



Project Title: Influencing Mode Shift through Behavioral Change Strategies –

Phase II

Problem Description

Travel behaviors significantly contribute to environmental degradation through air and noise pollution. To mitigate these effects, increasing the use of sustainable transportation modes is crucial. Nudging, incentives, mobility apps, and web applications have emerged as convenient tools for promoting alternatives like e-scooters, bike sharing, walking, shared rides, and public transit. However, most Tennessee commuters use SOVs, which challenges environmental sustainability goals. If the SOV usage in Tennessee is not reduced, vehicle miles traveled (VMT) will likely continue to increase. And studies project that under this scenario, VMT in the U.S. could grow by 40% by 2040.

Research Objectives

The objectives of this study aim to address the pressing need for promoting sustainable transportation choices by leveraging behavioral nudging techniques in a real-world setting.

Potential Implementation and Expected Benefits

Benefits: A successful reduction in SOV usage can lead to firstly **reduced environmental impact:** lower air and noise pollution due to decreased car dependence. Secondly, **improved traffic flow:** fewer vehicles on the road translates to reduced congestion, benefiting all commuters. Thirdly, **infrastructure optimization:** by optimizing the use of existing infrastructure, TDOT can potentially defer the need for costly new construction projects. Additionally, a lower volume of vehicles can result in reduced wear and tear on existing roads, leading to potential cost savings on maintenance projects. **Potential Implementation:** The implementation of this pilot study involves collaborating with MaaS app providers and local transportation authorities to integrate nudges and incentives as persuasive measures. By leveraging technology and behavioral science, the methodology proposed can strategically influence commuter behavior, promoting the adoption of eco-friendly modes of transportation.

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Project Term:

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