

July 8, 2018

Course: CIS570 – Business Intelligence
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Assignment: BI Project Part3
Due Date: Sunday, July 8@ 11:59pm

Re: SAS Visual Analytics – Chart Descriptions

Report charts are on the following pages:

Visualization 1. Product Sales by Product Line – Bar Chart

- a. Purpose
 - i. Displays a bar Chart identifying total product sales and product line by year, continent, and country. Visual can be modified to narrow down the results per the controls specified below.
- b. Data Used
 - i. Product Line
 - ii. Product Sales
 - iii. Transaction Year
 - iv. Facility Continent
 - v. Facility Country
- c. Controls
 - i. Slider – Transaction Year
 - 1. Used to select a year range to filter Product Sales on
 - ii. Drop Down List - Facility Continent
 - 1. Used to select a specific continent to filter on
 - iii. Drop Down List – Facility Country
 - 1. Used to filter on specific countries for a selected continent

Visualization 2. Product Sales by Product Line – Time Series

- a. Purpose
 - i. Displays a time-series line chart identifying total product sales and product line by continent and year. Visual can be modified to narrow down the results per the controls specified below.
- b. Data Used
 - i. Product Line
 - ii. Product Sales
 - iii. Transaction Year
 - iv. Facility Continent
- c. Controls
 - i. Slider – Transaction Year
 - 1. Used to specify a year range to filter Product Sales
 - ii. Button Bar - Facility Continent
 - 1. Used to select a specific continent to filter on

- iii. Drop Down List – Product Line
 - 1. Used to filter on a specific product within Product Line

Visualization 3. Sale Rep Performance - Cross-Table

- a. Purpose
 - i. Displays a cross-table showing sales representative performance based upon overall rating and customer satisfaction. Includes customer base size per each rep.
- b. Data Used
 - i. Sales Rep
 - ii. Sales Rep Rating
 - iii. Customer Satisfaction
 - iv. Sales rep Customer Base
- c. Controls
 - i. Text Input Box – Used to filter on Sale Rep identifier

Visualization 4. Facility Performance - List-Table

- a. Purpose
 - i. Displays a list-table showing facility performance based upon facility efficiency, product quality, and customer satisfaction. Table can be filtered by facility country and city. Includes number of facility employees to provide a reference as to the facility size.
- b. Data Used
 - i. Facility
 - ii. Facility City
 - iii. Facility Country
 - iv. Facility Efficiency
 - v. Product Quality
 - vi. Customer Satisfaction
 - vii. Facility Employees
- c. Controls
 - i. Text Input Box – Used to filter on Facility Country
 - ii. Text Input Box – Used to filter on Facility City

Visualization 5. Product Line Performance - Dual Gauge

- a. Purpose
 - i. Displays 2 embedded gauge visualization for product line performance. The first shows Unit Discard rate by Product Line. The second shows Unit Reliability by product line. Each speedometer gauge indicates the associated performance level for each specific product metric where **green** represents acceptable, **yellow** represents marginal, and **red** represents unacceptable performance.
- b. Data Used
 - i. Product Line
 - ii. Unit Discard Rate
 - iii. Unit Reliability

- c. Controls
 - i. None required

Visualization 6. USA Product Sales by State - Geo Map

- a. Purpose
 - i. Displays a geo-map showing product sales by state in a gradient scaled coloring based on Product Sale. Darker colored states have more sales than lighter colored states (basically a choropleth plot).
- b. Data Used
 - i. Facility State
 - 1. Transformed from a category representation to a Geography format to allow use within a GeoMap object
 - ii. Product Sale
- c. Controls
 - i. Drop-Down List – Product Line
 - 1. Used to filter totals for a specific product line