teaching note

Customer Segmentation in the Charter Bus Industry

This teaching note is designed as a complete guide for instructors to deliver the case study in a meaningful way and for it to serve as an efficient tool to facilitate learning in customer segmentation, revenue management, and the basics of business analytics and descriptive statistics at both undergraduate and graduate levels.

Summary

This case study introduces students to the implementation of a specific revenue management initiative (customer segmentation), based on the charter bus services industry, which consists of providing individual transportation services to different groups that hire buses of multiple capacity for their exclusive use. ESCOT Bus Lines is a charter bus company located in Central Florida; the company is trying to optimize the utilization of its buses and to maximize its revenues. As the first step to achieving these goals, the company must analyze its current business to better understand its customers and its revenue sources with the use of business analytics and descriptive statistics.

Teaching Objectives

- Introduce students to the application of customer segmentation in revenue management.
- Develop a thorough understanding of the theory behind customer segmentation.
- Develop basic skills in business analytics, descriptive statistics and the use of Excel.

Target Audience

Undergraduate students

This case study is ideal for revenue management courses at both undergraduate and graduate levels. For undergraduate students, this case study is recommended for the second half of the course once the basics of revenue management have been covered. The case is also applicable to undergraduate marketing, strategic management, introduction to data analysis, or introduction to statistics courses.

Graduate students

For graduate students in advanced revenue management courses, this case is recommended as an introduction to applied revenue management initiatives and, therefore, should be given within the first weeks of the course. Alternatively, this case study is also appropriate for strategic marketing, applied strategic management and data analysis courses.

Table 1

Potential courses for case study inclusion

Undergraduate level	Graduate level
Revenue Management	Advanced revenue management
Strategic management	Advanced strategic management
Marketing	Strategic marketing
Introduction to data analysis (or statistics)	Data analysis

Teaching Plan

The teaching plan presents various recommendations for delivering the case study depending on the course format and level (face-to-face or online; undergraduate and graduate), the delivery timeframe (single or multiple classes), and the type of assignment (individual or group work). Instructors may adapt the delivery of the case study to the combination that works best for their class.

Undergraduate courses

Online instruction. For online courses at both undergraduate and graduate levels, the use of online Excel tutorials prior to solving the case study is encouraged; then, the case study can be solved as an individual assignment with a follow-up online discussion where students share their answers of the discussion questions with each other and give feedback to fellow students.

Face-to-face instruction. For undergraduate students, it is recommended to work on the case study in class since the students' familiarity with Excel might be limited. Students can be encouraged to take their personal computers to the classroom or meet at a computer lab; instructors may review with the students the basics of Excel and work together to solve the case study questions.

One session with one group assignment. Students may be divided into four groups (or multiples of four depending on the size of the class), preferably teams should not exceed four members each. Each team will solve the case study questions (questions 1 and 4) for one of the four customer segments analyzed. The groups will use the class time to solve for the case study discussion questions and will submit their assignment after class. Groups may share with each other their results for question 1 before solving the rest of the discussion questions. For short lectures, groups may finish their assignments as homework. Feedback will be provided only through the graded assignments.

Two sessions with two individual or group assignments. When the case study can be delivered in two sessions, students may work

individually or divided into four groups (or multiples of four depending on the size of the class and not exceeding four members each). The first session may be used for an initial discussion about the case study and to start working on solving the discussion questions; specially question 1 when the work is divided into groups since groups will need to share their answers with each other for solving the rest of the questions. Instructors may use this session to discuss potential student errors (provided in a following section of this teaching note). The students will finish the case study as homework and submit it before the second session. For group work, a second assignment consists in a group presentation based on the format and grading that best fit the course syllabus. For individual work, students can earn a second grade based on their participation in an in-class discussion of the case study answers.

Graduate courses

Online instruction. For online courses at both undergraduate and graduate levels, the use of online Excel tutorials prior to solving the case study is encouraged; then, the case study can be solved as an individual assignment with a follow-up online discussion where students share their answers of the discussion questions with each other and give feedback to fellow students.

Face-to-face instruction. For graduate students, this case study is best as an assignment prior to class with a follow-up discussion of the case and the results of the case study questions in class.

Single session with individual work. The students should read the case study and solve for the discussion questions before the session. Then, in class, students will share their responses with each other in the form of an open discussion. Instructor will have the moderator role. If a discussion question is sparkling debate and it appears to be different answers, instructors may work through the exercise in Excel, projecting to the students the process to arrive to the correct solution.

Multiple sessions with individual work. The case study data may be used as a tool for other chapters of the course. For example, this case study may be used for a second time to make forecasts or to work on pricing analytics. Although the data is only for a year and will not produce reliable forecasts, it can definitely serve as an example and as a simple exercise for students to quickly test their knowledge.

Common teaching platform

The following are suggested phases to show how the teaching of this case study may progress.

Prior to class

Students must read the case study individually before class; it is a complex case study and reading it in class for the first time will take a considerable amount of the session time. Moreover, students, especially undergraduate, should be encouraged to watch online Excel tutorials prior to class. They need an understanding of basic Excel formulas and graph functions to solve the case study questions. Refer to the "additional reading material" section for a list of online Excel tutorials. Instructors may share with the students the value of being skillful in Excel for their academic and professional lives.

Phase I

Before continuing to the case study solution, it is recommended that instructors give their lecture or appropriate online material on the subject this case study supports. Based on the theoretical background and the additional reading materials (book chapters) presented in this teaching note and in other course materials, instructors should explain to students what revenue management and customer segmentation is, the different types of customer segmentation, and how to segment customers through business analytics and the application of descriptive statistics.

Phase II (for graduate level only)

Graduate students must submit their assignments with the Excel solution and a narrative of each of the discussion questions.

Phase III

Encouraging student participation, instructors should summarize what the case study is about. Some questions to spark participation are: What is the industry of the case study? What is the main business of this company? What seems to be the issue? How we will solve the issue? Who oversees the change and what is his role?

Phase IV (for undergraduate level only)

Depending on the needs of the class, students may work individually or in groups to solve the case study questions. For this, they may work on their personal computers or meet at the computer lab. For short lectures, students may continue to work on their answers as homework.

Phase V (for undergraduate level only)

Undergraduate students must submit their assignments with the Excel solution and a narrative of each of the discussion questions.

Phase VI

In this phase, students will present their results. As mentioned above, depending on the format of the class and how the case study will be used, this phase may consist of an online discussion, a discussion, or group presentations. Students' participation may be graded as a separate assignment, as part of the case study submission, or ungraded. The main objective of this phase is to review each question one at a time and, after the students' participation, reinforce and correct the understanding by showing the solution and how to get there with the use of Excel formulas and graph functions.

Phase VII

Instructors may stimulate critical thinking by encouraging students to share their learning, conclusions and how the solutions of the case study can be applied in different companies and scenarios.

Phase VIII (for graduate level only)

This case study can serve as a reference for subsequent topics in advanced revenue management courses. Instructors may conclude by explaining why customer segmentation is the foundational step for revenue management initiatives that are followed by forecasting and pricing analytics. As mentioned above, students may use the data to test their basic understanding of forecasting and pricing analytics.

Conceptual Background: More on customer segmentation

The case study includes a comprehensive conceptual background on customer segmentation. The following theoretical background furthers some of the concepts reviewed in the case study to help instructors deliver the information to students. The new topics included are:

- A detailed example on differential pricing derived from product-based segmentation in the airline industry.
- Other methods for applying customer segmentation beyond business analytics.

Customer segmentation in brief

A group of customers with identifiable, shared and unique characteristics forms a market segment (Hayes & Miller, 2011). Customer segmentation is a process that allows companies to identify those meaningful and diverse groups of customers based on their preferences and buying behaviors to develop effective and sustainable product strategies, while optimizing capacity and maximizing revenues (Bodea & Ferguson, 2014; Teichert et al., 2008). Customer-based and product-based segmentation are the two main customer segmentation strategies. In customer-based segmentation, the same product is sold at different prices to different customers based on their personal characteristics. While product-based segmentation is when different versions of a product are sold at different prices, with additional incentives for customers to purchase the higher priced version (Bodea & Ferguson, 2014).

Traditionally, customers are segmented based on demographic, geographic, behavioral, and price-sensitivity traits (Forgacs, 2010). But, technology and changing lifestyles has translated to blurred customers segments (Cullen & Helsel, 2001), making it difficult to sellers to properly place customers in a previously identified segment. Because of this, firms need to be more strategic regarding how they identify and manage their customer segments and how they decide on appropriate pricing depending on price sensitivity and product attributes valuable for each segment. To do so, the science of revenue management has evolved the concept of segment pricing, which is the

"practice of charging different prices to different buyers for the same product or slightly different versions" of it (Hayes & Miller, 2011, p. 94). Segment pricing is mostly based on factors related to product-based segmentation, which will be discussed in detail next.

An example of product-based segmentation and its relation to differential pricing

To implement product-based segmentation, companies can follow different pricing strategies based, e.g., on the season or the time of year, packaging, distribution channel or promotions. As part of the transportation industry, airlines offer a valuable opportunity to exemplify these different pricing strategies, which, in their case, are sometimes applied simultaneously.

First, airlines will increase prices for *times* of the day or seasons popular for travelling for two reasons: to capitalize on consumer surplus and to optimize capacity by giving price incentives to those customers willing to travel, for example, at 3:00 a.m. or during Christmas day. Travelers can also get a higher price advantage by booking close to the departure date. Nevertheless, pricing strategies based on time vary by segment (Hayes & Miller, 2011) and industry, e.g., in the fashion industry those that buy at the beginning of the season are the ones that pay a higher price.

Second, airlines develop pricing strategies based on *product versioning*. Traditionally, airlines offer more flexibility to business travelers and lower prices to leisure travelers, i.e., they have identified two customer groups that value either flexibility or price. Nevertheless, with the increased competition from low cost carriers, airlines can benefit from a more comprehensive segmentation based on different combinations of customer preferences regarding flight schedules, on-board catering, loyalty programs, flexibility to make changes, price, ground services and punctuality (Teichert, Shehu, & von Wartburg, 2008). So, travelers can choose the version that most closely matches their quality, quantity and service expectations; sometimes, they are even able to select a tailor-made version by selecting features from a menu of options. This flexibility makes product versioning a powerful pricing strategy where the cost differences for the sellers are minimal (Hayes & Miller, 2011) but the value translates to a higher customer retention and satisfaction (Bodea & Ferguson, 2014). Nevertheless, to be effective, the lower-priced version should not have the same desirable characteristics that less price-sensitive customers value in the premium version but still fully satisfy the needs of price-sensitive customers.

Third, airlines might offer different prices to those buying in larger *quantities*. For example, as hotels, airlines offer a preferential rate to groups that book sections of the plane in blocks. Also, airlines offer price incentives for those travelers that repeatedly fly with them through reward programs. By rewarding repeated business and loyalty, companies urge customers to buy more while reducing their cost

of selling (Hayes & Miller, 2011). Alternatively, this is also known as pricing based on packaging (Bodea & Ferguson, 2014); e.g., in the food industry, as in many others, buying in bulk is cheaper than buying smaller versions of the product.

Fourth, airlines have recognized the perception of value derived from *bundling*; because of this, some airlines, like JetBlue, have developed their own vacation packages, e.g. JetBlue Vacations (JetBlue Airways, 2018). Occasionally, these bundles entice customers by offering savings when booking flights and hotel together. Bundling is the combination of two or more products into one price, which is lower than when purchased separately. Besides maximizing the value for customers, in price and convenience, bundling allows companies to increase total revenues (Hayes & Miller, 2011).

Fifth, before the boom of the internet, an airplane ticket had a very different price depending on the *distribution channel* and the fees associated with intermediaries—in this case, travel agencies. But, distribution channels still have an impact on airfares. To save on costs—e.g. labor costs—limited-service carriers charge travelers a fee if they book over the phone instead of booking though the website. The key to be successful in pricing based on distribution channel is to offer the most efficient and convenient channel to those buyers willing to pay more for this (Hayes & Miller, 2011).

Sixth, moving beyond the airline industry, segment pricing can also be based on *location* of either the seller or the buyer. For example, buying a bottle of water at a premium location, like an airport or a theme park, is usually more expensive than at a convenience store or a super market. This in particular may also be classified as pricing based on distribution channel. But, pricing based on location also refers to the location of the buyer (Hayes & Miller, 2011). A clear example is special prices on theme park admission for local residents, which is a win-win situation for guests and theme parks. Locals appreciate lower prices and reduced wait times, while theme parks can increase revenues at idle capacity times.

Finally, *payment terms*—i.e. timing and method of payment—have a strong impact on profits; therefore, it is a factor that affects segment pricing. As the risk of not receiving payment increases, so does the price; but, as the risk is transferred to customers, the price decreases (Hayes & Miller, 2011). Credit accounts is an example of the former, while pay-in-advance is an example of the latter.

Different approaches to customer segmentation

Regardless of the chosen customer segmentation and differential pricing, companies should base their decisions on the combination that facilitates an optimal mix of customer segments (Cullen & Helsel, 2001). But, how to identify customer segments? How to truly understand what is the source of business? The case study follows an approach based on business analytics and descriptive statistics. Business analytics use historical data to demonstrate the origin and behavioral patterns of customers based on the characteristics of past purchases. Specifically, this case study focuses on descriptive analytics, which enable a better understanding of who the company's customers are (Bodea & Ferguson, 2014) and are facilitated through the application of descriptive statistics.

Nevertheless, there are other approaches to customer segmentation. Two initial approaches are a priori and post-hoc segmentation (Teichert et al., 2008). With a priori segmentation, groups are identified in advance based on known characteristics with the help of, for example, socio-demographic government data or surveys. Post-hoc approaches require empirical research that usually makes use of latent constructs, like attitudes, behaviors and personality traits. To discover these latent constructs, businesses and researchers conduct experiments and/or surveys on stated preferences to then analyze the results with multivariate data analysis. The analysis is the basis for identifying different customer segments, identifying the product features that are most important to each segment, and developing a demographic and attitudinal profile of each segment. This information helps businesses developing more efficient products and pricing strategies to attract more customers and maximize revenues.

An additional approach for identifying and redesigning customer segmentation is based on the service blueprint (Ng, 2008). The service blueprint presents a process map of sales, delivery and consumption of the firm's products, which incorporates emotional states, interactions, points of satisfaction and dissatisfaction, and costs of purchase and consumption. The latter provide an opportunity for generating extra revenue and re-segment customers based on their preferred processes of sales, delivery and consumption, consequently establishing new prices that would lead to improved revenues at "very much the same costs of delivery" (p. 139).

Data Access

Students will use real business data to answer the discussion questions. The richness of the data set allows students to solve various revenue management problems and arrive to meaningful and comprehensive conclusions. Using the link below, the instructor will download the data set containing 2017 sales data from ESCOT Bus Lines' top four customer segments according to their contribution to profit margins. The data is in a Microsoft Excel workbook. We kindly ask the instructor to share the downloaded Excel document with students and to please refrain from sharing the link with them for better control of the data. The document is password protected and the students must get the password from their instructor.

Link: https://app.box.com/s/2zvrifcvkjr5qvl63amq45elzo587fiq

Password: chartersegCSD

Case Study Solution

Question 1: The first step is to download and open the data using the link (instructors only) and password that were provided. To keep the case study manageable, only data for four customers segments and for one year is provided. Then, add filters to the columns. To facilitate a clear understanding of each segment and by using the filters, create four new sheets in the Excel book. Copy the data of each segment into a different sheet.

Revenue generated. Use the =sum formula to add the values given in the price column.

Number of transactions. Use the =count formula to check the number of transactions or services provided. Select the cells in the price column.

Average service price. Based on the previous results compute =revenue generated/number of transactions.

Service price range. Use the =min and =max formulas to discover the lowest and highest price paid for a service, respectively by selecting the values in the price column.

These four results are annual values. Use the filters to divide the data into seasons (low season are the summer months, high season is consistent with the school year), quarters and months. Compute the values for each of these timeframes by using the same formulas as before. Repeat this procedure for the remaining three customer segments.

Question 2: Return to the first sheet of the Excel book, where the data for all customer segments is displayed. First, use the =add formula to compute the company's total annual revenue by using the values in the price column. Second, calculate the contribution of each segment to the total annual revenue by computing =annual revenue generated by segment/total annual revenue. Repeat the computation for the remaining three segments. Select the four values and format the cells as a percentage. Write next to each value the name of the corresponding customer segment.

Pie chart. Select the cells containing the percentage values and the name of the corresponding customer segment. Go to the "Insert" tab and click on 2-D pie chart.

Question 3: Return to each of the customer segments' tab. Based on the answer to question 1 for service price range, enter the following subtraction formula in a new cell to get the service price variation: =highest price paid - lowest price paid. The customer segment with the widest service price variation will be the one with the greatest result.

The advantages of implementing fluctuating service prices for the identified customer segment lie in recognizing that these customers may accept higher prices in certain occasions, e.g. quoting a higher rate for a Friday service that any other weekday. By doing so, the company can maximize its revenue during high-demand periods and it will also create a win-win situation for low-demand periods as the company can optimize its fleet utilization and customers can take advantage of lower rates. To maximize the advantages of fluctuating prices, the company may further product-based segmentation, as discussed in the next question.

Question 4: Students can be as creative as they wish in answering this question. An example of an appropriate response is as follows: "ESCOT Bus Lines could offer a multi-trip product to its corporate clients; this would further product segmentation based on quantity. In this case, clients can pre-purchase at least two trips in advance to receive a preferential price per trip". Another example is: "ESCOT Bus Lines could offer a bundle product to tour operators to include a pre-packaged lunch or snack on board, furthering product segmentation based on bundling".

Question 5: Utilization problems were already stated by Josh, Director of Sales and Marketing. But, this can also be verified with the data and easily identifiable with a column graph. In question 1, monthly revenue values per segment should have been computed. Utilization problems exist in the months that generated the least number of transactions. Other timeframes may also be used to identify utilization problems (e.g. quarters or seasons).

Column graph. Select the cells that contain the month of the year with the corresponding number of transactions generated in that month. Click on the Insert tab and, then, click on Insert Column or Bar Chart. Select 2-D Column.

The following are some examples of new customer segments that could help ESCOT Bus Lines solve its utilization problems. It is not expected from students to answer this question with so much detail; these proposed customer segments are meant to provide solid examples for instructors to discuss in class with students when reviewing the case study solution.

Trade show and conference planners: Trade show and conference planners help businesses and associations organize and manage the logistics and details of their events. The trade show and conference planning industry generates $14.8 billion dollars in revenue with a projected annual growth of 2.2%. Florida has the 9% of the total trade show and conference planning businesses and it is the state that generates most of the business for this industry in Southeast United States (Roth, 2018).

ESCOT Bus Lines could benefit from establishing contracts and partnerships with trade show and conference planners to reach more corporate clients in a more efficient way. For example, the major player in this industry is The Freeman Companies, with 11.4% of the market share (Roth, 2018). One of its major clients is Microsoft, which had his annual convention in Orlando for the last two years. So, it can be inferred that, for ESCOT Bus Lines to service the events of large corporations, its direct customers should be trade show and conference planners and not

the corporations themselves.

International student associations: The Institute of International Education estimated that, in 2015, international students in the United States contributed $30.5 billion to the American economy (Sayler, 2017a); while, in the 2016-2017 academic year, 903,127 international students were enrolled in US colleges and universities representing a 3.4% increase from the previous term (Institute of International Education, 2017). These statistics are expected to continue rising (Sayler, 2017a).

Different than American college and university students, it is harder for international students to return to their home country during school breaks and holidays; in the summer, this means from two to three months for leisure. International students in Florida have the advantage of having a wide variety of entertainment activities, like beaches, natural springs and theme parks; but, many of them do not have a private car to visit those places. This represents an opportunity for ESCOT Bus Lines to increase its sales volume during the summer months, a usually challenging period according to company's executives. Because it is not ESCOT Bus Lines' business to target individual customers, the link between the company and international students are international student associations. For example, in the University of Central Florida, Bridges International is an association that plans events and trips for international students year-round.

Retirement communities: The retirement communities' industry is growing and will continue to grow at an accelerated rate in the next two decades thanks to an aging population and the recovery of real state value. This industry generates a revenue of $66.3 billion with an expected annual growth of 4.2% in the next five years. Retirement communities include assisted living facilities, senior apartments and independent living communities. Florida has one of the largest senior citizen populations and one of the highest percentages of industry establishments. Residents of these communities have access to transportation services and social activities (Curran, 2017).

For these reasons, retirement communities represent a potential customer segment for ESCOT Bus Lines. The company could help managers of retirement communities with their regular transportation needs, like errand and shopping trips for residents, and with their occasional transportation needs, like social trips to botanical gardens and beaches around Florida. The additional advantage of this customer segment is their availability during weekdays, when ESCOT Bus Lines has current issues in maximizing the use of its fleet.

Question 6: Students can be as creative as they wish with their recommendation; nevertheless, they should justify their answer based on the data and the answers to previous questions. For example, they may recommend Josh to focus all marketing efforts to target and increase the corporate client base since these customers are the ones willing to pay more for each trip.

Challenge questions: Challenge questions are optional. Both undergraduate and graduate students may be encouraged to solve them for extra points. Alternatively, graduate students can be required to answer these questions to be assessed on advanced critical thinking skills.

Question 7: At first sight, it can be interpreted that public schools are the most productive customers since they generate the highest number of transactions and the highest revenue. Nevertheless, these customers may occupy the vehicles for more than one day; therefore, the average revenue they generate per day is the lowest of the top four customer segments. So, looking at revenue per day, tour operators represent the most productive customer segment for ESCOT Bus Lines.

Potential Student Errors

Hints toward potential student errors are included in the question assistance in the prior section. In addition, students may also do the following:

- Answering question 1 for different timeframes requires students to filter the data and to do new calculations for each timeframe. Some students may be tempted to divide annual revenues by the timeframes. For example, they might divide the annual revenue by 4 to compute quarterly revenues; but, the correct solution involves adding all revenues generated in each specific quarter.
- Graphs only display correctly when selecting the appropriate cells, arranged in the proper order. Question 2 (pie chart) requires percentages to be computed and arranged in a group of cells similar to a table with the names of the customer segments next to the corresponding percentage for the graph to display correctly. While question 5 (column chart) requires monthly totals to be arranged in a group of cells similar to a table with the name of each month next to the corresponding number of transactions.
- The case study focuses on basic revenue management calculations, i.e., totals, averages, ranges. Students should be familiar with these terms and know how to arrange and manipulate data in Excel. They must also understand basic math issues, i.e. you should not take an average of average monthly prices or revenues to get an annual average. Instead, total revenues at the daily level should be summed and divided by the total number observations, i.e., 7 for weekly, 28 or 30 or 31 for monthly, 365 for daily.

Additional Reading Material

Book chapters

Bodea, T., & Ferguson, M. (2014). The ideas behind customer segmentation. In Segmentation, revenue management and pricing analytics (pp. 1-7). New York, NY: Routledge.

Hayes, D. K., & Miller, A. A. (2011). Differential pricing. In Revenue management for the hospitality industry (pp. 91-128). Hoboken, N.J: Wiley.

Ng, I. C. L. (2008). Strategic pricing and revenue management: four more strategies for higher revenue. In The pricing and revenue management of services : a strategic approach (pp. 129-148). London: Routledge.

Other online resources

ESSEC Business School (Producer). (2018). The fundamentals of revenue management: The cornerstone of revenue strategy3. [Online course] Retrieved from https://www.coursera.org/learn/fundamentals-of-revenue-management

Additional References

Curran, J. (2017). Retirement communities in the US (Industry report 62331). Retrieved from ibisworld.com

Institute of International Education. (2017). Open Doors report on International Educational Exchange. Retrieved from iie.org/opendoors

JetBlue Airways. (2018). JetBlue Vacations. Retrieved from https://www.jetblue.com/vacations/?intcmp=JB_HOMEPAGE_VAC#/

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3   This is an online course from ESSEC Business School. It is not always available; please, consult at coursera.org when is the next available session. The course is free in an audit-only mode. This is the second course of the *Hotel management: Distribution, revenue and demand management specialization*; if you wish to get a certification, please consult enrollment fees at coursera.org.

Assignment Rubric

Appendix 1 provides a guide for grading students' answers to the discussion questions. Instructors may use or modify this rubric as they find it appropriate for their class.

Assignment Rubric				
Criteria	**Ratings**			**Points percentage**
Essential Components Submission includes the answers to the discussion questions.	40% - Full Marks. All six discussion questions are answered and reflect a level of knowledge and effort indicative of time spent investigating and interpreting the data. Answers include formulas and graphs in Excel and a commentary interpreting the data.	20% Some questions are not answered AND/OR the write up indicates that the student did not spend time investigating and interpreting the data. Some questions do not include the corresponding formulas, graphs AND/OR commentary.	0% - No Marks. Incomplete or not submitted.	/40%
Quality of Recommendations Submission includes objective recommendations based on the data provided.	30% - Full Marks. Recommendations are based on the appropriate interpretation of data and reflect critical thinking and a level of knowledge and effort indicative of time spent investigating the topics and understanding the data.	15% Some recommendations are not based on the data AND/OR the write up indicates that the student did not spend time investigating the topic and understanding the data. Critical thinking is limited.	0% - No Marks. Incomplete or not submitted.	/30%
Level of Work Submission is representative of undergraduate/ graduate level course work.	20% - Full Marks. Write up is representative of undergraduate/graduate level effort and output; it is consistent with the tone and content of the case study.	10% Write up is not representative of undergraduate/graduate level effort and output; AND/OR it is not consistent with the tone and content of the case study.	0% - No Marks. Incomplete or not submitted.	/20%
Professionalism Submission reflects quality in terms of formatting, presentation, grammar, sentence structure, etc.	10% - Full Marks. Submission reflects high quality AND there are no issues in terms of formatting, presentation, grammar, sentence structure, etc.	5% Submission reflects medium quality AND/OR there are one or more issues in formatting, presentation, grammar, sentence structure, etc.	0% - No Marks. Incomplete or not submitted.	/10%