

# **AMAZON SALES ANALYSIS PROJECT USING** **POWER BI**

## **Introduction**

Power BI is a powerful business analytics service by Microsoft that provides interactive visualizations and business intelligence capabilities with an interface simple enough for end-users to create their own reports and dashboards. It enables organizations to make data-driven decisions through comprehensive data visualization and analysis.

### **Key features of Power BI:**

- **Interactive Visualizations:** Create dynamic charts and graphs to gain a deeper understanding of data.
- **Business Intelligence:** Integrate and analyze data from multiple sources for informed decision-making.
- **Customizable Dashboards:** Tailor dashboards to meet specific organizational needs.
- **Real-Time Analytics:** Monitor data in real-time to stay updated with the latest trends.
- **Collaboration and Sharing:** Share reports and dashboards with team members and stakeholders for better collaboration.

In the sales domain, Power BI is extensively used to track and analyze sales metrics, providing insights into key functions such as sales projections, market distribution, customer profitability, and product performance.

## **Objectives**

The objective of this project is to create a Power BI dashboard using Amazon's sales data from 2012 to 2015. The specific inputs required are:

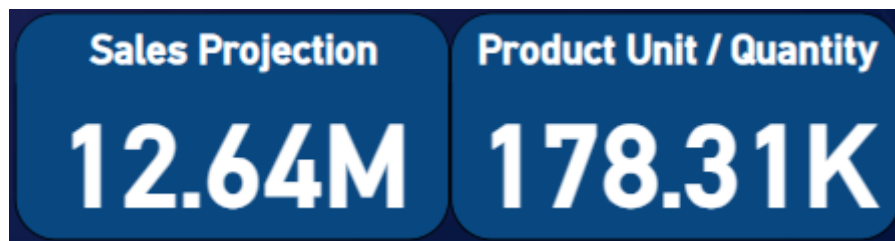
- Sales Projections
- Product Unit Quantities
- Sales by Segment
- Sales by Market
- Sales by Region

- Profit by Customer Name
- Loss by Product Name
- Profit by Product Name

## Insights Derived from the Dashboard

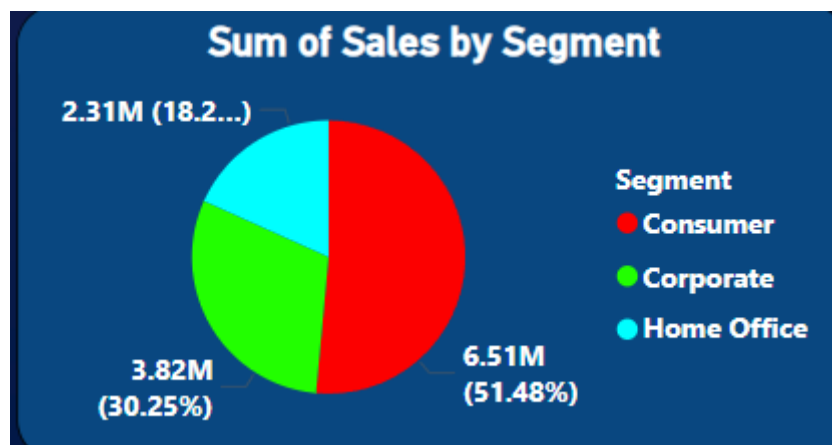
### Sales Projection and Product Unit Quantity

- **Sales Projection:** The dashboard displays a sales projection of 12.64M.
- **Product Unit Quantity:** The total product unit quantity sold is 178.31K.



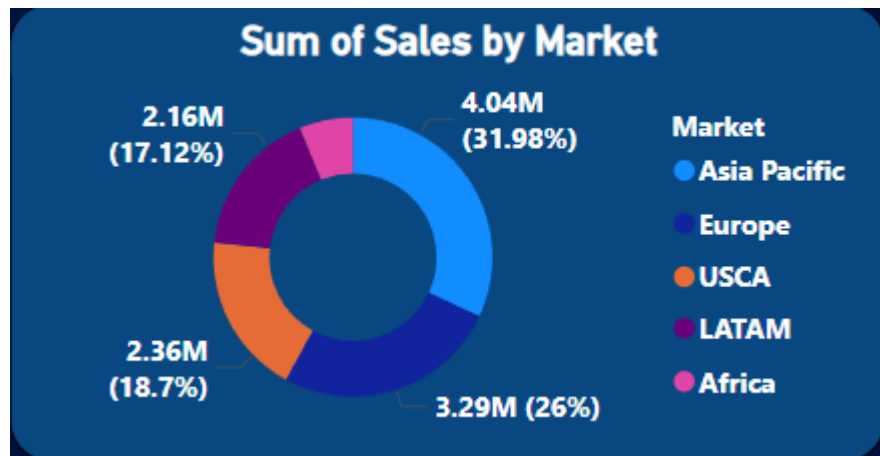
### Sales by Segment

- **Consumer:** 2.31M (18.2%)
- **Corporate:** 3.82M (30.25%)
- **Home Office:** 6.51M (51.48%)



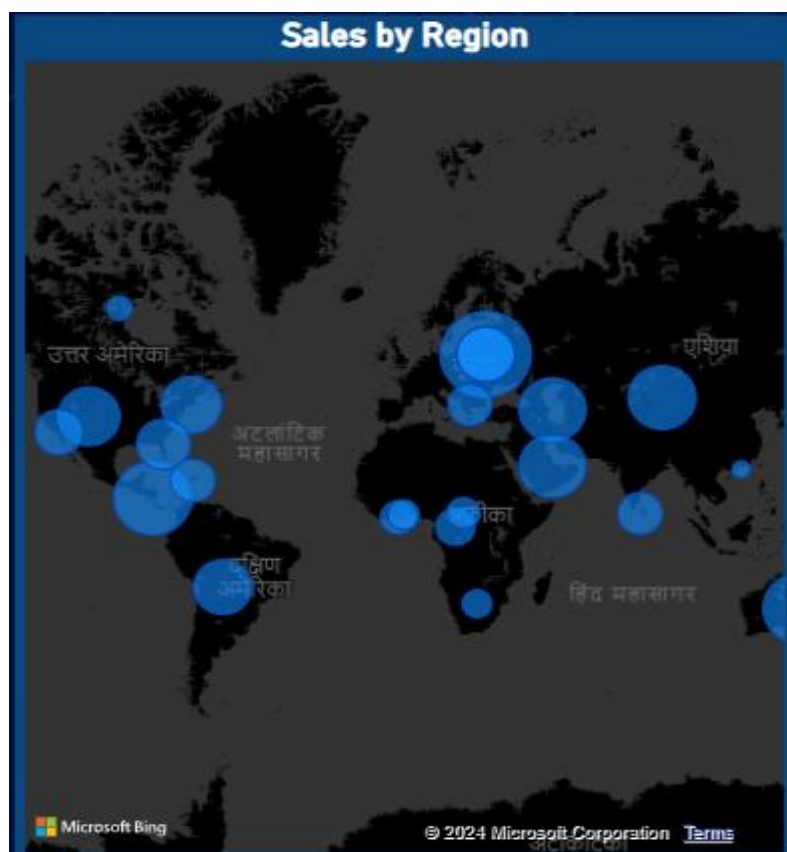
## Sales by Market

- **Asia Pacific:** 2.16M (17.12%)
- **Europe:** 4.04M (31.98%)
- **USCA:** 3.29M (26%)
- **LATAM:** 2.36M (18.7%)
- **Africa:** 1.79M (7%)



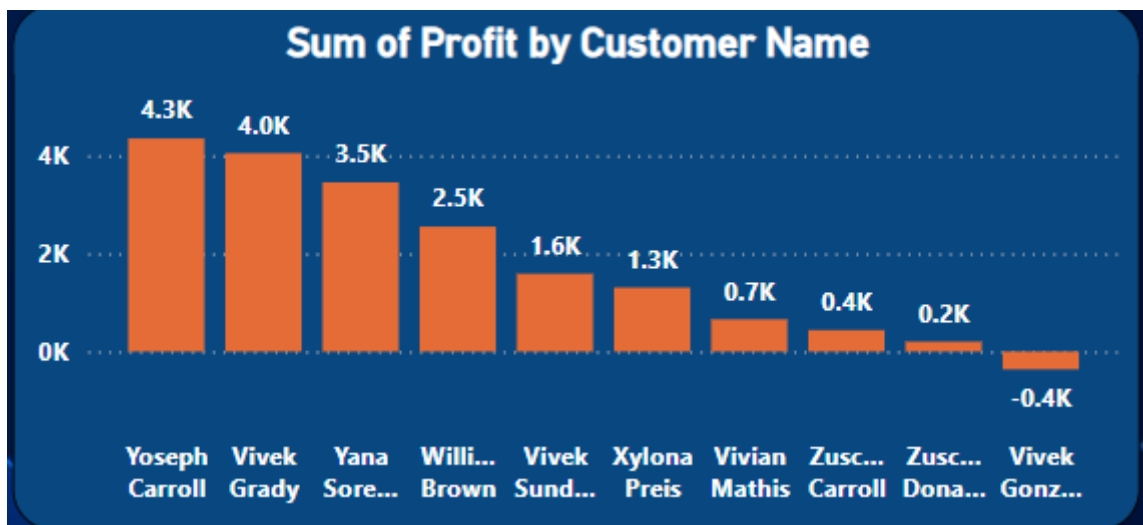
## Sales by Region

The map visualization shows the geographical distribution of sales across different regions, highlighting areas with the highest concentration of sales.



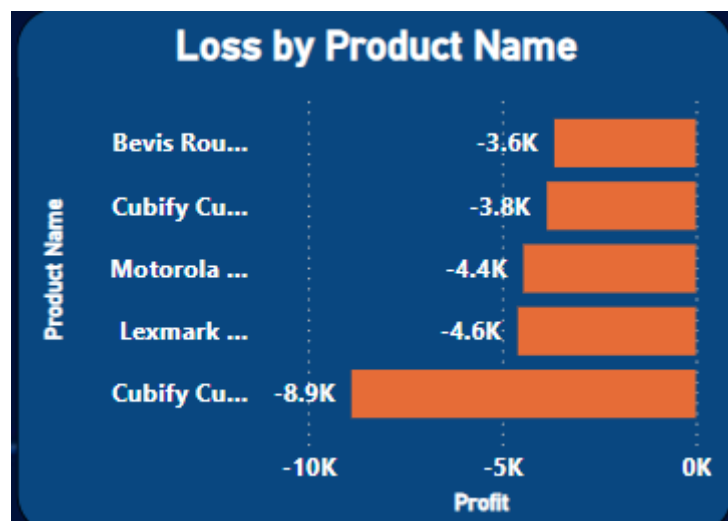
## Profit by Customer Name

- Yoseph Carroll: 4.3K
- Vivek Grady: 4.0K
- Yana Sore: 3.5K
- William Brown: 2.5K
- Vivek Sund: 1.6K
- etc



## Loss by Product Name

- Bevis Rou: -3.6K
- Cubify Cut: -3.8K
- Motorola: -4.4K
- Lexmark: -4.6K
- Cubify Cut (another entry): -8.9K



## Profit by Product Name

- **Canon Imaging:** 25K
- **Cisco Smart:** 17K
- **Motorola:** 17K
- **Hoover Steam:** 12K
- **Sauder Closet:** 11K



## Year-Wise Sales Analysis

The YOY Analysis page provides a detailed view of the sum of sales by year from 2012 to 2015. This visualization helps in understanding the sales trends over the years, allowing for better strategic planning and decision-making.

# DETAILED PROJECT REPORT

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## Sales Dashboard

### Sales Projection and Product Unit Quantity:

- The dashboard showcases a sales projection of 12.64M and a product unit quantity of 178.31K for the period from 2012 to 2015.

### Sales by Segment:

- The sales are divided into three segments: Consumer, Corporate, and Home Office. The Home Office segment has the highest sales at 6.51M, followed by Corporate at 3.82M and Consumer at 2.31M.

### Sales by Market:

- The market distribution indicates that Europe has the highest sales at 4.04M, followed by USCA at 3.29M, Asia Pacific at 2.16M, LATAM at 2.36M, and Africa at 1.79M.

### Sales by Region:

- The map visualization provides a geographical view of the sales distribution, with significant concentrations in North America, Europe, and parts of Asia.

### Profit by Customer Name:

- The top customers in terms of profit include Yoseph Carroll (4.3K), Vivek Grady (4.0K), and Yana Sore (3.5K).

### Loss by Product Name:

- Products with the highest losses include Bevis Rou (-3.6K), Cubify Cut (-3.8K), Motorola (-4.4K), and Lexmark (-4.6K).

### Profit by Product Name:

- The top-performing products in terms of profit are Canon Imaging (25K), Cisco Smart (17K), and Motorola (17K).

# **PROBLEM STATEMENTS AND SOLUTIONS**

## **1. What are the sales projections for the years 2012 to 2015?**

- **Solution:** The total sales projection for the period is 12.64M.

## **2. What is the quantity of product units sold in this period?**

- **Solution:** The total product unit quantity sold is 178.31K.

## **3. How are sales distributed across different segments and markets?**

- **Solution:** Sales are highest in the Home Office segment (6.51M) and Europe market (4.04M).

## **4. Who are the top customers in terms of profit?**

- **Solution:** Top customers include Yoseph Carroll (4.3K), Vivek Grady (4.0K), and Yana Sore (3.5K).

## **5. Which products are leading in profit and loss?**

- **Solution:** Leading products in profit are Canon Imaging (25K) and Cisco Smart (17K), while products with the highest losses include Bevis Rou (-3.6K) and Cubify Cut (-3.8K).

## **CONCLUSION**

The Amazon Sales Analysis project using Power BI offers valuable insights into Amazon's sales performance from 2012 to 2015. By analyzing key metrics such as sales projections, product unit quantities, segment sales, market distribution, and customer profitability, the project helps in identifying trends and patterns that inform strategic decisions. The detailed visualizations enable a clear understanding of sales dynamics, aiding in better planning and management of sales strategies. With the addition of the Year-Over-Year Analysis, the organization can track changes and trends over time, further enhancing its ability to make data-driven decisions.