LSM554: Predicting and Managing Customers' Lifetime Value

This course includes

- Three self-check quizzes
- Two discussions
- One Ask the Expert interactive
- One final action plan assignment
- One video transcript file

Completing all of the coursework should take about five to seven hours.

What you'll learn

- Describe customer relationship management
- Define retention rates
- Interpret a scoring model to make strategic decisions about potential customers and target segments
- Examine data related to customer value

Course Description

Today's organizations are drowning in data. Websites, customer service systems, and mobile apps are tracking and logging quadrillions of bytes of data every second. But big data are also revolutionizing business: by applying marketing research principles to mine huge data sets, companies are gaining previously unknown competitive advantages. Business development is now a function of your organization's direct marketplace experience and its data-data that drive strategic decisions about product design, marketing, and customer acquisition.

Successful customer relationship management encompasses thousands of transactions and impressions, over many years. But which customers are most worth your time and resources? How do firms determine how long they need to keep

customers before they become profitable? Analyzing data (such as big data) allows marketers to make smarter predictions using the customer lifetime value (CLV) model, which scores current and potential customers based on characteristics such as churn rate, discount rate, retention cost, and forecasts of remaining customer lifetime. In this course, you'll use the CLV model to segment and target customers based on their potential long-term value, and build corresponding retention and divestment strategies.

You explore this content through a mix of input from industry experts, hands-on practical activities, and the presentation of sound principles by Cornell faculty. Your fellow students and our instructors will also help broaden your understanding of the content and its impact on your organization. Meet the faculty for this course in the video below.

Sachin Gupta
Professor of Marketing, Samuel Curtis Johnson Graduate School of Management, Cornell University

Professor Gupta's research focuses on analytical models of marketing phenomena, including discrete choice models of consumer behavior, marketing mix models, measurement of returns on marketing investments, pricing, promotions, and advertising decisions, channel relationships, and so forth. His expertise is in the consumer goods and prescription pharmaceutical industries.

In 2008 one of Professor Gupta's papers received the O'Dell award of the American Marketing Association. This award is given to the authors of the best article published in the Journal of Marketing Research five years before. Professor Gupta also received the Paul Green award of the American Marketing Association in 2003. In 2007, he received the Cornell Hospitality Quarterly's best paper award for his article on customer satisfaction in the restaurant industry. Five of his other published papers have been finalists for the O'Dell award, the Paul Green award, and the John D.C. Little award. Professor Gupta has served on the editorial boards of Marketing Science and the Journal of Marketing Research.

Start Your Course

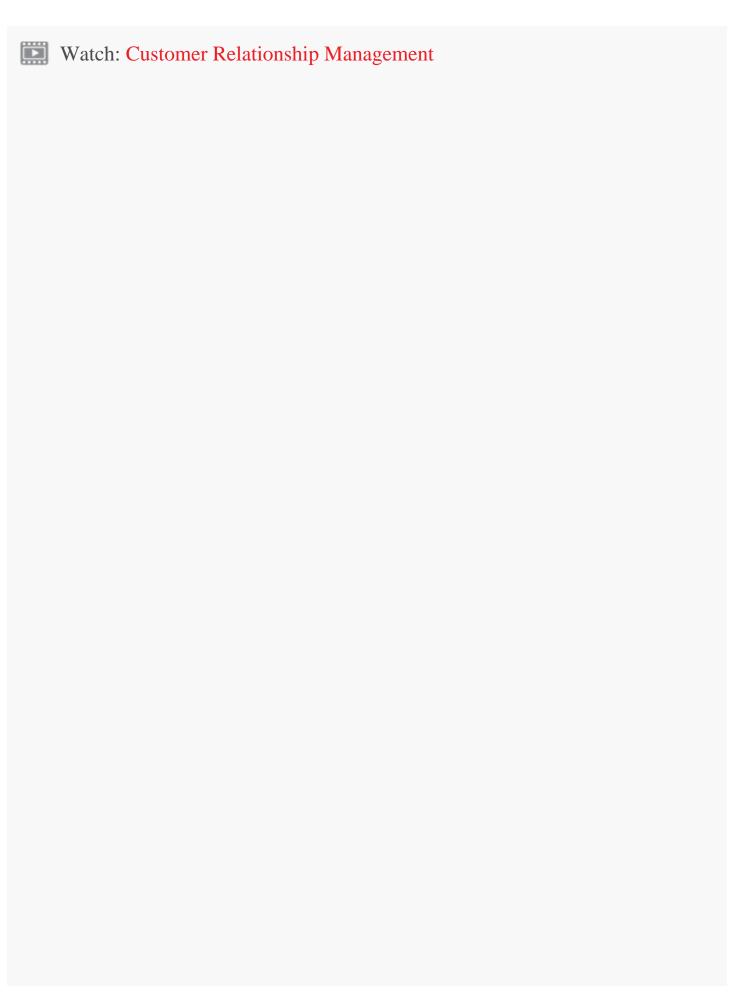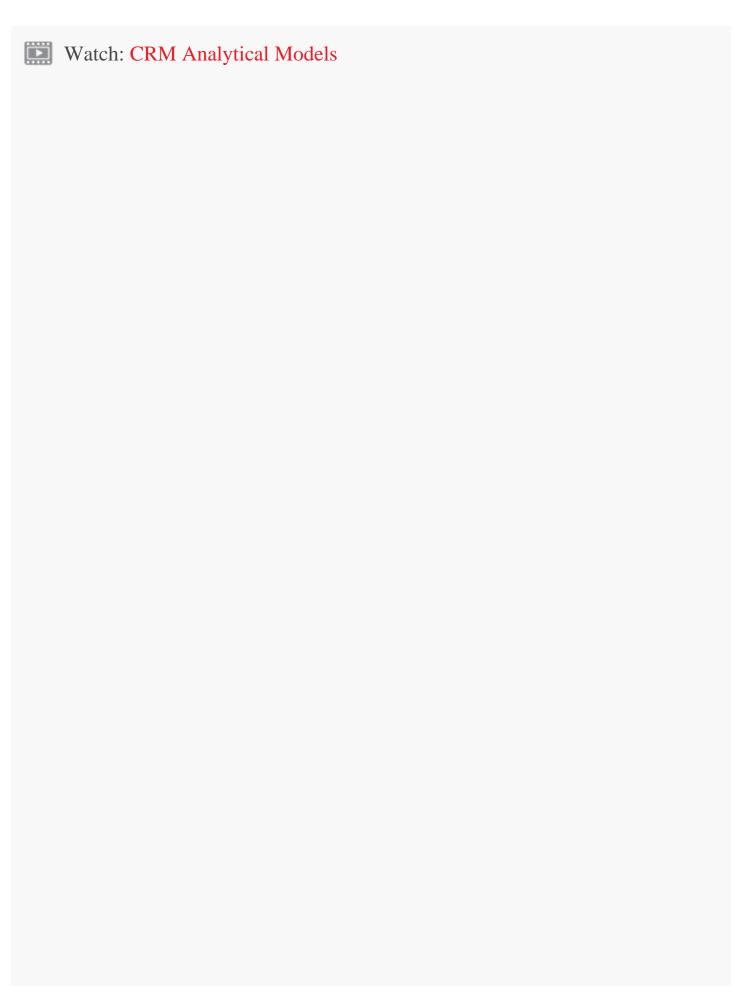# Module Introduction: Customer Relationship Management

Using data to identify which prospects will be most valuable over time and which prospects you should target is a critical component of data-driven marketing. In this module, you explore how targeting and scoring models help to identify which prospects to acquire. You also examine customer lifetime value models, which we use to segment customers based on their potential long-term value.

In the context of analyzing marketing data, you also want to develop a solid foundation of understanding for discussing "big data," a popular concept that's currently attracting much attention. Analyzing big data requires specialized software, but the underlying theories of how to approach and analyze it are the same as those used here to analyze smaller data sets. You'll hear from Cornell's Tisch University Professor Johannes Gehrke about why big data are important, and how an analysis of big data can help marketing professionals.
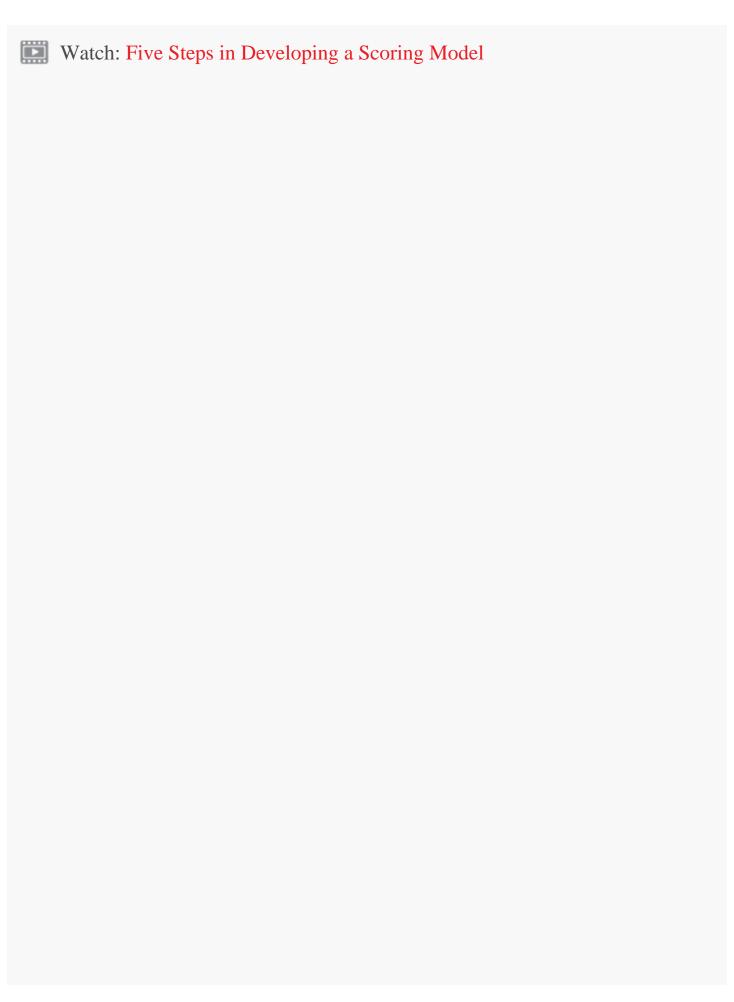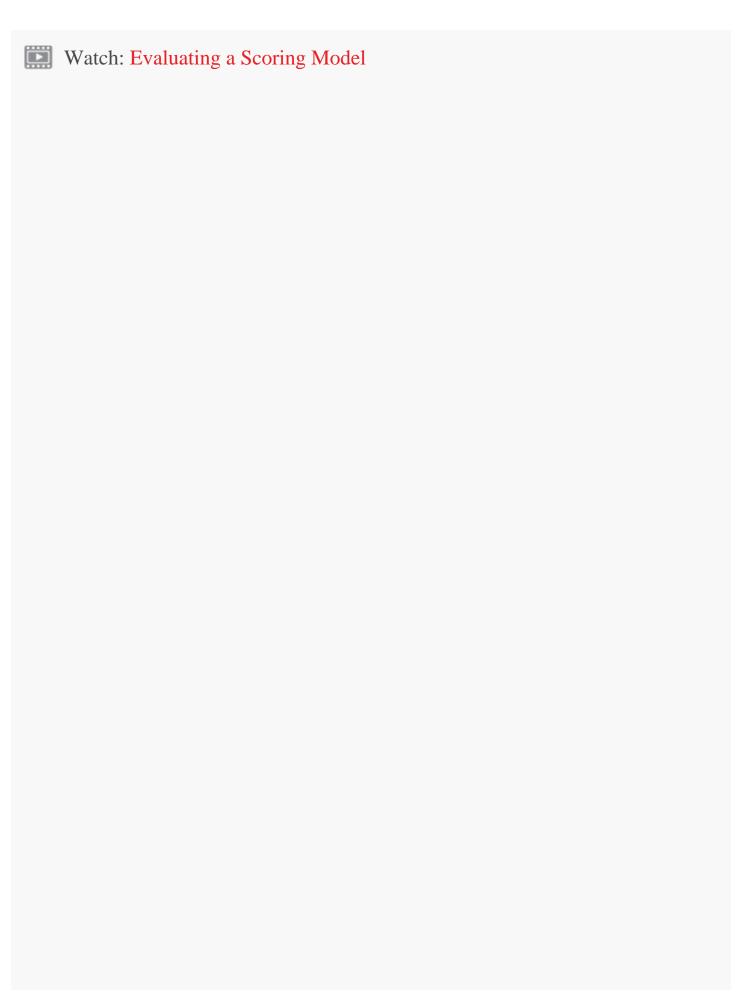
The Course Assignments

There are three types of graded assignments in this course: two graded discussions, three graded quizzes, and a graded course project.

🎬 Watch: Customer Relationship Management

🎬 Watch: CRM Analytical Models

🎬 Watch: Scoring Models

Download an example written by Professor Gupta, " Impact of Targeting on Acquisition Costs."

🎬 Watch: Five Steps in Developing a Scoring Model

Watch: Evaluating a Scoring Model

🎬 Watch: Creating a Gains Chart

To examine an illustration, download Professor Gupta's spreadsheet, which includes a static graphic of a Gains Chart for you to study.

Module Introduction: Customer Lifetime Value

Customers are not of equal value to a firm, and the valuation of customers and prospective customers has significant implications for marketing efforts. In this module, you examine customer lifetime value, beginning with the the concept that a customer relationship is an asset that will yield returns to the firm over a period of future time. In this module, you examine how to view customers as assets. You look at strategies for segmenting customers based on their value and for handling customer relationships effectively in light of customer lifetime value.

You also examine the concept of social networks as they pertain to big data. Professor Gupta invites Cornell University professor Johannes Gehrke to discuss some of the most commonly asked questions about big data and social networks.
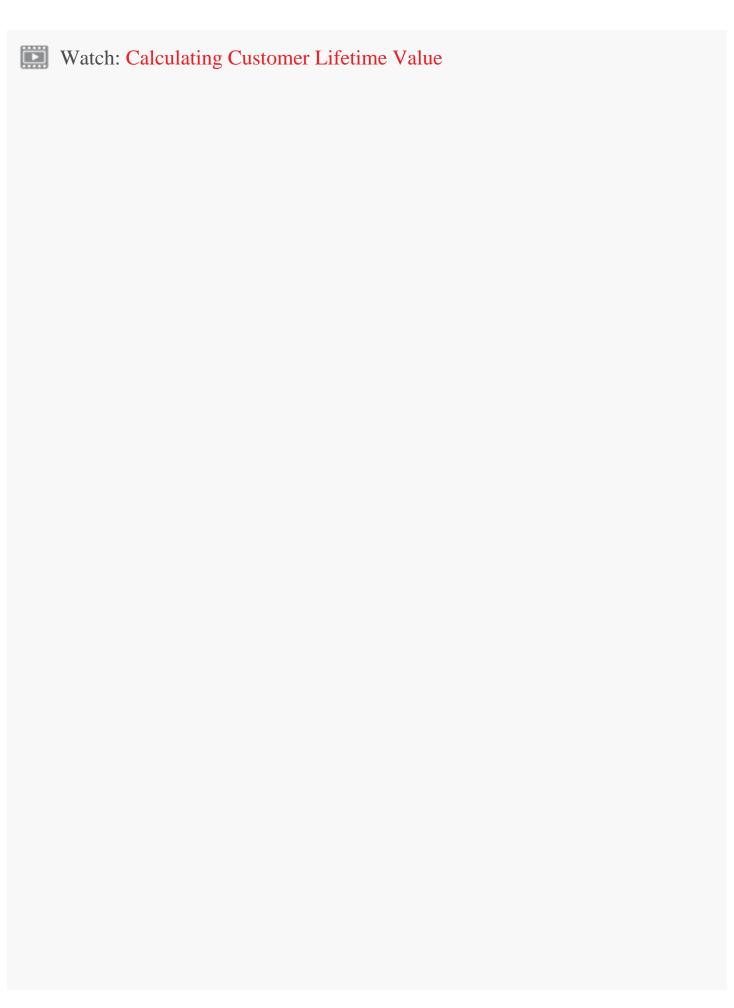
▶️ Watch: Customers as Assets

The concept of customer lifetime value is based on the idea that our customers do not simply undertake one-time transactions with our business; they are in fact in a relationship with us. This relationship provides a flow of revenues to our business over time, and the business must invest in the relationship through retention spending. Customer lifetime value is a way to summarize the future value of the customer into a single number. It is the expected net present value of future cash flows from a customer. Once we have calculated lifetime values, we can group customers based on this value and think about different relationship strategies for these groups. For instance, we might think carefully about retention strategies for the most valuable customers, and divestment strategies for the customers who have negative lifetime values.

Watch: The Probability of Retention

In this video, Professor Gupta introduces the concept of customer "churn," or customer attrition. These terms refer to the number or percentage of customers lost during a specific time period.

🎞 Watch: Calculating Customer Lifetime Value

💡 Ask The Expert: Johannes Gehrke on Big Data and Social Networks

Now that you've had a chance to consider some of the implications of customer lifetime value, you round out your understanding of data-driven marketing by examining social networks and what they mean to marketers. Professor Gupta invites Cornell University professor Johannes Gehrke to discuss some of the most commonly asked questions about big data and social networks.

Expert Bio

Johannes Gehrke is the Tisch University Professor in the Department of Computer Science at Cornell University. Gehrke's research interests are in the areas of database systems, data science, and data privacy. He has received a National Science Foundation Career Award, an Arthur P. Sloan Fellowship, an IBM Faculty Award, the Cornell College of Engineering James and Mary Tien Excellence in Teaching Award, the Cornell University Provost's Award for Distinguished Scholarship, a Humboldt Research Award from the Alexander von Humboldt Foundation, the 2011 IEEE Computer Society Technical Achievement Award, and the 2011 Blavatnik Award for Young Scientists (from the New York Academy of Sciences). He co-authored the undergraduate textbook *Database Management Systems* (McGraw-Hill, 2002, currently in its third edition), used at universities all over the world. He is also an adjunct professor at the University of Tromsø in Norway. Gehrke was co-chair of the 2003 ACM SIGKDD Cup, program co-chair of the 2004 ACM International Conference on Knowledge Discovery and Data Mining (KDD 2004), program chair of the 33rd International Conference on Very Large Data Bases (VLDB 2007), and program co-chair of the 28th IEEE International Conference on Data Engineering (ICDE 2012). From 2007 to 2008, he was chief scientist at FAST, a Microsoft subsidiary.

What is a social network?

What is social network analysis?

How can marketing utilize social networks?

How do social networks affect the network value of a customer?

🎬 Watch: An Approximation to the CLV

🎬 Watch: Retaining Best Customers

▶️ Watch: Terminating Customer Relationships

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