

DOMAIN: RETAIL AND SALES

BUDGET SALES ANALYSIS

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PROBLEM STATEMENT

Our "Domain Sale" process is structured to help potential buyers purchase the domain they want immediately without the hassle of contacting the seller directly. A seller lists a domain for sale at a specific price in our Marketplace. An interested buyer sees this domain for sale and decides to buy it.



OBJECTIVE

- Perform EDA (Exploratory Data Analysis).
- Find key metrics and factors and show the meaningful relationships between attributes.
- Use Power BI for making the dashboard.

GIVEN

- Calendar Data set
- Territory Dataset
- Sales Data set
- Customer Data set

TOOLS USED

Python and Power BI

- Upon conducting a detailed analysis of our sales performance for the year 2016, comparing it against the budget allocated for the same period.
- Budget for 2016: \$17,000,000
- Actual Sales for 2016: \$16,470,000
- Variance for 2016: -\$395,960
- **Interpretation:** The variance indicates that our actual sales fell short of the budgeted target by \$395,960. This negative variance suggests that our sales performance was below expectations for the year.
- Given the Sales and Unit Sold, I could calculate the Total Revenue and Total Profit.
- Total Sales(2014-2016): 29.3M
- Total Revenue: 45.98M
- Total Profit: 18.90M
- The **highest** Sales, revenue and profit generated over time is the month of **June**.
- The highest sales generated regionally was found in **United States by 9.4M** followed by **Australia by 9.1M**.

- The top 5 Regions were Highest Revenue were generated is:
 - **Australia**
 - **Southwest**
 - **Northwest**
 - **UK**
 - **Germany**
- My analysis indicates that the average purchasing behaviour of our customers peaks during the month of **June**.
- A significant portion of our sales is attributed to **married couples**. This demographic appears to be our most active and valuable customer segment, contributing the majority of our sales as the Yearly income of the Married couples is **greater** than the Single Person.

- The majority of our products sold belong to the Accessories category. This indicates strong customer interest and demand in this category.
- Bikes generate the majority of our sales. This product category has been particularly successful in driving revenue, especially in the North American market.
- Most of the budget for 2016 was allocated towards Bikes. This strategic investment reflects our focus on maximizing sales from this high-performing category.
- The unit price of our bikes is higher than the unit cost, ensuring a positive margin and contributing to overall profitability.

KEY POINTS

insights

PYTHON



As part of my data analysis efforts, I conducted a comprehensive Exploratory Data Analysis (EDA) on the provided dataset, which contained multiple sheets of different categories. Each category was separated and saved as individual CSV files for detailed analysis.

Data Cleaning:

- Checked for Null Values: Identified and handled missing values to ensure data integrity.
- Removed Duplicate Values: Ensured that the dataset was free of duplicate entries to avoid skewed analysis results.

The screenshot shows a Jupyter Notebook interface with the title "Budget Sales Analytics.ipynb". The notebook contains sections for "EXPLORARTORY DATA ANALYSIS", "CUSTOMER DATA SET", "PRODUCT DATA SET", "TERRITORY DATA SET", and "SALES DATA SET". A "Table of contents" sidebar is visible on the left. The "SALES DATA SET" section is currently active. The code cell below contains imports for pandas, numpy, matplotlib.pyplot, seaborn, datetime, chardet, and warnings, along with a warning suppression line. The code cell itself starts with reading a CSV file named "Territory.csv".

```
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
import datetime as dt
import chardet
plt.style.use("seaborn-v0_8-whitegrid")
import warnings
warnings.filterwarnings('ignore')

[ ] territory= pd.read_csv("/content/Territory.csv")
```

Analysis

2014

2015

2016

Product Analysis

Sales 2016
47M

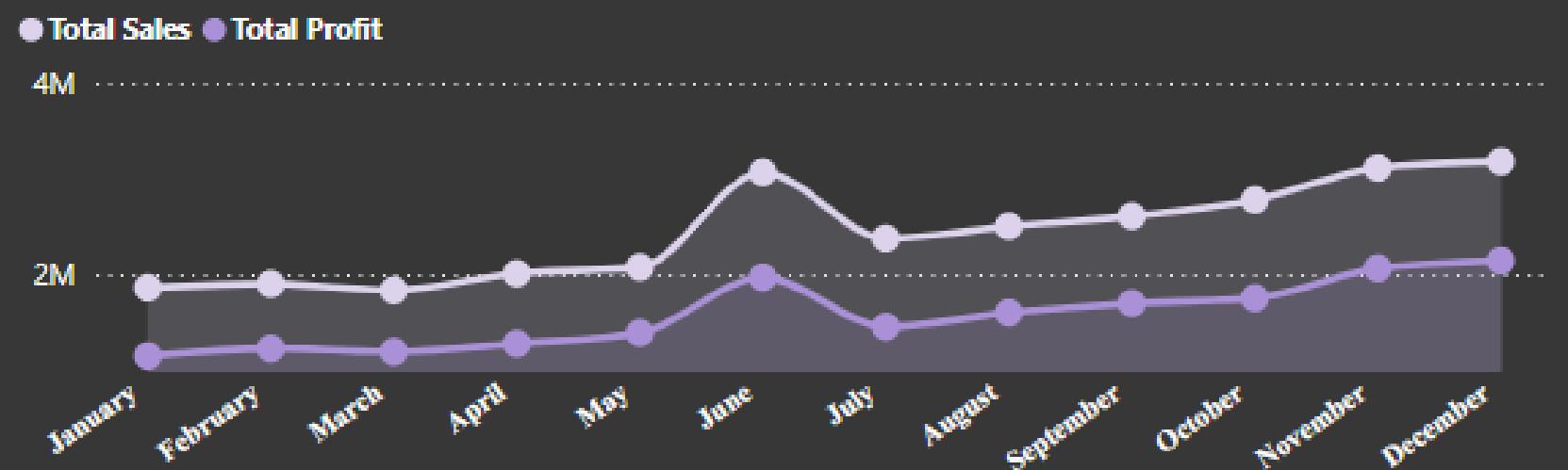
Variance 2016
-395.96K

Total Revenue
45.98M

Total Profit
29M

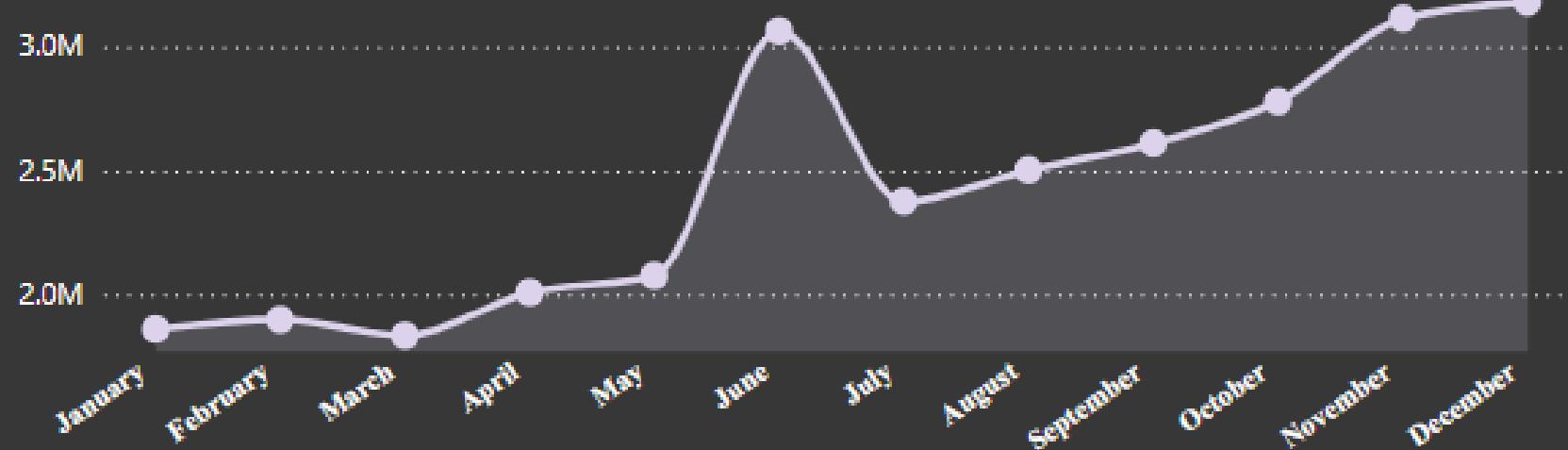


Total Revenue and Profit Over Time



POWER BI

Total Sales by Month





THANK YOU