

ADVANCED DATA VISUALIZATION USING SAP LUMIRA DESKTOP

## Assignment 2

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Hint: Use a column chart. From *Measures*, drag *Revenue* into Y Axis, from *Dimensions*, drag *Year* into X Axis. In Y axis, use the cog wheel for Revenue to *Sort* it in descending.

Question 1: What Year had the highest revenue? What was the revenue? 1 - mark

The year 2007: $60,715,832.76.

Hint: Click Create new Visualization (click + at the bottom). Use a column chart. Y Axis – *Revenue*, X Axis – *Product, Product Description.* Sort Revenue in descending.

Question 2: What material (with name) had the highest revenue? What was the revenue?

1 - mark

RACA1110 – Road Bike Carbon Shimano - $37,763,975.87.

Hint: Use a *line* chart. Y Axis – *Revenue*, X Axis – *Year*, Legend Color - *Country* (use *Country* from the attribute list)

Question 3: Are the historical (year by year) revenue trends for the US and DE (Germany) similar or dissimilar? 1 - mark

Dissimilar. The US is fairly stable upward trend. DE has a sharp downward spike starting in 2007 and has not recovered.

Hint: Use a *Column* chart. Y Axis – *Revenue*, X Axis – *Customer, Customer Description,* Trellis: Rows - *Year*

Question 4: Did GBI ever gain or lose a customer? Explain 1 - mark

Silicon Valley Bikes has yet to make a purchase in 2011. They are likely a lost customer.

Hint: Use a *heat* map. Area Color – *Revenue*, Area Name – *Month and Month Name*, Area Name 2 – *Year*

Question 5: Is there seasonality in revenue during the year? If so, what month has the highest revenue? Is the seasonality similar from year to year? 1 - mark

Early summer is the biggest season for sales. Sales used to be stronger in the late summer but have been tapering off recently. Sales are particularly weak in the winter.

Hint: Use a *Column* chart. Y Axis –*Revenue*, X Axis – *Customer and Product.* Filter the Year (in Dimensions to 2011). Now add descriptions for the *customer* and *product* to the X-Axis.

Question 6: In 2011, for what Material did the highest Revenue from a single customer occur? 1 - mark

ORMN1100 – Men’s Off Road Bike Fully, sold to 15000 – Bavaria Bikes. Revenue: 1,608,347.53.

Hint: Use a *heat* map. Measure (Area Color) – *Revenue*, Attributes: Area Name – *Year*, Area Name 2 – *Product*.

Question 7: Are there any products that show dramatic change in revenue over time (years)? Does it have similar change by country? 1 - mark

EBIK1100 starting selling in 2010. RACA1130 dropped off a bit in 2009. RACA1120 dropped off in 2008. RAAL1110 has been on a downward trend fromt 2007 to 2010 but has recovered.

Revenue has picked up in Germany since 2010, revenue has dropped in the US since 2007.

Hint: Use a *line* chart. Y Axis – *Revenue*, X Axis – *Month*, Legend Color – *Product and Product Description*. In the resulting line chart, select the tallest peak by selecting its color in the Product legend, then *exclude*. Be sure you are not deleting any months (check the filters above the chart). Repeat to eliminate more peaks. As you zero into the products that have low seasonality, the one with the lowest seasonality (relatively flat line) will appear.

Question 8: Is there any material that does not display significant seasonality? 1 - mark

FAID1000 – First Aid Kit seems to have the least seasonality.

Hint: Use a *Column* Chart. Measures: Y-axis: *Revenue*. Dimensions: X-axis: *Customer*. For the Measure *Revenue* add a calculation (use the cog wheel) to your Revenue measure – *Percentage*. Delete the *Revenue* measure, leaving the Percentage Revenue in place.

Question 9: What customer has the highest percentage contribution to revenues? What has been the trend of that customer’s percentage contribution over the years? 1 - mark

15000 contribute the most to revenues. The trend has been for that percentage to increase.

Hint: Use a *Geo Choropleth* chart to display revenue. Measures – *Revenue*, Geography –*Region.*

Question 10: Which region has the highest revenue? 1 – mark

Baden-Wurttemberg has a revenue of $31,936,202.47.