A Brief Introduction to Riyanto, Zhang, Guo, and Kotamarthi (2019)

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1 What is the question?

We have learned that a low fare usually indicates that the supply exceeds the demand during a specific time and area. By checking the fare, the users have clearly and accurately shown their interests. The authors try to find that in such situations, how can we nudge users to book for rides? Therefore, they design a law-fare booking reminder system. To design the efficient nudge mechanism, they go further to discuss how to phrase the messages, and how to define the low fare?

2 Why should we care about it?

Through the research, if we combine nudge techniques with the systematic effects of dynamic pricing policy, it might improve market efficiency. Take supermarkets as an example; we could connect these two techniques, with supermarkets information, e.g., aggregating demand behavior (historical and current), inventory information, competitor pricing. It might allow pricing strategies that can be optimized in real-time and reduce food waste.

Real-world examples could include time-limit special offer, e.g., early bird discount, promotion ads used during holiday sells, last minute dealăin online travel agencyăfor hotels, vacation rentals, flights and airport transfer.

3 What is your (or the authors') answer?

The authors find evidence that the low-fare reminder messages do affect the booking probability; different phrases yield different treatment effects. The low-fare reminder hints scarcity and immediacy that enlarges the attractiveness and the value of the service. The word "now" further enhances the implication of scarcity, and increases the booking probability. When the fare is extremely low, the effect of the reminder is weak. When the fare is mild low or just average, it might result in an unintended converse effect. The reminder messages have a more significant effect on infrequent users than frequent users.

4 How did you (or the author's) get there?

The authors applied a random experiment and collected the data from the Grab's experimentation platform. To analyze the effect of the reminder messages, the authors exclude passengers who had never encountered a low fare situation. The authors assigned the15th percentile from the past one-month data as the low fare threshold, which differs by regions, distance traveled, and fare distribution. If fare was lower than the particular threshold, the user would receive the reminder message in the treatment group.