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ABSTRACT NO. 29

Enhancing Transport Service Efficiency in Nairobi Central Business District through Open Data Utilization

Mr. Akundabweni Shadeya Juniour

Kiriri Women University of Science and Technology, Kiriri Women's University of Science and Technology, Kenya

ABSTRACT

Urban mobility is a growing concern in Sub-Saharan Africa, especially in rapidly expanding cities where transportation infrastructure struggles to keep pace with population and spatial growth. In Kenya, public transport mainly operated by SACCOs faces major inefficiencies, including fragmented service delivery especially in the central business district, poor coordination, and limited responsiveness to commute. This study explores the potential of open data to improve the efficiency of public service vehicles, focusing on three objectives: assessing its impact on bus services in Central Business Districts, examining its role in fostering SACCO collaboration, and evaluating its effect on bus scheduling. Through literature review and secondary data analysis, the study finds that open data significantly enhances service delivery. It enables SACCOs to make informed decisions on fleet deployment, route planning, and schedule optimization. Shared access to transport data encourages inter-SACCO cooperation, reducing route duplication and improving service coverage. To achieve these benefits, the study recommends investing in digital infrastructure, establishing a centralized transport data authority, mandating standardized data sharing, and integrating open data into urban planning. Capacity building initiatives and continuous oversight are also essential for effective implementation and sustainability. Open data presents a practical strategy for modernizing Kenya's urban transport system and addressing the mobility challenges facing Sub-Saharan African cities.

Key words:

Central Business District, Open Data, SACCOS, Transport

