Analysis Report : Nike Sales Analytics Dashboard

1. Project Overview

- **project Name :** Nike Sales Analytics Dashboard

- **Objective :** To analyze and consolidate Nike sales data into a structured analytical model and develop a multi-page Power BI dashboard that delivers actionable insights across executive performance, sales trends, product performance, regional contribution, customer segments, and profit leakage.

- **Dataset:** Nike Sales Dataset (CSV format). The dataset represents historical, transaction-level sales data covering products, regions, channels, customers, discounts, returns, and costs.

The primary goal of this project is to transform raw sales data into a decision-support system that enables stakeholders to monitor performance, identify inefficiencies, and optimize business strategies.

2. Dataset Summary

- **Rows / Columns:** Medium-sized transactional dataset suitable for Power BI analysis. The dataset comprised of 1 table with 2501 rows and 13 columns
- **Key Characteristics:**
    - Highly structured dataset ideal for a star schema model
    - Supports multi-dimensional analysis across time, product, region, channel, gender, and size
    - Enables both high-level summaries and detailed drill-down analysis

Data Cleaning & Preparation Steps

- Data type standardization for numeric, text, and date fields
- Handling Duplicate Records
- Filled missing values using **median** to avoid distortion from outliers.
- Negative Units_Sold values were treated as **Returns**.
- Creation of derived columns and measures for analysis
- Normalization into fact and dimension tables for performance optimization

3. Column-Wise Assessment Summary

- **Sales & Revenue Columns:** Revenue, Units Sold, Total Cost, and Profit values were validated for consistency and accuracy.
- **Discount Columns:** Discount and Average Discount fields were assessed to analyze pricing strategy and margin impact.
- **Returns Column:** Returns data enabled identification of high-return products and potential quality or expectation gaps.
- **Date Columns:** Date attributes were standardized and structured to support trend, seasonality, and year-over-year analysis.
- **Categorical Columns:** Product Line, Product Name, Region, Channel, Gender, and Size were cleaned and validated to ensure consistent categorization.

4. Data model Overview

- **Schema Type:** Star Schema

Tables

- **Fact Table:** Fact_Sales

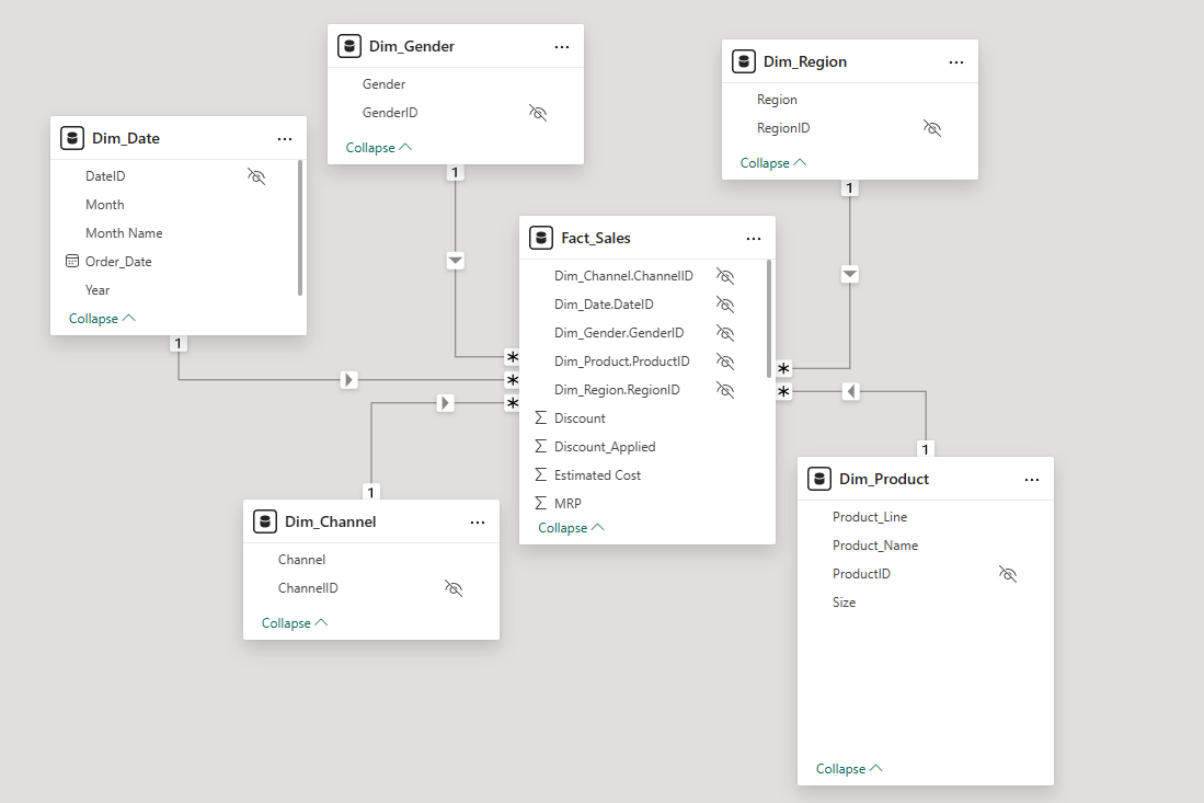
- **Dimension Tables:** Dim_Date, Dim_Product, Dim_Region, Dim_Channel, Dim_Gender

Relationships

- One-to-many relationships established between dimension tables and the fact table

- Single-directional cross-filtering applied to maintain performance and data integrity

Diagram:



Key Calculations

- **Measures:**
  - Total Revenue
  - Total Units Sold
  - Total Profit
  - Profit Margin %
  - Total Cost
  - Total Returns
  - Average Discount

These measures form the analytical foundation of all dashboard visuals.

5. Analysis & Insights

Sales & Revenue Trends

- Revenue shows seasonal variation with clear peak and low-performing months.
- Units sold do not always move proportionally with profit, highlighting pricing and discount effects.

Product Performance

- Basketball and Running product lines generate the highest profits.
- Certain products achieve high revenue but operate on lower margins due to aggressive discounting.

Regional Performance

- Mumbai and Bangalore emerge as top revenue-contributing regions.
- Some regions show strong revenue but relatively lower profit margins, indicating higher costs or discount pressure.

Channel Performance

- Retail channel contributes higher overall profit compared to online.
- Online channel shows strong revenue volume but relatively lower margins.

Discounts & Profit Leakage

- Higher discounts are associated with reduced profit margins.
- Certain products experience high return rates, contributing to cost escalation and margin erosion.

6. Conclusions

The analysis successfully converts raw Nike sales data into a structured and insight-driven analytics solution. The dashboard highlights clear revenue drivers, exposes margin pressures, and reveals operational inefficiencies related to discounts and returns.

Key conclusions include:

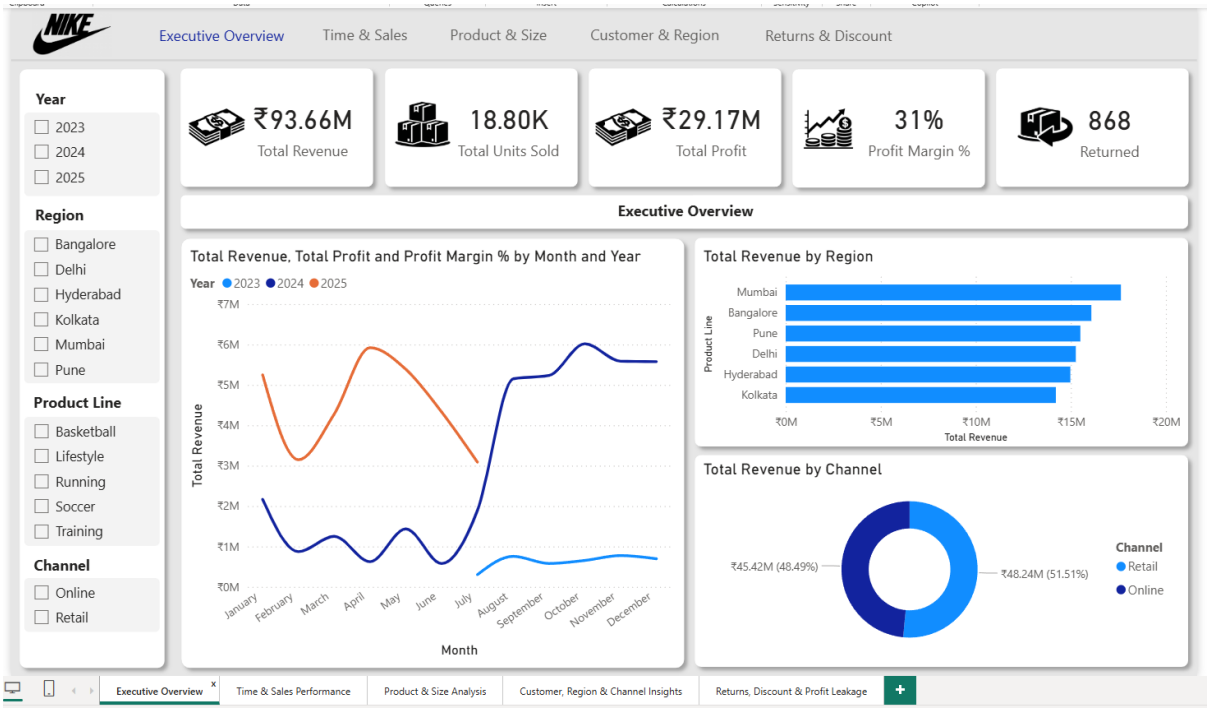
- Revenue growth is uneven across products, regions, and channels.
- Profitability is significantly influenced by discounting strategies.
- Returns and costs represent major sources of profit leakage.

7. Recommendations

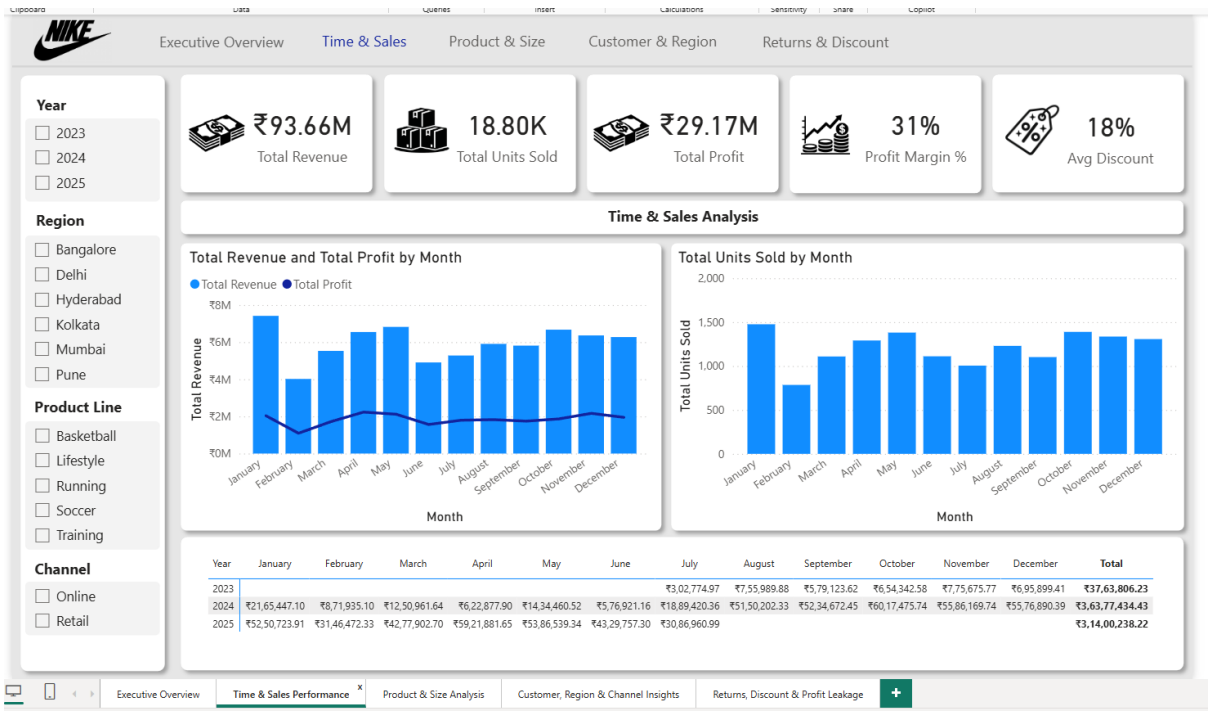
- **Pricing Strategy:** Optimize discount levels for low-margin, high-volume products.
- **Product Focus:** Invest more in high-margin product lines such as Basketball and Running.
- **Regional Strategy:** Improve cost efficiency in regions with strong revenue but lower margins.
- **Channel Optimization:** Enhance online channel profitability through targeted pricing and cost control.
- **Returns Management:** Investigate high-return products to reduce operational losses.

8. Dashboard Overview

- **Page 1:** Executive Overview

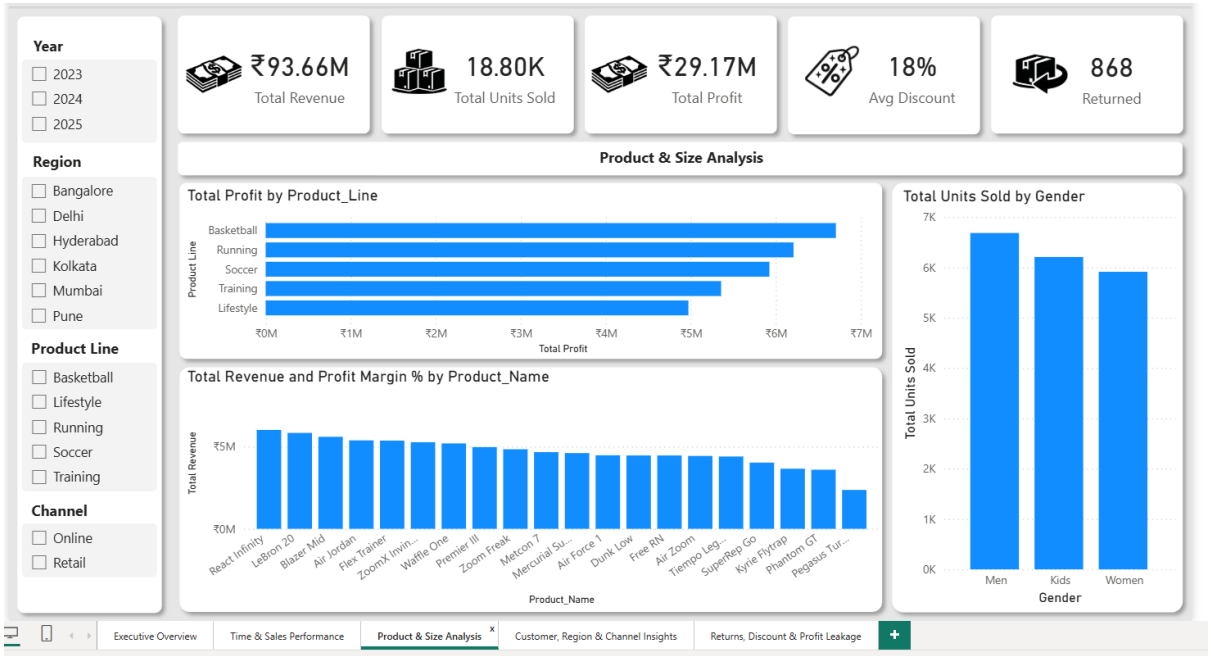


- **Page 2:** Time & Sales Performance

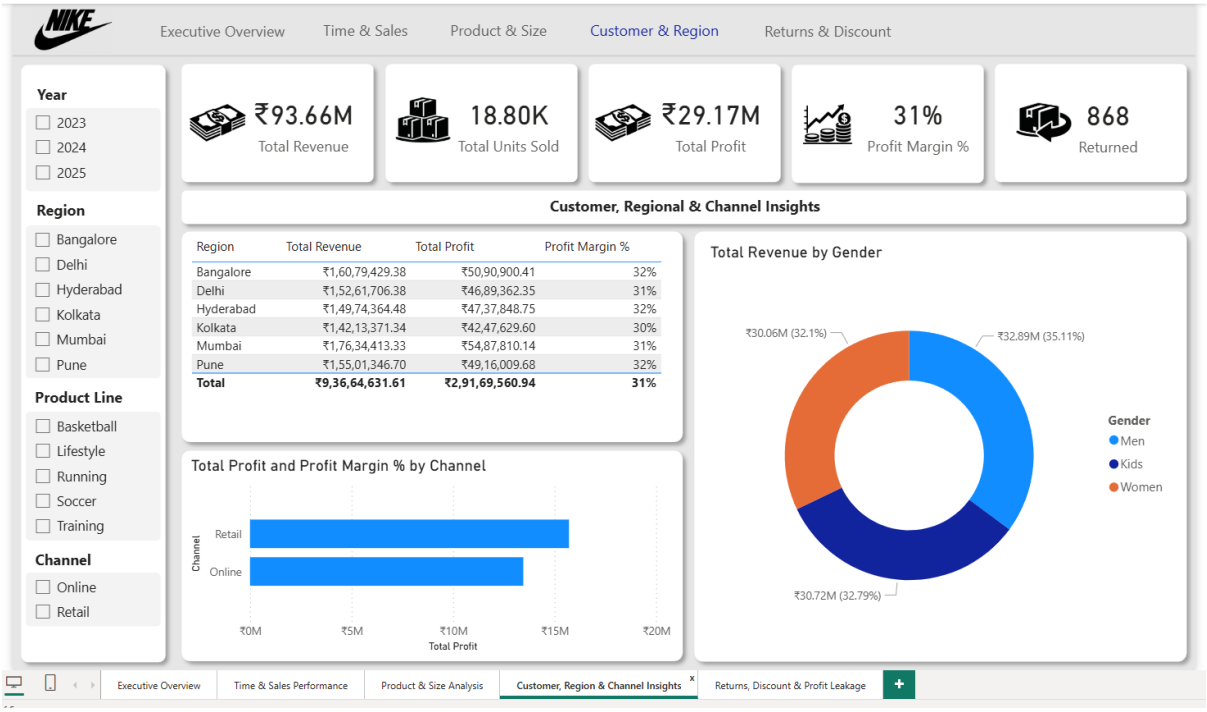


Year	January	February	March	April	May	June	July	August	September	October	November	December	Total
2023							₹3,02,774.97	₹7,55,989.88	₹5,79,123.62	₹6,54,342.58	₹7,75,675.77	₹6,95,899.41	**₹37,63,806.23**
2024	₹21,65,447.10	₹8,71,935.10	₹12,50,961.64	₹6,22,877.90	₹14,34,460.52	₹5,76,921.16	₹18,89,420.36	₹51,50,202.33	₹52,34,672.45	₹60,17,475.74	₹55,86,169.74	₹55,76,890.39	**₹3,63,77,434.43**
2025	₹52,50,723.91	₹31,46,472.33	₹42,77,902.70	₹59,21,881.65	₹53,86,539.34	₹43,29,757.30	₹30,86,960.99						**₹3,14,00,238.22**

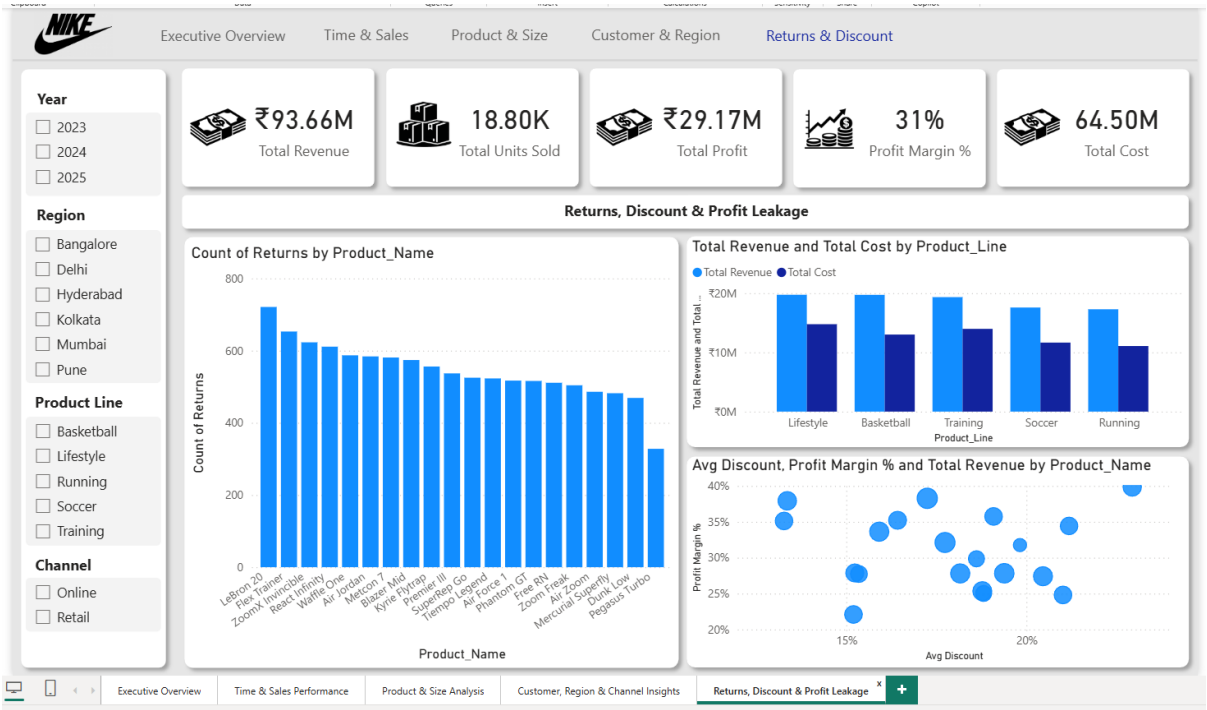
- **Page 3:** Product & Size Analysis



- **Page 4:** Customer, Region & Channel Insights



- **Page 5:** Returns, Discount & Profit Leakage



9. Notes / Limitations

- The analysis is based solely on historical sales data provided in the dataset.
- No external data such as marketing spend, supply chain costs, or competitor data is included.
- The dashboard is descriptive and diagnostic; predictive forecasting is out of scope.