

Shopify Analysis

1 Steps in Project

- Requirement Gathering / Business Requirements
- Data Walkthrough
- Data Connection
- Data Cleaning / Quality Check
- Data Modeling
- Data Processing
- DAX Calculations
- Dashboard Lay outing
- Charts Development and Formatting
- Dashboard / Report Development
- Insights Generation

2 Business Requirement

The goal of this project is to analyze Shopify sales data in Power BI to uncover meaningful insights into transaction performance, customer purchasing behavior, and long-term customer value. By designing an interactive dashboard, the objective is to help stakeholders identify patterns in revenue generation, customer retention, and engagement trends to support data-driven decision-making.

2.1 KPI's Requirements

2.1.1 1. Transactions Performance

This section focuses on evaluating the overall health and effectiveness of sales operations by tracking:

- **Net Sales:** Total revenue generated before tax.
- **Total Quantity:** The cumulative number of products sold.
- **Net Avg Order Value:** The average revenue per transaction, excluding tax.

2.1.2 2. Customer Purchase Behavior

Understanding how customers interact with the business is critical. This section highlights:

- **Total Customers:** The count of unique buyers.
- **Single Order Customers:** Customers who placed only one order.

- **Repeat Customers:** Customers with more than one order, indicating loyalty.

2.1.3 3. Retention & Value KPIs

To evaluate long-term growth and customer value, this section includes:

- **Lifetime Value (LTV):** The total revenue generated by a customer over time.
- **Repeat Rate:** The percentage of customers who return to make another purchase.
- **Purchase Frequency:** How often customers place orders, on average.

3 Charts Requirements

This section will support dynamic analysis using a measure selector for: Net Sales, Total Quantity, Total Customers, Repeat Customers.

3.1 1. Regional Overview - Province and Cities

- **Filled Map (Province-Level)**
 - *Purpose:* Display province-wise performance using color saturation based on the selected measure.
 - *Interactivity:* Changes dynamically with the measure selector.
- **Bubble Map / Density Map (City Level)**
 - *Purpose:* Visually represent sales or customer density at a more granular level.
 - *Bubble Size or Heat Intensity:* Driven by the selected measure.
 - *Tooltip:* Shows all key metrics (Net Sales, Quantity, Total Customers, Repeat Customers).
- **Bar Chart (City-Level Performance)**
 - *Purpose:* Compare top-performing cities based on the selected KPI.
 - *Sorted:* Descending order by selected measure.
 - *Dynamic:* Interacts with slicers/filters and responds to the KPI selector.

Image Placeholder: Regional Overview Charts (image1.png)

3.2 2. Sales Trend Over Time

- **Area Chart – Trend by Day**
 - *Purpose:* Show the daily trend of the selected measure (e.g., daily Net Sales or daily Repeat Customers).

- *Interactivity*: Changes dynamically based on the selected measure.
- **Bar Chart or Line Chart – Trend by Hour**
 - *Purpose*: Display sales or customer activity by hour of the day (e.g., 0–23 hrs), revealing peak activity periods.
 - *Use Case*: Helps understand time-of-day behavior, useful for marketing or operational timing decisions.

Image Placeholder: Sales Trend Charts (image2.png)

3.3 3. Gateway Payment Method

- Identify the most and least used payment methods.
- Detect customer preferences across regions or campaigns.

Image Placeholder: Gateway Payment Method Chart (image3.png)

3.4 4. Product Type

- Determine which product types generate the highest revenue and order volume.
- Understand how customer engagement varies across different product categories.

Image Placeholder: Product Type Chart (image4.png)

3.5 5. Detailed Data Page

- Provide a dedicated page to display transaction-level or detailed data.
- Allow users to drill through from summary visuals (like charts and KPIs) to see underlying records.
- Enable users to explore data at a granular level, such as individual orders, customers, or product types.
- Help explain summary trends and validate aggregated metrics with raw data.

Image Placeholder: Detailed Data Visuals (image5.png, image6.png)