

Flipkart Sales & Performance Report

1. Executive Summary

This report provides a comprehensive analysis of **Flipkart's sales, product performance, and customer behavior** for the period **2015–2020**. The data was **fetches using a Python script** from Kaggle and integrated into Power BI to create an **interactive dashboard**.

Key findings:

- Revenue showed **steady growth from 2015 to 2020**.
- Health & Wellness, Electronics, and Fashion emerged as **top-selling categories**.
- Repeat customers contributed a significant share of revenue, showing **strong loyalty**.
- Weekend sales dominated total orders (**71.41%**), highlighting **shopping preferences**.
- Peak orders occurred during evenings and weekends, showing **lifestyle-driven demand**.

The dashboard is a **decision-making tool** for Flipkart's management to optimize inventory, improve retention, and identify growth opportunities.

2. Introduction & Project Background

Flipkart is one of India's **leading e-commerce platforms**, offering millions of products across diverse categories. To support **data-driven decisions**, tracking KPIs like revenue, category performance, customer retention, and sales trends is critical.

Project Goals:

- Analyze **daily, monthly, yearly sales trends** (2015–2020).
- Identify **top-performing categories, products, and subcategories**.
- Understand **customer behavior**, including repeat vs new customers.
- Forecast **demand and revenue** to optimize inventory.
- Enable **actionable insights for marketing, sales, and operations teams**.

Tools Used: Power BI (Power Query, DAX, KPI Cards, Maps, Trend Lines)

Data Integration: Python script used to fetch Kaggle dataset, saved locally, and connected to Power BI.

3. Key Highlights & Findings

3.1 Overall Sales Performance

- Total Revenue:** Steady increase across 2015–2020.
- Total Orders:** Growth observed year-over-year.

- **Average Order Value (AOV):** Stable across categories.

3.2 Category-Wise Revenue

- **Top Categories:** Health & Wellness, Electronics, Fashion.
- **Emerging Categories:** Tablets, Fragrances, Personal Care.

3.3 Customer Insights

- **Repeat Customers:** High share of revenue, strong loyalty.
- **New Customers:** Constant inflow, driving growth.
- **Top Customers:** Small percentage contributed disproportionately.

3.4 Sales Patterns

- **Weekend vs Weekday:** 71.41% orders on weekends.
- **Peak Hours:** Evenings highest.
- **Regional Trends:** Urban regions dominated.

4. Dashboard Overview & Analysis

The dashboard has **5 main pages**:

4.1 Main Dashboard

- **KPI Cards:** Total revenue, total products sold, AOV, weekend sales %, repeat customer ratio.
- **Trend Charts:** Year-wise revenue and orders.
- **Pie Charts:** Category-wise revenue distribution.

4.2 Product Insights Dashboard

- **Top Products:** Wellness & Dietary Supplements, Men's Fashion, Medical Supplies.
- **Emerging Products:** Tablets, Fragrances, Personal Care.
- **Weekday vs Weekend Sales Analysis** for operational planning.

4.3 Profit & Forecast Dashboard

- **Profit Analysis:** Actual profit, incremental profit, discount impact (2015–2020).
- **Price & Discount Trends:** Helps optimize pricing strategy.
- **Forecasting Section:** Revenue and profit projections using historical trends.

4.4 Customer Insights Dashboard

- **Customer Segmentation:** Age & gender breakdown.
- **Order Frequency Analysis:** Highlights loyal vs new customers.
- **Repeat vs New Customer Trends:** Shows retention patterns.

4.5 Regional Insights Dashboard

- Map Visualization: Regional sales distribution.
 - Demand Heatmaps: Identify peak regions.
 - Regional Contribution Charts: Highlights growth potential in emerging regions.
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5. Insights & Recommendations

1. **Health & Wellness, Electronics dominate revenue**
 - *Recommendation:* Focus marketing campaigns & inventory on these categories.
 2. **Repeat customers drive revenue**
 - *Recommendation:* Launch loyalty programs and special offers.
 3. **Weekend sales dominate order volume**
 - *Recommendation:* Optimize inventory & delivery partner allocation on weekends.
 4. **Emerging categories gaining traction**
 - *Recommendation:* Target campaigns for Tablets, Fragrances, Personal Care.
 5. **High-value customers contribute disproportionately**
 - *Recommendation:* Personalize offers and retention strategies.
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6. Problems Solved by the Dashboard

The Flipkart Sales & Performance Dashboard addresses multiple business challenges by providing actionable insights across sales, products, customers, and operations.

◆ Problem 1: Lack of Visibility on Product and Category Performance

Before:

Managers had limited insight into which categories and products were performing well over time. Decisions on inventory, promotions, and marketing campaigns were often reactive or based on intuition.

Solution:

- Dashboard provides category-wise and subcategory-wise revenue analysis.
- Highlights top-performing products like Health & Wellness, Electronics, and Fashion.
- Tracks emerging products (e.g., Tablets, Fragrances) for strategic marketing.

Impact:

- Enables data-driven inventory allocation.
- Prioritizes high-value products for marketing campaigns.

- Supports strategic expansion into emerging categories.
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◆ **Problem 2: Difficulty in Tracking Customer Behavior and Loyalty**

Before:

Customer retention strategies were hampered due to limited visibility into repeat vs new customers, purchase frequency, and high-value customer identification.

Solution:

- Customer segmentation by age, gender, and purchase behavior.
- Visual comparison of repeat vs new customers, highlighting loyalty patterns.
- Identification of high-value customers contributing disproportionately to revenue.

Impact:

- Improves personalized marketing campaigns.
 - Enables targeted retention strategies and loyalty programs.
 - Helps identify growth opportunities within loyal customer segments.
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◆ **Problem 3: Inefficient Sales and Operational Planning**

Before:

Flipkart lacked actionable insights on peak sales periods, resulting in suboptimal delivery partner allocation, inventory planning, and operational inefficiencies.

Solution:

- Weekday vs weekend sales analysis, showing 71.41% of orders on weekends.
- Hourly sales patterns identifying evening peaks.
- Regional demand maps highlighting metro dominance and Tier-2 growth potential.

Impact:

- Optimizes delivery partner allocation during peak hours.
 - Aligns inventory planning with demand trends.
 - Reduces operational bottlenecks, ensuring timely deliveries.
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◆ **Problem 4: Limited Insight into Profitability and Pricing Strategy**

Before:

Discounts and pricing changes were applied without fully understanding their impact on profit margins.

Solution:

- Profit dashboard tracks actual, incremental, and discount-induced profits (2015–2020).
- Visuals show the impact of pricing changes on revenue and profitability.
- Forecasting section simulates future profit scenarios.

Impact:

- Supports data-driven discount strategy without margin erosion.
 - Helps budget planning and ROI assessment for campaigns.
 - Guides pricing optimization for maximum profitability.
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◆ Problem 5: Lack of Insights for Regional Strategy and Expansion

Before:

Flipkart needed to understand regional demand variations, especially for Tier-2 cities showing emerging potential.

Solution:

- Regional dashboard with maps, heatmaps, and charts showing city-wise sales and revenue.
- Identifies underperforming regions and high-potential Tier-2 cities.

Impact:

- Informs regional expansion and delivery network planning.
 - Supports targeted marketing campaigns for specific geographies.
 - Reduces losses due to stockouts or overstocking in key regions.
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◆ Problem 6: Fragmented Decision-Making Across Teams

Before:

Marketing, operations, and category managers often relied on separate reports, leading to inconsistent insights.

Solution:

- Centralized dashboard integrating sales, customer, product, and financial data.
- Cross-functional filters allow interactive exploration of data across dimensions.

Impact:

- Promotes collaborative decision-making across teams.
 - Reduces data silos and improves strategic alignment.
 - Speeds up actionable decision-making with real-time insights.
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Overall Impact:

The Flipkart Sales & Performance Dashboard empowers the company to:

- Make data-driven marketing and inventory decisions.
 - Identify and retain high-value customers.
 - Optimize profitability, operations, and regional growth strategy.
 - Plan for emerging categories and future demand.
 - Ensure efficiency, scalability, and informed long-term planning.
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7. Technical Appendix

- **Tools:** Power BI, Python, DAX, KPI Cards, Trend Lines, Maps, Bar & Pie Charts.
 - **Data Transformation:** Cleaned and standardized product, sales, and customer data. Calculated columns & DAX measures for KPIs. Relationships built in Power BI.
 - **Python Integration:** Kaggle dataset fetched via Python script (data_fetch.py) and saved locally. Power BI connected for **automatic updates**.
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8. Conclusion

The **Flipkart Sales & Performance Dashboard (2015–2020)** converts raw sales, product, and customer data into **actionable business insights**.

Key Takeaways:

- Health & Wellness, Electronics, Fashion are top categories.
- Repeat customers are crucial for revenue.
- Weekend sales dominate total orders.
- Evening peak hours identified for operations planning.

Strategic Benefits:

- Optimize marketing campaigns
- Improve inventory & delivery planning
- Launch loyalty programs
- Target emerging categories

This dashboard empowers Flipkart's management to make **data-driven decisions**, maximize profitability, and enhance customer satisfaction.
