

IT300 – Business Intelligence Project

Project Title: Optimizing Sales Performance and Customer Segmentation in an E-Commerce Platform

1. Industry and Organization Description

The e-commerce industry has experienced rapid growth driven by digitalization and changing consumer behavior. This project focuses on a fictional but realistic mid-sized online retail company selling electronics, fashion, and home products. The company operates through a web and mobile platform and records thousands of daily transactions.

2. Business Problem

Despite high sales volume, management lacks clear visibility on customer behavior, product performance, and revenue drivers. Decisions are mostly intuitive rather than data-driven. The business needs a BI solution to analyze sales trends, segment customers, and improve profitability.

3. Analytical Questions

- What are the total sales and revenue trends over time?
- Which products generate the highest revenue?
- Which product categories perform best and worst?
- Who are the most valuable customers?
- How does customer behavior vary by region?
- What is the average order value?
- How frequently do customers make purchases?
- Which months show peak sales activity?
- What is the customer retention rate?
- How do discounts affect sales volume?

4. Key Performance Indicators (KPIs)

- Total Revenue
- Total Number of Orders
- Average Order Value (AOV)
- Customer Lifetime Value (CLV)
- Sales Growth Rate
- Top-Selling Products
- Customer Retention Rate
- Revenue by Category

5. Data Model Overview

The BI solution will use a star schema with one fact table (Sales Fact) and multiple dimension tables including Customer, Product, Time, and Location. The dataset will contain over 10,000 transaction records.