

# CONTEMPORARY STUDIES AND METHODOLOGY IN URBAN AND REGIONAL PLANNING IN MALAYSIA



MARIANA MOHAMED OSMAN  
RUSTAM KHAIRI ZAHARI  
SYAHRIAH BACHOK

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# CHAPTER 13

## MODELLING USERS' MODE CHOICE BEHAVIOUR

**Syahriah Bachok(Asst. Prof. Dr.)**

Department of Urban and Regional Planning

Kulliyah of Architecture and Environmental Design (KAED)

International Islamic University Malaysia (IIUM)

P.O Box 10, 50278 Kuala Lumpur

E-mail: [syahriah@iium.edu.my](mailto:syahriah@iium.edu.my)

### INTRODUCTION

Mode choice modelling can be conducted through five stages of modelling. The stages are model development and selection, model estimation, model calibration, model validation and sensitivity analysis. The model's construction stages involved identifying and selecting a number of important parameters influencing mode choice behavior. In other words, the selection and development models also help interpret the contribution of independent variables towards explaining the dependent variables.

In determining a suitable model to represent the mode switching behaviours during public transport services delay, it is necessary to recall one or more relevant theories of behaviours such as the utility maximization theory. Under this rational behaviour theory, a person will minimize the disutility of travel and select an option with the least disutility attached to it.

The chapter aims at illustrating the determination of the relationships between mode choice and the effects of various explaining variables including information provision, given the mode attributes. This chapter also supports the multinomial Logit model capability of modelling, on the basis that these choices or the dependent variables being of categorical nature.