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Mode Choice Behaviour of Residence of Srinagar City

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Abstract: ***Transportation mode choice plays a significant role in urban transportation planning and sustainable mobility development. This study investigates the mode choice behaviour of residents of Srinagar City and identifies the factors influencing transportation mode selection. Primary data were collected through a structured questionnaire survey involving 500 respondents from different areas of Srinagar. The study examines socio-economic characteristics, travel patterns, travel cost, travel time, vehicle ownership, and trip purposes. The findings reveal that travel time, travel cost, accessibility, comfort, safety, and income level significantly influence transportation choices. Public transportation remains the preferred option among students and lower-to-middle-income groups, while private vehicle usage increases with income and vehicle ownership. The study recommends improving public transport quality, accessibility, and reliability to reduce traffic congestion and promote sustainable urban mobility.***

Keywords: Mode Choice Behaviour, Urban Transportation, Travel Behaviour, Public Transport, Srinagar City, Transportation Planning.

I. INTRODUCTION

Transportation is a vital component of urban development and economic growth [1]. Efficient transportation systems improve accessibility, mobility, and quality of life [3]. With rapid urbanization and increasing vehicle ownership, Srinagar City faces transportation challenges such as congestion, parking shortages, and environmental concerns. Understanding travel behaviour and transportation preferences is essential for developing sustainable transportation policies [2].

II. OBJECTIVES OF THE STUDY

1) To analyze travel behaviour of Srinagar residents.
2) To identify commonly used transportation modes.
3) To examine factors affecting transportation mode choice.
4) To evaluate the role of public transportation.
5) To provide recommendations for sustainable mobility.

III. METHODOLOGY

The study adopts a descriptive and analytical research approach based on empirical transport modeling foundations [1, 2]. Primary data were collected through questionnaire surveys from 500 respondents across Srinagar City. Data relating to age, gender, occupation, income, vehicle ownership, travel cost, travel time, and trip purpose were collected. Statistical techniques such as percentage analysis, frequency analysis, and graphical interpretation were used to interpret travel preferences.

IV. STUDY AREA

Srinagar is the summer capital of Jammu and Kashmir and serves as an important administrative, commercial, educational, and tourism center. Rapid urban growth and increasing transportation demand make Srinagar an important case study for transportation research.

V. RESULTS AND DISCUSSION

A. Factors Affecting Mode Choice

- Travel Time significantly affects transportation decisions [1].

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- Travel Cost influences mode selection among lower-and-middle-income groups [2].
- Accessibility determines public transport usage [3].
- Comfort and Safety significantly affect transportation preferences.
- Vehicle Ownership increases dependence on private transport [4].

B. Public Transport Usage

Public buses and shared taxis remain important modes of travel for students and lower-to-middle-income groups due to affordability and accessibility.

C. Traffic Challenges

- Traffic congestion
- Parking shortages
- Increased travel delays
- Environmental pollution

VI. CONCLUSION

The study concludes that transportation mode choice among Srinagar residents is influenced by socio-economic characteristics and transportation system attributes [1]. Travel time, cost, accessibility, comfort, and vehicle ownership are the major determinants [2]. Enhancing public transportation quality and service reliability can encourage a shift from private vehicles to public transport, reducing congestion and improving urban mobility.

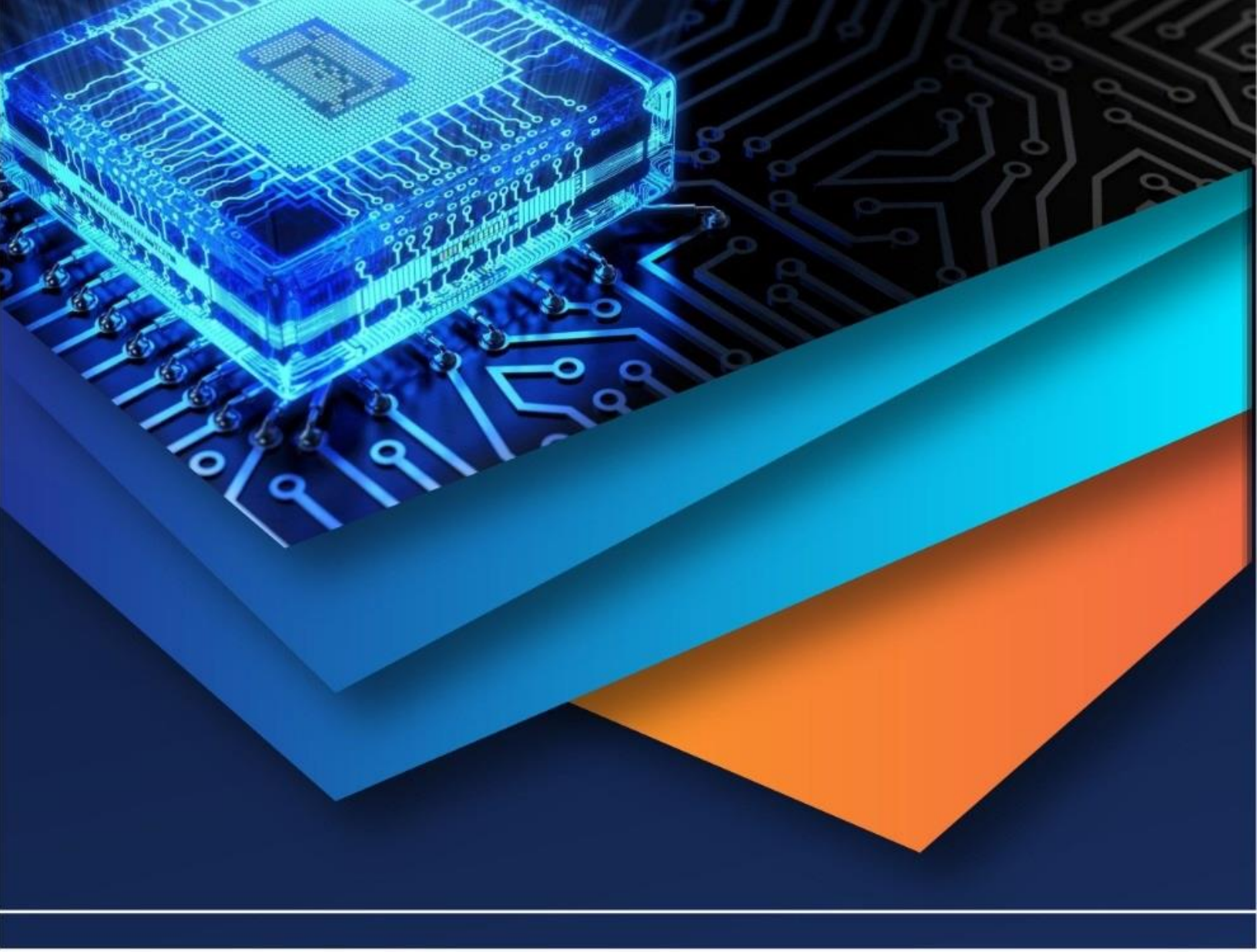
VII. RECOMMENDATIONS

1) Improve public transport frequency and reliability.
2) Develop integrated transportation planning strategies.
3) Introduce intelligent traffic management systems.
4) Improve pedestrian and cycling infrastructure.
5) Promote sustainable transportation policies [3].

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