

# **Sales Analysis Dashboard Report**

**Data warehousing**

**Bhuvan Mysore Sridhar**

**A20572490**

## **Introduction**

The Sales Analysis Dashboard delivers complete information about sales metrics together with customer groups and product pattern data and regional money movements. The dashboard that uses Power BI visualization allows businesses to detect revenue growth determinants and enhance their sales strategies. The system functions to assist in data-based decision making through interactive data presentations which deliver understandable insights to users.

### **Objective**

The main purpose of this dashboard serves three key functions:

- Complete examination of product sales performance in relation to financial goals exists as a primary dashboard objective.
- The system provides identification capabilities for both leading products and important customer accounts.
- The evaluation of monthly sales patterns and geographic area revenue distribution is necessary through this dashboard.
- This dashboard exists to transform collected data into specific recommendations that enhance marketing resource allocation as well as marketing strategy optimization.

Data Source : The data has been taken from Microsoft Adventure Works for analysis.

## **Data Overview**

The dataset used for this analysis is structured across multiple dimensions:

1. Product Details: Includes product category, name, and monthly sales data.
2. Customer Details: Contains customer city, name, and revenue contribution.
3. Geographic Distribution: Segments sales by regions (North America, Europe, Australia).
4. Budget Comparison: Tracks actual sales against budgeted targets.

### **Key metrics analyzed include:**

- Total Sales: \$22,239.73K across all categories.

- Budget Amount: \$21,100K (exceeded by \$1,139.73K).
- Mountain Bikes reign supreme in sales figures due to their product models exceeding \$1.3 million each independently.
- The customer who spends most at Dominator Emporium is Jordan Turner with purchases totaling \$16K.
- Monthly Trends: Sales peak in Q4 (October–December).

## Key Insights

### Total Sales vs. Budget

- Product categories performed successfully while total sales surpassed their budget requirements by about \$1.14M.
- Yearly data reveals regular sales growth patterns starting from January through a substantial spike of purchases during Q4 holiday shopping.

### Product Performance

- The biking segment of Specialized.com generates 95.32% of total revenue which amounts to \$21.20M while both Accessories and Clothing contribute 3.15% and 1.53% respectively.
- The Mountain-200 bike claims the position of top seller and accounts for \$1.4M in revenue while various Mountain Bike models round out the rest of the market leader viewpoint.

### Customer Contribution

- Jordan Turner generates the most revenue for the company through his total purchases of \$16K.
- The payment records show Maurice Shan purchased \$13K worth of merchandise while Janet Munoz spent \$12K on their purchases along with other select valuable customers.

### Geographic Distribution

- North America reaches the highest revenue amounts in the market which Europe and Australia follow.
- New York City along with Los Angeles forms a strong regional base alongside London and Sydney which drive sales for the company across these areas.

### Monthly Sales Trends

- The company maintains a steady sales pattern throughout each quarter which reaches its peak point in Q4 due to seasonal holiday buying patterns.
- December makes \$2.49M worth of sales while standing as the most profitable month throughout the year.

## **Business Implications**

### Product Strategy

- The company should direct its marketing strategy toward products with strong market demand starting with Mountain Bikes because this approach increases revenue.
- The company should research ways to combine Accessories and Clothing products together in order to boost their contribution to total revenue.

### Customer Engagement

- The business needs to develop loyalty programs which specifically target high-value customers including Jordan Turner and Maurice Shan for retention purposes.
- The company needs to create custom offers for standard clients to boost their purchase amounts.

### Geographic Expansion

- The company should intensify its marketing activities in New York and London while investigating business possibilities in areas that generate low sales numbers.
- Marketers should develop promotional messages by analyzing customer purchasing patterns to find regional buying preferences in separate areas.

### Seasonal Promotions

- The fourth-quarter holiday shopping behavior requires early promotional strategies which should include bundle offers.
- The company should optimize its inventory management during peak months of October through December to prevent running out of stock.

### Budget Optimization

- Actual sales need ongoing monitoring against budget targets in order to improve forecasting models.

- During peak seasons organizations should distribute their resources wisely to achieve the highest possible returns on investment.

### **Why Power BI Is the Best Tool for Visualization**

The Power BI tool received selection as the visualization option due to its sophisticated functionality which aligns perfectly for analyzing intricate datasets.

Ease of Use:

The platform of Power BI provides users with an easy-to-use interface to create interactive dashboards even when they lack in-depth technical background.

Dynamic Visualizations:

The tool includes numerous customizable visual elements consisting of charts and graphs and maps and KPIs which display data findings with enhanced aesthetics.

Data Integration:

Power BI links up with Excel together with SQL databases and cloud services as well as APIs to allow users to conduct complete multi-dimensional data analysis projects.

Real-Time Analytics:

Real-time data updates are supported through the platform which enables businesses to track performance metrics in real time for making immediate decisions.

Advanced Features:

The drill-down feature along with filters and slicers along with AI-powered analytics enable users to explore data trends more extensively.

Scalability:

Large datasets process efficiently within Power BI platform while it ensures quick performance for visualization output.

Collaboration Tools:

Power BI offers simple sharing tools for dashboards which enable teams to work together including direct links and dashboard embedding within applications such as Microsoft Teams and SharePoint.

Cost Efficiency:

Power BI maintains competitive pricing structures against Tableau and QlikView platforms as it provides complete functionality to its users.

Power BI provides businesses with tools to obtain valuable insights from their data while guaranteeing flexibility and scalability for prospects of expansion.

## **Conclusion**

Total sales in the Sales Analysis Dashboard show superior numbers when exceeding budget targets by \$1.14M. Product data shows Mountain Bikes drive maximum revenue streams but strategic marketing towards Accessories and Clothing has potential to increase sales numbers.

Jordan Turner and similar high-profit customers make major contributions to overall revenue so businesses must use personalized strategies to hold onto their premium customers and develop strategies to maintain mid-range customer retention.

North America emerges as the key revenue source per geographic analysis while investigators detect promising expansion areas beyond the region.

Power BI provides the optimal visual solution for dashboard installation because its interactive capabilities allow businesses to maintain constant metric monitoring and strategic plan improvement leading to sustainable success.