus to get better performance.

Practical Implications

Such a scheme may necessitate the introduction of more buses, which requires substantial investment and careful management to ensure that resources are deployed where needed most. The potential misuse of available resources is also a concern. Ensuring that only eligible beneficiaries use the free travel services requires robust verification processes. Male passengers should get proper bus service facilities, such as seating arrangements, bus entry, and so on. The sudden passenger rise requires adequate planning and resource allocation to ensure that services run smoothly. Without careful planning, the system could become overwhelmed, leading to delays and disruptions.

CONCLUSIONS AND FUTURE SCOPE

This study concluded that free public transport helps people improve their financial condition; students can travel to learn in far places, women can save money on travel, and reduce environmental pollution. Overall, the Analysis shows that 55% of commuters strongly agreed that there is a considerable increase in the labour force due to free transport. 26%, 23%, 26%, 25%, and 19% of respondents strongly agreed that it saves money, has more benefits than loopholes, is affordable for poor people, decreases population, and improves gender equality. Despite its numerous advantages, the Maha Lakshmi Scheme has several negative perceptions and concerns among various stakeholders. One of the primary criticisms is the potential loss of revenue from fares. By offering free travel, the Telangana State Road Transport Corporation (TSRTC) foregoes significant revenue, which could impact its financial sustainability. Secondly, with increasing ridership, frequent maintenance and system upgrades are needed to ensure the system can handle the increased demand. To handle all these issues, the government should include fixing roads and bus stops, and hiring more human support staff, such as drivers, conductors, and maintenance staff, which requires substantial financial investment.

In the future, the government can focus more on improving the various challenges, like effective budget allocation, checking the availability of buses, and other management challenges discussed in the study, to provide efficient services to the public.

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