# Amazon Sales Analysis Report

## 1. Introduction

This report presents an in-depth analysis of Amazon sales data provided during the Data Analyst Internship at InnoByte Services (June 2025). The dataset includes transactional-level details such as order information, product categories, quantities, customer locations, and fulfillment methods. The objective is to identify insights from the dataset and recommend strategies to improve overall business performance.

## 2. Data Cleaning & Preparation

The dataset was cleaned by removing missing values, handling duplicates, and standardizing formats. Important preprocessing steps included converting date columns to datetime format, filtering invalid rows, and ensuring numerical columns were properly typed. This allowed reliable and consistent analysis across all tasks.

## 3. Exploratory Data Analysis & Insights

### Task 1 – Sales Overview

Analyzed revenue trends, top-selling dates, and order activity by weekdays. Key finding: most orders were placed on weekdays, with peak sales on specific dates in Maharashtra and Karnataka.

### Task 2 – Product Analysis

Identified top-selling categories and their contribution to total revenue and quantity. T-shirts and Shirts dominated the sales. A few categories contributed to the majority of sales.

### Task 3 – Fulfillment Analysis

Compared success and return rates between Amazon-fulfilled and self-fulfilled orders. Fulfilled-by-Amazon orders had better delivery success and lower return rates.

### Task 4 – Customer Segmentation

Segmented customers by geography and order behavior. States like Maharashtra, Karnataka, and Delhi were found to have high order volumes and values.

### Task 5 – Geographic Analysis

Mapped orders and revenue across Indian states. Pie charts and bar graphs identified the top-performing states and cities, with metro regions showing the strongest performance.

## 4. Business Recommendations

* Boost marketing in high-performing states such as Maharashtra and Karnataka.
* Enhance packaging and delivery in regions with high return rates like Bihar and Chandigarh.
* Promote Fulfilled-by-Amazon for smoother logistics and better success rates.
* Explore growth in underperforming categories through discounts and bundling.
* Use insights from state-level performance to optimize regional stock and delivery routes.

## 5. Conclusion

The analysis of Amazon sales data has provided actionable insights into customer behavior, product trends, geographical strengths, and fulfillment effectiveness. These insights can help shape marketing, inventory, and operational decisions. Continued tracking and analysis will enable Amazon to refine its strategies and stay competitive in the evolving market.