# AYANGBILE DANIEL BAYO

Lagos, Nigeria.

danielayangbile@gmail.com || +234-08168964624

www.github.com/DanielBayo

Business Problems:

Adventure Works Cycles is a large and rapidly growing multinational manufacturer and seller of bicycles and accessories to commercial markets. In order to evaluate the company's performance, their current marketing strategy's effectiveness and to identify areas for marketing process improvement. The managements want their Sales team and regional managers have visibility to their sales performance report amongst other things without having to see the report of the other region and to have answers to the following questions.

- How is the business revenue generated and what is the company's performance and trend year over year?
- How did each products performed and hence what are the products in the inventory that are not performing well?
- To provide sales team information about customers' profiles and preferences especially for customer targeting.
- To dynamically segment and understand the customers behaviors and actionable tips.
- To understand the return rate of the products based on geographical location and product category
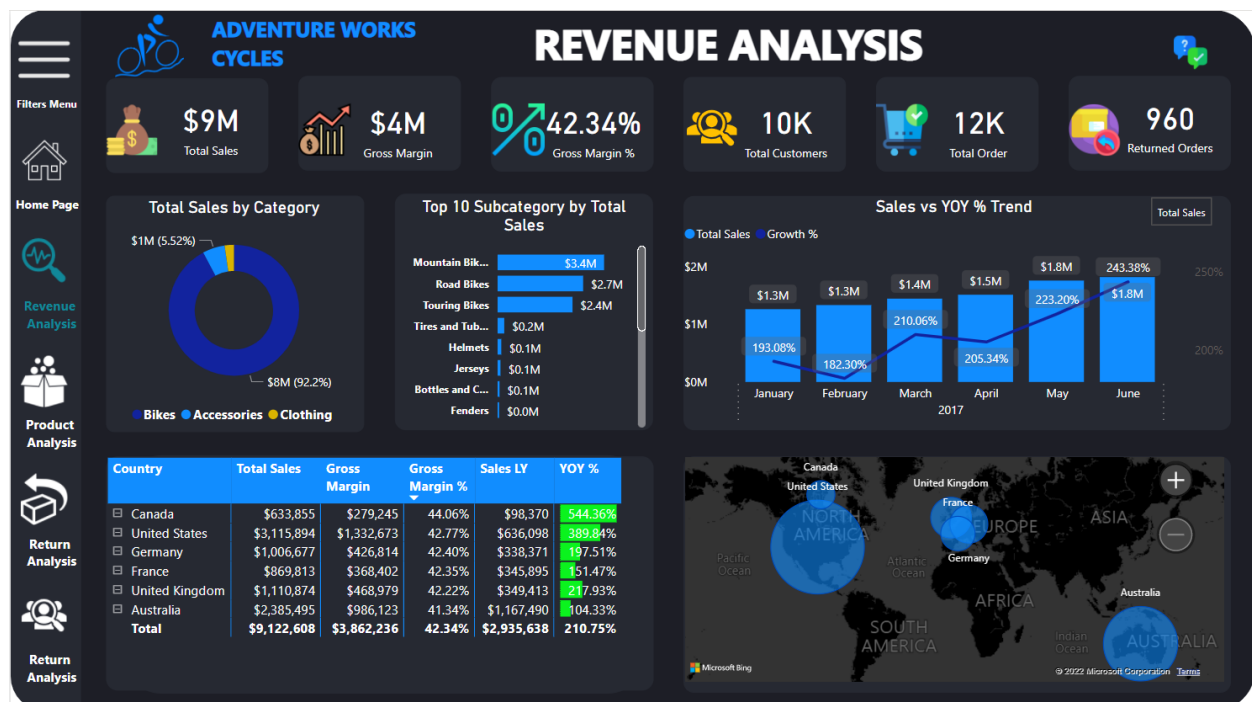
Data, Data Preprocessing, Modelling and Data Visualization:

The dataset is called Adventure works and is provided on Kaggle for public use. The link to the dataset is shown below:

https://www.kaggle.com/ukveteran/adventure-works?select=AdventureWorks_Customers.csv.

Microsoft power BI was adopted to solve these problems. The data was imported and first transformed in the power query, for instance the yearly sales were in separate files and needed to be appended. Additional columns were also created on the date table such as Month, month name, year etc. After making necessary transformation the data was modelled using by connecting the dimension tables to the facts table in other to form a star schema. The data was then analyzed and visualized to address the business problems.

Please see each of the figures to further understand the analysis.
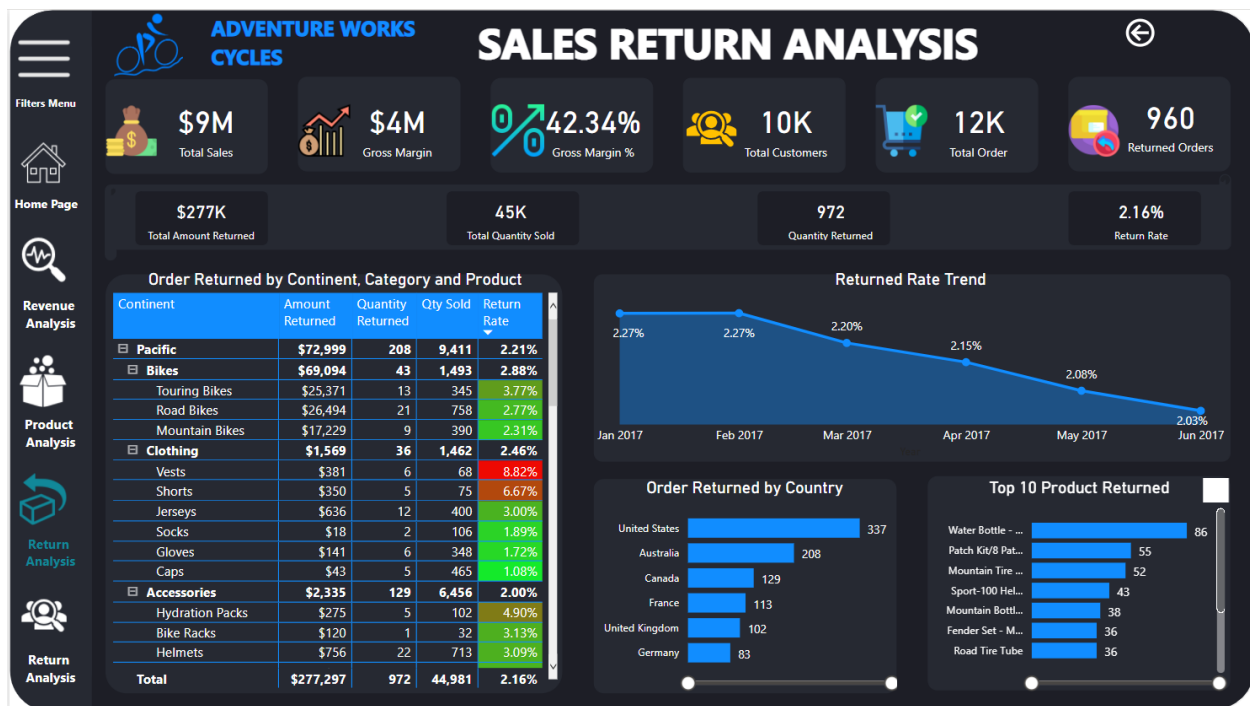
KEY INSIGHTS

- The Total Revenue generated in the first half of FY17 was **$9,122,607**, with a year-over-year growth of **211%** compared to the previous year.
- **92%** of the Total Revenue generated is from **Bike category**. With a year-over-year growth of over **186%** Bike category has improved in sales compared to the previous year.
- The **USA** is the highest performing country with more profitable sales recorded from the northeast and southern part of the country. Though USA contributes the highest sales, the gross margin is **1.43%** lower than Australia.
  - Monthly revenue increased by **44.11%** and trended up between January and June 2017 and is forecasted to have grown between **$2.5M** and **$2.6M** by December of FY17 from the current month.
  - Though most of the revenue were from the Bikes category however the **Accessories** category with a **gross margin percentage** of **63%** is more profitable than the **Bikes** category with **gross margin %** of **41%**

- Based on the product ranking by their profitability (gross margin %), **Accessories** and **Clothing** products are at the Top 10 products that are more profitable. The top 10 least profitable products were also from the **Clothing** product category.
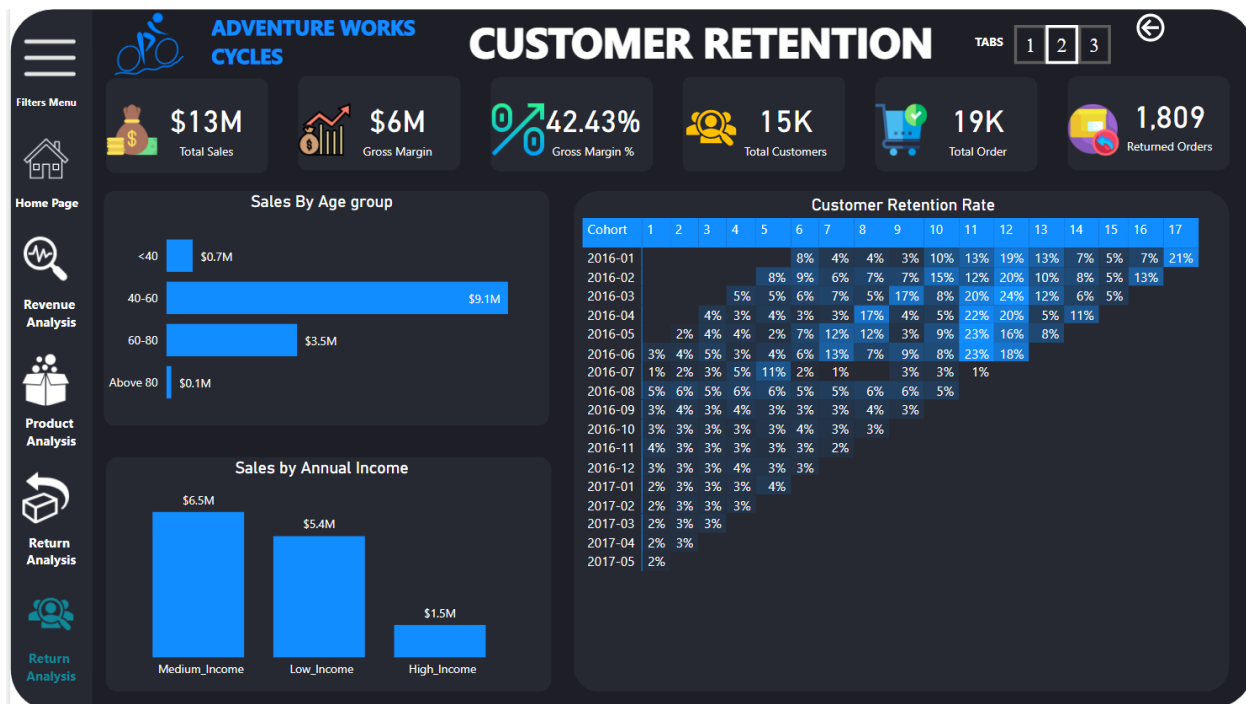
- There are **293** products in the company's inventory, **191** of these products have not been sold before and of which **132** of these products are from the **Components** category, which have never been sold before.
- Products in the **Accessories category** with gross margin percentage of **63%** are more profitable than products in the **Bikes category** contributed to **93%** of the Total revenue in FY17
- Customers within the age of **40-80 years** with **bachelor's degree** or **Partial College level of education**, who are **Professionals** or **skilled Manually** earning at most **$100,000** with **2** or a smaller number of children either **male** or **female** that owns a house are more likely to buy the company's products.
- Customers who bought Bikes are more likely to return to buy between 10 to 13 months after their first purchase
- There are a total of **17,293** customers, **36.5%** (6,312) are **new customers, 29.8%** (5,160) are **Promising Customers** and **24.6%** (4,262) are **Champions.**
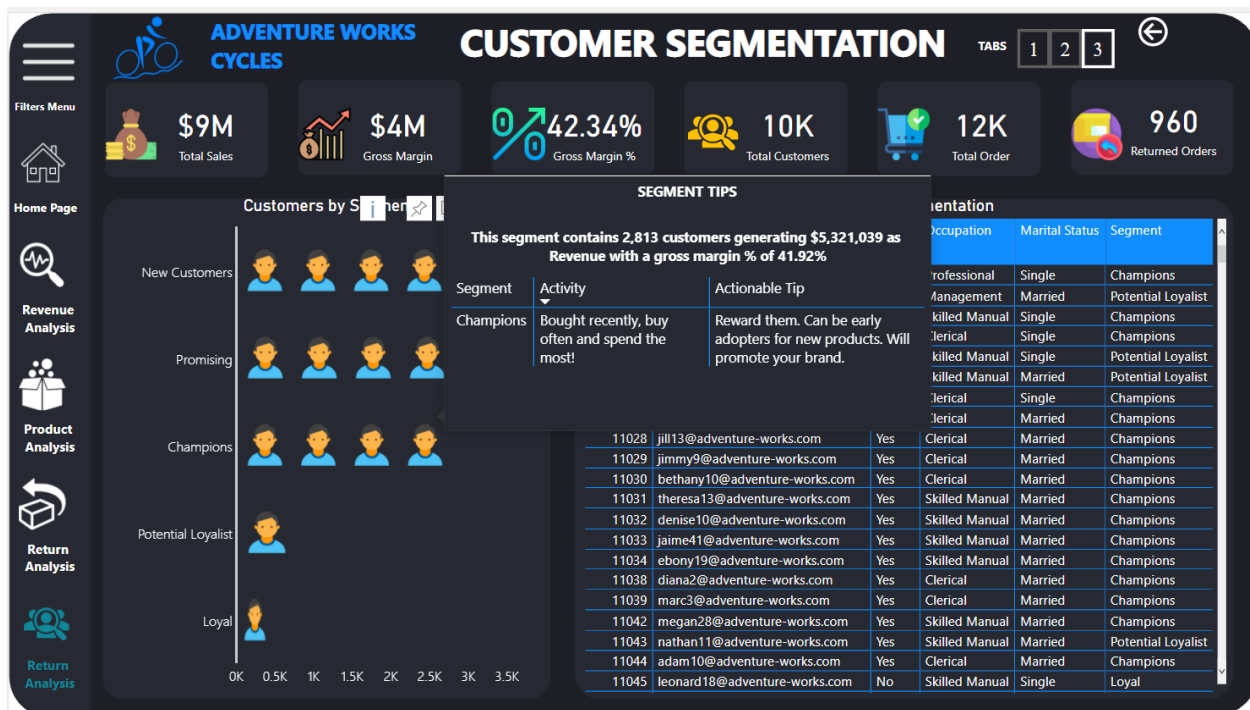
Conclusions and Recommendations:

The following conclusions were drawn:

- There is a growing trend in the revenue generated over time with a tremendous year over year growth. Majority of the company revenue is generated from the sales of Bikes with US as the country with the highest revenue generated followed by Australia. Accessories are more profitable than other product categories.
- Although Bikes category contributes to the larger shares of the revenue generated, products in accessories and clothing categories are more profitable and hence the top performing categories based on profit margin. Products in components category have never been sold.
- Majority of the customers that purchased our products bachelor's degree holder within the age of 40 to 80 years who are without children and are professionals with their own house. They are low or middle annual income earners. Larger percentage of our customers are new customers and Customers that purchased bikes are more likely to return a year after their first purchase.
- Return rate is higher in January to March (Q1) compared to other months in both FY116 and FY17, Shorts and Vests subcategories are returned the most in Europe and Pacific continent. There are more returns in USA and Australia and with France with the highest return rate. Water Bottle – 30 Oz., Patch kits/8 patches and Mountain Tire Tubes are the top 3 products returned.

The following are recommended for adventure works company,

- Instead of spending resources trying to gain new customers, the company should focus on upselling or cross-selling current customers. This is significantly more effective and cost-efficient as the current customers are already acquainted with the products and are therefore more likely to purchase. A customer appreciation gesture such as special discounts will lead past customers and to their next purchase.

- Customer engagement and loyalty to the company should be prioritized.
- A market basket analysis should be conducted to know complementary products and which product to discount to drive the sales of the other
- Focus should be on United States, Australia and United Kingdom
- Focus should be on Bikes as larger percent of the revenue comes from this category.
- Effective marketing Strategy should be used to drive the sales of most of the products without sales. Based on a strategic plan develop targeted promotions to hit specific customers with ad messages and promotional offers.
- Leverage on varieties of marketing strategies and channels to get your product noticed.
- Regularly review the company inventory to identify redundant products and products with high return rate.

You can find other projects I have worked on here
LinkedIn Profile is here