# Amazon Sales Data Analysis Report

## Executive Summary

In this report, we analyze Amazon sales data using Power BI, transitioning from Excel to SQL for enhanced data processing capabilities. The report provides insights into regional sales, performance, item-wise sales analysis, profit trends and annual sales patterns.

## Problem Statement

Managing and analyzing large volume of Amazon sales data using traditional tools like Excel has become inadequate. We require more robust tools like Power BI for efficient data processing and deeper insights.

## Solution Overview

Transitioning to Power BI allows for comprehensive analysis through interactive visualizations and SQL-powered data manipulation. Key insights include regional sales breakdowns, item performance analysis and annual sales trends.

## Data Source

Our analysis is based on Amazon sales data available [here.](here.)

## Analysis Stages

1. **Design**

- **Objective Setting:** Defined goals included regional performance and annual trends.
- **Data Requirements:** Key fields identified: 'Region', 'Sales Channel', 'Item Type', 'Sales', 'Profit', 'Year'
- **Database Schema Design**: Ensured efficient data organization in SQL.

2. Development

- **Data Extraction and Transformation:** Excel data transformed and loaded into SQL.
- **SQL Database Setup:** Tables created; relationships defined.
- **SQL Queries:** Aggregated data for Power BI visualization.
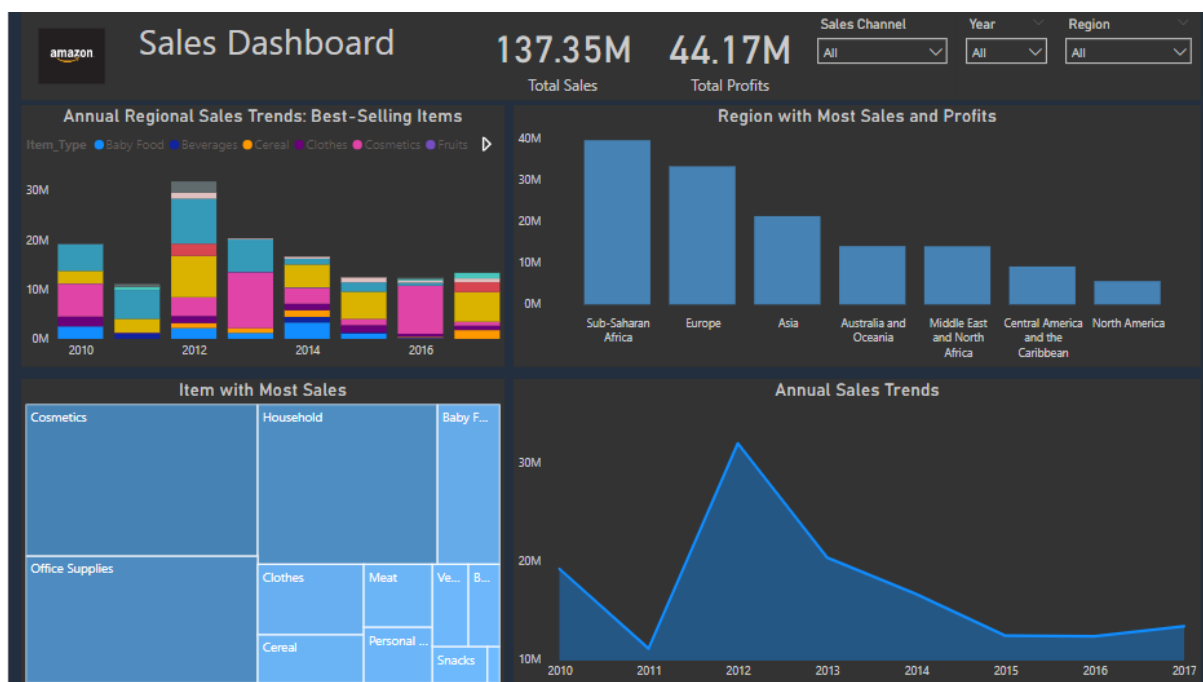- **Data Integration:** Connected Power BI to SQL for dynamic reporting.

## 3. Testing

- **Data Validation:** Ensured data accuracy and consistency.
- **Performance Testing:** Verified efficiency with large datasets.
- **User Acceptance Testing (UAT):** Gathered stakeholder feedback for improvements.

## 4. Analysis

- **Visualizations in Power BI:** Developed interactive charts and graphs.
- **Insights and Reporting:** Identified key findings and recommendations.

**Power BI Dashboard Showcase:**



## Conclusion

By leveraging SQL and Power BI, this report demonstrates effective Amazon sales data analysis. Insights gained can guide strategic decisions, enhance sales performance and improve business efficiency.