

Insights from Product Listings, Pricing, and Sales

E-commerce Furniture Dataset 2024

Introduction

Focus Areas:

- Sales patterns
- Revenue contribution
- Pricing trends
- Inventory optimization

Tools & Technology:

- Microsoft Excel
- MySQL Workbench

About Dataset

Dataset Overview:

This dataset comprises 2,000 entries scraped from AliExpress, detailing a variety of furniture products. It captures key sales metrics and product details, offering a snapshot of consumer purchasing patterns and market trends in the online furniture retail space.

About Dataset

Data Science Applications:

The dataset is ripe for exploratory data analysis, market trend analysis, and price optimization studies. It can also be used for predictive modelling to forecast sales, understand the impact of discounts on sales volume, and analyse the relationship between product features and their popularity.

About Dataset

Column Descriptors:

- **productTitle:** The name of the furniture item.
- **originalPrice:** The original price of the item before any discounts.
- **price:** The current selling price of the item.
- **sold:** The number of units sold.
- **tagText:** Additional tags associated with the item (e.g., "Free shipping").

About Dataset

Ethically Collected Data:

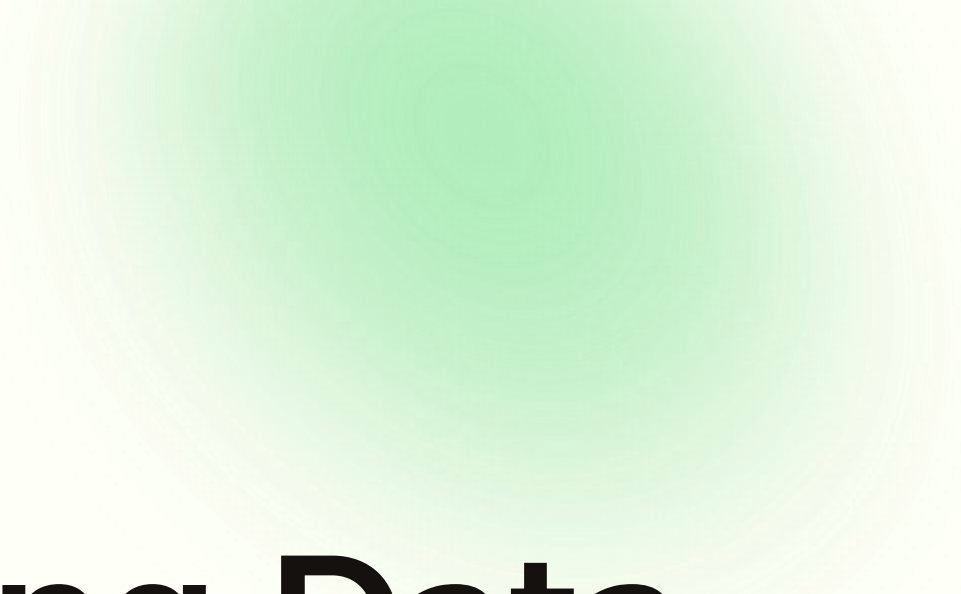
The data was collected in compliance with ethical standards, ensuring respect for user privacy and platform terms of service.

Acknowledgements:

This dataset was created with data sourced from AliExpress, using Apify for scraping. The thumbnail image was generously provided by Spacejoy on Unsplash. We extend our gratitude to these parties for their contributions to this dataset.

Objectives

- ✔ Identify top-performing and underperforming products
- ✔ Understand revenue contribution by product and category
- ✔ Analyze price and sales trends
- ✔ Highlight opportunities for pricing and inventory optimization
- ✔ Recommend actionable strategies for sales growth and operational efficiency



Unlocking Data with SQL Queries

“Data is the new oil, and SQL is the refinery that turns raw data into valuable insights”

—Anonymous

Total Product Count

```
SELECT COUNT(productTitle) FROM ecom;
```

1,794

Total Revenue

```
SELECT SUM(price*sold) FROM ecom;
```

₹ 19,72,261.20

Top 10 Best-Selling Products

```
SELECT SUBSTRING(productTitle, 1, 40) AS shortTitle, price, sold, tagText, (price * sold)  
+ tagText AS total_sale FROM ecom ORDER BY total_sale DESC LIMIT 10;
```

Portable round Folding Chair Accordion C	12.28	10000	0.00	122800.00
Caterpillar Single Sofa Lazy Couch Tatam	233.46	405	109.18	94660.48
MUMUCC Multifunctional Foldable And Adju	26.11	3000	0.00	78330.00
Monitor Stand for 13-32 inches Screens,	66.68	900	0.00	60012.00
Electric Stand Up Desk Workstation Whole	152.70	354	0.00	54055.80
MINGDIBAO Fabric Sofa Set Furniture Livi	1274.15	25	0.00	31853.75
Dresser For Bedroom With 9 Fabric Drawer	46.79	600	0.00	28074.00
Stylish Shoe Rack Metal Simple Shoe Shel	13.64	2000	0.00	27280.00
Office Furniture Computer Stand 42*26cm	26.03	1000	0.00	26030.00
Luxury Living Room Sofa Furgle Chair Sof	236.87	84	0.00	19897.08

Products with high price but no sales:

SELECT SUBSTRING(productTitle, 1, 40) AS shortTitle, price, sold FROM ecom WHERE sold = 0 ORDER BY price DESC LIMIT 10;

Luxury Modern Tight Curved Back Velvet S	2876.38	0
Faux Leather Power Reclining Living Room	1874.29	0
Modular Sectional Sleeper Sofa with Pull	1425.97	0
Cafe Sofa And Loveseat Set	1301.71	0
living room sofas Sectional Sofa, Modula	1197.77	0
Patio Furniture Sets, 6 Pieces Couch Out	1068.50	0
Modern luxury lounge chair home furnitur	978.88	0
8pcs Wicker Patio Furniture Set, 4 x Sin	843.86	0
2 Pieces Modular Sectional Sofa, 109" L-	826.09	0
Sectional Convertible Sofa, L-Shaped 5-S	805.08	0

Percentage Contribution to Total Revenue

```
SELECT SUBSTRING(productTitle, 1, 40) AS shortTitle, price, sold, (price * sold) AS  
revenue, ROUND((price * sold) / (SELECT SUM(price * sold) FROM ecom) * 100, 2) AS  
revenue_contribution_percent FROM ecom ORDER BY revenue_contribution_percent  
DESC;
```

shortTitle	price	sold	revenue	revenue_contribution_percent
Portable round Folding Chair Accordion C	12.28	10000	122800.00	6.23
Caterpillar Single Sofa Lazy Couch Tatam	233.46	405	94551.30	4.79
MUMUCC Multifunctional Foldable And Adju	26.11	3000	78330.00	3.97
Monitor Stand for 13-32 inches Screens,	66.68	900	60012.00	3.04
Electric Stand Up Desk Workstation Whole	152.70	354	54055.80	2.74
MINGDIBAO Fabric Sofa Set Furniture Livi	1274.15	25	31853.75	1.62
Dresser For Bedroom With 9 Fabric Drawer	46.79	600	28074.00	1.42
Stylish Shoe Rack Metal Simple Shoe Shel	13.64	2000	27280.00	1.38
Office Furniture Computer Stand 42*26cm	26.03	1000	26030.00	1.32
...

Price Distribution by Product

```
SELECT SUBSTRING(productTitle, 1, 40) AS shortTitle, price, ROUND(price /  
(SELECT SUM(price) FROM ecom) * 100, 2) AS price_percentage FROM ecom  
ORDER BY price_percentage DESC;
```

shortTitle	price	price_percentage
Luxury Modern Tight Curved Back Velvet S	2876.38	1.06
Faux Leather Power Reclining Living Room	1874.29	0.69
Garden Furniture Set 7 PCS, Garden Fire	1529.58	0.56
Modular Sectional Sleeper Sofa with Pull	1425.97	0.52
Cafe Sofa And Loveseat Set	1301.71	0.48
MINGDIBAO Fabric Sofa Set Furniture Livi	1274.15	0.47
living room sofas Sectional Sofa, Modula	1197.77	0.44
Patio Furniture Sets, 6 Pieces Couch Out	1068.50	0.39
13PCS Outdoor Patio Furniture Set with 4	1001.17	0.37
...

Sales Distribution by Price Band

```
SELECT CASE WHEN price < 50 THEN '< ₹50' WHEN price BETWEEN 50 AND 200  
THEN '₹50 - ₹200' WHEN price BETWEEN 200 AND 500 THEN '₹200 - ₹500' WHEN  
price BETWEEN 500 AND 1000 THEN '₹500 - ₹1000' ELSE '> ₹1000' END AS  
price_band, SUM(sold) AS total_units_sold FROM ecom GROUP BY price_band  
ORDER BY CASE WHEN price_band = '< ₹50' THEN 1 WHEN price_band = '₹50 -  
₹200' THEN 2 WHEN price_band = '₹200 - ₹500' THEN 3 WHEN price_band = '₹500  
- ₹1000' THEN 4 ELSE 5 END
```

shortTitle	price	price_percentage
< ₹50	33867	< ₹50
₹50 - ₹200	7376	₹50 - ₹200
₹200 - ₹500	1718	₹200 - ₹500
₹500 - ₹1000	197	₹500 - ₹1000
> ₹1000	33	> ₹1000

Highest Selling Categories

```
SELECT CASE WHEN productTitle LIKE '%sofa%' THEN 'Sofa' WHEN productTitle LIKE '%Table%' THEN 'Table' WHEN productTitle LIKE '%Chair%' THEN 'Chairs' ELSE 'Other' END AS category, COUNT(producttitle) AS total_units_sold FROM ecom GROUP BY category ORDER BY category DESC;
```

category	total_units_sold
Table	709
Sofa	311
Other	611
Chairs	163

Loss-Making Products from Excessive Shipping Costs

```
SELECT SUBSTRING(productTitle, 1, 40) AS shortTitle, sold, price, tagText, sold *  
price AS total_revenue FROM ecom WHERE tagtext > 0 AND tagtext > sold * price  
ORDER BY total_revenue DESC LIMIT 10;
```

shortTitle	sold	price	tagText	Total_revenue
OMGD Wind Coffee Table Living Room New S	2	104.24	255.93	208.48
Home bedroom balcony lounge chair lazy s	13	14.27	1115.86	185.51
Bamboo Breathable Shoe Cabinet with Door	6	30.50	239.64	183.00
Folding Sofa Bed Dual-purpose Household	2	88.51	1323.31	177.02
Comfortable Rocking Chair For Living Roo	3	56.15	350.41	168.45
Bedroom Bedside Table Nordic Minimalism	3	41.44	230.37	124.32
Bamboo Nightstand Bedside Table, Modern	6	19.94	142.23	119.64
Nordic Coffee Table Modern Simplicity So	9	11.47	120.25	103.23
Stylish and Comfortable Sofa Chair: Ins	2	51.06	1097.18	102.12
Ins Wind Rock Board Side Table Light Lux	2	44.68	239.64	89.36

Key Insights and Takeaways

- Shipping costs exceed sales price for several products, leading to negative margins.
- Low-cost products drive the majority of sales.
- Certain categories show high sales but low profitability due to high shipping or production costs.
- Opportunities to optimize shipping methods and adjust pricing strategies.
- Focus on reducing shipping costs and fine-tuning pricing to improve margins.

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Thanks!