

## Teaching Strategic Marketing Models with Web-Based Business Intelligence Tools: Innovative Guided Marketing Analysis

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*The current business environment faced by many firms is increasingly characterized by nimble competitors competing in a dynamic, global marketplace. These firms are required to transition into a global economy wherein competitive advantage is based on intangible, knowledge-based resources. Such a competitive environment has placed a premium on knowledge workers possessing technical and nontechnical competencies at obtaining, framing, integrating, using, and sharing knowledge. To succeed in this environment, the knowledge workers must possess three critical knowledge management competencies. First, they must be proficient in the use of leading edge business intelligence tools. Second, they must understand and apply proven marketing models and business concepts. Finally, they must be skilled in critical questioning techniques and demonstrate strategic thinking. In this study, students use leading edge decision support applications to mine a multidimensional data warehouse. Then, using generated charts and tables, they apply proven marketing models to discover "gold nuggets" of insights.*

The marketplace in the information age is characterized by rapidly changing customer requirements, market niches, and focused global competitors (Nasbitt 1982; Tapscott, Ticoll, and Lowy 2000). The information age has affected the strategic marketing decisions of the firm by increasing the focus on business processes, customer service, supply chain management, and cross-functional relationships. The information age has also produced competitive advantage for the firm through the application of technology (Belcher and Watson 1993; Bressler and Grantham 2000; Kelly 1999). This competitive advantage, however, can only be fully realized if insights into the dynamic, global marketplace can be achieved and acted upon in a timely fashion (Day 1994).

As firms compete in the global marketplace, they are faced with a plethora of data to be analyzed and acted upon. The data to be analyzed are obtained from a variety of internal and external sources. The internal data sources include the firm's

financial, production, marketing research, and accounting data warehouses. The external data sources include government reporting agencies such as the census bureau, the Internet, and business intelligence organizations. In 1996, only 6% of the firms' data warehouses used to store this plethora of information contained greater than one terabyte of data; however, by 1999, 30% of the data warehouses contained greater than one terabyte of data (Bransten 1999). This trend of increasing size of data warehouses and variety of data sources coupled with the knowledge worker's demand for instantaneous access to these data sources will only increase as computer storage manufacturers predict a tenfold improvement in the amount of available storage capacity at comparable price and/or performance levels. With the abundant amount and variety of available data, firms are increasingly using business intelligence software tools to make sense of, and gain insight into, the data. In fact, Business Intelligence, Inc. found that the market for business intelligence software tools grew by a 45% annual rate in 1998. It also projected that the business intelligence software tool market would grow to more than \$4 billion by the year 2001. The firm's knowledge workers now have the ability to obtain and access virtually any type of data they require for analysis.

Since knowledge is seen as critical to remaining competitive and viewed as one of the few potential sources of sustainable competitive advantage for firms (Davenport and Prusak 1998), enhancing and developing the analytic capabilities of knowledge workers becomes strategically important (Nonaka 1991). If a knowledge worker could analyze 100 characters of data every minute, it would take more than 80,000 years to analyze and make sense of just one terabyte of stored data. Clearly, firms require an innovative approach to

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understanding this plethora of data and turning it into knowledge-based action plans to successfully compete in the global marketplace.

In 1997, the Gartner group highlighted this point by stating that firms are facing a growing knowledge gap. This knowledge gap is increasing for three key reasons. The first reason the gap exists is because of the tremendous disparity between the numbers of available, properly trained, analytic personnel and the current demand by firms for those skilled individuals. In fact, this is a major reason for the user dissatisfaction of marketing information systems (Li 1995). The second reason for this knowledge gap is the number of critical decisions facing firms every day, and the final reason for this knowledge gap is the geometrically expanding volume of available data requiring analysis. Gale (1994) observed that firms invest large amounts of available resources in market research, but few firms pull their market research and other nonfinancial data together in ways that enable them to act on it effectively. There is an urgent need to reduce the knowledge gap experienced by firms. Business education, especially marketing education, so far, has paid minimal attention to this important issue.

This study presents an innovative pedagogical approach designed to reduce this knowledge gap and to prepare future business leaders for the knowledge-intensive decision-making environment. This course, using the guided analysis approach, was developed to provide current marketing students with competitive, leading edge knowledge-based skills. The course provides students with an opportunity to develop their creative strategic thinking skills, to become proficient in using business intelligence software tools, and to enhance their ability to apply practical business models to compete in the dynamic global marketplace. It immerses the students in the data-based decision-making scenarios faced by firms, provides them with the business intelligence tools used by firms today, and ensures that they experience the volume and quality of information current business leaders use.

### THEORETICAL PERSPECTIVE

The environmental changes experienced by firms in the past decade have been drastic and unpredictable. Firms are pursuing ways to be responsive to these changing environments. Complicating the situation is the advancement of information technology and its impact on the way that firms do business. The current innovations in information technology have made huge amounts of customer, market, channel, competitor, and product data available and accessible to knowledge workers. The firm's knowledge workers are required to make the difficult transition for making strategic marketing responses from a static environmental perspective to a turbulent, dynamic environmental perspective.

Traditional approaches to strategic planning have assumed a relatively slow-changing environment based on two fundamental assumptions. The first assumption is that the rate of environmental change is slower than the rate at which the environmental change can be detected by the firm. The second assumption is that the environmental turbulence just represented "noise" that masks fundamentally stable and unchanging relationships (Boisot 1995). In a turbulent, dynamic environment, neither assumption holds. In fact, in today's marketplace, traditional, sequential planning models are proving ineffective (Van Doren and Smith 1999). Therefore, in today's turbulent environments, the knowledge worker's mental model can easily become misaligned with the true environmental reality.

Ashby's law of requisite variety states that the ability of the knowledge worker to learn at a rate faster than the rate of environmental change is key to preserving the firm's survival (Ashby 1958). Unless the knowledge worker learns and therefore changes his or her mental model accordingly, formulated marketing strategies may unknowingly become obsolete or ineffective. Mental model creation also denotes sense making about changes in the internal and external environments (i.e., learning).

Business leaders, legislators, and students have criticized the current marketing discipline as ineffective (Smart, Kelley, and Conant 1999). Marketing graduates are perceived as lacking communication, analytic thinking, and ambiguity-tolerating skills (Chonko 1993). This educational offering provides a means to address these criticisms. As studies have shown, the business intelligence software tool that enhances mental model creation (i.e., learning) should consist of a decision support application and various cognitive aids (Singh 1998; Vandenbosch and Higgins 1995). This educational offering focuses on providing a "guided analysis" decision application. It also demonstrates how to create and manage business intelligence by applying marketing models and guided analysis decision tools.

While many firms have adopted business intelligence tools in recent years, they have experienced great difficulties in making full use of their investment (Kuehn and Fleck 1991). The business intelligence software tools can be used effectively by the knowledge worker for making responsive knowledge-based strategic decisions; knowledge workers in today's firms, however, are not accustomed to using them. While they may be trained to use the business intelligence tools, most of the training focuses on technical and mechanical aspects of manipulating the software neglecting how to apply these tools in marketing decision contexts. The intent of this course is to provide meaning, context, and a decision framework for better use of the business intelligence tools. In this course, a new framework of business intelligence management is presented for effective use of business intelligence

tools. It provides knowledge workers making strategic marketing decisions with the guidelines and processes to implement business intelligence management systems for ever increasing data.

### THE COURSE

The requirements dictated by business leaders and marketing educators in the information age provided three key objectives for this course. The first objective is to ensure that the student becomes proficient in both technical and application use of business intelligence software tools. The second objective is to provide a forum for the students to integrate and apply the various tools, theories, models, and concepts that they have learned throughout their academic careers. The third objective is to enhance the student's strategic thinking and critical questioning skills in generating business insights. To accomplish the third objective, the course emphasizes the development of strategic thinking via the hands-on application of business intelligence and data-mining tools. The case scenarios and application exercises are developed from real-world problems to ensure that students are aware of the various decision situations they could encounter in the turbulent business environment.

Several concepts and techniques set this course apart from other courses using information technology and case-type information. They include the use of leading edge business intelligence software tools coupled with multidimensional analytic databases combining internal as well as external competitive data. In addition, the capturing and storing of customer satisfaction information, brand-level information, the application and use of statistical techniques, and the focus on having the students develop business insight and acumen position this academic offering as a truly integrative course.

This course represents an innovative approach to case analysis. In typical case analyses, all necessary processed information for making decisions is presented in narrative, table, or figure format. The reality is that knowledge workers are rarely given necessary and critical information for decision making in a report form. Consequently, the traditional case analysis method would provide meaningful exercises in a static environment. The turbulent, dynamic business environment of the twenty-first century requires a new pedagogical alternative that reflects a requirement of flexibility and timely response. In this course, case scenarios and exercises are designed to require extensive mining of a multidimensional database with Comshare DecisionWeb™ as the business intelligence tool and various statistical tools for analysis and insight generation purposes.

A unique aspect of the course is that the student is positioned in the midst of ongoing competitive pressures and business decision problems in an existing firm. Each team is

expected to capitalize on their individual skills and knowledge to produce different business insights and actionable plans based on charts and grids generated with Web-based business intelligence tools and multidimensional databases. As such, each team can arrive at entirely different strategies and business insights. During the team presentations and facilitated debriefing of the exercises and cases, additional insights can be obtained.

### Student Background

The students who have taken this course are seniors preparing to graduate with a Bachelor of Business Administration degree, graduate students pursuing a Master's of Business Administration degree, and graduate students in other colleges who are working toward a minor in a business-related field. Students at this level of their academic training typically have completed internships or have several years of relevant work experience (see Table 1). This relevant work experience, combined with the concepts they have learned in previous courses, ensures that they possess the background required to understand the complexity of the business issues being addressed. The graduate and undergraduate version of this course has been taught to approximately 215 students during a four-semester period.

### Course Content

The students are expected to identify a particular challenge or opportunity for the firm, using a variety of business models and business intelligence tools, to develop actionable insights based on uncovered facts and generated insights. The course framework proposed for this course incorporates the knowledge worker's mental model in business intelligence system development and management. In this framework, a new guided analysis is proposed by combining the capabilities of business intelligence tools and statistical analysis tools to provide instant and comprehensive access, management, and mining of huge marketing and customer databases. The resulting business intelligence framework provides knowledge workers with a practical guide and directions for planning, managing, and controlling business intelligence.

This course is taught during a college semester. The material in this course is divided into three main parts: strategic decision making, business intelligence tools, and application of marketing models (see Table 2). The first part of the course convinces the student why this material is important. The second part of the course describes the business intelligence tools and features. The third part of the course permits the student to generate insight using business concepts and models.

The first part of the course deals with strategic decision making in an information age. Effective strategic decisions begin with a clear understanding of the nature of the business



**TABLE 1**  
**STUDENT INFORMATION**

Student Demographic Information	Undergraduate Students	Graduate Students	Total Population	
			%	n
Academic level				
Graduate students			30	64
Undergraduate students			70	149
Age				
Mean	24.6 years	29.8 years	26.1 years	206
Median	24.0 years	28.0 years	25.0 years	206
Computer skills				
1 = very skilled	2.21	2.11	2.18	
5 = minimal skill				
Gender (%)				
Male	60.5	65.6	62.1	131
Female	39.5	34.4	37.9	80
Work experience				
Mean	5.4 years	5.7 years	5.5 years	211

**TABLE 2**  
**PEDAGOGICAL PLAN**

Course Content	Topics Covered	Time Period
	Introduction / team assignments / entrance assessment	Week 1
Part 1	Strategic marketing in the information age	Weeks 2-4
	Environmental assessment	
	Knowledge-based decision making	
	Managing complexity and information	
Part 2	Understanding guided marketing analysis	Weeks 5-7
	Business intelligence tools training	
	Performance metric development	
	Business category development	
	Midterm exam	Week 8
Part 3	Business models / concepts review; student case presentation	Weeks 9-14
	Business portfolio analysis / business growth strategy	
	Situation assessment / market analysis / competitor analysis	
	Product strategy / brand equity assessment	
	Value chain management / customer service performance	
	Pricing / break-even analysis / promotional mix	
	Conclusion / exit assessment / final exam	Week 15

environment. Increased global competition, faster product development cycles, shorter product life cycles, the Internet, and e-commerce are some of the contributing factors to the changing business environment. This environment represents volatility and risk for the firm. In managing this risk, knowledge-based strategic decision-making capabilities become a

valuable potential core competence of firms. The nature of the changes and the need for developing business intelligence capabilities in an information age are discussed.

The second part of the course deals with understanding business intelligence tools and various organizational processes. To cope with the volatile and risky business environment, firms need a new way of thinking. Given the increased pressures of the global environment, it is increasingly necessary for a firm to establish a system whereby managers can make knowledge-based decisions. The knowledge worker's mental model provides a basis for designing the strategic decision variables and performance metrics. The relationship between these decision variables and performance metrics are assessed on the basis of theories and business practices. An iterative process of using business intelligence tools in making strategic decisions, particularly strategic marketing decisions, is developed and presented. Also covered are a review of business intelligence tools, technical aspects of business intelligence tool implementation, and technical training on a business intelligence software tool.

The third part of the course focuses on giving life to the business intelligence framework and tools in a strategic marketing context. Various decision areas (see Table 3) are identified: strategic planning, situation assessment, product performance, value chain management, and pricing and promotion strategy. In each of the marketing decision contexts, theoretical models that can provide strategic insights are described. These theoretical models are applied and tested using one of the leading decision support application tools, Comshare DecisionWeb™. It is a Web-based business intelligence application hosted on a centralized server for enterprise-wide financial analysis, performance measurement, and management reporting. Comshare DecisionWeb applications are used for analysis of data residing in a multidimensional database. Excel™ and SPSS™ are also used to perform additional statistical analysis. These tools are used in a complementary fashion to provide better insight and meaningful knowledge. To illustrate the business intelligence process through strategic marketing analysis examples, databases were created from internal performance data, competitive market data, census demographic data, the Compustat database, and other external sources.

The databases for the case company were loaded with three years of financial and marketing performance data of the firm and ten years of competitive financial records. Hands-on application examples are presented using the medium-sized case company in the cosmetics and toiletries industry. This company manufactures and distributes products such as toothpaste, shaving cream, hair spray, and deodorants. This provides products that the students can easily relate to and research.

Videos were used throughout the course to demonstrate key concepts and provide examples of firms performing well. The four videos that were used were *The R. G. Wallace EIS*

**TABLE 3**  
**DECISION MODEL EXAMPLES**

<i>Marketing Decision Topic</i>	<i>Marketing Model Examples</i>
Strategic planning	Boston Consulting Group model, GE model, profit impact of market strategy (PIMS), customer value matrix
Situation assessment	Forecasting, trend analysis, segmentation analysis, targeting, market analysis, demographics, competitor analysis, performance analysis
Product performance	Brand equity, power grid, product life cycle, sales contribution analysis, new product development
Value chain management	Strategic profit model, contribution model, net profit model, channel management, customer satisfaction—ServQual, Kano diagram
Pricing and promotion	Price elasticity, value-based pricing, advertising effect, break-even analysis, promotional mix, sales force performance

Interview conducted by Lynda Applegate (1990), *A Passion for Excellence* by Tom Peters (1990), *In Search of Quality* by Robert Waterman (1990), and *Growing a Business: The Stew Leonard Story* by Paul Hawkins (1990). In the first video, Bob Wallace, president of Phillips 66 Petroleum, discusses how he achieved success using business intelligence tools. In the second video, Tom Peters provides vignettes and a prescription for creating success in an organization. In the third video, Bob Waterman describes how the Wallace Company implemented and won the Malcolm Baldrige National Quality Award (MBNQA) and the benefits they achieved as a result of their efforts. In the fourth video, Stew Leonard describes how to grow a business. Each video reinforces various business concepts and provides discussion points for integration of various academic contents.

In summary, this course is about how to create powerful and elegant solutions that set the standard for business intelligence management in the twenty-first century. It is guided by a gap between the development of the business intelligence tools and the effective usage of them in making strategic marketing decisions. This course can build an important bridge between the technical development of business intelligence tools and the effective use of these tools in strategic marketing and business decisions.

### IMPLEMENTATION RESULTS

Several instruments were used to assess the student's acquisition of the requisite skills and abilities. The first instrument was a pretest and posttest of the student's perceived

business intelligence skills, marketing concept knowledge, and critical questioning skills. The second instrument was a pretest and posttest of various knowledge-based marketing concepts and business intelligence concepts. Additional instruments included multiple business intelligence tool assignments called "bootcamp" exercises; a course evaluation form; and an entrance, midterm, and final exam scenario. In addition to these written instruments, the students were assigned to various teams and required to make a detailed presentation based on their findings and insights to a posed marketing scenario.

For the presentation, the students were required to analyze their posed marketing case situation, to develop various insights, and to present their action plans. The instructor using a predefined instrument assessed this marketing case situation. This assessment instrument was based on the MBNQA assessment criteria. The assessment encompassed four areas, and each area was rated from a low score of 0 to a high score of 100. The assessment range increased as students moved from opinion-based observations through analysis to fact-based insights. The four assessment areas were in the areas of uncovering insight, developing meaning, determining possible causes, and presenting possible actions.

The first written exercise was an assessment of the student's perceived skills and abilities. The pretest and posttest of the perceived skills consisted of multiple items covering business intelligence tools, marketing models and concepts, questioning skills, and analysis tools. The questions focused on the student's increase in business model application skills, business intelligence abilities, and strategic questioning and thinking skills. The pretest and posttest scores are measured on a 7-point Likert-type scale, ranging from 1 (*very weak*) to 7 (*very strong*). The summated results of the perceived skill pretest and posttest are shown in Table 4. The students showed significant increases in perceived skill in the identified areas supporting the achievement of the educational objectives. Each of the areas was significant at the .01 level.

The second written exercise was an assessment of the student's marketing knowledge. The pretest and posttest of the marketing concept knowledge consisted of multiple-choice questions covering a variety of marketing topics. The marketing topics included questions in the areas of strategic planning, situation assessment, product performance, value chain management, and pricing and promotion. These questions were based on the Lewis Hershey Test Item File (Kotler and Armstrong 1996). The multiple-choice questions were classified in the Lewis Hershey Test Item File as easy, average, or difficult and were assigned a weight of 1, 2, or 3, respectively. The summated results of the marketing concept knowledge pretest and posttest are shown in Table 5. Since this course integrates concepts students have acquired throughout their academic career and is focused on the application of marketing models, and not on teaching marketing concepts, to develop strategic insights, it was expected that the scores for



**TABLE 4  
PRETEST AND POSTTEST SKILL  
ASSESSMENT SCORES**

<i>Perceived Skill Topic Area</i>	<i>Pretest Score</i>	<i>Posttest Score</i>	<i>Significance</i>
Overall business intelligence tools	3.61	5.62	.000
Overall business models	3.65	5.67	.000
Overall strategic thinking	4.17	5.62	.000
Strategic planning assessment	3.54	5.39	.000
Situation assessment	4.07	5.44	.000
Product performance assessment	3.92	5.41	.000
Value chain management assessment	3.48	5.17	.000
Pricing and promotion assessment	4.47	5.53	.000

**TABLE 5  
MARKETING CONCEPT SCORES (IN PERCENTAGES)**

<i>Marketing concept area</i>	<i>Pretest Score</i>	<i>Posttest Score</i>
Overall test score	50.8	50.9
Easy questions	61.9	65.9
Average questions	50.9	51.9
Difficult questions	44.2	44.8
Strategic planning assessment	46.0	55.3
Situation assessment	56.7	58.3
Product strategy assessment	45.3	47.1
Value chain management assessment	47.9	47.3
Pricing and promotion assessment	53.6	52.6

the pretest and the posttest would be very similar. The results demonstrated that, in fact, the scores were similar except for the strategic planning assessment area.

The third set of written exercises were "bootcamp" exercises. These homework assignments were provided so that the student could learn the business intelligence tool. The exercises covered all facets of the business intelligence tool. The exercises were conducted online and contained extensive help in the form of written hints and sample chart and grid screen shots. The fourth written exercise was a course evaluation. The students provided the course evaluation at the end of the semester. The instructor did not review the evaluations until after the final grades were submitted. The evaluation also provided the students an opportunity to share their opinions via written comments. The mean for the identified survey questions was above 4.00 on a 5-point Likert-type scale, with 5 being defined as excellent. These survey questions relating to the objectives of the course are listed in Table 6. The mean overall course ratings for all marketing courses ranged from 3.96 to 4.06 during the study period. The written

**TABLE 6  
COURSE EVALUATION RATING SCORES**

<i>Course Evaluation Topic Area</i>	<i>Mean Score</i>
Critical questioning	4.50
Overall course rating	4.28
Proficiency in usage of business intelligence tools	4.54
Related material to business	4.67
Understanding business models / concepts	4.50

**TABLE 7  
FINAL EXAM INDEX**

<i>Final Exam Rating</i>	<i>Index</i>
Final exam index = 51.7	
Issues	61.3
Meaning	54.1
Possible causes	46.9
Possible actions	44.6

comments provide insight into the rationale for the numeric ratings. A representative sample of the written comments is provided in the appendix.

The last written exercises were exams. The exams were case studies where the students applied the various marketing models to various graphs and charts obtained from the business intelligence tools to develop insights and recommended actions. The students' strength was in the issue identification (see Table 7).

The developed index ranged from 0 to 100, with 0 being defined as the lowest and 100 being defined as the highest, with the likely range being between 20 and 80. This index was based on the MBNQA assessment and scoring philosophy. The four major criteria that were developed were for the students to identify issues facing the firm, to discover meaning from the data, to develop possible reasons or causes to explain the data, and to create possible alternative courses of recommended actions. It is also noted that the recommended actions are based on the identified issues. Therefore, it is paramount for the student to have clearly identified the issues facing the firm. The students, like business leaders, had a more difficult time developing action plans to address the identified issue.

## CONCLUSION

Rapid change; incomplete but voluminous data; and complex, turbulent competitive dynamics characterize the current competitive environment. In such an environment, the ability to quickly assimilate and interpret data and information, generate knowledge, and formulate that knowledge into actionable insights will separate the winners from the losers. The fierce and harsh realities of competitiveness do not permit

firms to "learn these competencies as they go." Such abilities must be cultivated through training, coaching, and experience.

Leading edge firms are using business intelligence software tools with multidimensional databases together with statistical and data-mining tools to better manage the voluminous and complex data. Such firms realize that knowledge management is the key to maintaining any possibility of competitive advantage. Although business intelligence software tools are available to firms, there is still a huge knowledge gap in the managerial and professional competence using these tools. In other words, the "know-what," "know-how," and "know-why" of business intelligence software tool use are in very short supply (Deschamps and Nayak 1995).

## DISCUSSION

To facilitate the diffusion of the innovative learning paradigm presented earlier, the business intelligence software tools were continually updated. After the two previous versions of business intelligence software tools, Web-based business intelligence software tools are now implemented on a server specifically designated for this course. Comshare's DecisionWeb™ business intelligence software was the chosen software product. Various companies were evaluated to ensure that the students had access to the leading edge business intelligence software capabilities before Comshare was selected. It was concluded that Comshare was a leader in this industry and offered products with extensive features. Also, Comshare expressed a willingness to partner with an academic institution, and they made executives available for class presentations and ensured technical support personnel were available for implementation discussions. With the implementation of this Web-based software, the adoption of this learning approach is possible for any business program with Internet access available for students.

Students can easily access the business intelligence software tools and sample databases for class exercises using available Internet browsers. The students are provided with password access to the software and database. Strategic marketing-guided analysis can enable students to experience Web-based business intelligence tools and data-based case analysis. The presented pedagogical approach is most appropriate for senior undergraduate and MBA-level marketing and management strategy or capstone courses. The students at this level of academic training have experience with a variety of business application models.

Marketing faculty must go beyond the superficial usage of information technology in computer-generated visuals and animated presentations to embrace information technology tools being used to produce competitive advantage in the information age. The marketing education must provide the students with business intelligence software tools used in firms today to produce competitive advantage and gain insights. It must relate every aspect of the student's academic

experience and demonstrate integration of academic models and marketing concepts.

This course provides students with a setting where their competence at knowledge generation and knowledge management are cultivated. Students are taught to use the business intelligence software tools to analyze and illustrate business data. Through the use of charts and grids that represent analyses of the data, students are coached in the art and skill of critical questioning and strategic thinking as a means of insight development and knowledge generation. The abilities to make sense of the charts and grids and then to ask relevant follow-up questions, given their interpretations, are not taken for granted but are understood to be valuable competencies. Stimulating learning environments should cultivate these competencies in students so that they can become effective *strategic thinkers* and *knowledge workers* in the information age of the twenty-first century.

## APPENDIX

### Student Comments from the Course Evaluation

- "The fact that we could take the concepts we learned and present them to others . . . demonstrating insightful ideas. This helped my understanding of [key concepts] and helped my presentation skills."
- "The emphasis of no correct / incorrect answer."
- "This is the best course I've taken so far in the MBA program!"
- "The real-world application of the models and the [business intelligence] software."
- "Learning to develop critical questioning and using business models for [strategic] decisions."
- "Course material wholly integrated with analysis software."
- "It definitely made you think. It combined all the business concepts learned from past years."
- "Critical thinking was a must."
- "Learning to use new and innovative tools that we will most definitely be using in the future."
- "Making students actually think and not just memorize information."
- "Everything I learned in this class I can take and use in my marketing career!"
- "Understanding how to use information technology is critical in determining a successful future. I wish classes like this were available to me before now!"
- "The usefulness of this course is extremely important. . . . [Business classes] should relate to the real world. This is the only class I've taken where I feel that I learned something."

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