Title

Good [morning/afternoon], everyone. Today, I will discuss the pressing challenges surrounding urban transportation in Victoria, highlighting our proposed solutions to enhance community engagement and promote sustainable transport.

Problem Statement

First, let's look at the problem statement. We are experiencing an increasing level of private car registrations since 2018, while public transport usage has steadily declined. This trend is concerning, as it leads to increased congestion and environmental pollution. Additionally, there are significant gaps in data regarding public transport usage and user demographics, making it difficult to identify and address the underlying issues effectively.

Private Cars vs. Public Transport: Data story

For this project, we used the Vehicle Registration Dataset along with the public transport usage dataset. The vehicle registration dataset confirms a rise in registrations since 2005, with a notable reduction during the COVID-19 pandemic, followed by an increase in the years after.

Conversely, public transport usage has declined since 2018, and it currently sits at an average of 40M. There is evidence from the 2021 census that 12 million people were employed and 21% worked from home compared to 4.7% in 2016. This may have also affected the public transport usage data as there were less people going into work

Having compared these trends, it is evident that we need effective solutions to counteract the reduced usage of public transport.

Solutions

To address these challenges, we propose using MykiEarn. Myki Earn is a rewards system designed to encourage public transport usage. Having analysed the datasets provided, an alarming level of increased car registration was measured. Additionally, there was a gap in data revolving around public transport users which can be solved by Myki Earn.

By collecting data relating to the users of Myki Earn, especially data relating to location and distance travelled, it may be possible to fill in the gaps identified. This system not only enhances public transport engagement but also allows us to gather essential demographic data for future analysis.

UI/UX mykiearn 1

The user interface of MykiEarn was created to be user-friendly for all ages. The user, after touching on their myki, will gain access to a game. This game will have very simple gameplay, for instance, a word scramble where the user will attempt to guess the right word. If the user guesses correctly they will accumulate points which can then be redeemed for discounts.

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Within this app, it may also be possible to create challenges and a leaderboard where users can compete against each other to win further discounts or gift cards.

Data Access

For effective implementation of MykiEarn, we recommend storing travel data within a reliable database. This will ensure easy access and facilitate better understanding of public transport usage patterns.

Predictions

Our predictions indicate that implementing MykiEarn could lead to a 1% annual increase in public transport usage, resulting in significant growth by 2029. Conversely, without MykiEarn, we forecast a substantial decline in usage by the same year.

Suggestions

To foster sustainable transportation, we will implement the "No Car Friday" challenge, where individuals are encouraged to refrain from driving on a designated weekday. MykiEarn can also serve as an awareness tool, informing citizens about the health benefits of reduced vehicle use. Introducing more HOV lanes will also encourage individuals to travel together, effectively reducing the number of cars on the road.

Conclusion

In conclusion, our proposed approach combines data-driven insights with innovative strategies to optimize urban mobility. By leveraging these solutions, we aim to reduce dependency on private vehicles, enhance public transport, and contribute to a greener, healthier environment in Victoria.

Thank you for your attention!