

Big Data in Marketing

Introduction

1. Big data is changing the way marketers understand customers and create marketing solutions. The internet and other digital technologies create increasingly large amounts of customer-centric data, which can be systematically extracted and analysed to inform marketing decisions. With marketers poised to be the largest users of data within an organisation, there is a need to make sense of the variety of consumer data that the organisation collects, especially in the era of big data.
2. This course exposes students to essential tools including data visualisation, exploratory data analysis, as well as regression methods that can be used to convert raw data into marketing insights. Through lectures, case studies and discussions, students will gain real-world insights on various applications of big data analytics, and how it can be used to fuel better decision-making within the context of your own organisation. The course also includes a set of assignments conducted using various data visualisation and analysis tools, ensuring that students acquire the needed capabilities and skills to extract information from the big data available to them.

3. Course Objectives

- a. To build a conceptual understanding of big data used in marketing.
- b. To learn hands-on, working knowledge of data visualisation and analysis methods used by business intelligence analysts.
- c. To identify and critically evaluate implications of business decisions for organisational stakeholders and the natural environment.
- d. To apply the knowledge and tools of quantitative analysis and modeling to make recommendations and marketing decisions.

4. Learning Outcomes

By the end of the course students should be able to:

- a. Understand data structures and types of variables.
- b. Visualise and communicate key information of the available marketing data with relevant tools.
- c. Identify relevant statistical tools for a given marketing problem based on the available marketing data.

- d. Implement the statistical analysis using the Excel.
- e. Understand how to interpret the statistical software package's output for the implemented statistical tool in solving the marketing problem.
- f. Communicate the results of the data analysis to aid business stakeholders in making marketing decisions

5. **Content:**

- a. Key uses of big data in business
- b. Formulate marketing strategies from Big Data
- c. Data sourcing & collection
- d. Data exploration & visualisation
- e. Data analysis
- f. Data-driven decision making
- g. Artificial intelligence in marketing

6. **Textbook and Reference books:**

- a. Verhoef, P., Kooge, E., and Walk, N. (2016) Creating Value with Big Data Analytics: Making Smarter Marketing Decisions. Abingdon: Routledge.