Application of Nested Logit Model on Recommendation System

Wei-Yu Fan, Yu-Chan Chen

May 2024

Abstract

我們探討了 nested logit model 在推薦系統上的應用。我們透過隨機 效用模型與 nested logit distribution 將消費者與商品的關係建模,在 有限的廣告欄位下決定商品的組合並推播給消費者以最大化消費者的點 籍機率。並且我們推導出此模型有一個 closed-form solution,並提供 與之對應的演算法。

Keywords: Random Utility Model, Nested Logit Model,

Recommendation System

 $^{^*{\}it Graduate}$ student in Department of Economics, National Taiwan University. Email address: entrencemania@gmail.com

- 1 Introduction
- 2 Related Literature
- 3 Methodologies
- 4 Analysis
- 5 Conclusion

References

- [1] Irandoust, Manuchehr. (2019). House Prices and Unemployment: An Empirical Analysis of Causality, International Journal of Housing Markets and Analysis. 12. 148-164.
- [2] Shiou-Yen Chu (2018). Macroeconomic policies and housing market in Taiwan, International Review of Economics & Finance, Volume 58, 404-421.