APPLIES TO ACADEMIC YEAR 2001/2002

GRA 6417 Customer Relationship Management: analytic applications

Program
Master of Science (Marketing), Specialization Course

Responsible for the course
Fred Selnes

Department
Marketing

Term
MSc: Winter

ECTS Credits
6

True customer-centric CRM is all about companies providing customers with the personalized data they need to run their businesses. Companies win by accelerating, automating, and optimizing their own business systems and decision-making environments. Winning organizations also deliver information that helps customers and suppliers accelerate automate and optimize their decision-making processes. Data becomes a decision point, with each decision cascading to impact other decisions in a ripple effect throughout multiple organizations.

As companies develop operational CRM systems to automate customer interactions a new business need – CRM Analytics – is emerging. Operational systems are optimized for transactional processing, not for decision-making processes. However, analytic applications are necessary to help decision-makers quickly develop and revise plans to improve the effectiveness of the enterprise. CRM analytic applications are an intrinsic component for optimizing customer lifetime value. By utilizing analytic applications, knowledge workers close the loop between technology and business strategy. CRM analytics include data mining applications, enterprise relationship marketing, and e-business analytics.

Objective

Customer relationship management (CRM) is a process that manages the interactions between a company and its customers. Most marketers understand the value of collecting customer data, but also realize the challenges of leveraging this knowledge to create intelligent, proactive pathways back to the customer. Data mining - technologies and techniques for recognizing and tracking patterns within data - helps businesses sift through layers of seemingly unrelated data for meaningful relationships, where they can anticipate, rather than simply react to, customer needs.

The purposes of the course are to give students better tools for analyzing marketing decision problems; to acquaint students with and help them to understand different types of marketing models that have been used to aid marketing decisions; to give participants critical skills for evaluating new marketing models about which they may read in the literature and to enable them to read the literature; to help students understand marketing problems more clearly by analyzing them quantitatively. Further, this course provides the student with coverage of the major computer-based techniques for analyzing marketing data; fosters hands-on experience with the highly popular SPSS package; illustrates, through case examples, how results of data mining techniques are interpreted; and examines canned data mining techniques as applied to marketing data analysis.

Prerequisites
None

Compulsory literature

- Berson, Alex, Stephen Smith and Kurt Thearling. 1999. *Building Data Mining Applications for CRM* . New York: McGraw Hill.

Provides comparison and contrast to different approaches and tools available for today's data mining. The authors then work with readers through a step-by-step plan to help them develop a personalized approach that will work best in their organization. Expert/well-known authors--Berson and Smith are well known and respected in the data management field. They write in a plain English style that allows business users to quickly understand and use what they just read. Shows readers how to make gains in their industry--With focus on implementation and data mining technology, this book gives readers the ability to recognize and track patterns within their data, giving them a key competitive advantage over competition. (Amazon)

Articles:

A list of articles will be provided.

Recommended literature

- Berry, Michael. J. A. and Gordon Linoff. 2000. *Mastering Data Mining: The Art and Science of Customer Relationship Management.* John Wiley (949s)

In their critically acclaimed book, Data Mining Techniques, Michael Berry and Gordon Linoff showed readers how to use data mining techniques to improve marketing and sales. In their new, book they take readers to the next level with a series of step-by-step lessons, built around 20 real-world cases illustrating how they used their techniques to solve problems. (Amazon)

Course outline

Major topics that will be covered:

- Customer Relationship Management (CRM)
- Data Mining and Data Warehousing – A Connected View
- Classical Techniques: Statistics, Neighborhoods, and Clustering
- Next Generation Techniques: Trees, Networks and Rules
- When to Use Data Mining
- Customer Profitability
- Customer Acquisition
- Cross-selling
- Customer Retention
- Customer Segmentation
- Collecting Customer Data
- Scoring Your Customers
- Personalization
- Privacy

Format: Case studies, lectures, and class discussions.

Computer-based tools
Various SPSS tools: AnswerTree and Clementine

Course structure
The class will be organized around discussing selected topics illustrated by theoretical articles and cases. Students will be required to conduct a data mining analysis project of a strategic marketing problem. Structuring the marketing problem is a key to a good model, and the students will present their marketing problem after four weeks in the course. Collecting and synthesizing data from different relevant sources is key to obtaining good solutions, and students are given real data from databases. Students will present a 90% finished term paper in the last week of class.

Evaluation

20% Class Participation
80% Term Paper

For the term paper, the students will be provided with data from a real world database. Based on the data from the database the students are expected to identify and structure a CRM project. Further, appropriate data mining analysis tools are used to identify hidden layer of significant information.

Evaluation code(s)

GRA64171

Aids at the examination
Calculator

Makeup exam
At the next ordinary exam.