



# INTRODUCTION

## About Flipkart

Flipkart is an Indian e-commerce company, headquartered in Bangalore, Karnataka, India. It is the largest e-commerce company in India and was founded by Sachin and Binny Bansal. The company has wide variety of products electronics like laptops, tablets, smartphones, and mobile accessories to invogue fashion staples like shoes, clothing and lifestyle accessories; from modern furniture like sofa sets, dining tables, and wardrobes to appliances that make your life easy like washing machines, TVs, ACs, mixer grinder juicers and other time-saving kitchen and small appliances; from home furnishings like cushion covers, mattresses and bedsheets to toys and musical instruments

## Role of E-Commerce In Fashion Industry

E-Commerce Fashion industry is among the most important industries in the world and it accounts for a substantial share of the global economy. It is evident that eCommerce is growing rapidly after the pandemic. Every day more businesses are going digital and the competition in the niche markets is rising too.

Fashion eCommerce refers to the buy and sell transactions of fashion and apparel products online, specifically through eCommerce platforms.

Because of this growth in the fashion industry eCommerce has created a livelihood for a lot of people and has made this one of the most popular professions among sellers, fashion designers, manufacturers, and retailers.

E-Commerce has grown and has such importance among retailers and customers because of all the advantages it offers to shoppers and sellers.

## Objective

- To Observe the Sale of Flipkart Apparel of Different Brand.
- To Find the Pattern of Sales of Clothing in Categories of Gender And Ages.
- To Analyse the Ratings of the Sold Apparel .
- To Conclude the Price of Apparels.

## About Dataset

The dataset includes data on Apparels from the top most popular brands in India: Nike,Campus,Adidas,Puma,Fila,Etc. Dataset has no null value.

Columns: There are 11 columns each having a title which is self-explanatory.

Rows: There are 1639 rows each having a different apparels with at least a distinct Ratings.

### DESCRIPTION OF ATTRIBUTES

1. **Brand:** Brand Name
2. **Title:** Brand apparel name
3. **Product Type:** Type of Product
4. **Who:** Gender
5. **Price:** Selling Price of Product After Discount
6. **MRP:** Selling Price of Product Before Discount
7. **Savings:** Concession after discount
8. **Discount %:** Discount in Product
9. **Ratings:** Ratings of the Customer Product
10. **Total Ratings Given:** No. of Ratings Given
11. **Total Reviews Given:** No. Reviews Given

# EXPLORATORY DATA ANALYSIS

EDA is one of the most important phases in data science since it helps us to obtain critical insights and statistical metrics. In general, EDA can be categorised in two ways.

The first distinction is that each method is either non-graphical or graphical. Second, each method is univariate or multivariate in nature (usually just bivariate).

Non-graphical approaches typically include the computation of summary statistics, but graphical methods clearly summarize the data in a diagrammatic or pictorial manner.

Let's look at each type individually.

## Illustration of Dataset

|      | Brand  |        | Title                     | Product | Type | Who  | Price   | MRP  | Savings | Discount % | Rating | Total Ratings Given | Total Reviews Given |
|------|--------|--------|---------------------------|---------|------|------|---------|------|---------|------------|--------|---------------------|---------------------|
| 0    | NIKE   | NIKE   | Nike Revolution 4 Men'... | shoes   | men  | 2216 | 3693.33 | 1477 | 40.0    | 4.2        |        | 54006               | 7049                |
| 1    | Layasa | Layasa | sports shoes for men...   | shoes   | men  | 379  | 997.37  | 618  | 62.0    | 4.0        |        | 13792               | 1677                |
| 2    | YONEX  | YONEX  | Tokyo 2 Badminton Sho...  | shoes   | men  | 1919 | 2998.44 | 1079 | 36.0    | 4.3        |        | 1298                | 172                 |
| 3    | ADIDAS | ADIDAS | Clear Factor M Runni...   | shoes   | men  | 1499 | 2498.33 | 999  | 40.0    | 4.2        |        | 3904                | 578                 |
| 4    | PUMA   | PUMA   | Space Runner Running S... | shoes   | men  | 2050 | 3474.58 | 1424 | 41.0    | 4.2        |        | 194                 | 36                  |
| ...  | ...    | ...    | ...                       | ...     | ...  | ...  | ...     | ...  | ...     | ...        |        | ...                 | ...                 |
| 1634 | MARVEL | MARVEL | Boys Velcro Sports S...   | sandal  | kid  | 719  | 998.61  | 279  | 28.0    | 4.1        |        | 254                 | 44                  |
| 1635 | CAMPUS | CAMPUS | Boys Velcro Sports S...   | sandal  | kid  | 549  | 549.00  | 0    | 0.0     | 4.3        |        | 936                 | 134                 |
| 1636 | CAMPUS | CAMPUS | Boys Velcro Sports S...   | sandal  | kid  | 569  | 569.00  | 0    | 0.0     | 4.0        |        | 236                 | 23                  |
| 1637 | CAMPUS | CAMPUS | Boys Velcro Sports S...   | sandal  | kid  | 459  | 459.00  | 0    | 0.0     | 4.1        |        | 672                 | 88                  |
| 1638 | CAMPUS | CAMPUS | Boys Velcro Sports S...   | sandal  | kid  | 439  | 439.00  | 0    | 0.0     | 3.7        |        | 77                  | 9                   |

1639 rows x 11 columns

# DESCRIPTIVE STATISTICS (NON-GRAPHICAL)

In this section, we will look at the Measures of Central Tendency (Mean, Median, Mode) and Measures of Dispersion (Standard Deviation, Range and Quartiles).

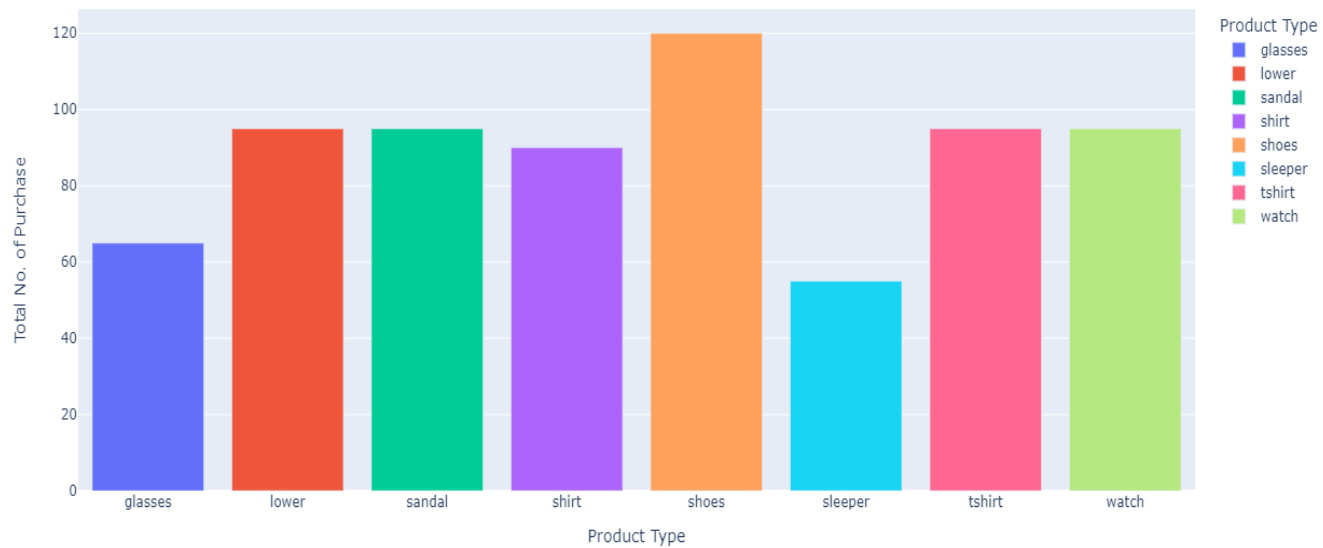
## Numerical Features

|       | Price       | MRP          | Savings     | Discount %  | Rating      | Total Ratings Given | Total Reviews Given |
|-------|-------------|--------------|-------------|-------------|-------------|---------------------|---------------------|
| count | 1639.000000 | 1639.000000  | 1639.000000 | 1639.000000 | 1639.000000 | 1639.000000         | 1639.000000         |
| mean  | 900.738865  | 1716.956882  | 815.811470  | 45.569860   | 3.985784    | 1730.180598         | 224.970714          |
| std   | 966.610384  | 1476.457547  | 778.801047  | 23.055618   | 0.348202    | 8655.260853         | 1125.891795         |
| min   | 149.000000  | 219.000000   | 0.000000    | 0.000000    | 3.000000    | 1.000000            | 1.000000            |
| 25%   | 379.000000  | 891.070000   | 310.000000  | 32.000000   | 3.800000    | 23.000000           | 3.000000            |
| 50%   | 599.000000  | 1198.280000  | 598.000000  | 50.000000   | 4.000000    | 109.000000          | 13.000000           |
| 75%   | 999.000000  | 1986.360000  | 1085.500000 | 62.000000   | 4.200000    | 496.500000          | 61.000000           |
| max   | 8495.000000 | 10759.180000 | 5487.000000 | 89.000000   | 5.000000    | 167992.000000       | 20241.000000        |

## Categorical Features

|        | Brand  | Title                          | Product Type | Who  |
|--------|--------|--------------------------------|--------------|------|
| count  | 1639   | 1639                           | 1639         | 1639 |
| unique | 377    | 916                            | 8            | 4    |
| top    | ADIDAS | CAMPUS Boys Velcro Sports S... | shoes        | men  |
| freq   | 114    | 34                             | 335          | 710  |

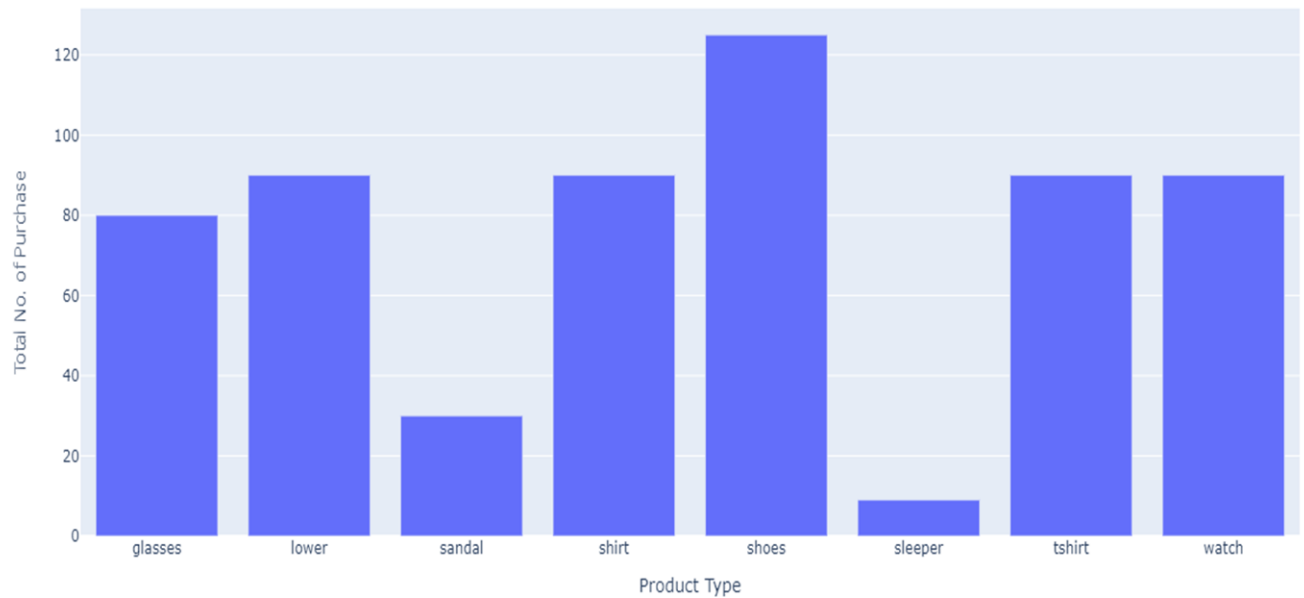
## Selling Count in Product Type in Gender Category in Men



Shoes have high selling in Product Type Category of Men

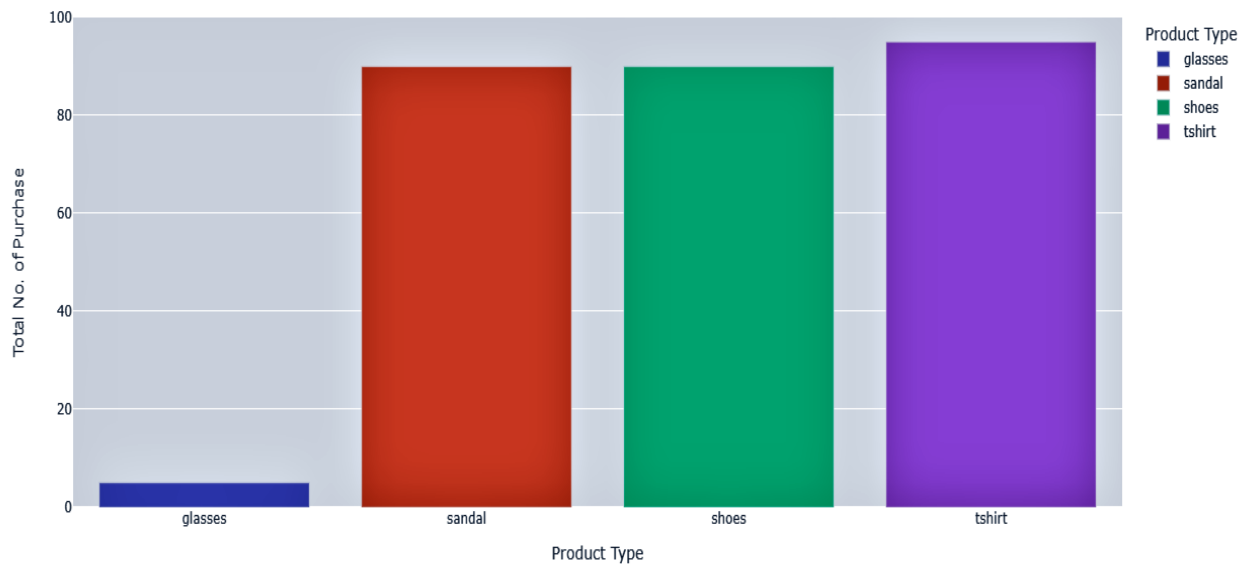
And most least is sleepers, Lower and sandal t-shirt watches have also good sells number.

## Selling Count in Product Type in Gender Category in Women



Here also shoes have highest selling number in Product Type Category of Women but compared to men women have high number of sells. Other Category like T-shirt, Watches, lower, glasses have good number but sleeper have most least number in Sales.

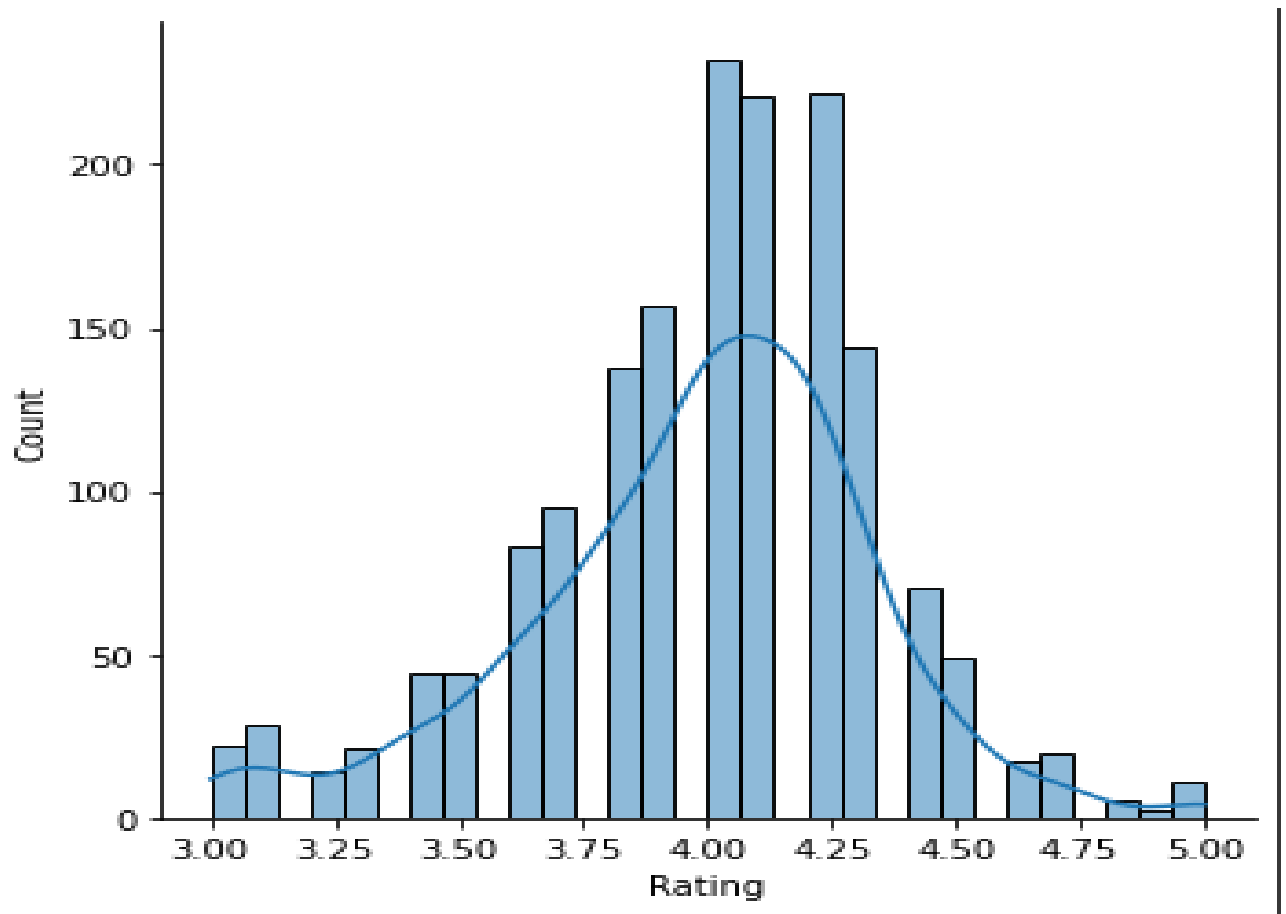
## Selling Count in Product Type in Gender Category in Kids



Here four Category were Sales Activity has happened as expected. But four out of three which is sandals, shoes, T-Shirt have high selling number but glasses have least selling number as expected

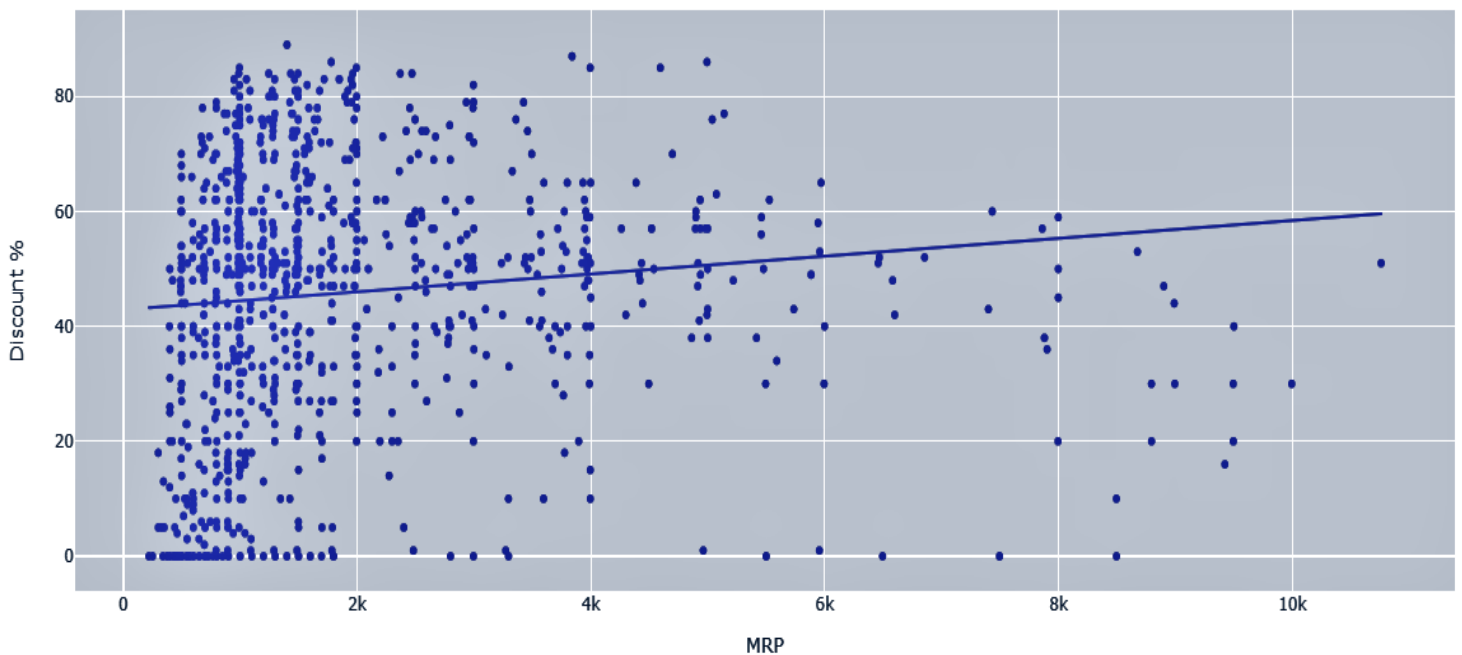


### Histogram of Ratings of customer



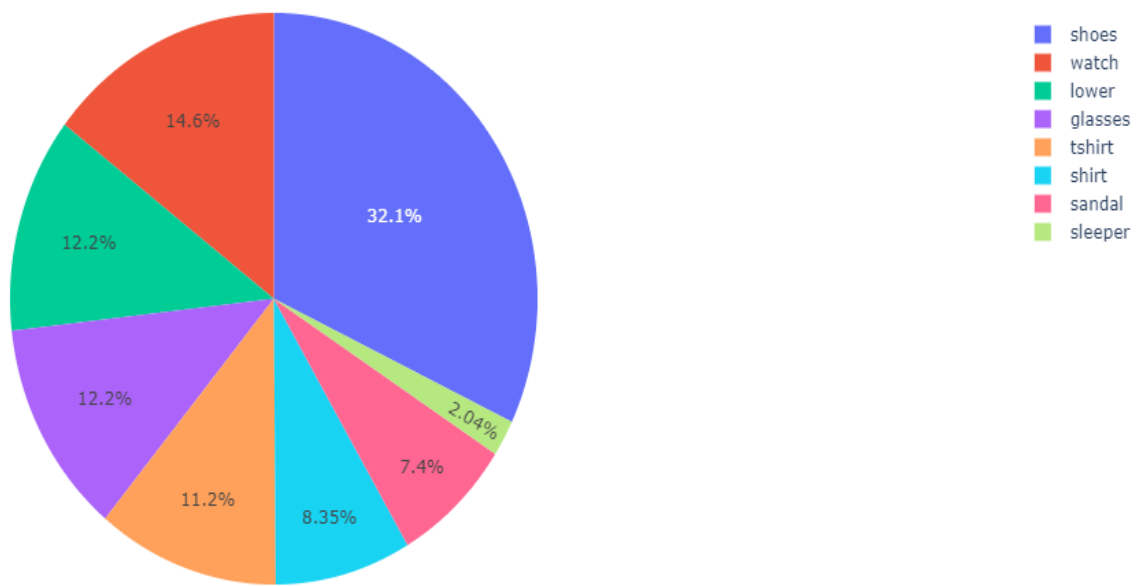
The histogram shows the normal distribution which indicates that the most rating of customer are lies on 3.5 to 4.5 which means the ratings are average to very good rating have given by the customers

## Prediction of Discount On the basis of MRP



The scatterplot shows that as MRP increases, there is less discount offered to the customer. This shows that if the price of most products increases, there will be fewer products for which high discounts will be offered.

## Most No. of Savings in Product Category



As expected from analysis of above chart the Savings are high in Shoes compared to other Categories in Product Type.

## **Conclusion**

- If we see in Category of gender wise shoes are high priority to buy in both male and female because they are Less in price and also most of discount are offered.
- Customer Feedback after buying Product is Overall in the range of Average to Good.
- After the Analysis of MRP and discount Rate we found that if product is low then high discount are offered if MRP of the product is high then there few discount are offered to Customer