

# Business Requirements Document (BRD)

## Project Title :

## Nike Sales Analytics Dashboard (Power BI)

### Project Objective

The primary objective of this project is to design and develop an interactive **Nike Sales Analytics Dashboard** using Power BI. The dashboard aims to provide a consolidated, data-driven view of sales performance, profitability, product trends, regional performance, channel effectiveness, and profit leakage. This solution enables stakeholders to monitor business health, identify growth opportunities, and support strategic decision-making through visually intuitive insights.

### Business Problem/Opportunity

Nike's sales data is initially available in a raw, unstructured format, making it difficult to extract meaningful insights efficiently. Key business challenges include:

- Lack of a centralized view of revenue, profit, units sold, and profit margin
- Difficulty in comparing performance across years, months, regions, products, genders, and sales channels
- Limited visibility into product-level profitability and the impact of discounts
- Challenges in identifying high-performing and underperforming regions and channels
- poor visibility into returns, costs, and profit leakage

This project transforms raw sales data into a **normalized star schema model** and delivers a multi-page Power BI dashboard that unlocks actionable insights for business users.

## Target Audience

- **Executives / Senior Management** – To obtain a high-level overview of business performance and profitability
- **Business Analysts** – To analyze trends in revenue, profit, discounts, and customer demand
- **Sales & Marketing Teams** – To evaluate product line performance, pricing strategies, and channel effectiveness
- **Regional Managers** – To compare regional sales, profit, and margin performance

## Scope

### Dashboard Pages (5 Pages)

1. **Executive Overview**
  - High-level KPIs and overall business performance snapshot
  - Monthly revenue, profit, and margin trends
2. **Time & Sales Performance**
  - Monthly revenue, profit, and units sold analysis
  - Year-over-year performance comparison
3. **Product & Size Analysis**
  - Revenue and profit by product line and product name
  - Gender-based sales analysis and product profitability insights
4. **Customer, Region & Channel Insights**
  - Regional revenue, profit, and margin comparison
  - Channel-wise and gender-wise contribution analysis
5. **Returns, Discount & Profit Leakage**
  - Analysis of returns by product
  - Cost vs revenue comparison
  - Discount impact on profit margin

## Key Features

- Interactive slicers for:
  - Year
  - Region
  - Product Line
  - Channel
- KPI cards for quick performance monitoring
- Consistent and professional UI design aligned with Nike branding
- Optimized star schema data model for performance and scalability

# Data Model Overview

## Fact Table

### Fact\_Sales

- **Revenue**
- **Units Sold**
- **Total Units Sold**
- **Discount**
- **Avg Discount**
- **Discount Applied**
- **Estimated Cost**
- **Total Cost**
- **Total Profit**
- **Profit Margin %**
- **Returns**
- **MRP**

## Dimension Tables

- **Dim\_Date** (Date, Month, Month Name, Year)
- **Dim\_Product** (Product Name, Product Line, Size)
- **Dim\_Region** (Region)
- **Dim\_Channel** (Channel)
- **Dim\_Gender** (Gender)

A star schema approach is used to ensure clarity, analytical flexibility, and optimal dashboard performance.

## Key Metrics/KPIs

- Total Revenue
- Total Units Sold
- Total Profit
- Profit Margin %
- Total Cost
- Total Returns
- Average Discount
- Revenue by Month & Year
- Revenue and Profit by Product Line
- Revenue, Profit & Margin by Region
- Revenue & Profit by Channel
- Revenue by Gender

## Data Source

- **Dataset Type:** Nike Sales Dataset (Uncleaned → Cleaned)
- **Format:** CSV
- **Processing:** Data cleaning, normalization, and relationship modeling performed in Power BI
- **Currency:** INR (₹)

## Deliverables

1. Business Requirements Document (BRD)
2. Cleaned and normalized data model (Star Schema)
3. Power BI Dashboard with 5 interactive pages
4. DAX measures for KPIs and calculations
5. Final report/dashboard ready for presentation

## Timeline/Milestones

| Day   | Task   |
|-------|--|
| Day 1 | Dataset understanding and requirement analysis |
| Day 2 | Data cleaning, normalization, and modeling     |
| Day 3 | DAX measures and KPI creation                  |
| Day 4 | Dashboard design (5 pages)                     |
| Day 5 | Final validation and documentation             |

## Assumptions & Constraints

- Data represents historical Nike sales data
- Dataset is static (no real-time refresh)
- Currency values are in INR (₹)
- Power BI is used for data modeling and visualization
- All dimension keys are unique and properly related
- Invalid or missing records are handled during cleaning

## Success Criteria

- Dashboard loads efficiently with optimized data model
- KPIs accurately reflect sales and profitability
- Users can easily filter and analyze data across dimensions
- Dashboard provides actionable insights for decision-making