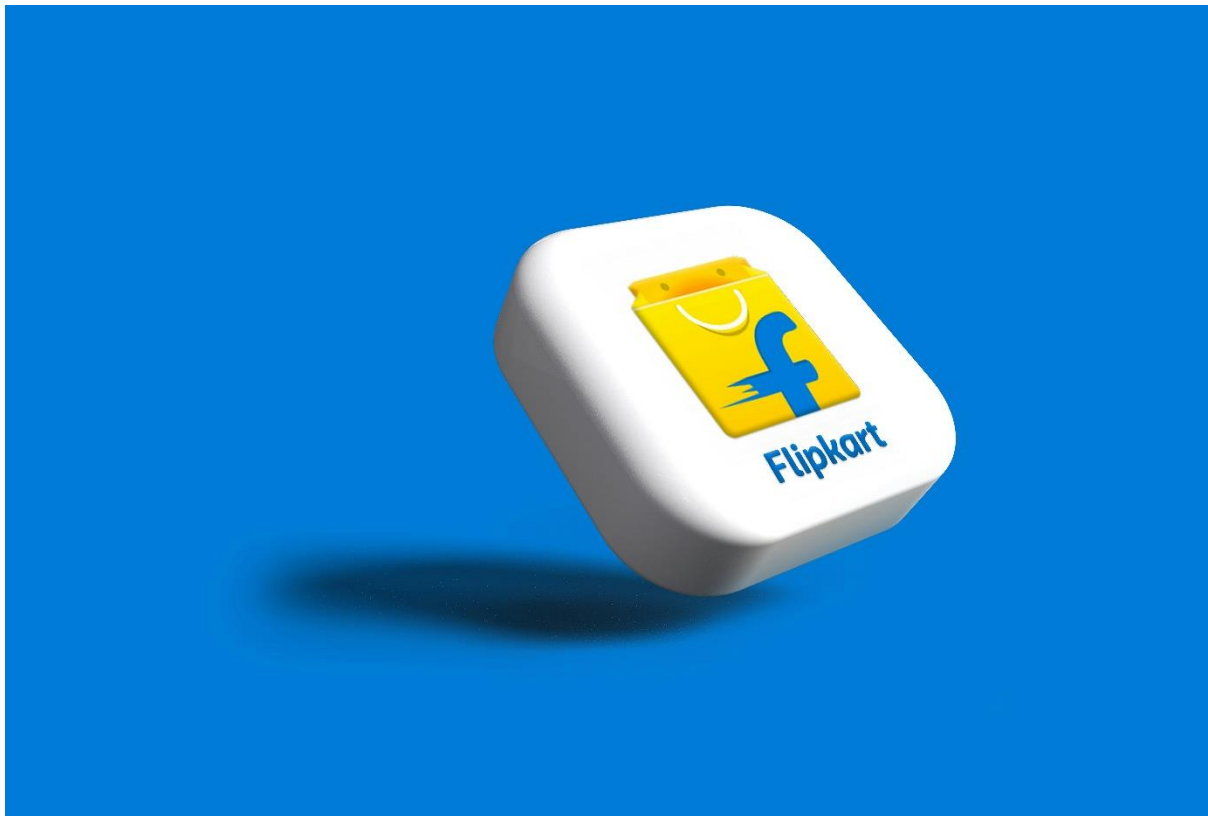


# Flipkart Sales Analysis

## Introduction

Sales analysis is a pivotal aspect of business strategy, offering invaluable insights into performance and customer behavior. In the realm of e-commerce, such as on platforms like Flipkart, analyzing sales data becomes paramount for gauging financial health, understanding customer preferences, and optimizing inventory management. It serves as a compass for decision-makers, guiding strategic choices in marketing, promotions, and overall business operations. By delving into sales metrics, companies can adapt to market trends, stay competitive, and foster continuous growth, ensuring they remain agile in the dynamic landscape of online retail. In essence, sales analysis is the cornerstone for informed decision-making and sustained success in the e-commerce domain.



## Objective

Analyze Flipkart sales data using SQL to identify popular and expensive products.

- **Approach:**
  1. Utilize SQL queries to extract relevant information from the sales dataset.
  2. Identify popular products based on sales.
  3. Determine expensive products by analyzing pricing trends.

4. Employ visual charts to present findings in an easily understandable format.
- **Significance:**
    1. Showcase the current relevance of SQL in extracting insights from large datasets.
    2. Emphasize the importance of data visualization for effective communication of analytical findings.
    3. Provide actionable insights for strategic decision-making in product management and marketing on the Flipkart platform.

## About the dataset

The dataset is gathered using a scraper from [Flipkart](#). It contains information about the products that are being sold in [Flipkart](#).

### The features of this dataset includes-

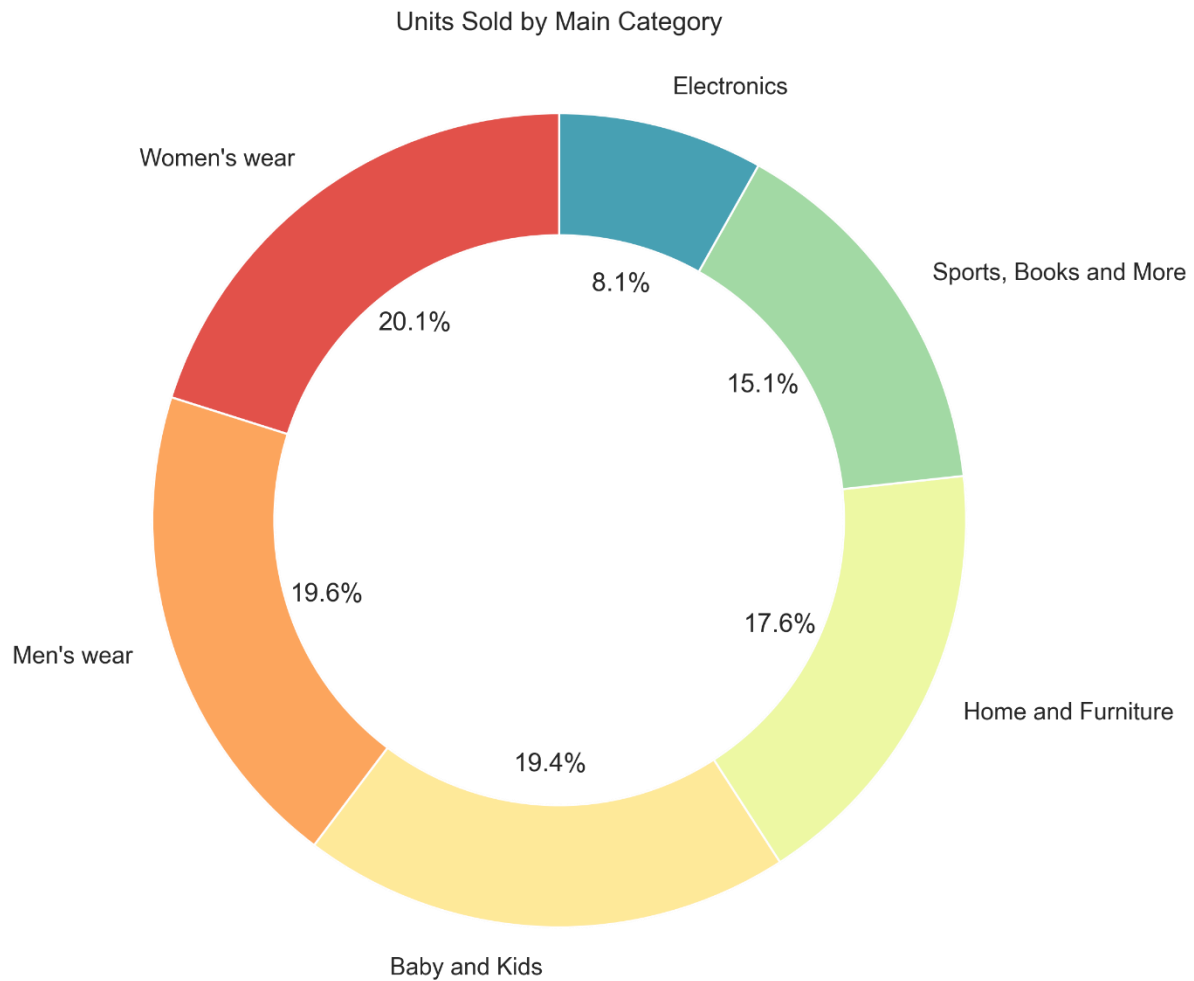
- *Category1, Category2, Category 3*: Specifies the division in which the data belongs as per the website.
- *Title*: Title of the product.
- *Product Rating*: Customer based rating of the product.
- *Selling Price*: Price at which the product was being sold on the date of scrapping.
- *MRP*: MRP of the product.
- *Seller Name*: Name of the business selling the product.
- *Seller Rating*: Rating of the same seller based on the customers.
- *Description*: Description of product if available.
- *Highlights*: Highlights of the product if available.

## Analysis

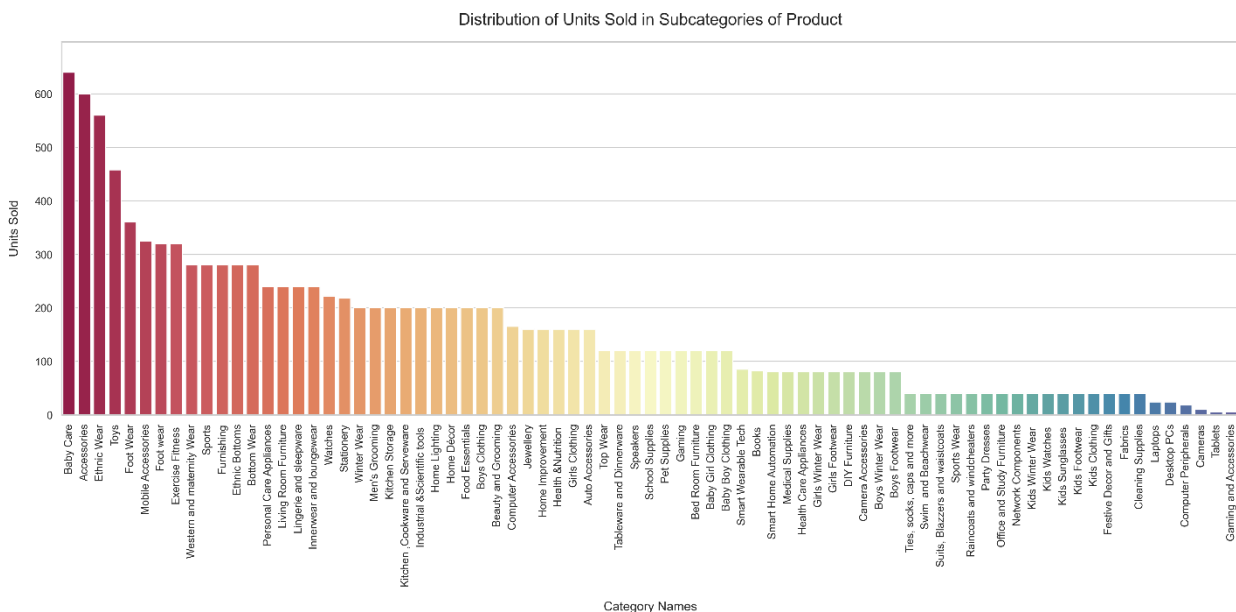
We approach some common problems related to Flipkart sales and try to answer them using SQL queries. The conclusions are given as –

1. Sales table has total 12041 rows and total 11 columns.
2. There are null values in few columnss like product name, product rating, selling price, mrp, seller name, seller rating, description and highlights column.
3. Description have the highest null values about to 7020 as compared to total 12041 values, followed by 5481 null values in highlights column.
4. Most unique values are around 10478 in product name, followed by highlights, description and seller name.
5. The data includes 6 main product categories, 76 sub categories and 300 product types and 10478 products with 3317 unique sellers and 1816 different price variations.

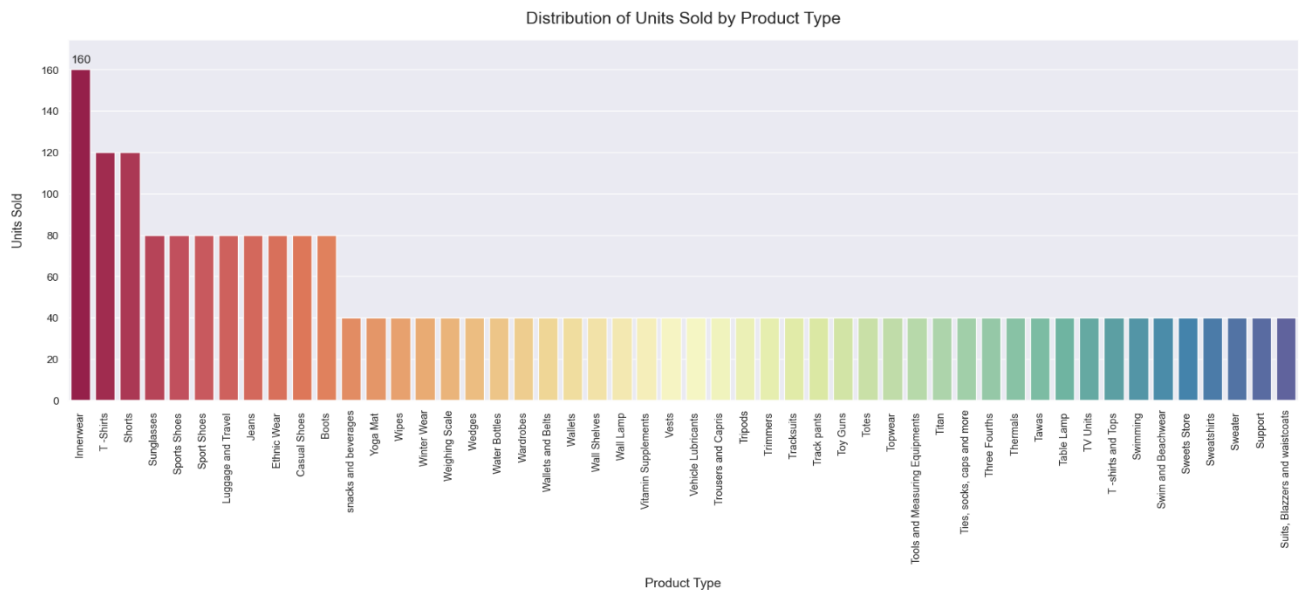
6. Most of the units sold are in the women's clothing category at around 2422, followed by men's clothing and baby & kids.



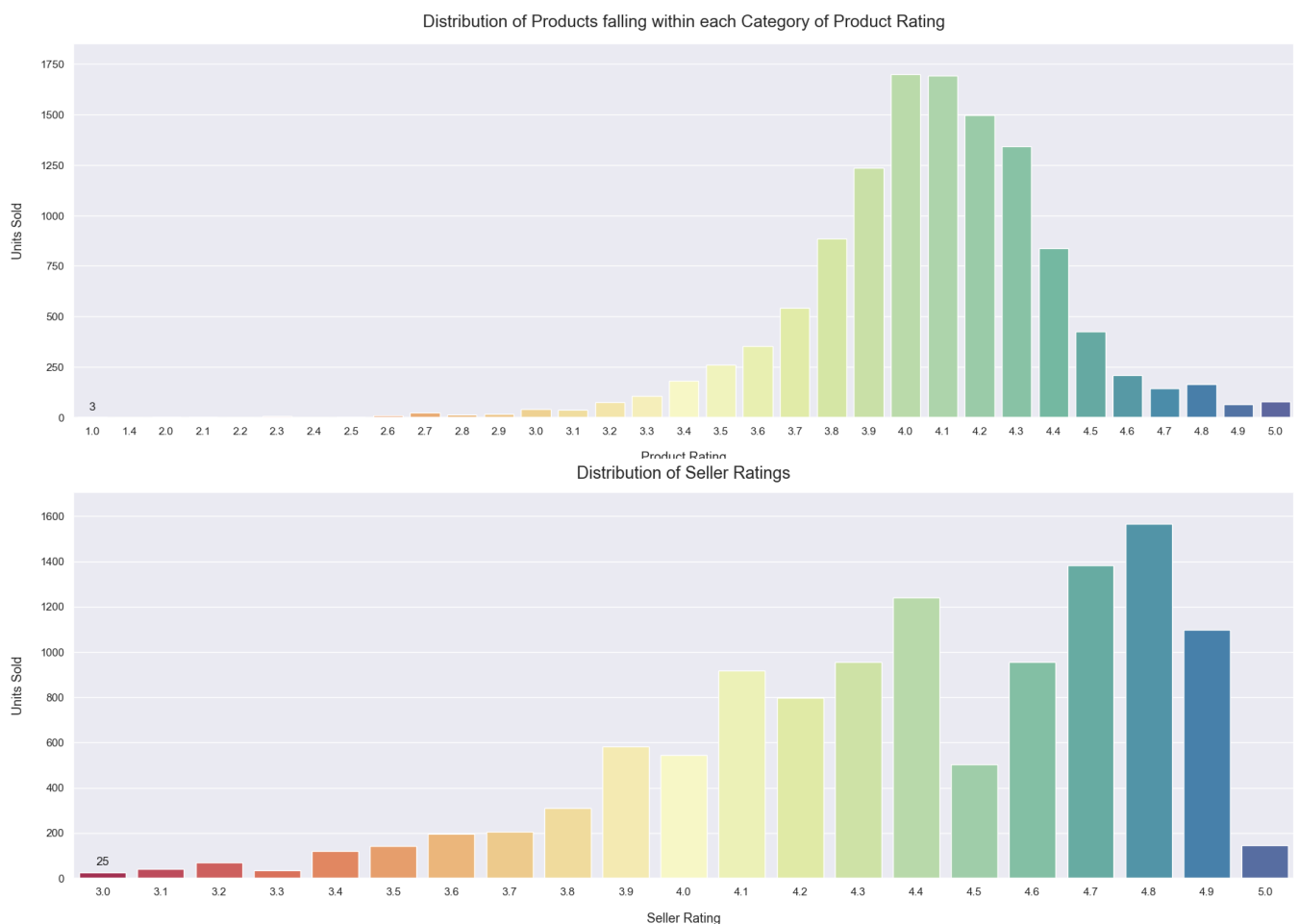
7. Most of the units sold are in the baby care category at around 640, followed by accessories and ethnic wear.



8. Most of the products sold fall under the innerwear category of about 160 products, followed by shorts and T-shirts.



9. Around 1697 products sold fall in the rating range of 4.0, followed by 4.1 around 1692, then product rating 4.2 and 4.3.
10. Product ratings range from 1.0 to 5.0 stars.
11. Most products sold have a seller rating of 4.8 around 1565, followed by seller ratings of 4.7 and 4.7.



12. Data includes 21 unique categories of seller ratings.
13. Seller ratings range from 3.0 to 5.0 stars.
14. Most units sold are priced at Rs.299.0 approximately 498 units, followed by products priced at Rs.499.0 and Rs.399.0.
15. Total 1754 products have been sold which are below Rs.50000. And only 62 products were sold above the selling price of Rs.50000.
16. Only one unit is sold for the product whose minimum price is Rs.10.0 and one unit is sold whose price is Rs.300490.
17. There are 1816 unique price amounts for different products in the data.
18. Selling price ranges from Rs.10.0 to Rs.300490.
19. Most of the products sold come under MRP of Rs. 999.0 approximately for 1429 units, followed by Rs. 1999.
20. Total 1332 products are sold which come under MRP of Rs.50000 and only 81 products are sold above MRP of Rs.50000.
21. In MRP column there are only two units of the product which has minimum price of Rs.65.0 have been sold and one unit has been sold which has minimum price of Rs.1174131.0.
22. Data includes 1414 unique MRP amounts for various products.
23. MRP ranges from Rs.65.0 to Rs.1174131.0.
24. The main category of women's apparel has the highest average discount of around 61.57% on most products, followed by discounts on men's apparel and baby and children's products.
25. In the main product category, Average discount ranges from 46.53 to 61.57%.
26. Most of the products which fall under the sub category party dresses have an average discount of around 78.41%, followed by kids sunglasses and kids watches.
27. In the sub category of product, Average discount ranges from 17.39 to 78.41%.
28. Most of the products which fall under product type artificial jewelery have an average discount of around 85.89%, followed by track pants and sarees.
29. In the product type, Average discount ranges from 68.86 to 85.89%.
30. In Main Category, Electronics have the most expensive product of Rs. 300490 followed by Women's wear and Sports, Books and More.
31. In Main Category, Most Expensive Product ranges from Rs. 16495 to Rs. 300490.
32. In Sub Category, The most expensive product is Laptop Rs. 300490 are followed by Camera Accessories and Desktop PCs.
33. In Sub Category, Most expensive products ranging from Rs. 16495 to Rs. 300490.
34. In the top 50 most expensive product, Gaming Laptop priced at Rs. 300490, followed by Lens and Desktop PC. Top 50 most expensive products ranging from Rs. 16495 to Rs. 300490.
35. The most expensive product is Rs.300490 from seller PETILANTE Online, followed by Retailnet and Omnitechretail.
36. The most expensive product ranges from Rs.21599 to Rs.300490 for the top 50 sellers.
37. Seller RetailNet has the highest sales volume of 601, followed by SuperComNet, MythangloryRetail and HSAtlastradeFashion. Sales volume ranges from 22 to 601.
38. Most seller are in the category of product rating of 4.0 stars about 840, followed by 4.1, 3.9 and 4.2 stars. Number of unique seller ranges from 3 to 840.
39. In the main category of product, Women's Wear has the most unique sellers about 822, followed by Home and Furniture and Baby and Kids. Total unique seller ranges from 310 to 822.
40. In the product sub-category, ethnic wear has the most unique sellers around 227, followed by toys and footwear. Total unique sellers range from 2 to 227.

## Conclusion

The comprehensive analysis of Flipkart sales data through SQL queries has yielded invaluable insights into various facets of product performance, customer behavior, and market trends. The results shed light on critical aspects such as product popularity, pricing dynamics, and seller performance, all of which play a pivotal role in shaping e-commerce strategies. The meticulous examination of sales metrics, ranging from product ratings and seller ratings to pricing trends and discount averages, provides a holistic view of the online retail landscape. Moreover, the identification of top-selling categories, unique product types, and sellers with the highest sales volume underscores the strategic importance of leveraging data for informed decision-making. The report not only showcases the contemporary relevance of SQL for data extraction but also underscores the significance of data visualization in communicating analytical findings effectively. Overall, the sales analysis presented here empowers businesses to adapt to market dynamics, enhance competitiveness, and foster sustained growth in the ever-evolving realm of online retail.

