

Business Data Analytics

商業數據分析

Time: Thursday 1:20pm-4:20pm

Location: TSMC building R309

Lecturer: Pei Yu Chien 簡珮瑜

Email: py.chien@mx.nthu.edu.tw

I. Course Description

With the advancement of information technology, businesses can efficiently collect abundant data from their customers or partners. They are looking for data analysts to help them to generate insights from the data, and therefore make efficient managerial decisions.

This course aims to help students to develop the capabilities of using advanced analytical tools. This course adopts a case-based teaching approach. Apart from the introduction of business management concepts, it will introduce cases and use the case datasets to conduct analysis by using R and Excel. The course will then discuss the outputs of the analysis and offers managerial implications to the managers based on the outputs.

II. Core capability to be cultivated by this course

1. Possessing the skill to apply management theories into business practices
2. Possessing the ability to compose theses and business plans
3. Being able to exercise organization and management theories in teamwork

III. Teaching Methods: Lecture, Classroom discussion

IV. Evaluation:

1. Class attendance (10%)
2. Assignments (25%)
3. Mid-term exam (30%)
4. Final project (report 30% + presentation 5%)

V. Reference Books/ Textbooks/ Documents

1. Kumar, V., & Reinartz, W. (2018). *Customer Relationship Management*. Springer, Berlin, Heidelberg.
2. Grigsby, M. (2018). *Marketing Analytics: A Practical Guide to Improving Consumer Insights Using Data Techniques*. Kogan Page Publishers.
3. Palmatier, R. W., & Sridhar, S. (2017). *Marketing Strategy: Based on First Principles and Data Analytics*. Macmillan International Higher Education.
4. Malhotra, N. K., & Dash, S. (2016). *Marketing research: An applied orientation*. Pearson.

VI. Weekly Scheduled Progress

Week	Date	Topic
1	22 Feb.	Course introduction
2	29 Feb.	Introduction of business data analysis
3	7 Mar.	Market segmentation I
4	14 Mar.	Market segmentation II
5	21 Mar.	Forecasting customer demands I
6	28 Mar.	Forecasting customer demands II
7	4 Apr.	Tomb Sweeping Festival / Children's Day (no class)
8	11 Apr.	Mid-term exam
9	18 Apr.	Guest lecture (TBD)
10	25 Apr.	Market basket analysis
11	2 May	Network analysis
12	9 May	Final project proposal & discussion
13	16 May	Text analysis
14	23 May	Data visualization
15	30 May	Final presentation
16	6 Jun.	Final project submission

The course outline may be changed based on needs and schedule of the class