

## 1. Project Overview

**Project Name:** Power BI Sales Dashboard for Bicycle Company

### Objective:

The primary goal of this project was to develop an interactive Power BI dashboard that enables [Bicycle Company Name] to monitor and analyse its sales performance. The dashboard was designed to provide detailed insights into key metrics such as total sales, profit, sales trends, and customer behaviour, helping the company make data-driven decisions to enhance its sales strategy and operational efficiency.

## 2. Key Objectives Achieved

### 2.1 Total Sales Amount

- **Objective:** Calculate and visualize the total sales amount across all transactions.
- **Outcome:** The total sales amount was aggregated and displayed in the dashboard, providing a clear understanding of the overall revenue generated by the company during the specified period.

### 2.2 Total Sum of Profit

- **Objective:** Determine the total sum of profit by subtracting costs from sales revenue.
- **Outcome:** The dashboard features a visual representation of the total profit, allowing the company to assess its profitability and make informed financial decisions.

### 2.3 Profit Percentage

- **Objective:** Calculate the profit percentage to evaluate the company's profit margins.
- **Outcome:** Profit percentage was calculated and displayed, offering insights into the company's profitability relative to its sales revenue.

### 2.4 Total Units Sold

- **Objective:** Sum the total number of units sold across all product categories.
- **Outcome:** The total units sold were calculated and visualized, helping the company track sales volume and plan inventory accordingly.

### 2.5 Monthly Profit Analysis

- **Objective:** Analyze profit on a month-wise basis to identify trends and seasonal variations.

- **Outcome:** Monthly profit trends were visualized, revealing patterns in profitability over time and allowing the company to optimize its operations during peak and off-peak seasons.

## 2.6 Monthly Sales Analysis

- **Objective:** Analyze total sales on a month-wise basis to monitor revenue trends.
- **Outcome:** Monthly sales data were charted to show fluctuations in revenue, enabling the company to strategize marketing efforts during slower periods.

## 2.7 Sales by Country

- **Objective:** Analyze sales data by country to understand geographical performance.
- **Outcome:** Sales data were broken down by country, helping the company identify high-performing regions and tailor marketing strategies to different geographical markets.

## 2.8 Sales by Product Name

- **Objective:** Analyze sales data by individual product names to determine bestsellers and underperformers.
- **Outcome:** The dashboard displays sales figures for each product, providing insights into which products are driving revenue and which may need reevaluation.

## 2.9 Sales by Segment

- **Objective:** Segment sales data by customer demographics to identify the most profitable customer segments.
- **Outcome:** Sales data were segmented by factors such as age, gender, and income level, helping the company understand customer behavior and target marketing efforts more effectively.

## 2.10 Top 5 Customers by Sales Amount

- **Objective:** Identify the top 5 customers based on their total sales contribution.
- **Outcome:** The top 5 customers were highlighted in the dashboard, allowing the company to focus on maintaining and enhancing relationships with its most valuable clients.

## 3. Data Preparation and ETL Process

- **Data Extraction:** Sales, product, and customer data were extracted from the company's POS systems and other relevant sources.

- **Data Transformation:** Data was cleaned, merged, and transformed to calculate the necessary metrics such as total sales, profit, and units sold.
- **Data Loading:** The transformed data was loaded into Power BI to create interactive visualizations.

#### 4. Dashboard Design and Features

##### Dashboard Layout:

- **Sales Overview:** Provides a summary of total sales, profit, profit percentage, and units sold, giving a high-level view of the company's performance.
- **Monthly Analysis:** bar chart display profit and sales trends monthly,
- **Product Performance:** Bar charts show sales data by product name, allowing for quick identification of best-selling products.
- **Customer Segmentation:** Pie charts and bar charts display sales by customer segment, providing insights into which demographics contribute most to revenue.
- **Top Customers:** A ranked list or bar chart showcases the top 5 customers by sales amount, emphasizing key business relationships.

#### 5. Insights and Recommendations

- **Focus on High-Performing Regions:** Allocate more resources and marketing efforts to countries with the highest sales.
- **Optimize Inventory Management:** Align inventory levels with products that have high sales volumes, especially before peak seasons.
- **Enhance Customer Engagement:** Develop personalized strategies for the top 5 customers to increase loyalty and repeat business.
- **Seasonal Promotions:** Implement targeted promotions during months with historically lower sales to boost revenue.

#### 6. Conclusion

The Power BI Sales Dashboard effectively transforms raw sales data into actionable insights, providing [Bicycle Company Name] with a powerful tool to monitor its performance, optimize sales strategies, and improve overall business efficiency. The dashboard's interactive features enable continuous analysis and adaptation to changing market conditions.

## 7. Appendices

