COMPARISON OF THE TRANSPORT INFRASTRUCTURE METRICS OF CITIES THAT HAVE SUCCESSFULLY PROMOTED MICROMOBILITY.

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DECLARATION

I declare that this is my own work and this thesis/dissertation does not incorporate without acknowledgement any material previously submitted for a degree or diploma in any other University or Institute of higher learning and to the best of my knowledge and belief it does not contain any material previously published or written by another person except where the acknowledgement is made in the text. I retain the right to use this content in whole or part in future works (such as articles or books).

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The above candidate has carried out research for the PhD/MPhil/Master's thesis/dissertation under my supervision. I confirm that the declaration made above by the student is true and correct.

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ABSTRACT

This extensive report undertakes a comprehensive exploration of the intricate landscape of bicycle transportation metrics across ten micro-mobility-promoted cities. The study adopts a structured approach, organizing its analysis into five fundamental categories: bicycle infrastructure, regulatory environment, user convenience, network connectivity, and safety & security. Each category is meticulously defined and enriched with a comprehensive array of metrics, ensuring a thorough assessment of the multifaceted aspects of bicycle transportation systems.

The process of data collection was exhaustive and methodical, drawing from a diverse range of reputable sources including official websites, regulatory guidelines, scholarly literature, research papers, and an extensive questionnaire survey. This meticulous approach ensured the acquisition of robust and reliable data sets, essential for conducting a rigorous analysis.

Following the meticulous data collection phase, a rigorous analytical framework was employed to establish benchmarks for each individual metric. This methodological approach facilitated a nuanced and insightful performance evaluation, shedding light on both the strengths and areas for improvement within the bicycle transportation systems of the studied cities.

The findings of this comprehensive investigation yield invaluable insights into the effectiveness of bicycle transportation systems within micro-mobility-promoted cities. By offering a detailed examination of performance across various metrics, the report provides actionable recommendations for policymakers and urban planners. These recommendations are tailored to address specific areas of improvement, aiming to enhance both bicycle infrastructure and regulatory frameworks.

Ultimately, the report underscores the importance of fostering sustainable and safe cycling practices within urban environments. By leveraging the insights gleaned from this study, policymakers and urban planners can devise strategies that promote the development of robust bicycle transportation systems, thereby contributing to the creation of healthier, more environmentally-friendly cities.

Keywords: Micro-Mobility, Metrics, bicycle transport, Promoted cities.

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LIST OF ABBREVIATIONS

CO2	Carbon dioxide
MRS	Marginal rate of substitution
BSIR	Bicycle Safety Index Rating
BLOS	Bicycle Level of Service
BSA	Bicycle Suitability Assessment
BCI	Bicycle Compatibility Index
BSS	Bicycle Suitability Score
BSR	Bicycle Suitability Rating
HIS	Interaction Hazard Score
RCI	Road Condition Index
RDA	Road Development Authority
RDD	Road Development Department
UDA	Urban Development Authority

LIST OF APPENDICES