Exploring the Capacity of Tourism Activities for Indigenous Heritage Sites

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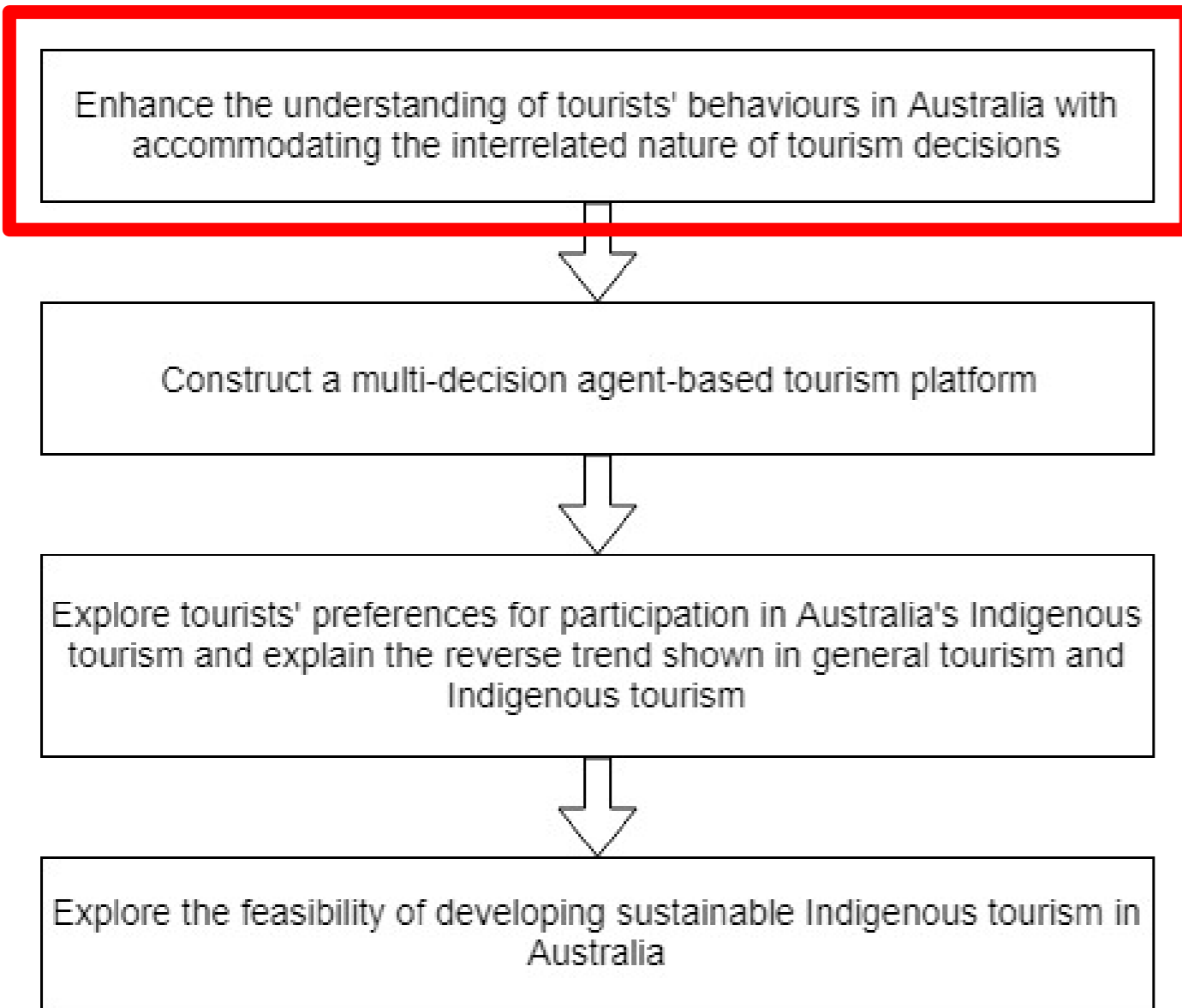
Background

❑ Australia's tourism industry has played an increasingly important role in promoting Australian economic growth in the past decade.
- Tourism contributed to **3.1%** of the total national GDP in 2017-2018.
- Tourism contributed to **5.2%** of Australian total workforce in 2017-2018.

❑ Australia's Indigenous tourism, one of the seven essential components constituting of the Australia's tourism industry, has gradually lost its attraction to tourists.
- Domestic demand has shown a reduction by **18.7%** per year from 2006 to 2011.
- Global demand declined by **4.9%** per year from 2006 to 2011.

Motivation

❑ Existing studies have already explored the motivation and barriers for visiting Australia's Indigenous tourism qualitatively which are limited to the subjects in those studies.

❑ In order to better understand the travel behaviours of tourists population, modelling practices are required to be carried out.

❑ Majority of quantitative studies on tourists behaviours only took account of single tourism decisions, which may lead to modelling bias due to the interrelated nature of tourism decisions.

❑ Tourists' trip length in Australia shown a downward tendency.

Objectives

Enhance the understanding of tourists' behaviours in Australia with accommodating the interrelated nature of tourism decisions

⬇

Construct a multi-decision agent-based tourism platform

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Explore tourists' preferences for participation in Australia's Indigenous tourism and explain the reverse trend shown in general tourism and Indigenous tourism

⬇

Explore the feasibility of developing sustainable Indigenous tourism in Australia

Current Work

❑ Considering the interrelation between time of year and trip duration, explore tourists' behaviours in determining their trip duration in Australia.

❑ Explore how the trip length is correlated with the time of year (Spring, Summer, Autumn and Winter).

❑ Fill the gaps in the research area of multiple tourism decisions modelling and enhance the understanding of tourists' behaviours in Australia.

**Trip Duration** ↔ ❓ ↔ **Time of Year**
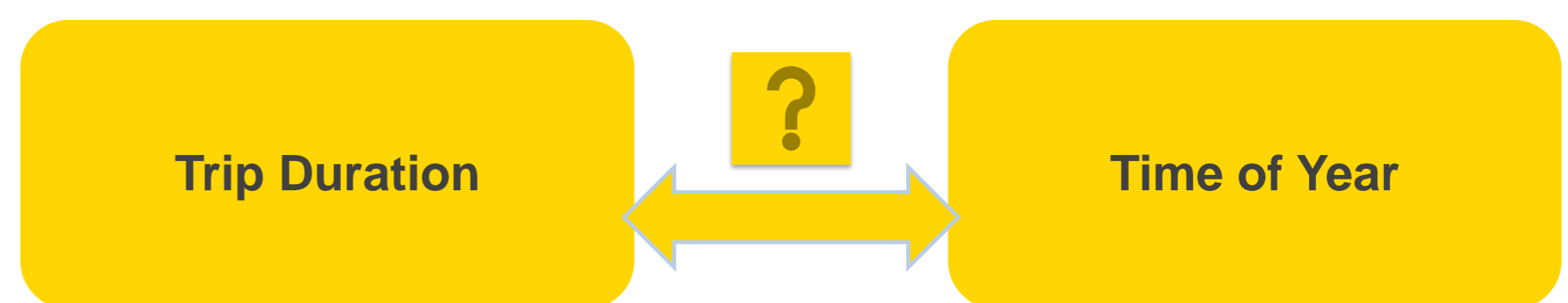
Findings & Conclusions
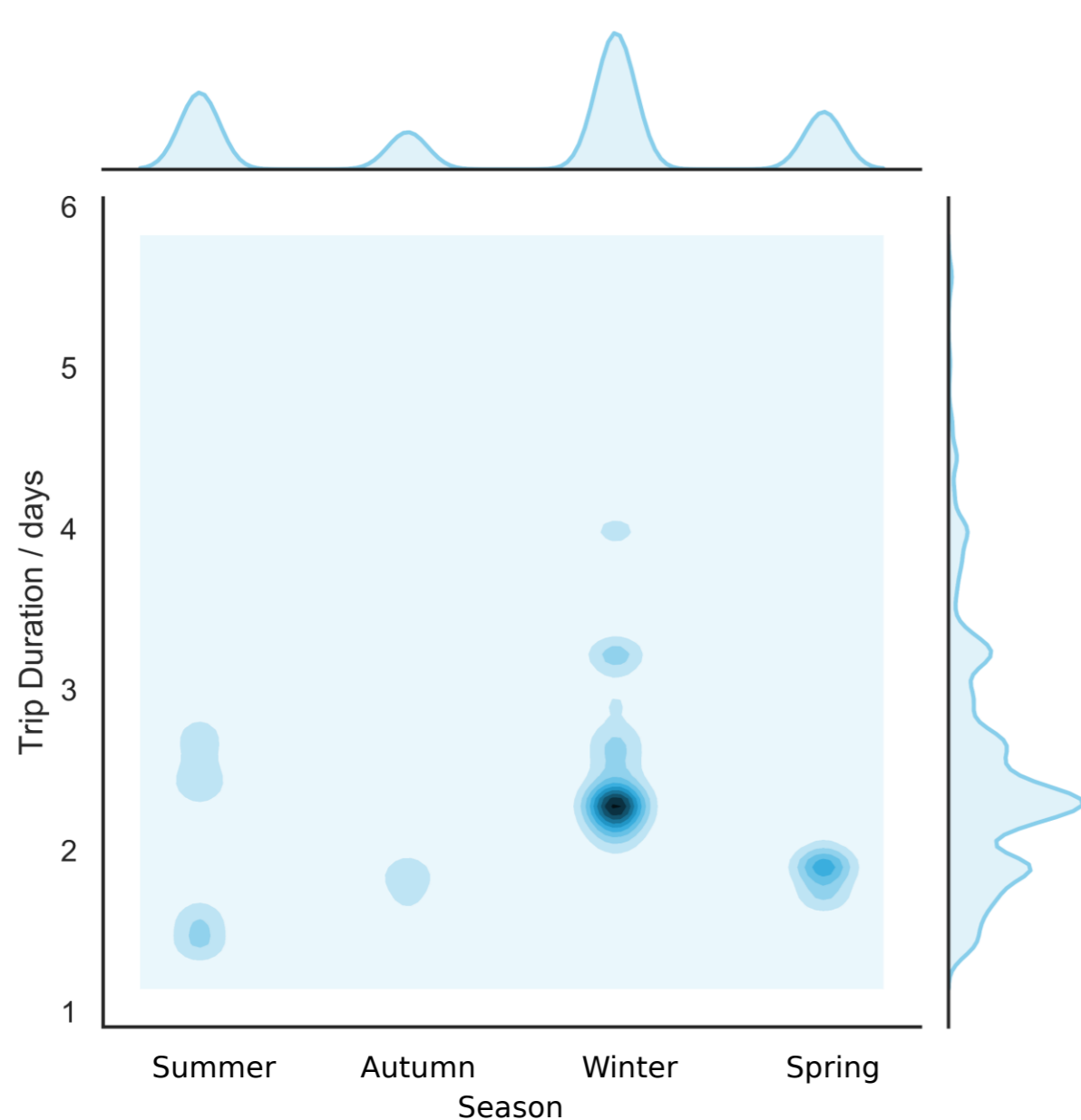
❑ As the Generalized ordered based discrete-continuous model predicts, Australian domestic tourists prefer short-term trips (usually less than 3 days)

❑ Domestic tourists tend to travel in Winter, followed by Summer, Spring and Autumn.

❑ Short-term trips in Winter are the most popular with domestic tourists

❑ This model fails to predict well in trips with duration longer than a week because samples located in that area are not so sufficient.

Methodology

Data Source

❑ National Visitor Survey (NVS) data collected by Tourism Research Australia (TRA) in 2007

Model Structure

Discrete Choice Model
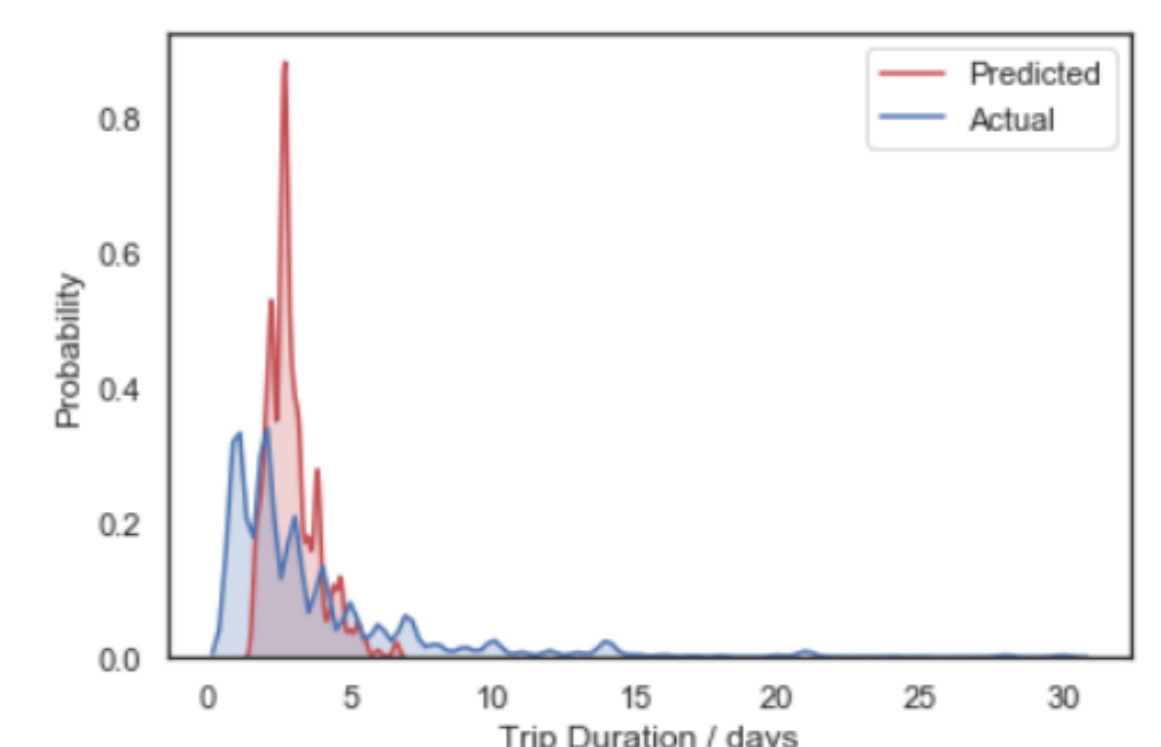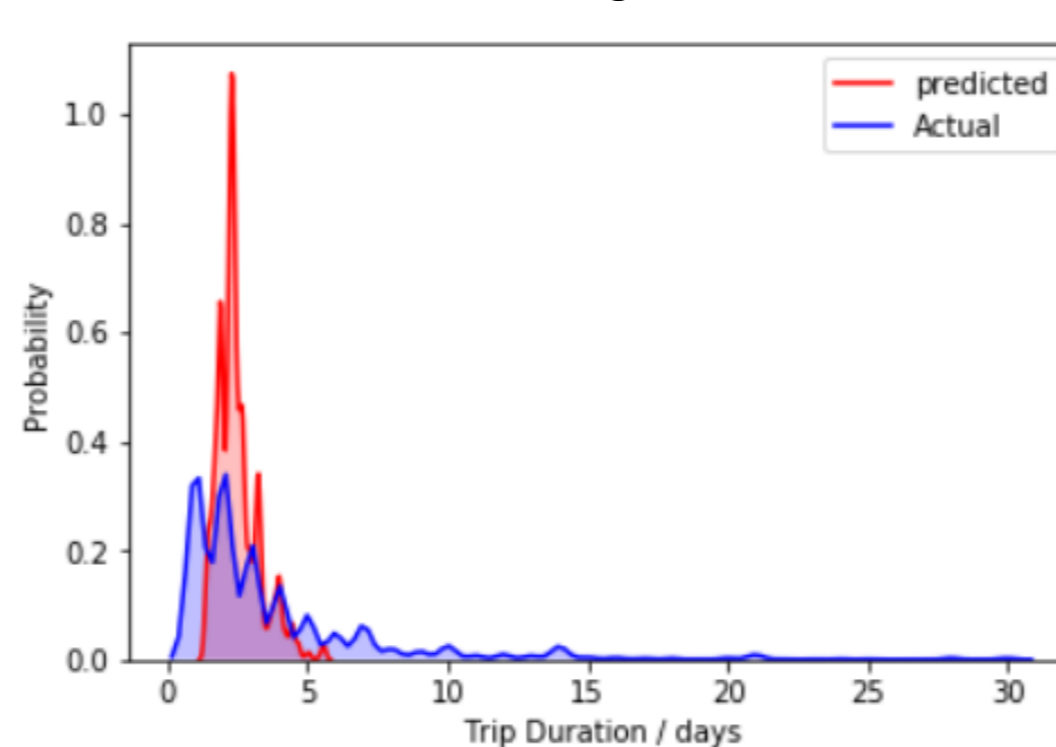❑ Multinomial Logit
❑ Generalized Ordered Logit

Accelerated Failure Time Model
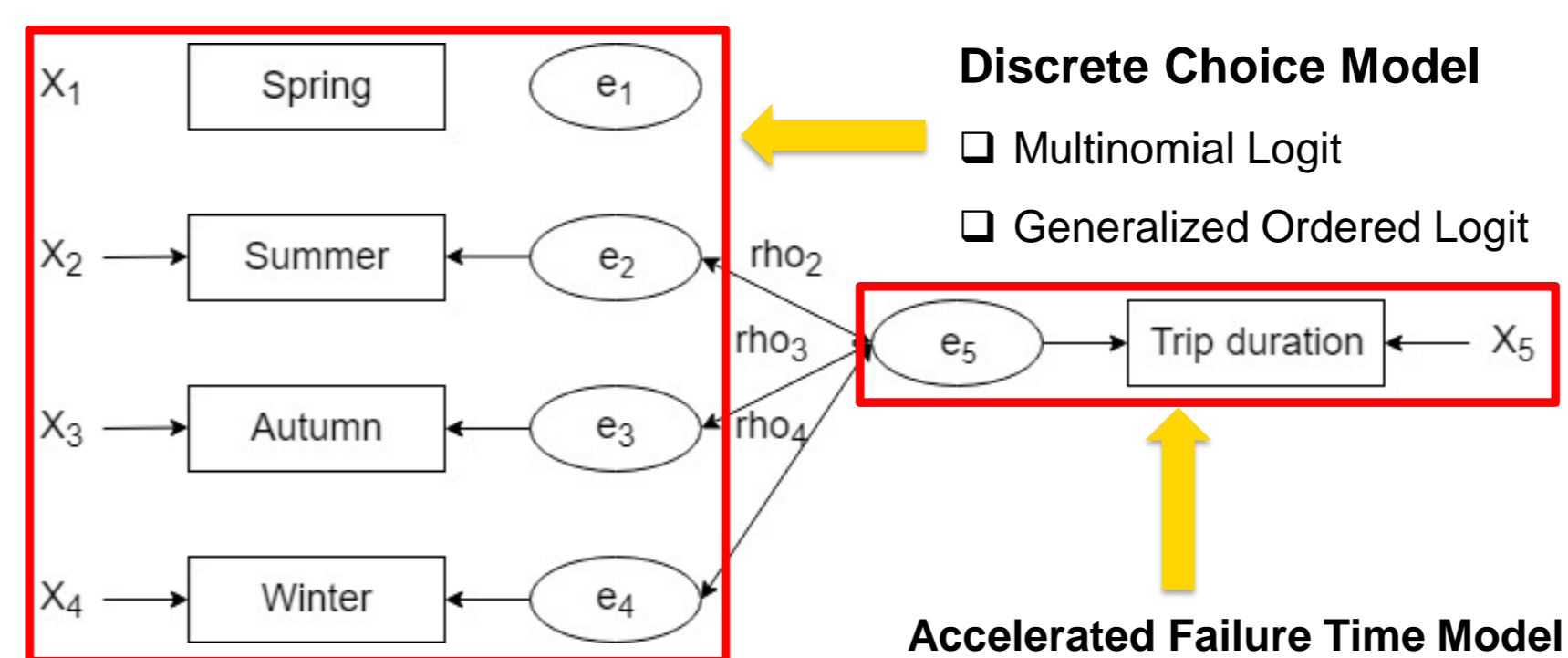
Logit based discrete-continuous model

❑ Generalized Ordered Logit Model

$$U_j^i = V_j^i + \varepsilon_j^i = \alpha_j^i + \beta_j^i X^i + \varepsilon_j^i$$

❑ Accelerated Failure Time Model

$$\ln t_j^i = \alpha + \beta X^i + \tau^i$$

Model Comparison

❑ Generalized Ordered logit based discrete-continuous

❑ MNL based discrete-continuous model

❑ MNL-based model overestimated trip duration than Generalized ordered logit based model