

The Role of AI and Public Transportation: A Study on Accessibility, Efficiency, and Satisfaction of Commuters

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Abstract: *This study looks at how artificial intelligence (AI) is affecting public transportation networks, specifically how it impacts accessibility, efficacy, and overall user satisfaction. As AI technologies like automation, machine learning, and predictive analytics become more integrated, public transit systems are evolving to offer more customized, efficient, and accessible services. The study examines passengers' perceptions of AI's capacity to improve public transportation and assesses consumers' overall satisfaction with respect to AES. An online survey was utilized to collect data from 110 respondents, and chi-square tests and descriptive statistics were employed for analysis. Finding out if gender influences perceptions of AI in transportation was the original objective. The results demonstrated that gender and perceptions of AI do not significantly correlate. The second goal focused on user satisfaction, and the data revealed that there had been a notable rise in user satisfaction with AI-driven public transit systems. This study demonstrates that AI can greatly increase the efficacy and accessibility of transit systems, resulting in higher levels of user satisfaction, even though gender does not appear to have a significant impact on perceptions. The findings suggest that future research should focus on expanding AI systems to accommodate a range of user needs in order to allay societal worries about AES.*

Keywords: Artificial Intelligence (AI), Public Transportation, Accessibility, Efficiency, User Satisfaction.