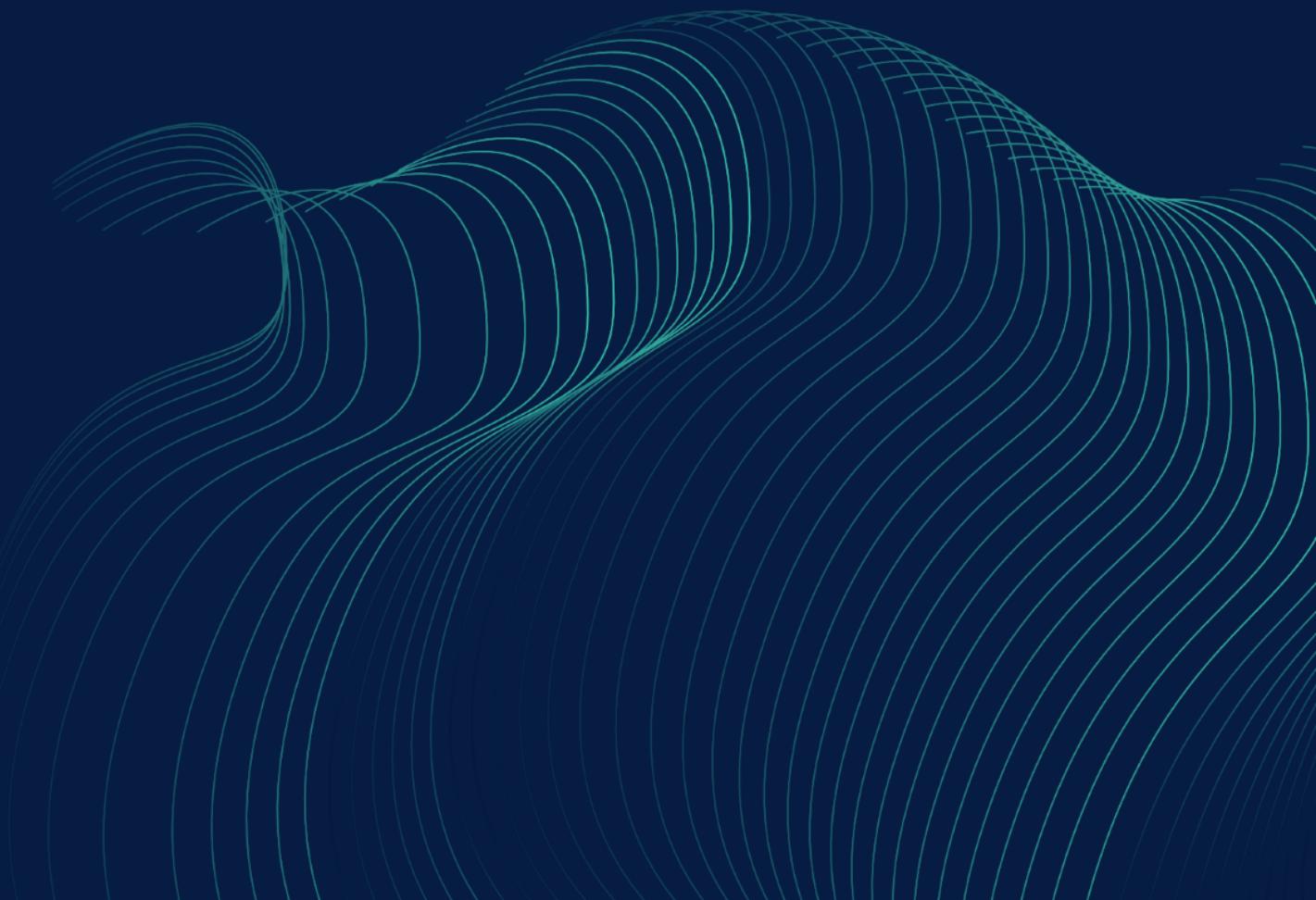
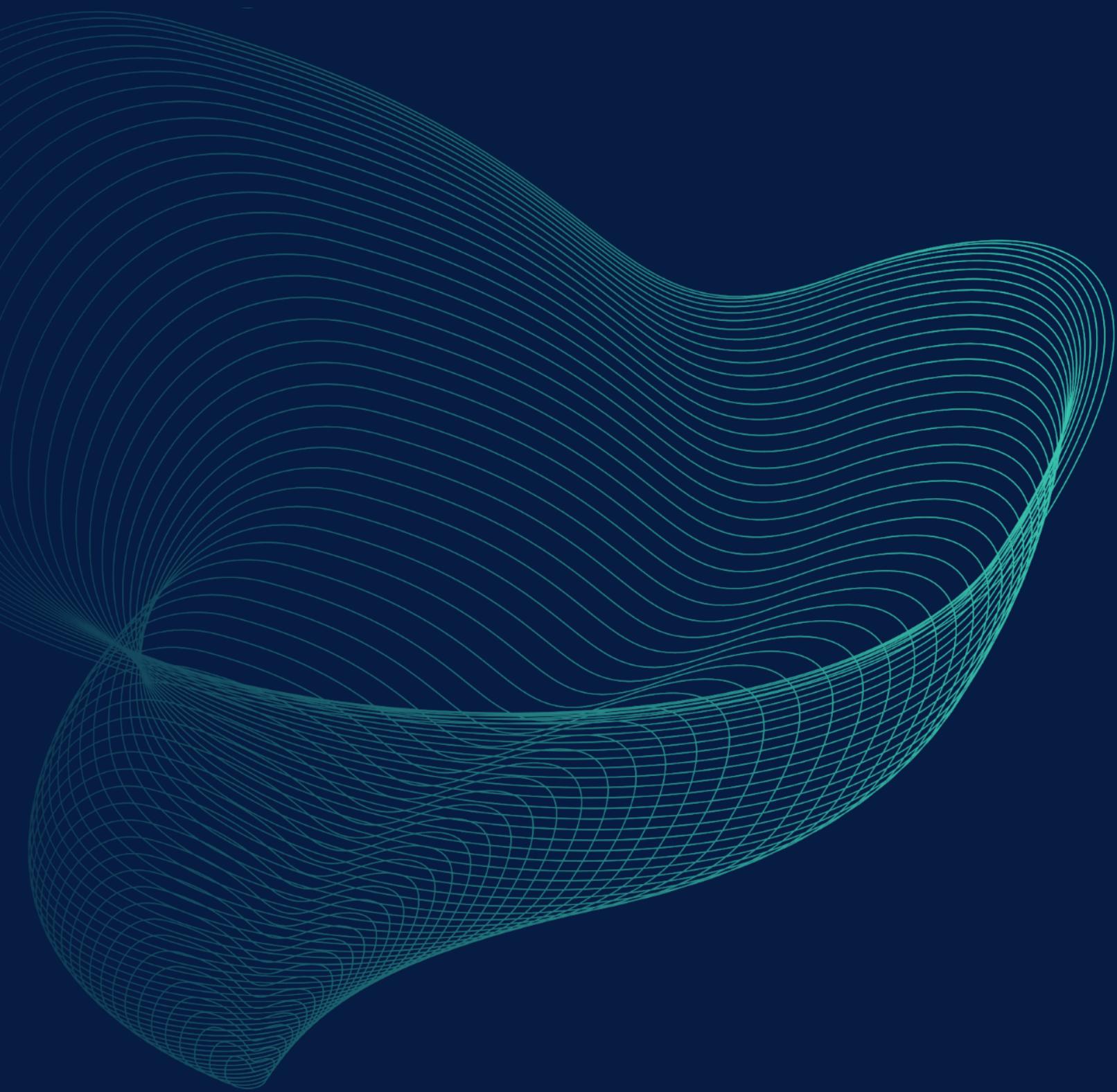


# Sales Performance and Profitability Optimization

Presented by Group 12 Section 2



# Overview

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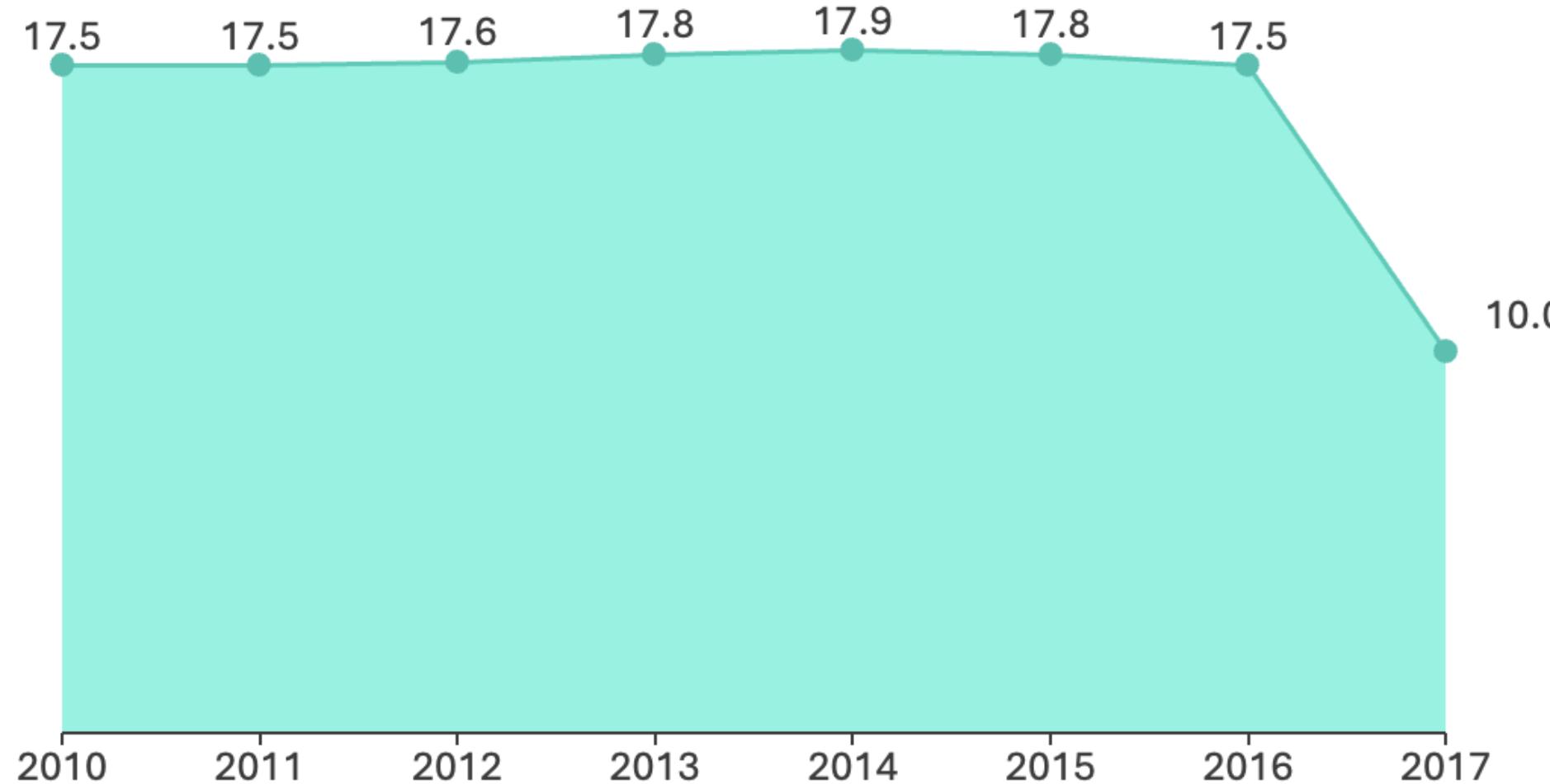
# Background

In a competitive market, companies **need to regularly assess sales and profitability** to make informed decisions. By understanding key performance metrics, businesses can optimize strategies, improve efficiency, and focus on growth opportunities.

This analysis will evaluate **profit factors** to improve performance in the coming year. Using **sales data and analytics, the project will provide insights to refine strategies, boost revenue, and manage costs effectively.**

# Problem Statement

## Sales Trend (Unit: Billion)



## Sales history

From 2010 to 2016, sales remained stable, fluctuating within a narrow range of \$17.5 billion to \$17.9 billion. In 2017, **sales dropped drastically to \$10 billion.**

## Analysis 1

Identify the most profitable regions, product lines, and sales channels, as well as areas needing improvement.

## Analysis 2

Identifying top performers and underperforming areas is essential for optimization.

## Analysis 3

Identify sales strategy to increase sales revues and profitability for future plan.

# Analysis Questions

## Sales Performance

What are the total sales, costs, and profits across different regions, product categories, and sales channels?

## Profit Margin Analysis

Which product categories and regions yield the highest and lowest profit margins?

## Channel Analysis

How do online and offline sales channels compare in terms of revenue, cost, and profitability?

## Regional Insights

Which regions generate the highest revenue and profit, and where are costs the highest?

## Seasonal and Trend Analysis

Are there any identifiable seasonal patterns in sales that could inform promotional planning?

## Product Line Performance

Which product categories perform best and contribute the most to overall revenue and profit? Which categories are underperforming?

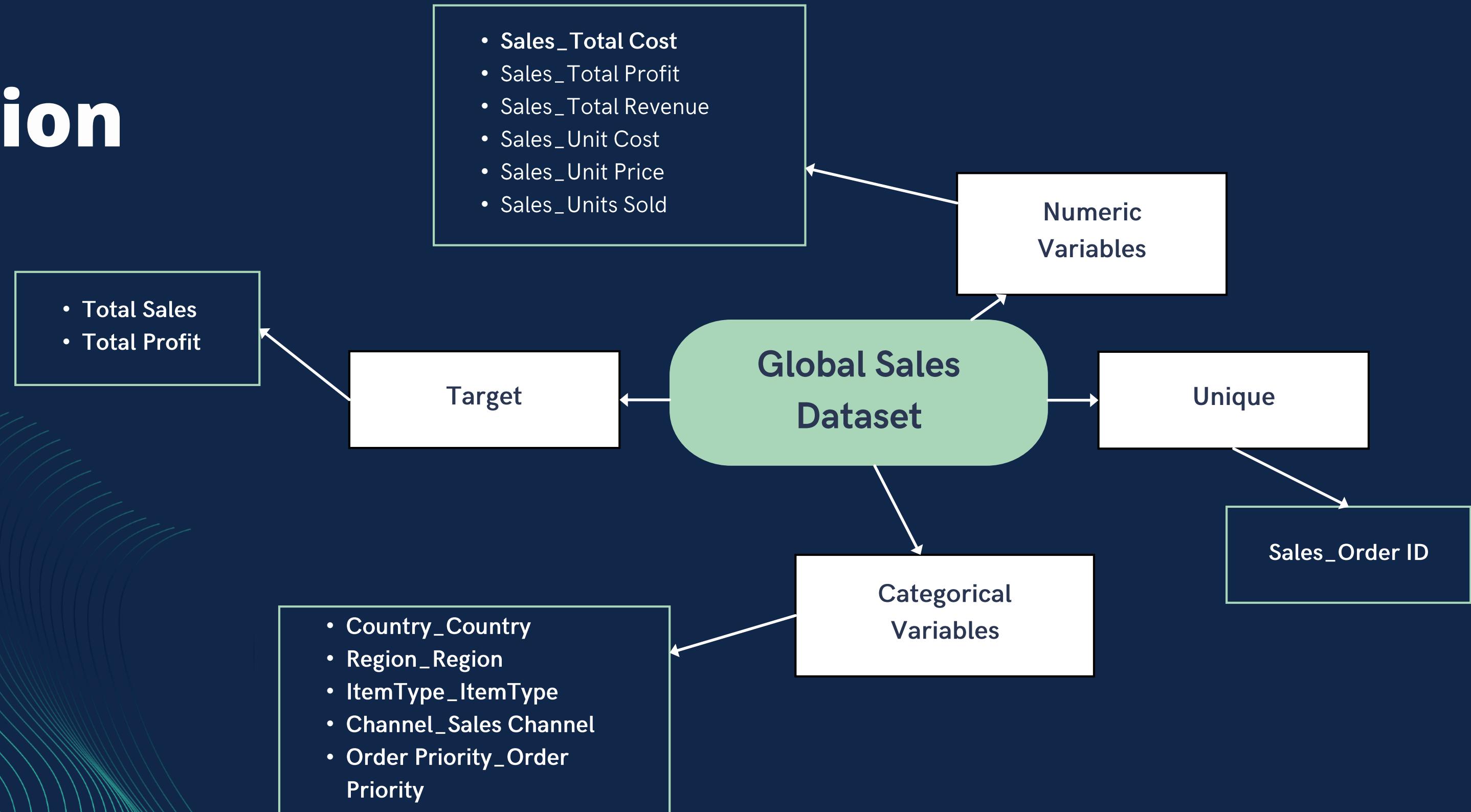
# Dataset Description

Sales record of 100,000 items by global regions, country, and sales channel for 2010 through 2017 by focusing on 2016-2017.

Link :  
[https://www.kaggle.com/datasets/okhiria  
daveoseghale/100000-sales-records](https://www.kaggle.com/datasets/okhiria/daveoseghale/100000-sales-records)

Key Variables	Description
<b>Total Sales</b>	<b>The revenue generated from each transaction.</b>
<b>Total Cost</b>	<b>The cost associated with each sale.</b>
<b>Total Profit</b>	<b>The profit earned on each sale (Total Sales - Total Cost).</b>
<b>Product Category</b>	<b>The type of product sold</b>
<b>Region</b>	<b>The geographical region in which the sale was made.</b>

# Data Description



# Data Exploratory



## Extracting

- Determine the sources;
- Specify what data is needed;
- Establish secure connections to data sources.



## Cleaning

- Remove Duplicates;
- Handle Missing Values;
- Standardize formats;
- Detect and correct errors or inconsistencies.



## Transforming

- Aggregate data into summary tables;
- Perform feature engineering (new variables → metrics);
- Formulate the needed data (sales growth).



## Modeling

- Define relationships;
- Build dimensions and measures;
- Create calculated columns and measures.



## Computing

- Calculate key metrics;
- Create visualizations;
- Add slicers;
- Design dashboard.

**Method:** Kaggel, Excel

**Method:** Excel, power query

**Method:** Power query

**Method:** Power query

**Method:** Power query ,  
Power BI

# Marketing Strategy

- **Increase Revenue** by 10% within one year.
- **Reduce Costs** by 5–8% .
- **Enhance Profitability** for sustainable growth.

01

## Regional Sales Optimization

- Conduct **consumer research**.
- **Expanding potential market**.
- Adjust the **competitive price** to the market.
- Create **seasonal marketing campaigns**.

02

## Improving Low-Sales Categories

- Analyze market **demand and pricing**.
- Implement **bundling strategies , focusing on health-conscious consumers**.

03

## Cost Optimization

- **Renegotiate supplier contracts** for better terms.
- Introduce Just-In-Time **inventory management**.
- Deploy automation in **logistics and warehouse**.

04

## Strengthening Online Channels

- **2024, 8.8 % market growth** (Snyder, 2024).
- Expand **digital marketing** and marketing campaign.
- Enhance the **online shopping experience**.