## Southern New Hampshire University

## QSO 320 Milestone One Guidelines and Rubric

Overview: Uncovering organizational inefficiencies is the first step to optimizing performance. In order to determine what inefficiencies exist, you need to perform a data analysis. A good place to start is with sales. You have to know what data to analyze as well as how to use specific tools for data analysis. Using the IF function, pivot tables, pie charts, bar charts, and histograms can help you isolate and organize specific data in a way that makes it easier to read. Studying measures of central tendency can also help reveal important information. After you discover where inefficiencies in sales exist, you need to be able to articulate the impact this has on the organization.

Prompt: For this assignment, you will use the Vinho Winery Case Study and other course resources to review raw data sets that summarize the production, sales, and distribution of wine. You will need to analyze the various types of wine and different distribution centers to determine their financial impacts on the organization's total revenue. All of your analyses need to be submitted in an annotated Excel file, and each analysis needs to include a rationale.

Specifically, the following critical elements must be addressed:
A. Using a pivot table, determine the percentage of wine varieties bought by each distributor. Illustrate your results in the form of a pie chart. Hint: Create a pivot table using the data spreadsheet as its basis.
B. Generate a labeled bar chart that illustrates the sum of wine varieties sold to each distribution center.
C. Using a pivot table, calculate the total amount of revenue generated by variety for each distribution center. Illustrate your results on a bar chart. Hints: Production cost data is provided in the Costs and Distances tab. Make sure you don't mix your units of measurement (i.e., pallets, cases, or bottles).
D. Using the IF function, calculate the central tendencies (mean, median, and mode) of shipment volume for each distribution center. Illustrate your results in a table. (Do NOT use a pivot table or manually identify each cell to be evaluated.)
E. Analyze the frequency of shipment by size using a histogram. Use the following bin sizes (number of pallets): 72, 48, 24, 18, $12,6,3,1$.
F. Create a shipment histogram to show the distribution of shipments for Portland and Riverside. Use the same bin sizes as you did in Part E. Hint: Use the alphabetical sort for the destination column, and select Data Analysis to plot the frequency of pallet shipments using the bin sizes listed for the two destinations separately.
G. Provide a summary statement that describes the inefficiencies in the organizational sales analysis. In your response, explain why this information is important for influencing management decisions.

## Southern New Hampshire University

## Rubric

Guidelines for Submission: Your assignment must be submitted using the Case Study Data Set Microsoft Excel document. Use 11-point Calibri font.

| Critical Elements | Exemplary | Proficient | Needs Improvement | Not Evident | Value |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Wine Varieties | Meets "Proficient" criteria and demonstrates an insightful rationale for appropriately employed Excel functions (100\%) | Uses a pivot table to determine the percentage of wine varieties bought by each distributor and illustrates results in the pie chart (85\%) | Uses a pivot table to determine the percentage of wine varieties bought by each distributor, but does not illustrate results in the pie chart, or response contains inaccuracies or is missing key information (55\%) | Does not determine the percentage of wine varieties bought by each distributor (0\%) | 16 |
| Distribution Center | Meets "Proficient" <br> criteria and demonstrates an insightful rationale for appropriately employed Excel functions (100\%) | Generates a labeled bar chart that illustrates the sum of wine varieties sold to each distribution center (85\%) | Generates a labeled bar chart that illustrates the sum of wine varieties sold to each distribution center, but bar chart contains inaccuracies or is missing key information, or a rationale is not provided (55\%) | Does not generate a labeled bar chart that illustrate the sum of wine varieties sold to each distribution center (0\%) | 12 |
| Revenue | Meets "Proficient" criteria and demonstrates an insightful rationale for appropriately employed Excel functions (100\%) | Uses a pivot table to calculate the total amount of revenue generated by variety for each distribution center and illustrates results in a bar chart (85\%) | Uses a pivot table to calculate the total amount of revenue generated by variety for each distribution center, but does not illustrate results in a bar chart, or response contains inaccuracies or is missing key information, or a rationale is not provided (55\%) | Does not calculate the total amount of revenue generated by variety for each distribution center (0\%) | 16 |

Southern New Hampshire University

| Critical Elements | Exemplary | Proficient | Needs Improvement | Not Evident | Value |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Central Tendencies | Meets "Proficient" criteria and demonstrates an insightful rationale for appropriately employed Excel functions (100\%) | Uses the IF function to calculate the central tendencies of shipment volume for each distribution center and illustrates the results in a table (85\%) | Uses the IF function to calculate the central tendencies of shipment volume for each distribution center, but does not illustrate the results in a table, or response contains inaccuracies or is missing key information, or a rationale is not provided (55\%) | Does not calculate the central tendencies (0\%) | 12 |
| Size of Shipment |  | Analyzes the frequency of the shipment by size using a histogram (100\%) | Analyzes the frequency of the shipment by size using a histogram, but response contains inaccuracies or a rationale is not provided (55\%) | Does not analyze the frequency of the shipment by size (0\%) | 12 |
| Distribution of Shipment |  | Creates a shipment histogram to show the distribution of shipments for Portland and Riverside (100\%) | Creates a shipment histogram to show the distribution of shipments to Portland and Riverside, but response contains inaccuracies or a rationale is not provided (55\%) | Does not create a shipment histogram to show the distribution of shipments for Portland and Riverside (0\%) | 16 |
| Sales Analysis | Meets "Proficient" criteria and response demonstrates a sophisticated awareness of how the inefficiencies impact managerial decision making (100\%) | Provides a summary statement that describes the inefficiencies in the organizational sales analysis and explains why information is important for influencing decisions (85\%) | Provides a summary statement, but the statement description is cursory, contains inaccuracies, or lacks justification (55\%) | Does not provide a summary statement that describes the inefficiencies in the organizational sales analysis (0\%) | 10 |

## Southern New Hampshire University

| Critical Elements | Exemplary | Proficient | Needs Improvement | Not Evident | Value |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Articulation of Response | Submission is free of errors related to citations, grammar, spelling, syntax, and organization and is presented in a professional and easy-toread format (100\%) | Submission has no major errors related to citations, grammar, spelling, syntax, or organization (85\%) | Submission has major errors related to citations, grammar, spelling, syntax, or organization that negatively impact readability and articulation of main ideas (55\%) | Submission has critical errors related to citations, grammar, spelling, syntax, or organization that prevent understanding of ideas (0\%) | 6 |
| Total |  |  |  |  | 100\% |

