Shopify Analysis

**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.

**KPI’s Requirements**

**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. 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.

**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.

**Charts Requirements**

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

**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.

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**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.

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**3. Gateway Payment Method**

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

**4. Product Type**

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