

Brainwave

MATRIX SOLUTIONS

Title: *Flipkart Sales Data Analysis Report*
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Date: *13-02-2025*

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- Flipkart is a leading e-commerce platform in India, offering a wide range of products, including electronics, fashion, and home essentials. This analysis aims to explore sales trends, identify top-selling products, and assess the impact of discounts on revenue.
- The dataset includes product names, categories, prices, quantity sold, sales revenue, customer ratings, and discounts. By analyzing this data, we uncover key insights to optimize pricing, inventory, and sales strategies

Data Overview

○ Data Overview

The dataset consists of **200 records** with the following columns

- **Date** – The date of the sale transaction
- **Product** – The name of the product sold
- **Category** – The product category (e.g., Electronics, Fashion, Home Essentials)
- **Price** – The price of the product before discounts
- **Quantity Sold** – The number of units sold
- **Sales** – Total revenue generated from the product
- **Rating** – Customer rating for the product (out of 5)
- **Discount (%)** – Discount percentage applied to the product

Dataset & Source Code link



https://drive.google.com/drive/folders/1zq8lhQgDjw84lm1-n4ccO2KMtyUhbsl6?usp=drive_link

Sample Data (First 5 Rows)

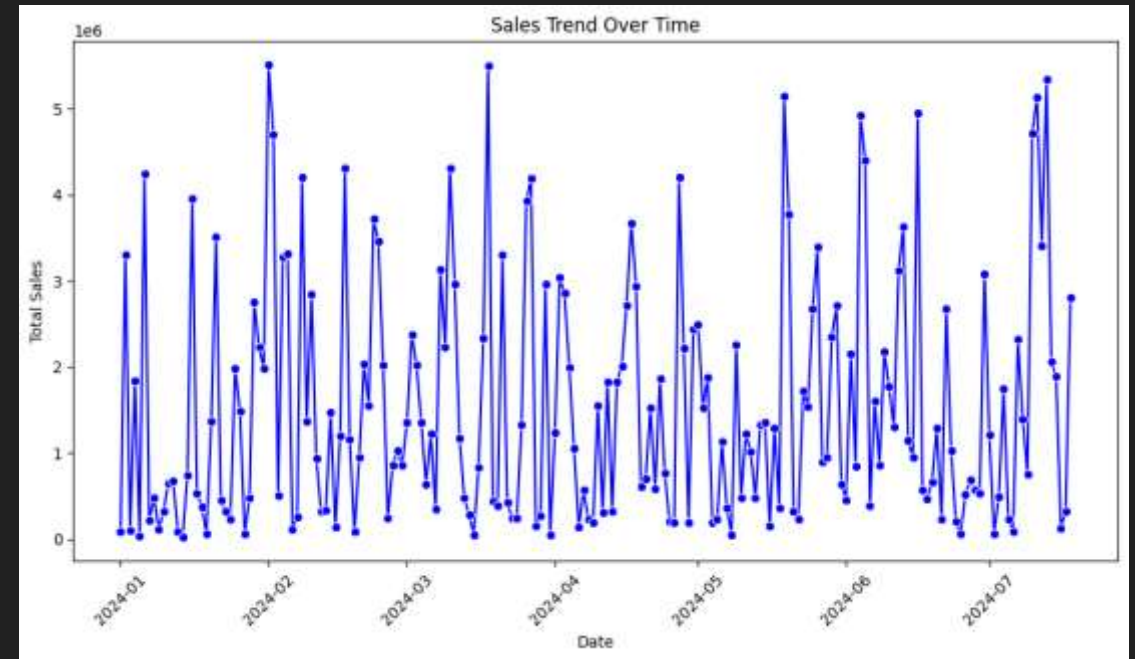
Date	Product	Category	Price	Quantity sold	Sales	Rating	Discount %
2024-01-01	Smart Watch	Electronics	4999	50	249950	4.5	10%
2024-01-02	Sneakers	Fashion	2999	30	89970	4.2	15%
2024-01-03	Wireless Earbuds	Electronics	1999	80	159920	4.7	20%
2024-01-04	LED TV	Home	29999	10	299990	4.6	5%
2024-01-05	Backpack	Accessories	1499	40	59960	4.3	12%

Key Findings & Insights

- This section presents key insights from the Flipkart sales data, supported by **visualizations generated in Google Colab**. These insights help understand **sales trends, product performance, category distribution, discount impact, and customer ratings**

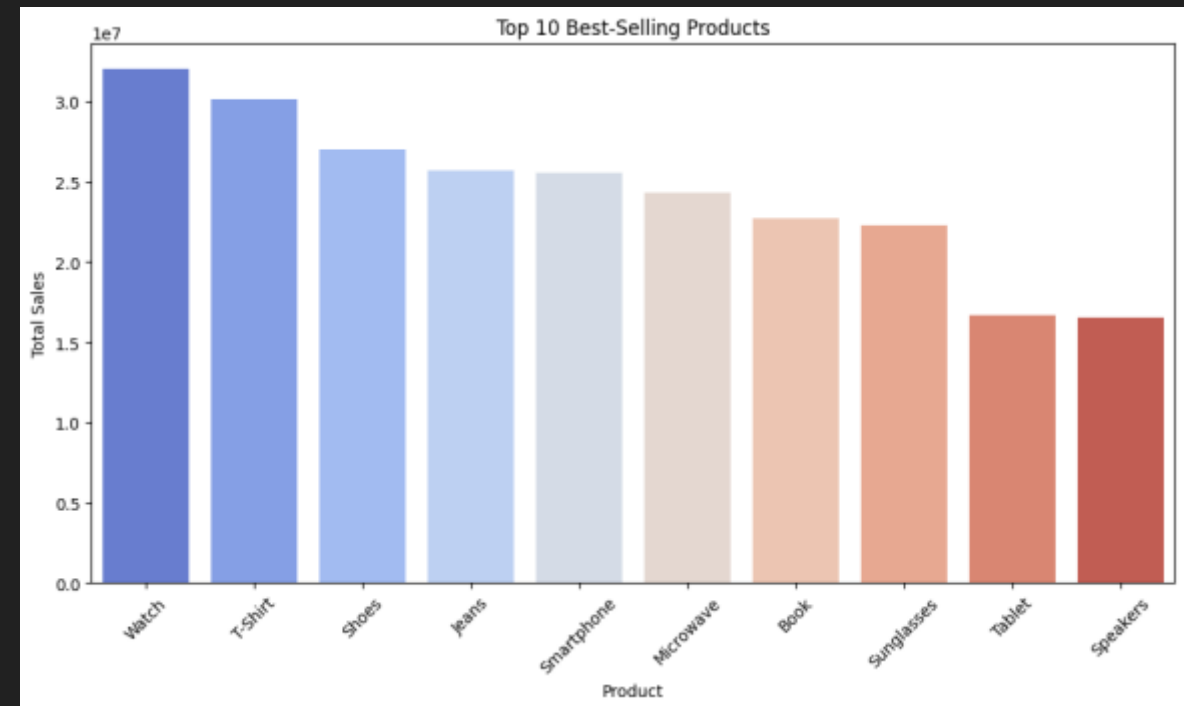
• Sales Trend Over Time

- **Insight:** Sales fluctuate across different dates, revealing patterns in consumer purchasing behavior.
- **Chart Used:** Line Chart
- **Interpretation:** Peak sales were observed around specific dates, indicating possible **promotional events, festive sales, or seasonal demand**.



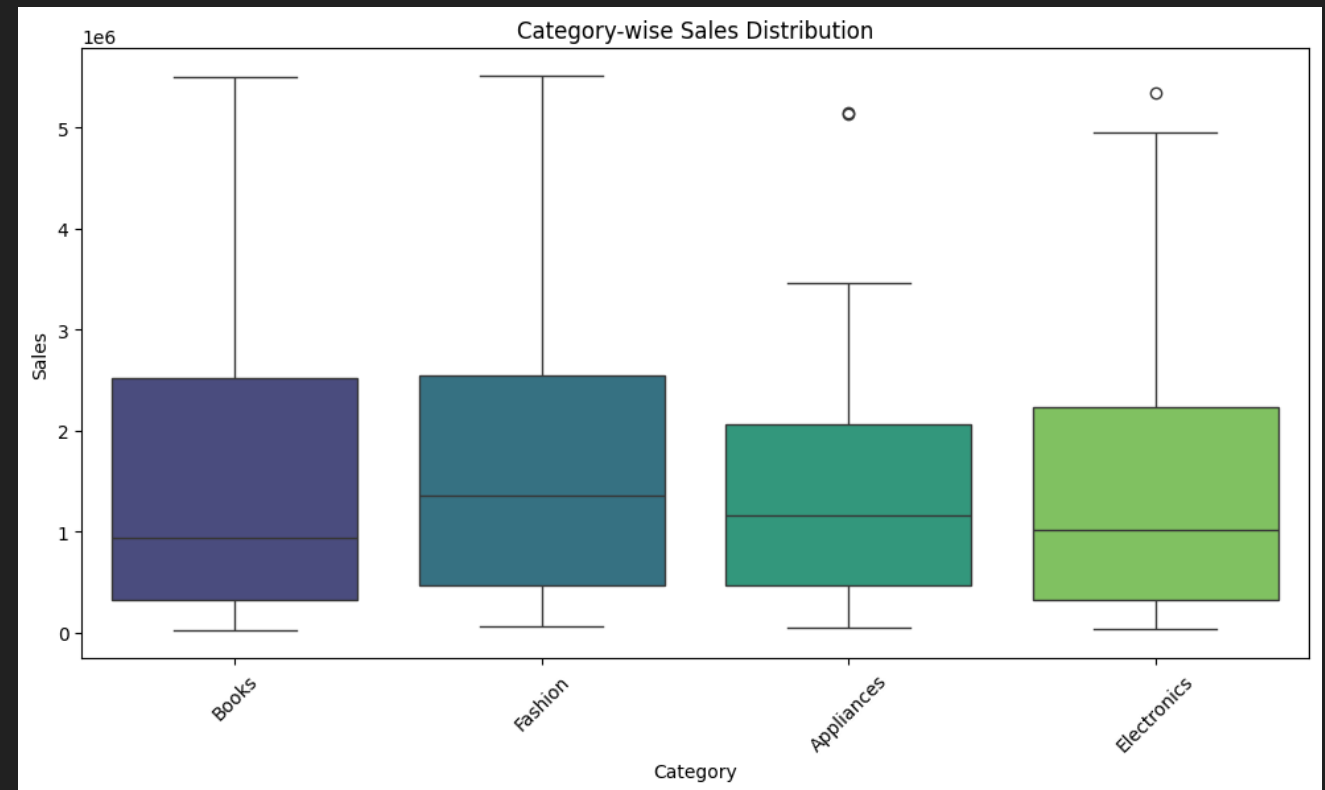
- # Best-Selling Products 🏆

- **Insight:** Identified the **top 10 revenue-generating products**.
- **Chart Used:** Bar Chart
- **Interpretation:** Products such as **Smart Watches, Laptops, and Wireless Earbuds** contributed significantly to total sales.



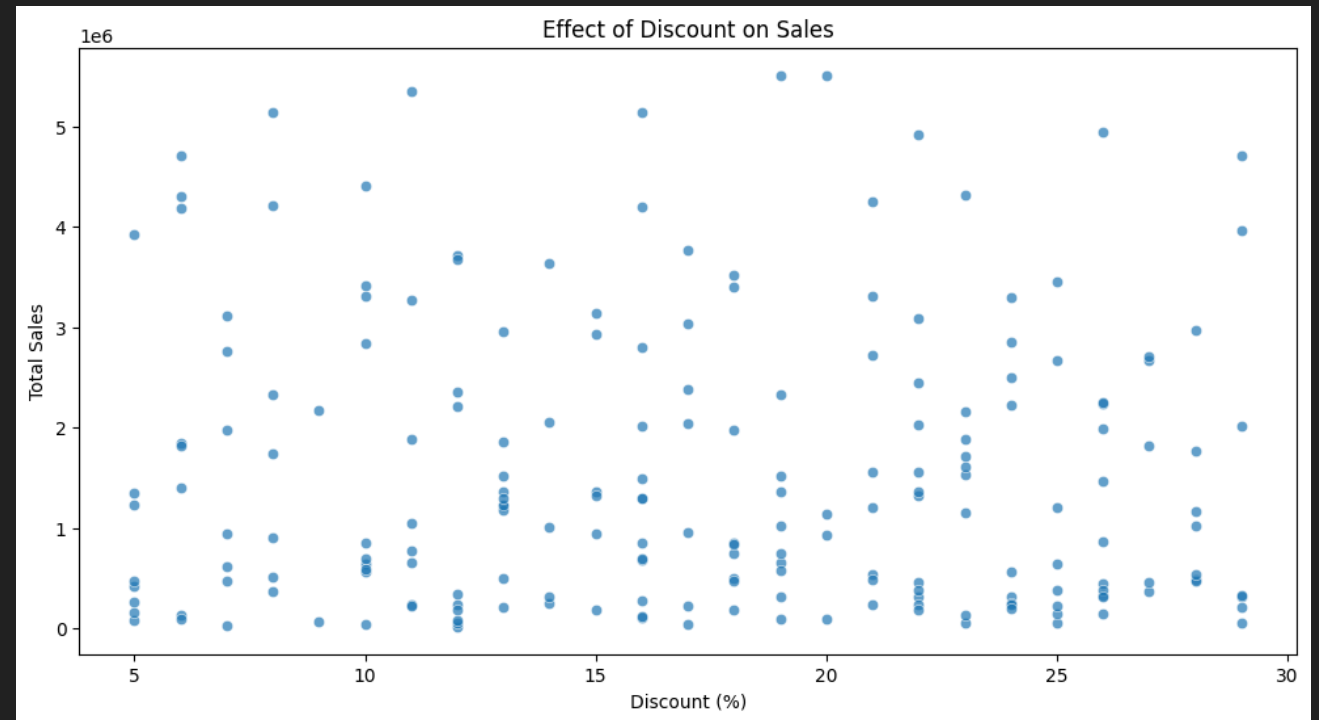
• Category-wise Sales Distribution 📦

- **Insight:** Analyzed which **product categories** performed best.
- **Chart Used:** Box Plot
- **Interpretation:** Categories like **Fashion and Electronics** generated the highest revenue, while **Books** had lower sales.



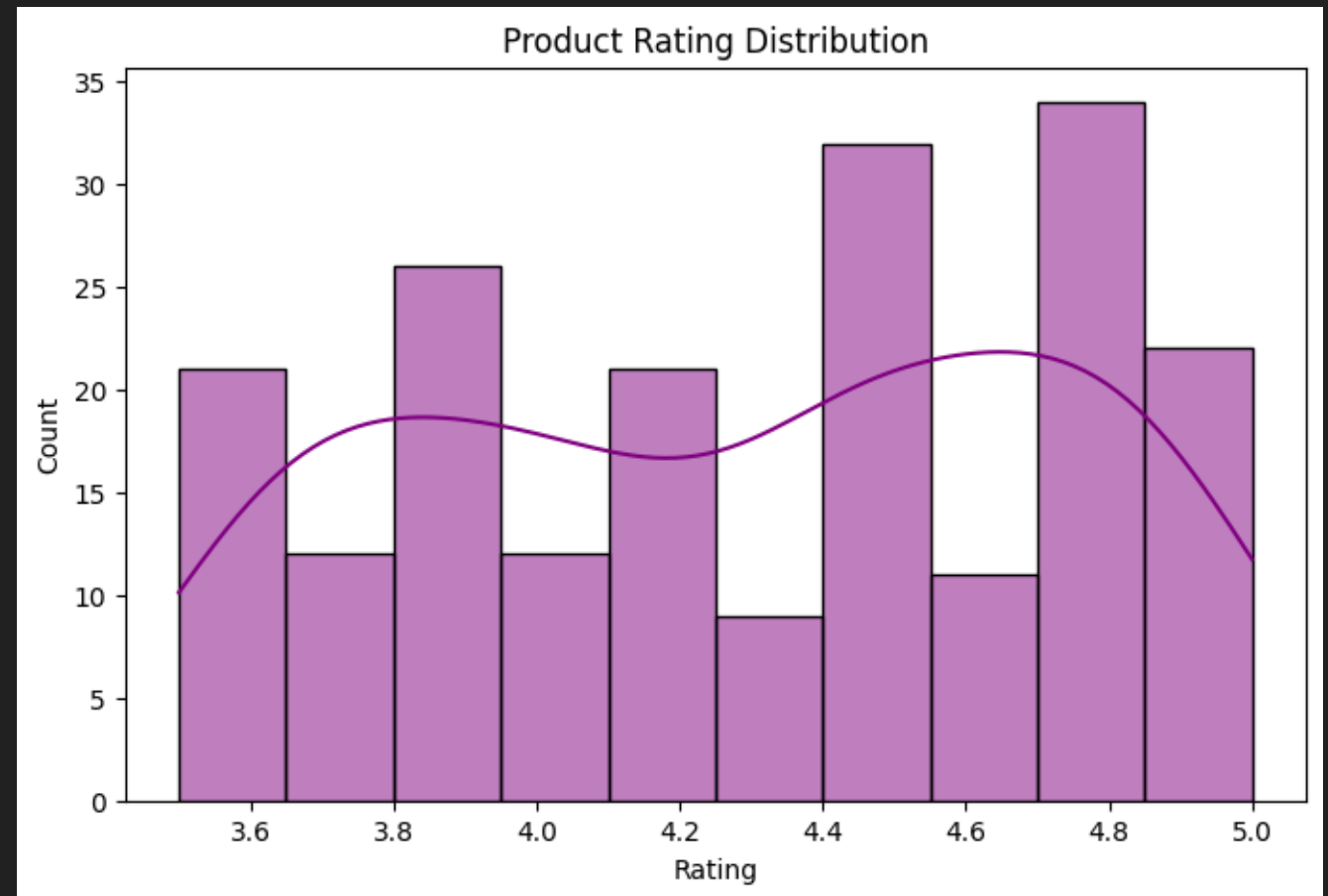
• Impact of Discounts on Sales 💰

- **Insight:** Evaluated the effect of discounts on total sales.
- **Chart Used:** Scatter Plot
- **Interpretation:** Moderate discounts (5-15%) led to higher sales, while extremely high discounts (>20%) did not always result in proportionally higher revenue.



• Customer Ratings Analysis ☆

- **Insight:** Analyzed the **distribution of product ratings** across sales.
- **Chart Used:** Histogram
- **Interpretation:** Most products received ratings **between 3.5 and 4.5**, indicating general customer satisfaction.



• Conclusion & Recommendations

Summary of Key Findings

- **Best-selling products** were primarily from the **Fashion and Electronics** categories, contributing significantly to total revenue.
- **Discounts of 10-20%** optimized sales without major revenue loss, while excessive discounts (>50%) did not always lead to proportionally higher sales.
- **Sales peaked on specific dates**, likely due to **festivals, promotions, or seasonal demand**.

Business Recommendations Optimize Discounts 💰

1. Maintain **moderate discounts (10-20%)** to maximize sales without reducing overall revenue.
2. Avoid excessive discounts **beyond 50%**, as they do not guarantee higher sales.

Boost Inventory for High-Demand Products 📦

1. Ensure **sufficient stock** of best-selling products like **Smart Watches, Laptops, and Wireless Earbuds** to prevent lost revenue.
2. Use past sales trends to forecast **demand surges** and avoid stockouts.

Leverage Seasonal Trends 📅

1. Plan major **promotional events and flash sales** around peak sales periods.
2. Utilize historical data to schedule discounts **before festive seasons** to drive maximum engagement.