Data Mining Techniques

Who Should Attend?

This course is designed for those working in Marketing, IT, or Business Intelligence, responsible for reporting and analyses. This course is also recommended for managers looking to make their company more efficient using advanced data processing techniques.

Course Scope

1. Data mining overview.
    - Role of KPI in organisation.
2. Data Mining applications within a Telco company.
    - Call center traffic management.
        - Traffic analysis.
        - Traffic forecasting.
        - Key traffic factor identification.
        - How to handle traffic peaks.
    - Segmentation.
        - What is segmentation?
        - Segmentation methods.
        - Segment optimisation.
        - Typical segments in Telco.
        - Estimating the effects of segmentation.
        - Segmentation implementation and maintenance.
    - Customer Migration (Churn) and churn prevention.
        - Churn classification.
        - Identification of the most churn-risky customers.
        - Action / no action decisions.
        - Anti-churn offer calculation.
        - Measurement of anti-churn campaigns.
    - Cross-selling + upselling.
        - Identification of target groups.
        - Preparation of target groups.
        - Managing exclusions.
        - Selling new products.
        - Improving sales efficiency.
    - Credit scoring and improving the collection process.
        - Entry scoring techniques.
        - Scoring as a part of a decision tool.
        - Optimising credit control.
        - Collection segmentation.
        - Credit control and improving collection strategies.
        - Monitoring the effects of strategy modifications.
    - Staff optimisation.
        - Staff efficiency monitoring.
        - Task transfer for efficiency improvement and cost-reduction.

      - Forms of employment management.
      - Rotation reduction.
      - Optimising training.
- Optimising processes.
      - As-is process visualisation.
      - Process description by numbers.
      - Identification of critical elements of process.
      - Possible places of improvement.
      - Future process design and numbers evaluation.
      - Future process implementation.
- Cost optimisation.
      - Assigning costs to employees, units and processes.
      - Profit and loss analysis.
      - Identification of profit centers and cost centers.
      - Cost optimisation vs. company strategy.
      - Segmentation and a segment-based approach to cost optimisation.

3. Basic and Advanced Data Mining techniques.
- Data preparation.
- Aggregates + Reports + MS Office.
- Typical outliers in Telco data.
- Correlations.
- Decision Trees.
- Artificial intelligence.

Course Objectives

The goal of this course is to present an overview of various data operation techniques applied to the main cost and profit generating processes: churn reduction, up- and cross-selling, entry scoring, the collection process, Call Centre optimisation, market segmentation, and measuring and improving processes. In addition, we will describe data acquisition techniques and methodology, give practical examples from Telco business, and supplement the course with an overview of advanced mathematical data mining techniques.

Prerequisites

No specific prerequisites are required, but experience in one of the following areas is highly recommended:

- Data manipulation.
- Business analyses.
- Reporting and programming.
- Business intelligence.

Training Structure

Four-day training divided into logical sessions.

Methodology

Instructor-led training.