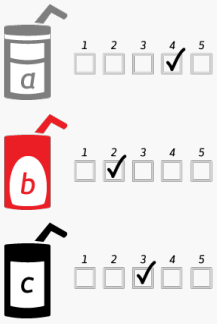


LSM551: Measuring Customer Preferences

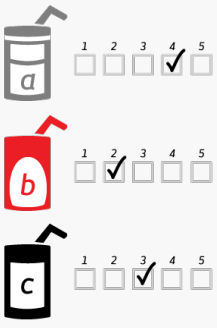
This course includes

- Two self-check quizzes
- Two discussions
- One tool to download and use on the job
- Four Ask the Expert interactives
- One two-part data analysis course
- One video transcript file

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

What you'll learn

- Use conjoint analysis to measure consumer preferences
- Identify the steps in conjoint analysis
- Analyze consumer data to arrive at a numerical measure of the customer's preference for each attribute and level of attribute
- Interpret the meaning and relevance of customer preference data



Course Description

You want to be able to create a customer-centered organization by analyzing, interpreting, and using market research to deliver the products and services that customers want. This course, Measuring Customer Preferences, positions you to reach the ultimate goals of marketing: improved sales, greater market share, and higher margins. Whether you are analyzing data yourself or commissioning market research, you need to be able to interpret the data collected and use it to make savvy business decisions.

Marketers and analysts commonly rely on conjoint analysis to measure consumer preferences. Analyzing this data effectively positions you to make better-informed decisions about product design, product pricing, and customer segmentation. In this course, you explore this type of 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 also help broaden your understanding of the content and its impact on your organization. Meet the faculty for this course in the video below.

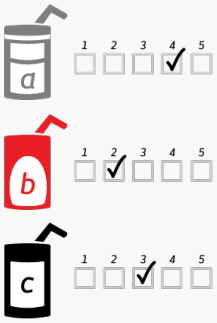
Sachin Gupta
Professor of Marketing, Samuel Curtis Johnson Graduate School of Management, Cornell University

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: What Is Conjoint Analysis?



You want to be able to create a customer-centered organization, and that means analyzing, interpreting, and using market research effectively to deliver products and services that customers want. This in turn results in improved sales, greater market share, and higher margins. In this module, developed by Cornell University Professor Sachin Gupta, you examine how analyzing and interpreting data about consumers and products can help you make better business decisions, about such concerns as determining where the opportunities are and how to choose which customers to target. You'll also work with Professor Gupta's data in Excel, analyzing the data and drawing your own conclusions about what they mean.

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 drawing so much attention. What are big data? How has the emergence of data science related to big data influenced how marketers make decisions? 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 University Tisch Professor Johannes Gehrke about why big data are important, and how an analysis of big data can help marketing professionals. You'll also hear from Marco Vriens, PhD, a noted expert in the field of analytics, about how conjoint analysis leads directly to business results, and why everyone who pursues a degree in marketing should understand conjoint.

The Course Assignments

There are two types of graded assignments in this course: two graded discussions and a two-part graded course project. For the course project, you will download a spreadsheet with data from a carpet cleaner study, perform calculations to compare to provided results and then answer quiz questions about the data. You may wish to download the project document now in preparation for your work in this course.

Watch: Consumer Preference Matters

Watch: Limitations of Concept Tests

In this video, Professor Gupta explains that conjoint analysis produces a numerical measure of the value that consumers associate with different variables related to products. From this analysis, marketing experts can infer consumer preferences. Notice in the example illustrated in this video that we see the ratings of one respondent to various product attributes; those numbers are added together for a total score.

Watch: Attributes and Levels

Without realizing it, you probably examine product attributes and levels on a daily basis as a consumer. Visit the website of any manufacturer of cars, computers, cameras, or phones, and reflect on the attributes and levels of the products there. Visit sites such as Apple (links to external site) or Toyota (links to external site) to see how how they present attributes and levels for different products and product packages. (Please note, however, that such sites change often.)

Ask The Expert: Marco Vriens on Using Conjoint Analysis

As managing director of strategic analytics and SVP methodology at The Modellers, Marco Vriens has worked extensively in marketing research using conjoint analysis. He joins Professor Gupta to discuss how conjoint has helped him achieve business goals.

Expert Bio

Marco Vriens is managing director of strategic analytics and SVP methodology at The Modellers. He has led analytics, research, and insights teams at Microsoft, GE Healthcare, and various marketing research firms. He has consulted in many organizations, as an outside consultant or as a manager within firms in a variety of industries. His insights helped clients tackle emerging new competitors, increase marketing efficiency and customer satisfaction, and significantly increase acceptance and usage of customer and marketing insights. He has published articles in many leading academic journals, such as *Journal of Marketing Research* and *Marketing Science,* along with numerous papers in industry magazines. He is the author on three books on analytics; most recently, he published *The Insights Advantage: Knowing How To Win* (i-Universe, 2012) and he is the co-editor of the *Handbook of Marketing Research* (Sage Publishing, 2006). He has written numerous blogs on analytics, big data, and insights.

Can you describe a time when you used conjoint analysis to solve a business problem?

Could you expand on that example?

Why was conjoint powerful in that instance?

What critical information did conjoint yield in that example?

Can you describe some common pitfalls to avoid in conjoint analysis?

What are some best practices that you'd recommend?

Watch: How Conjoint Works

Ask The Expert: Johannes Gehrke on Big Data

Now that you've had a chance to explore conjoint analysis and how it helps marketers analyze consumer data, you are ready to consider how that analysis can be executed on a much broader scale. Any exploration of advanced marketing research today will include some discussion of "big data." But what does that term really mean? And what do marketers need to know to discuss big data knowledgeably? The work you're doing in this course will provide you with the foundation you need to understand how analysts measure and analyze big data. Professor Gupta invites Cornell University professor Johannes Gehrke to discuss some of the most commonly asked questions about big data and how they relate to the study of advanced marketing research.

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 are "big data"?

Is there value across these databases?

What's the historical perspective?

What are the "three V's" of big data?

What do we mean by "velocity" and "variety"?

Ask The Expert: Marco Vriens on Big Data and Conjoint Analysis

As managing director of strategic analytics and SVP methodology at The Modellers, Marco Vriens has worked extensively in marketing analytics. He joins Professor Gupta to discuss how big data analysis can supplement, but not necessarily replace, conjoint analysis.

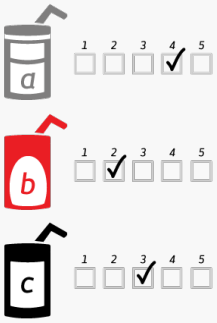
Expert Bio

Marco Vriens, Ph.D., is managing director Strategic Analytics and SVP Methodology at The Modellers. He has led analytics, research and insights teams at Microsoft, GE Healthcare, and at various marketing research firms. He has consulted many organizations as an outside consultant or as a manager within firms in a variety of industries. His insights contributed to tackling emerging new competitors, increasing marketing efficiency and customer satisfaction, and significantly increased acceptance and usage of customer and marketing insights. He has published articles in many leading academic journals such as Journal of Marketing Research, Marketing Science and numerous papers in industry magazines. He is the author on three books on analytics, most recently he published The Insights Advantage: Knowing How To Win (2012, i-Universe and he is the co-editor of the Handbook of Marketing Research, Sage Publishing (2006). He has written numerous blogs on analytics, big data, and insights.

How do big data relate to conjoint analysis?

Will big data analysis replace conjoint analysis?

Module Introduction: Collecting Conjoint Data



Advanced marketing research has a critical business goal: to yield data that will help you make better-informed marketing decisions about products, prices, and promotions. What products and promotions will your target customers respond to? How do you know whether the market will support a price increase? In this module, you examine the critical information gathered through conjoint data and analyze your findings. You get to work directly with data on a major course project, running regression and performing data analysis, and then make supportable business decisions based on your analysis, guided by Cornell University professor Sachin Gupta. You'll share your work with your peers and have a chance to gain insight from their findings.

Watch: Steps in Conjoint Analysis

Reflect on what you've learned. Examine attributes and levels at Princess Cruise Lines and consider the following questions:

- What are some attributes?
- What are some levels?
- How might Princess Cruise Lines have used conjoint analysis to put these cruise packages together?

Watch: Collecting Data

Watch: Conjoint Surveys

Watch: Carpet Cleaners

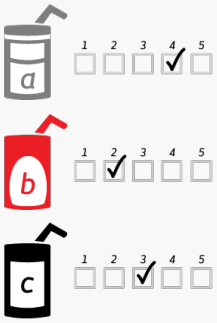
Note: the "Good Housekeeping Seal" [of approval] is a seal given to products that advertise in the Hearst Corporation's *Good Housekeeping* magazine; such products have been tested by the Good Housekeeping Research Institute and are backed by a two-year limited warranty.

Watch: Analyzing Data Using Regression

"Regression" is a method of statistical analysis used to understand the relationship between a dependent variable and independent variables, and to make predictions about future values of the dependent variable. "Multiple regression" refers to regression analysis with more than one independent variable. As a prerequisite for this course, you are required to be proficient in Microsoft Excel; next, you will follow the steps as Professor Gupta describes them to perform a regression analysis and complete the activities that follow. Click here to review the basics of regression.

Watch: Interpreting Results

Module Introduction: Simulating Business Decisions



Simulations allow marketers to use customer preference data to make business decisions about product design, pricing, and segmentation. By simulating the market, we can determine what would happen if we lowered our price, or if our competitor offered product enhancements. In this module, you examine how analyzing and interpreting data about consumers and products can help you make better business decisions. You also complete your major course project by finishing your analysis of the carpet-cleaner data, and making your prediction about product pricing based on that data.

You also further your understanding of "big data." How can analyzing big data help companies make better decisions? And how can you run a simple AB experiment on your website? You'll hear again from Professor Gehrke about how big data relate to the analysis you're conducting in this module.

Ask The Expert: Johannes Gehrke on Advanced Marketing Research

You've already analyzed some of Professor Gupta's data. Next you'll get to work with data in even greater depth, analyzing it on your own in "simulations" that require you to make sound business decisions based on your analysis. Marketers use big data in exactly the same way, but on a larger scale, to make better business decisions. Professor Gupta invites Professor Gehrke to discuss some of the most commonly asked questions about big data and how it relates to advanced marketing research.

Expert Bio

Johannes Gehrke is the Tisch University Professor in the Department of Computer Science at Cornell University. His research interests are in the areas of database systems, data science, and data privacy. Gehrke 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 (McGrawHill (2002), currently in its third edition), used at universities all over the world. Gehrke is also an Adjunct Professor at the University of Tromsø in Norway. He 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.

How can big data help with decision making in marketing?

How could you conduct a simple A/B experiment on your website?

What are some of the pitfalls with these online experiments?

What's the importance of validating your ideas with data?

What is a data scientist?

Watch: Simulations

Watch: Choice-based Conjoint

Watch: Managerial Uses of Conjoint

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