WILLER Inc.

Project of AI Route On-demand Shared Bus Demonstration in Hanoi, Socialist Republic of Vietnam

Object of the Project

This project aims to introduce and customize a route type AI on-demand shared bus service and mobile application platform for the promotion of DX in the transportation field in Hanoi, Vietnam. Traffic jams, traffic accidents, and air pollution caused by motorbike traveling have become a social problem of Hanoi. In this demonstration project, by introducing an AI on-demand shared bus system with AI routing technology and big data, we encourage individuals to change their behavior from using motorcycles to using on-demand shared buses, in order to contribute to the resolution of social issues that Hanoi faces.

Cooperation with local companies/governments

・MAI LINH GROUP CORPORATION

The largest taxi group in Vietnam and as a local partner, they have discussed and organized with Vietnamese governments on the legal framework for the demonstration project.

・VTI Joint Stock Company

VTI develops business applications, mobile applications, web systems, cloud computing, etc. As a local partner, they support developing the AI on-demand shared bus system and the localization of the application.

・Others

In collaboration with major shopping malls, fitness centers (Renaissance Vietnam, Inc.), and smart cities, we notified and communicated with customers to acquire users for this on-demand shared bus services.

Targeted economic/social issues

In Hanoi, despite metro lines operating in some areas, the main means of transportation are fixed-route buses, taxis, and motorbikes. Among them, the fact that fixed-route buses are inconvenient, and taxis are expensive, leads to motorcycles being the most popular transportation method in the city. Furthermore, due to population growth and the increase of population in the urban areas, the number of motorcycles owned in Hanoi has increased significantly from 4.9 million in 2015 to 5.8 million in 2020. As a result, traffic jams, traffic accidents, and air pollution caused by motorbike traveling have become a social problem. According to some data, 70% of air pollution in Hanoi comes from vehicle exhaust. In addition, most of the households in Vietnam are double-income, which causes difficulty in guaranteeing safety when picking up or dropping off their children. This is a heavy burden for such families.

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Details of demonstration

(1) Using on-demand shared buses to the shopping mall

A route-type AI on-demand shared bus from the city center of Hanoi to shopping malls around Hanoi's suburbs was provided for free, with the aim of promoting a change in behavior of using motorcycles to using on-demand shared buses when shopping and measuring their acceptability. The conducted demonstration experiment used three types of vehicles:
a 10-seat vehicle, a 16-seat vehicle, and a 40-seat vehicle.

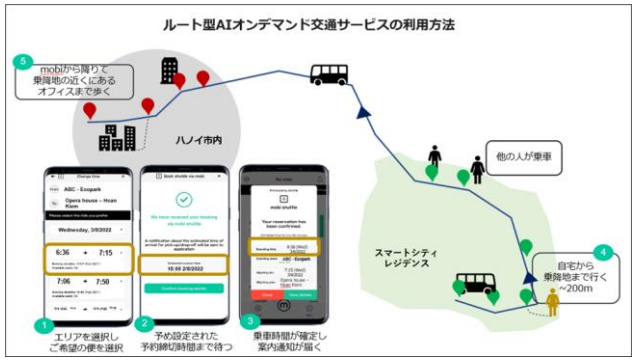
(2) Using on-demand shared buses to the fitness center

A route-type AI on-demand shared bus was provided for free to a fitness center in Long Bien District, Hanoi, with the aim of promoting a change in behavior of using motorcycles to using on-demand shared buses between lessons and measuring their acceptability. The conducted demonstration experiment used a 16-seat vehicle.

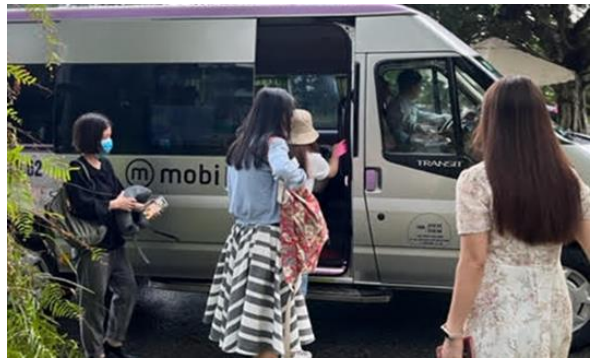
(3) Using on-demand shared buses from the smart city to various places

A route-type AI on-demand shared bus was provided for free to transfer residents from a suburban area of Hanoi to workplaces/schools, with the aim of promoting a change in behavior of using motorcycles to using on-demand shared buses for commuting and measuring their acceptability. The conducted demonstration experiment used two types of vehicles:
a 10-seat vehicle and a 16-seat vehicle.

Project outcome / Future plans



Method to use on-demand transportation



Picture of the trial operation

According to an online survey conducted for users in the smart city, although it depends on the price, 100% of the respondents would like to continue to use the on-demand shared bus. The reasons were the features of the service that just fitted their demands. In addition, from the data of usage and customer interviews, the service obtained insights of users, for example, women wanted to enjoy good fashion but were not comfortable with motorcycling, or those who wanted to make use of their traveling time.

For the future plans, according to the obtained data from this demonstration, we will refine the income and expenditure trial calculations for commercialization, and at the same time promote the efficiency of vehicle operation and consider business models that combine the system with other businesses. Furthermore, we will proceed with surveys to deploy this system to other areas in Vietnam and ASEAN.