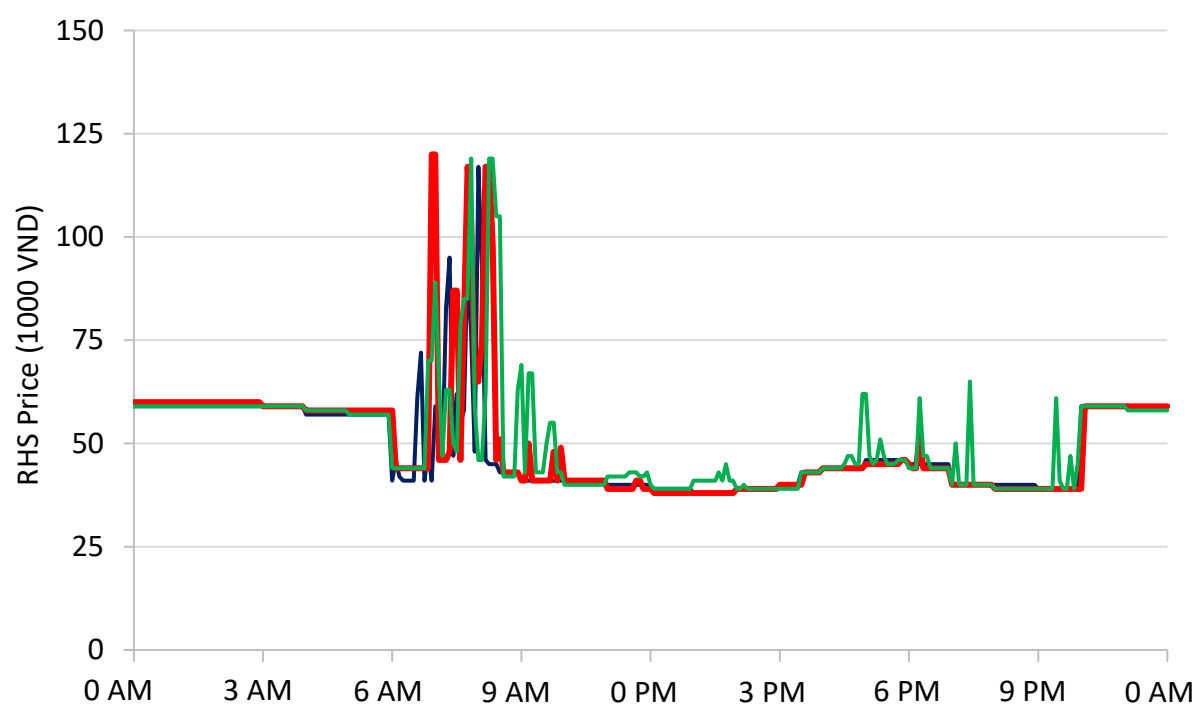


Dynamic Pricing in Ride-Hailing Services and Mobility Case Studies in Bangkok and Hanoi

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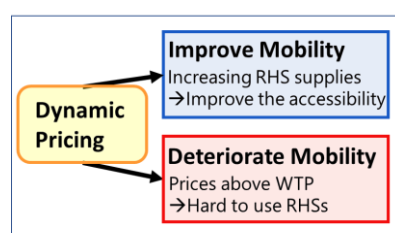
オンライン配車サービスの動的価格設定とモビリティ
バンコクとハノイにおける事例研究



1 Background

Dynamic Pricing in Ride-Hailing Services (RHSs)

- RHSs have been gaining popularity in many Southeast Asian countries.
- Dynamic pricing of RHSs may improve mobility through better availability of RHSs with adjusting/increasing tariffs.
- Meanwhile, dynamic pricing may also deteriorate mobility due to reduction of demand



How does dynamic pricing of RHSs affect urban mobility?

2 Goals

This study aims to:

1. Identify the impacts of changes in supply caused by price dynamics of RHS on urban mobility in Bangkok and Hanoi; and
2. Analyze the factors affecting RHS price hikes.

3 Methods

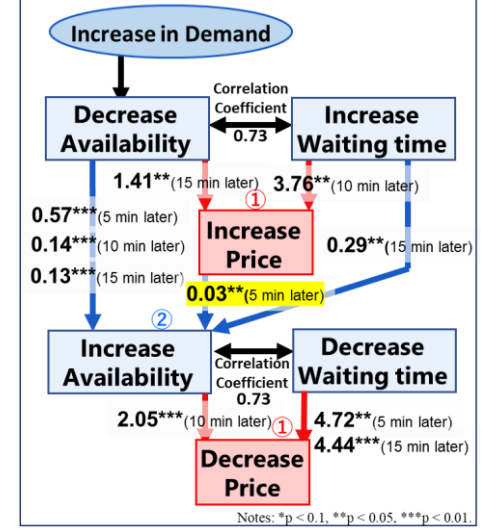
- Formulate regression models for price, waiting time, and availability of RHSs incorporating time-lags; and
- Estimate models with empirical data in Bangkok and Hanoi
 - Data Collection: Face-to-face interview surveys in Bangkok and Hanoi from October to December 2020.

4 Results

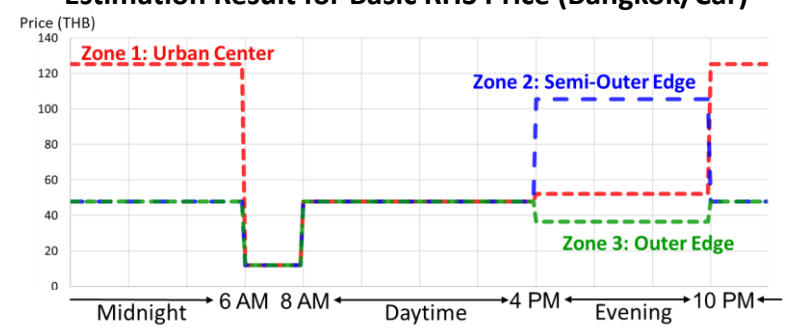
The results revealed:

- RHS price increase had positive associations with decrease in RHS availability and increase in waiting time before the price change;
- RHS price increase had positive association with increase in RHS availability after the price change; and
- RHS prices were lower during the morning while they varied across areas during the evening. (Case of car-RHS in Bangkok)

Dynamics of RHS Price-Hike Impacts



Estimation Result for Basic RHS Price (Bangkok/Car)



The results also showed

- RHS prices were lower, and waiting times were shorter under rainy weather.
- Prices were higher in the late evening.
- Waiting times in outer edge were longer during the late evening. (Hanoi/Motorcycle)

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