



CDS512 BUSINESS INTELLIGENCE AND DECISION ANALYTICS

School of Computer Sciences, USM, Penang

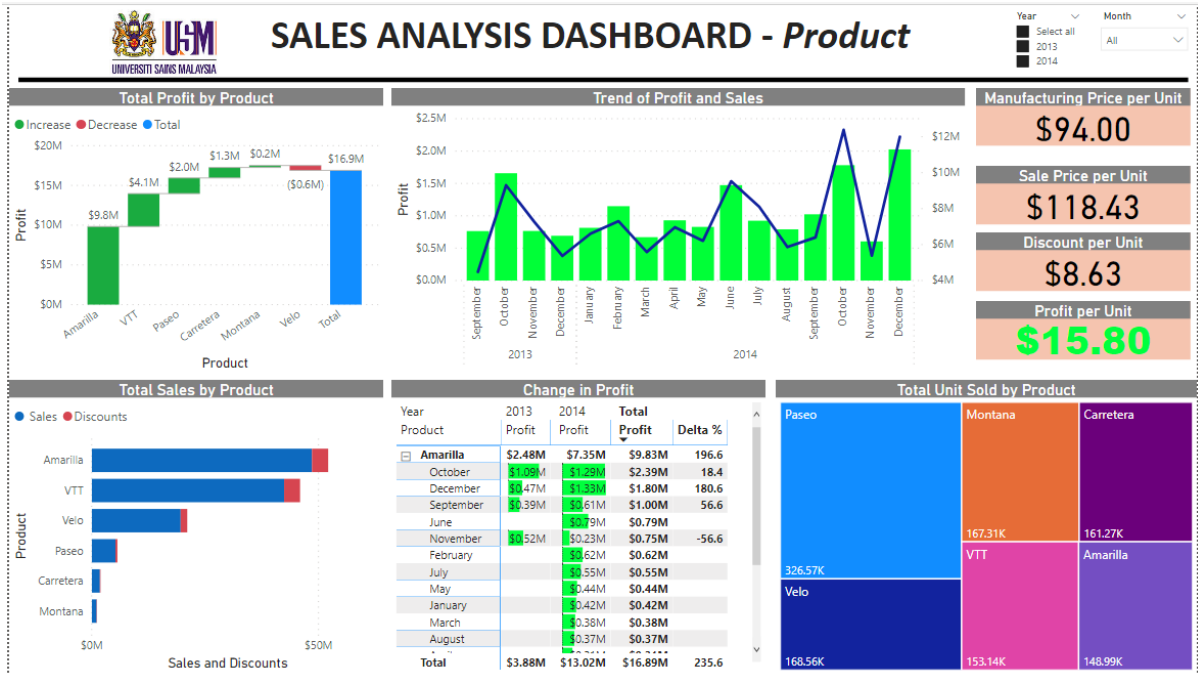
Assignment 01 – Descriptive Analytics

“Sales Analysis Dashboard”

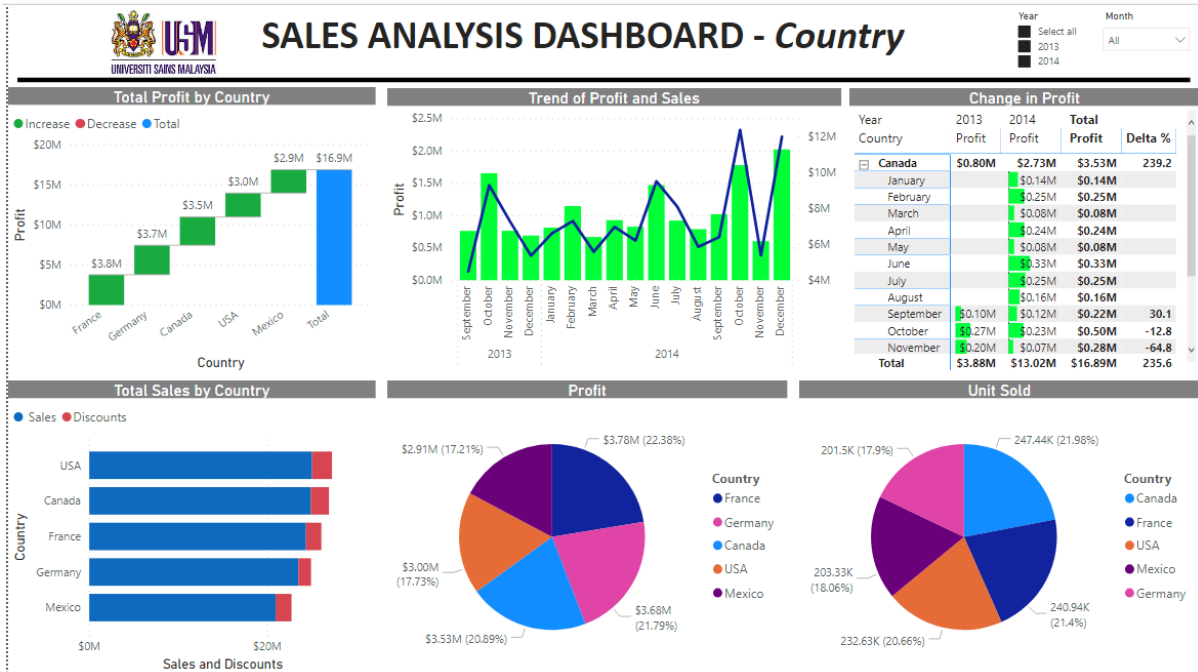
CHAN HUAN YANG

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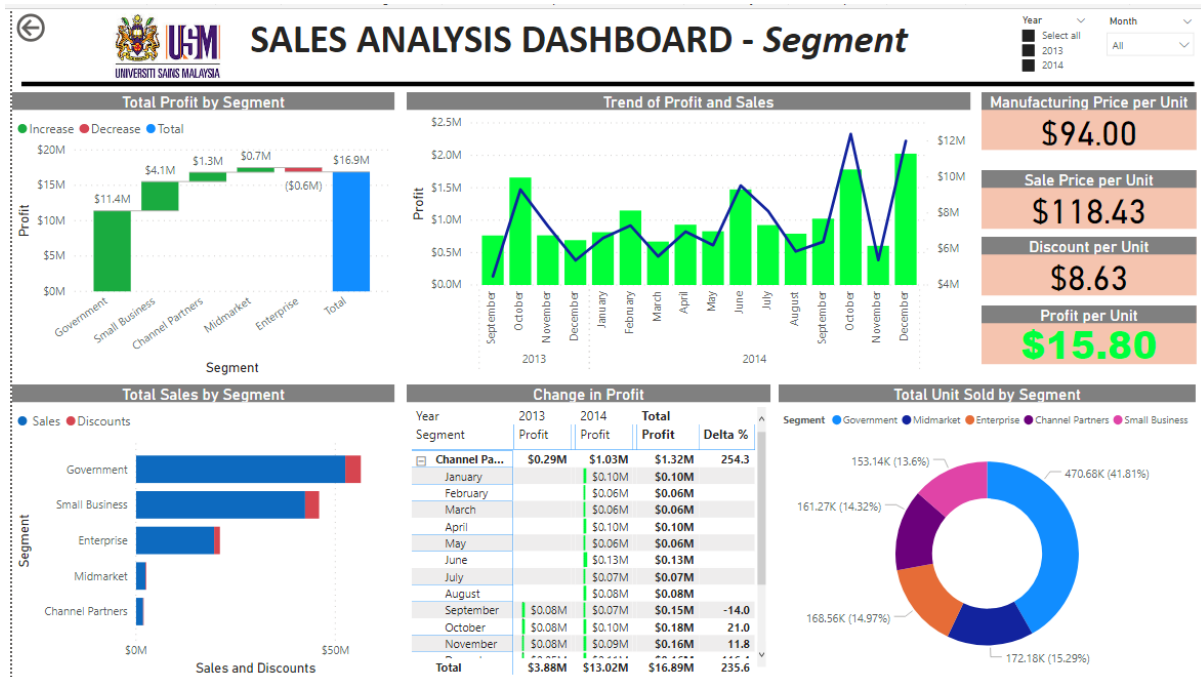
1. Page 1: Visualize unit sold, gross sales, discounts, sales, cost of goods sold (COGS), and profit, based on product type.



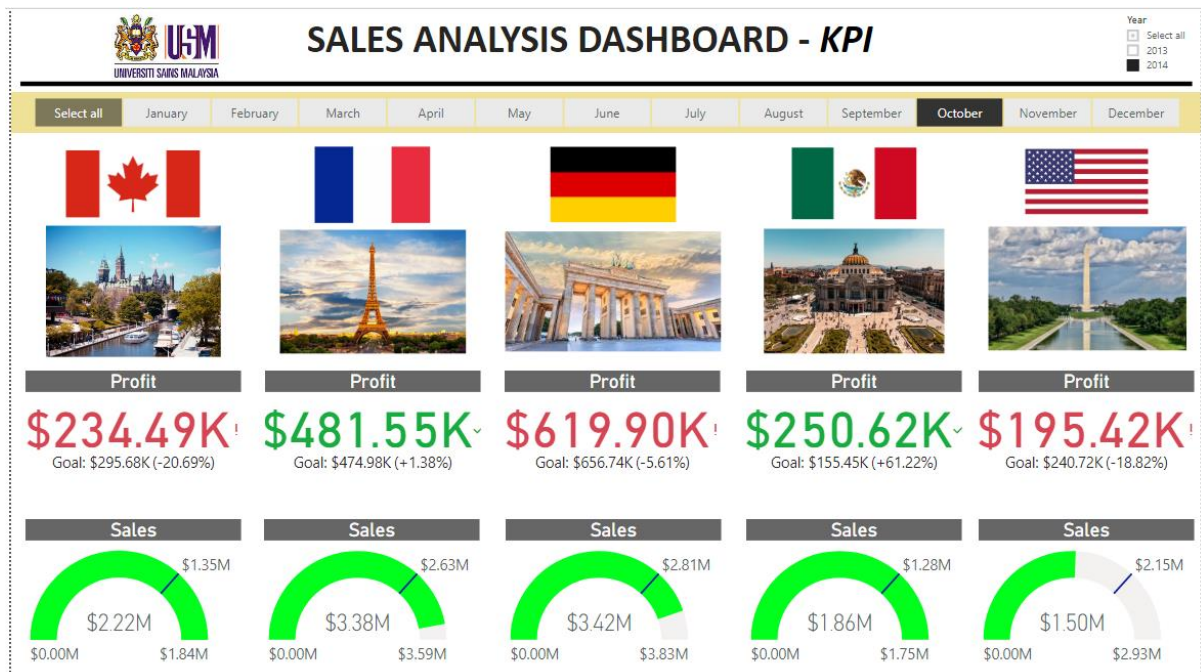
2. Page 2: Visualize unit sold, gross sales, discounts, sales, cost of goods sold (COGS), and profit, based on the country.



3. Page 3: Visualize unit sold, gross sales, discounts, sales, cost of goods sold (COGS), and profit, based on the segment.

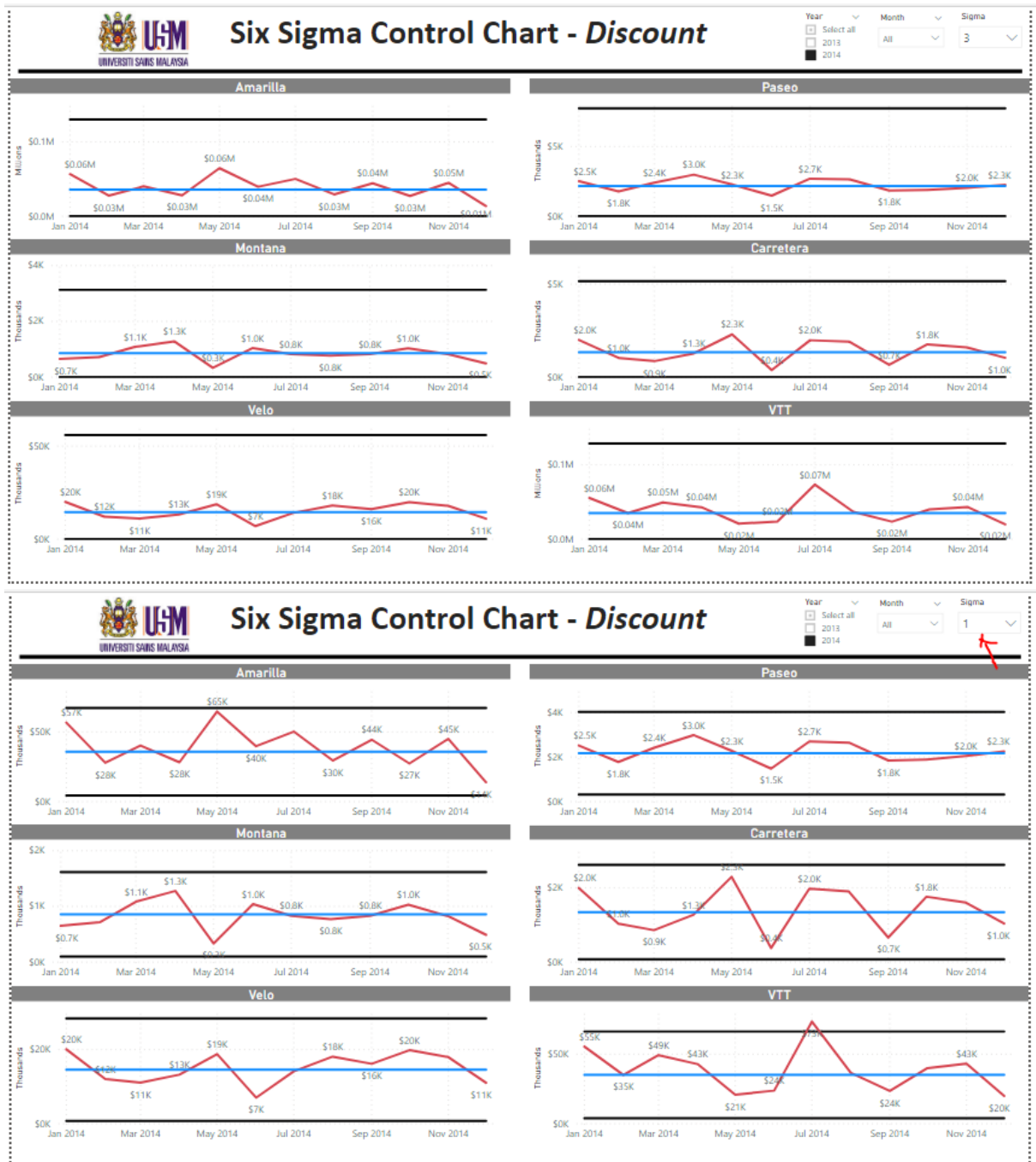


4. Page 4: Create the year 2014 Sales KPI for each country. The goal shall be based on the year 2013 sales + 10% increment.



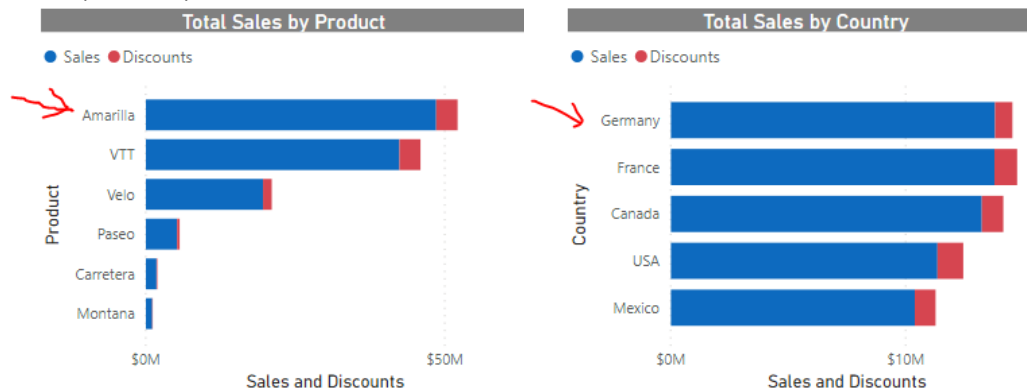
5. Page 5: By using Six Sigma Control Chart, identify which product's discount is out of the specification for year 2014.

Answer : With ± 3 sigma as our control limit, there is no out-of-spec for year 2014. However if we reduce our control limit to only ± 1 sigma, product VTT was out-of-spec in July 2014.



6. Identify which product is having the highest sales and which country is having the lowest sales. Explain your answer.

Answer : By checking at the stacked bar chart (Total Sales by Product) in Page 1, we can identify that Amarilla has the highest sales (\$ 48.6M). Meanwhile by checking at the stacked bar chart (Total Sales by Country) in Page 2, we can identify that Germany has the highest sales (\$ 13.8M).



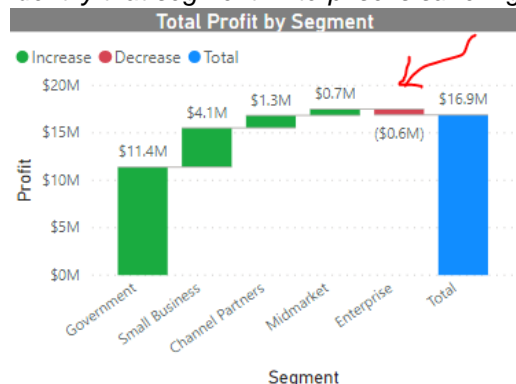
7. Identify which country is having the highest increment of profit (in percentage) in year 2014 from year 2013. Explain your answer.

Answer : By checking at the matrix (Change in Profit) in Page 2, we can identify that France has the highest increment of profit (+74.7%) in year 2014 from year 2013 when we are only comparing months from September to December. Profit data not available for the period before the September 2013.

Change in Profit				
Year	2013	2014	Total	
Country	Profit	Profit	Profit	Delta %
Canada	\$0.80M	\$1.18M	\$1.99M	47.0
France	\$0.81M	\$1.42M	\$2.23M	74.7
Germany	\$1.12M	\$1.32M	\$2.43M	17.7
Mexico	\$0.59M	\$0.78M	\$1.37M	31.3
USA	\$0.55M	\$0.74M	\$1.29M	34.3
Total	\$3.88M	\$5.44M	\$9.31M	40.1

8. Identify which segment suffer a loss. Explain your answer.

Answer : By checking at the waterfall chart (Total Profit by Segment) in Page 3, we can identify that segment Enterprise is suffering a loss of about \$ 0.6M.



9. By performing adjustment on the parameter below, try to boost up the profit by 10%-12% based on 2014 profit:

- Unit sold on specific countries. You may choose one or more countries for the unit sold adjustment. The adjustment must be rounded to nearest integer (i.e. you shall not have 1234.56 unit sold) and within 25% of total unit sold standardized across the selected countries.

Answer : By playing with the slicer in Page 6, we can boast the profit by 10.85% by increasing the unit sold across all country by 7%.

