

Flipkart



Beyond the cart: Insights from Flipkart's Product Dataset

By: Tendai Phikiso





Introduction

This report delves into the findings from the Flipkart's product dataset. Following a thorough cleanup, we've uncovered noteworthy observations.

Our analysis focused on understanding various price metrics, providing a comprehensive view of the seller and actual prices on the platform, examining stock availability, evaluating how sellers and brands are performing, and investigating the impact of discounts on both product and subcategory ratings.

This report aims to present a clear and comprehensive overview of these dynamics.

Dataset Overview

Delving into the specifics of our product dataset, a noteworthy observation is the presence of **28,080 unique products**.

There are **498 distinct sellers & 346 brands** contributing to the platform's diverse product offerings. The dataset comprises a total of **4 categories and 22 subcategories**, reflecting the comprehensive range of offerings available to Flipkart's users.



Price Range Analysis

1. What is the average actual/selling price?

To identify the benchmark of the typical cost of products within the Flipkart dataset, we carried out the Avg of actual product price and the selling price.

Average of Actual Price	Average of Selling Price
₹ 1,415.25	₹ 705.58

2. What are the minimum and maximum actual/selling prices?

The range between minimum and maximum prices for both actual and selling prices provides insights into the diversity of pricing within the dataset.

Minimum Actual Price	Minimum of Selling Price
₹ 150.00	₹ 99.00
Maximum Actual Price	Maximum of Selling Price
₹ 12,999	₹ 7,999

Product Analysis

How many products are in & out of stock?

Out of stock products	1,644	5.85%
In stock products	26,436	94.15%

Analysing the inventory status of Flipkart's product catalog, we found that out of 28,080 products, 5.85% items are currently out of stock. This indicates a relatively small portion of products temporarily unavailable for purchase. On the contrary, a significant majority of Flipkart's inventory, 94.15%, are currently in stock.

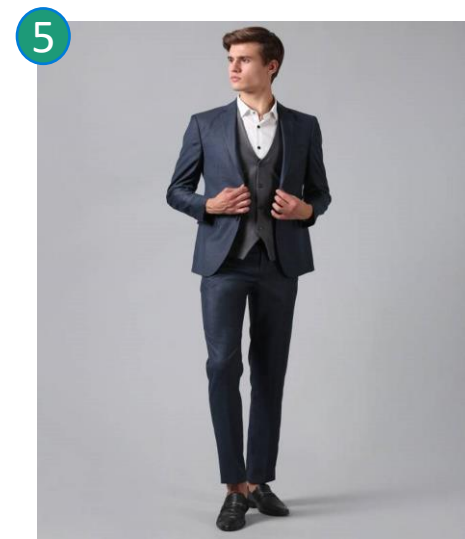
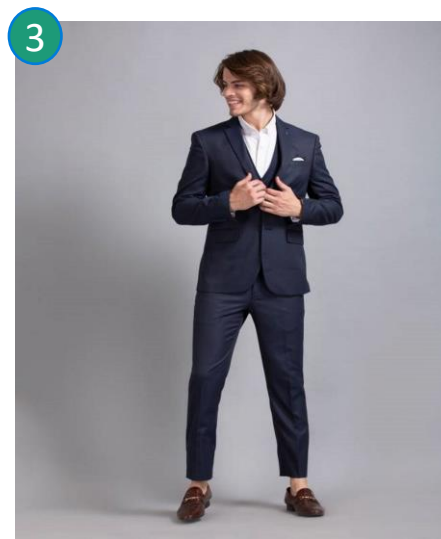
The balanced distribution between in-stock and out-of-stock items showcases a healthy inventory management approach, catering to the diverse needs of Flipkart's customers.

Product Analysis

What are the top 5 priciest products in the dataset?

All the top 5 priciest products in the dataset share the same price tag of ₹ 12,999. A noteworthy observation is the consistency in product types, with a focus on suits, jackets, and sweatshirts. This suggests that these high-priced items cater to a particular niche or demand for sophisticated and stylish men's apparel.

Product	Product Price
3 Piece Solid Men Suit	₹ 12,999.00
Full Sleeve Printed Men Sweatshirt	₹ 12,999.00
2 Piece Self Design Men Suit	₹ 12,999.00
Full Sleeve Solid Men Casual Jacket	₹ 12,999.00
2 Piece Solid Men Suit	₹ 12,999.00



Seller Analysis

By rating who are Flipkart's top sellers?

Delving into Flipkart's seller ratings, from our findings RETAILNET emerges as the top seller with an average rating of 4.11 across 1416 products, ARBOR closely follows with a 4.10 rating and 783 products. However, SANDSMARKETING ranks as a bottom seller with a lower 2.68 rating across 887 products, signaling potential challenges in customer satisfaction.

Sellers	Average rating	Number of product
RETAILNET	4.11	1416
ARBOR	4.10	783
TAYAB MANCH FASHIONS	3.96	437
BIOWORLDMERCHANDISING	3.91	842
BLACK BEATLE	3.90	548
KEOTI	3.82	660
KAPSONSRETAILPVTLTD	3.69	417
AFFGARMENTS	3.41	587
AMALGUS ENTERPRISE	3.32	477
SANDSMARKETING	2.68	887

Based on the top 5 sellers, what brands do they sell?

Sellers	Brands
RETAILNET	Adidas, Puma, Reebok ,Byford by Pantaloons, Breakbounc etc..
ARBOR	Arbour
TAYAB MANCH FASHIONS	Puma & Reebok
BIOWORLDMERCHANDISING	Disney & Free authority
BLACKBEATLE	Black Beatle

Brand Analysis

Which top 10 brands have the highest product count?

Brands	Number of products
ecko	951
reebok	881
free authority	865
arbour	806
puma	801
true	794
keoti	660
black	630
vip	606
ample	587
vims	503
yellowvibes	492
pixfab	429
okane	414
graceway	410

Brand Analysis

By rating, which top 10 brands are performing?

This analysis reveals the performance of top 10 brands based on weighted averages, combining factors like the number of products and average ratings. The weighted average allows for a fair evaluation, giving prominence to brands with a combination of high ratings and a substantial product presence. In this context, Reebok emerges as the top performer, showcasing consistent excellence across a significant product range. Arbour closely follows in the second spot, demonstrating a commendable balance between quality and quantity. Notably, Keoti, despite having an average rating of 3.82, ranks sixth when considering the weighted average. This highlights the significance of the weighted average, which ensures that both ratings and the number of products contribute meaningfully to how top-performing brands are ranked.

Brands	Number of products	Average Rating		Weighted Average	Rank
arbour	806	4.07	↑	0.432818889	2
puma	801	4.04	↑	0.426540034	4
reebok	881	4.01	↑	0.465466297	1
keoti	660	3.82	→	0.332607835	6
free authority	865	3.79	↑	0.4323704	3
black	630	3.62	↓	0.300685925	8
true	794	3.42	→	0.3579475	5
ample	587	3.41	↓	0.264411028	9
vip	606	3.22	↓	0.257314338	10
ecko	951	2.56	↓	0.321567076	7

Brand Analysis

Create a table showcasing the average actual/selling prices for the top 15 brands that have the highest number of products in the dataset.

Actual(Product price)

Brands	Number of products	Average of product price	Rank
true	794	₹ 2,779.36	1
puma	801	₹ 2,688.84	2
reebok	881	₹ 2,174.87	3
yellowvibes	492	₹ 1,970.94	4
ample	587	₹ 1,630.83	5
pixfab	429	₹ 1,319.05	6
okane	414	₹ 1,296.73	7
ecko	951	₹ 1,286.70	8
vims	503	₹ 1,192.04	9
free authority	865	₹ 1,084.03	10
keoti	660	₹ 1,016.73	11
graceway	410	₹ 990.85	12
black	630	₹ 904.97	13
arbour	806	₹ 798.81	14
vip	606	₹ 544.13	15

Selling price

Brands	Number of products	Average of selling price	Rank
puma	801	₹ 1,511.80	1
reebok	881	₹ 1,391.03	2
true	794	₹ 1,226.56	3
ecko	951	₹ 897.70	4
yellowvibes	492	₹ 748.68	5
okane	414	₹ 744.52	6
free authority	865	₹ 625.63	7
ample	587	₹ 590.83	8
vip	606	₹ 572.69	9
keoti	660	₹ 435.06	10
arbour	806	₹ 431.58	11
graceway	410	₹ 414.60	12
vims	503	₹ 379.96	13
black	630	₹ 335.50	14
pixfab	429	₹ 305.03	15

Categories & Subcategories Analysis

By rating, which categories are performing?

While the average rating for Bags, Wallets & Belts is 4.13, indicating positive feedback, it's crucial to note the small sample size of only 41 products within this category. The analysis suggests that caution is needed when considering Bags, Wallets & Belts as the best-performing category. In contrast, Clothing and Accessories, with 27,118 products, provides a much larger dataset for assessing customer preferences.

Weighted rating was carried out as it helped provide a balanced view of how well each product category is performing. By taking into account both the number of products and their average ratings, it gives a fair representation of the overall performance, considering not only the variety of products but also how satisfied customers are with them.

Categories	Number of Products	Average Rating	Weighted Rating	Rank
Clothing and Accessories	27,118	3.32	3.20	1
Footwear	920	3.87	0.13	2
Bags, Wallets & Belts	41	4.13	0.01	3
Toys	1	3.60	0.00	4
Total	28,080	3.34		

Categories & Subcategories Analysis



Subcategories	Number of Products	Average Rating	Weighted average	Rank
Topwear	15,310	3.29	1.795677	1
Bottomwear	3,666	3.41	0.445666	2
Winter Wear	2,493	3.50	0.311111	3
Innerwear and Swimwear	1,762	3.28	0.205840	4
Clothing Accessories	1,742	3.21	0.199181	5
Kurtas, Ethnic Sets and Bottoms	1,180	3.17	0.133223	6
Men's Footwear	920	3.87	0.126635	7
Fabrics	534	3.29	0.062575	8
Sleepwear	122	2.95	0.012817	9
Blazers, Waistcoats and Suits	103	3.05	0.011200	10
Tracksuits	90	3.47	0.011118	11
Raincoats	34	3.58	0.004334	13
SUNSHOPPING Bags, Wallets & Belts	31	4.31	0.004758	12
Uber Urban Clothing and Accessories	28	3.33	0.003319	15
Inspire Clothing and Accessories	27	3.50	0.003369	14
Crocks Club Clothing and Accessories	15	3.68	0.001966	16
Roy Clothing and Accessories	12	3.36	0.001435	17
Winsome Deal Bags, Wallets & Belts	4	3.75	0.000534	18
YOFAMA Bags, Wallets & Belts	4	3.50	0.000499	19
Party Supplies	1	3.60	0.000128	21
Brand Trunk Bags, Wallets & Belts	1	4.10	0.000146	20
mentiezi Bags, Wallets & Belts	1	2.50	0.000089	22
Total	28,080	3.34		

By rating, which subcategories are performing?

The weighted average rating for subcategories was conducted to offer a comprehensive evaluation of their performance. By considering both the quantity (number of products) and the quality (average rating), this assessment provides insights into the overall success of each subcategory.

Notably, Topwear emerges as the top-performing subcategory, excelling in both the diversity of products and customer satisfaction.



Categories & Subcategories Analysis

	Number of products
Category/Subcategory	Out of stock
Clothing and Accessories	
Topwear	679
Clothing Accessories	294
Bottomwear	274
Winter Wear	237
Innerwear and Swimwear	94
Kurtas, Ethnic Sets and Bottoms	23
Tracksuits	13
Sleepwear	11
Blazers, Waistcoats and Suits	6
Uber Urban Clothing and Accessories	1
Raincoats	1
Inspire Clothing and Accessories	1
Footwear	
Men's Footwear	10
Grand Total	1,644

What's the distribution of out-of-stock products between categories and sub-categories?

In the given dataset, out-of-stock products are found in two main categories: Clothing & Accessories and Footwear.

The distribution of these out-of-stock products differs among subcategories, with the highest numbers in Topwear, followed by Clothing Accessories, Bottomwear & winter wear.

Discount Analysis

Subcategories	Average of discount
Brand Trunk Bags, Wallets & Belts	74%
Fabrics	66%
Roy Clothing and Accessories	65%
SUNSHOPPING Bags, Wallets & Belts	63%
Party Supplies	62%
Crocks Club Clothing and Accessories	60%
Inspire Clothing and Accessories	59%
YOFAMA Bags, Wallets & Belts	56%
Winsome Deal Bags, Wallets & Belts	56%
Blazers, Waistcoats and Suits	54%
Raincoats	54%
Clothing Accessories	52%
Topwear	50%
Winter Wear	50%
Kurtas, Ethnic Sets and Bottoms	49%
Men's Footwear	48%
Sleepwear	46%
Bottomwear	44%
mentiezi Bags, Wallets & Belts	42%
Uber Urban Clothing and Accessories	37%
Innerwear and Swimwear	35%
Tracksuits	26%

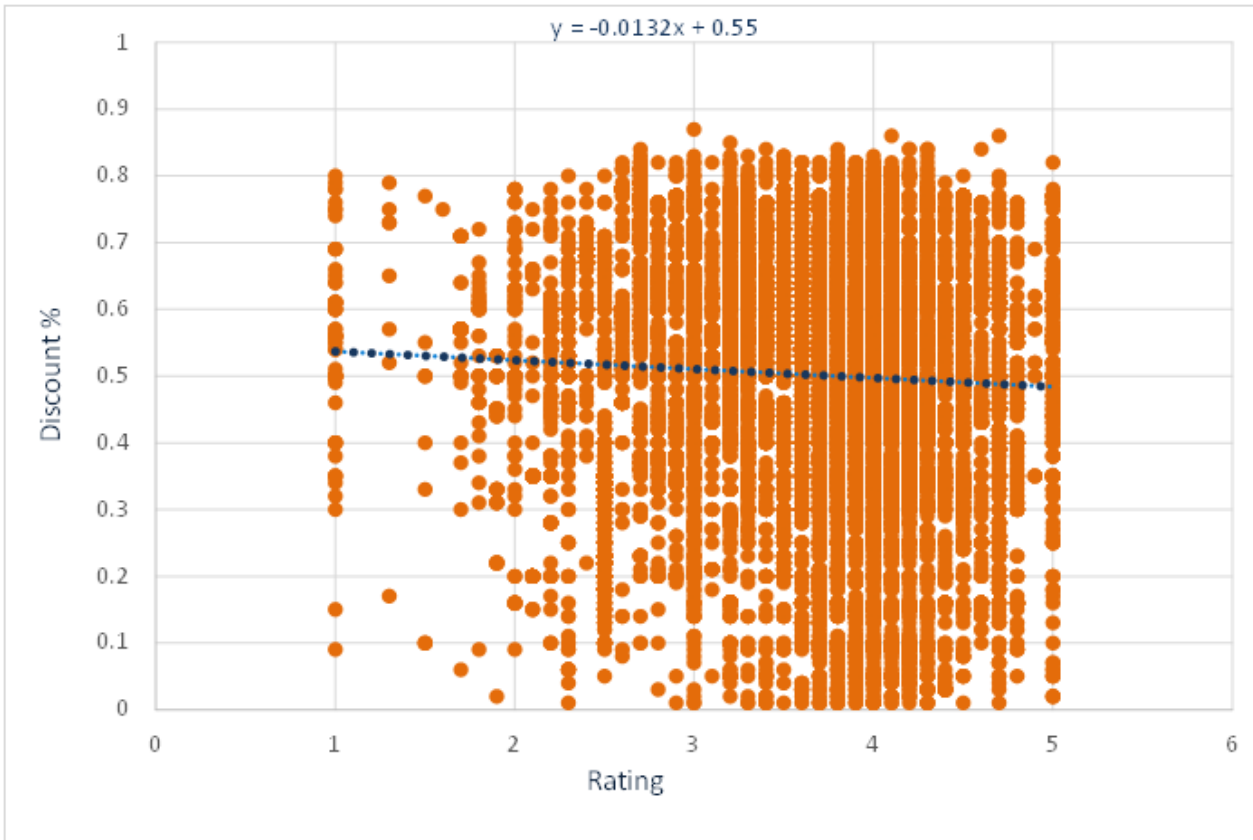
What's the most discounted Subcategory?

Most Discounted Subcategories: Brand Trunk Bags, Wallets & Belts (74%): This subcategory has the highest average discount among all.

Other highly discounted subcategories worth noting are Fabrics (66%), Roy Clothing and Accessories (65%), and SUNSHOPPING Bags, Wallets & Belts (63%).

Discount Analysis

Do you think the discount is responsible for the rating (based on products)?



In analysing the scatter plot, a negative relationship between product ratings and discounts is observed. The slope of the line indicates that as the discount increases, the rating tends to decrease.

This suggests that the discount does not necessarily have an influence on customers' rating of the product due to a high discount. On average, there is a slight tendency for higher ratings to be associated with slightly lower discounts.

Conclusion

In summary, our analysis highlights Retailnet and Arbor as top-rated sellers, along with Reebok and Arbour as leading brands. The standout subcategory is Topwear.

Our analysis suggests that offering high discounts does not guarantee better product ratings. It is important to consider other factors such as product quality, sizing as they play a crucial role in customer satisfaction.

Furthermore, our study reveals a trend where the priciest products are predominantly tailored to men's apparel. These insights provide valuable perspectives on seller and brand dynamics, subcategory performance, and the influential factors shaping customer ratings within the Flipkart platform.





Analyst: Tendai Phikiso

LinkedIn: <https://www.linkedin.com/in/tendai-p-5884451b1/>

GitHub: <https://github.com/TendaiPhikiso>

