

UNDERSTANDING CHARACTERISTICS OF GROCERY SHOPPING TRIPS

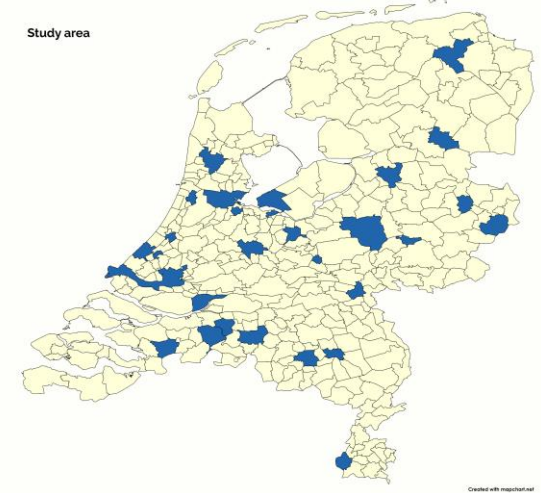
Problem context

Previous research about travel behavior of individuals was performed using survey data. Thus, causing significant uncertainty. GPS data can lead to more significant results.

Research purpose

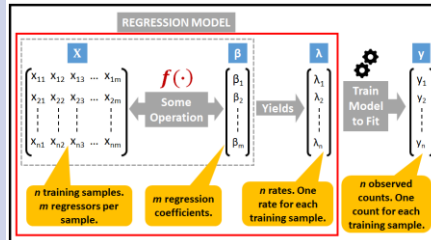
The main aim of the project is to evaluate the data provided by Mobidot in order to have a better insight into trips related to grocery shopping (correlation between socio-demographic data, trip distance, time spent on shops)

Study area



Methodology

- Poisson regression or negative binomial model (frequency of trips)
- Multinomial logit model (mode choice prediction)

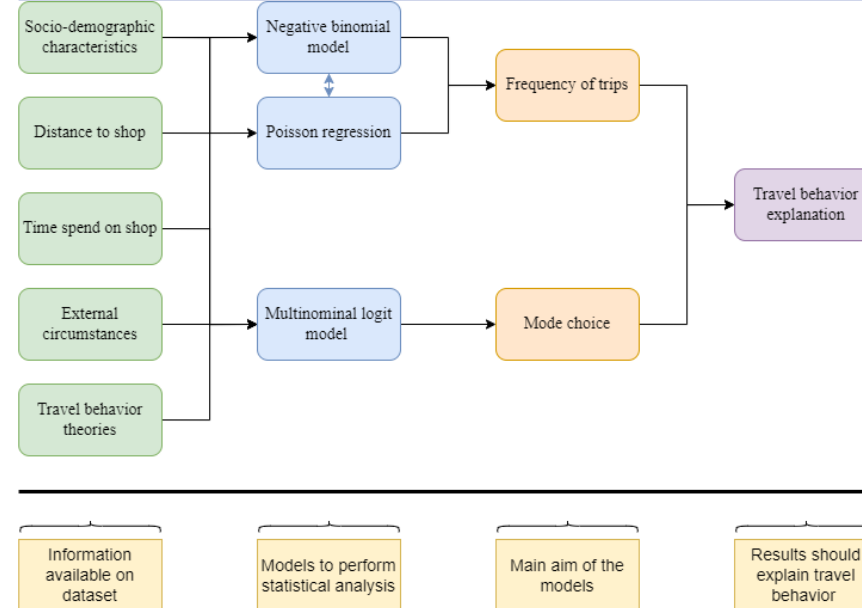


Event rate for the i^{th} sample

$$PMF(y_i|x_i) = \frac{e^{-\lambda_i} * \lambda_i^{y_i}}{y_i!}$$

Probability of seeing count y_i given the regression vector x_i

Conceptual framework



Research questions

What are the main characteristics of grocery shopping trips of individuals within the Netherlands?

- How often do individuals travel with the purpose of grocery shopping and do they have any preferred they for this activity?
- Which factors affect the transportation mode choice of individuals?

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