



# Flipkart Sales & Performance Analysis Dashboard

Comprehensive E-commerce Business Insights (2020–2025)



# Objective & Overview

This comprehensive analysis examines Flipkart's sales performance, profitability trends, and customer behavior patterns across a five-year period from 2020 to 2025.

Our dashboard provides actionable insights derived from **100,000 total orders**, analyzing revenue streams, cost structures, geographic performance, and product category dynamics to inform strategic business decisions.

Key focus areas include quarterly profit trends, regional market penetration, customer ordering patterns, and category-level performance metrics.



# Data Collection

- » The dataset was sourced from Kaggle, an open data platform widely used for analytics and machine learning projects.
- » Dataset Name: Flipkart E-Commerce Sales Data (2020–2025)
- » The dataset contained over 100,000+ records and 20+ attributes, including: Order ID, Product Name, Category, Brand, State, City, Order Date, Revenue, Profit, COGS, Rating, Payment Mode, and Delivery Days.
- » Data represents customer transactions from multiple product categories across Indian states and cities.
- » The goal was to analyze sales trends, profit margins, order patterns, and customer behavior over time.



# Data Cleaning & Preparation

## » Removed Missing Values:

Checked for blanks and null entries in key columns (Revenue, Profit, Category, Payment Mode). Replaced or removed incomplete rows.

## » Handled Duplicates:

Identified and removed duplicate Order IDs to ensure unique transactions.

## » Standardized Data Formats:

Converted Order Date to proper date format (DD-MM-YYYY). Standardized text fields (e.g., “COD” vs “Cash on Delivery”).

## » Calculated Derived Metrics:

Added new columns for Profit Margin (%), Month, and Quarter for time-based analysis.

## » Outlier Treatment:

Reviewed unusually high or negative revenue/profit values and adjusted or excluded outliers after verification.

## » Categorical Cleanup:

Normalized product categories and payment mode names for consistency.

## » Final Data Validation:

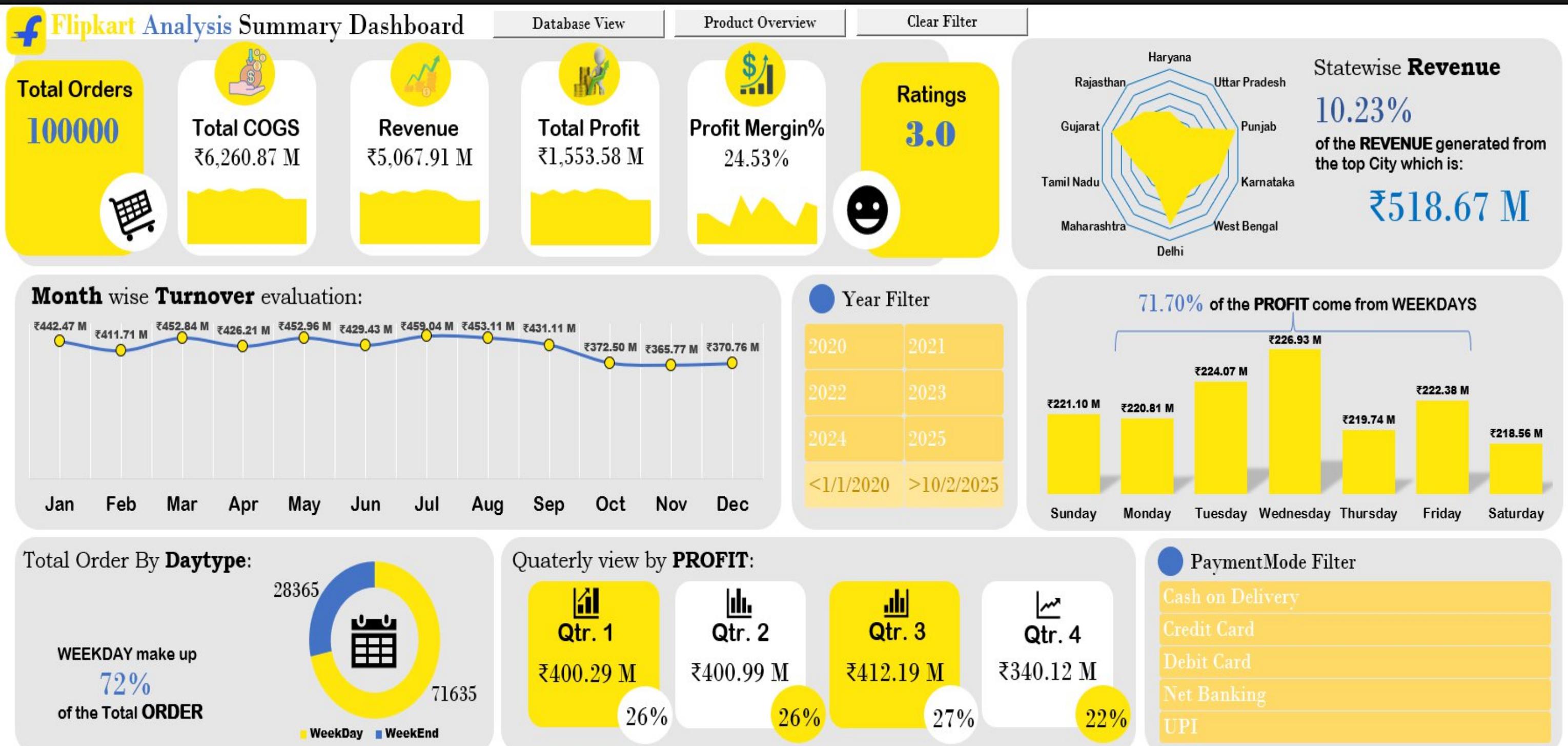
Verified total orders, sales, and profits using Excel pivot summaries to match Kaggle base data.



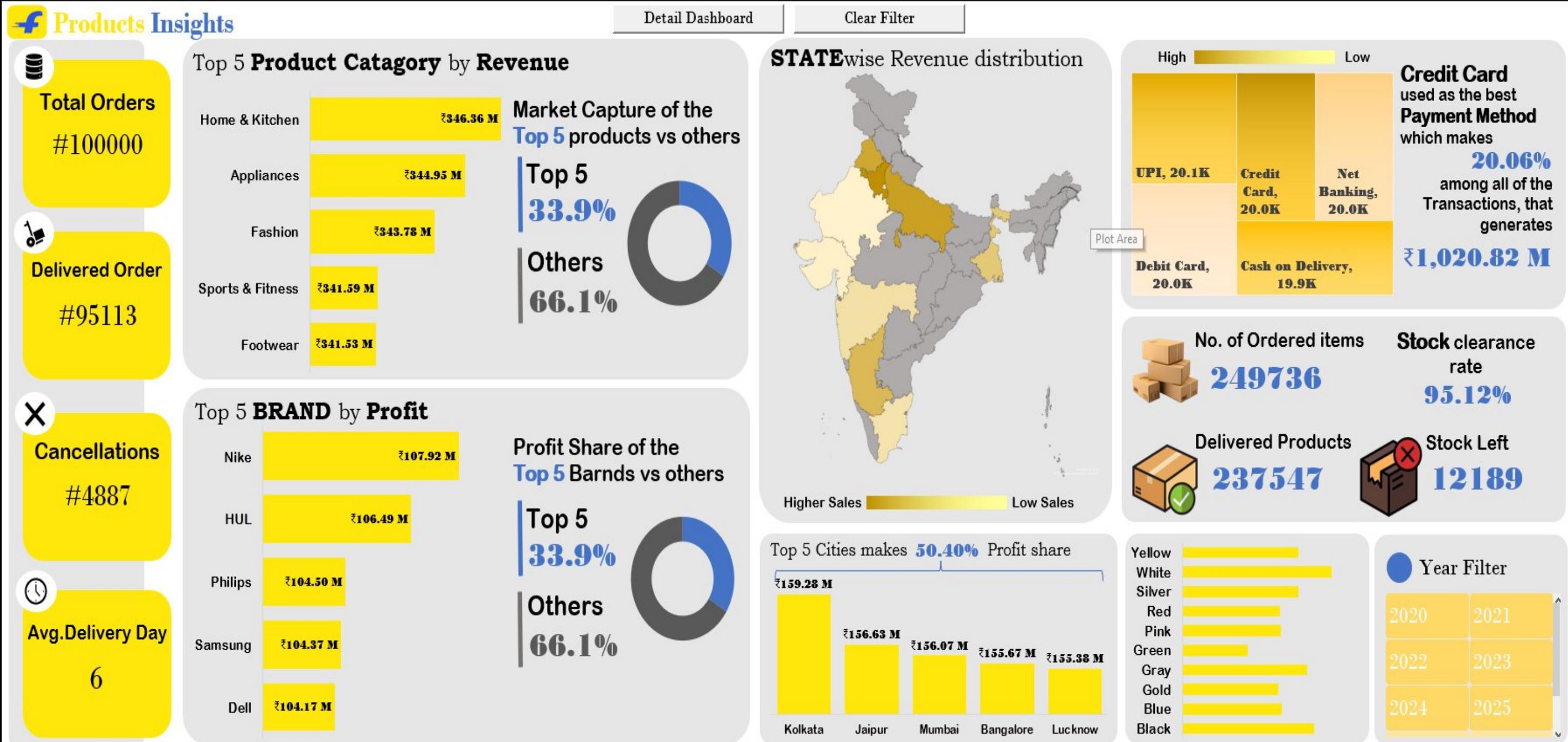
# Raw Data

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	
1	order_id	user_id	product_id	product_name	category	brand	quantity	mrp	Gross Price	discount_pct	coupon_used	payment_method	seller_id	city	state	pincode	color	size	rating	review_count	weight_g	warranty
2	ORD1000000	16795	PROD1792	Product_0	Sports & Fitness	Samsung	1	33214.41	33214.41	58	No	Cash on Delivery	734	Pune	Karnataka	414546	Pink	XL	4.9	436	3721	
3	ORD1000001	1860	PROD3378	Product_1	Home & Kitchen	Apple	4	44709.24	178836.96	32	Yes	Cash on Delivery	1414	Kolkata	Maharashtra	442911	Gold	Standard	4.5	178	2766	
4	ORD1000002	39158	PROD7717	Product_2	Health & Nutrition	Adidas	2	396.21	792.42	49	Yes	Net Banking	1218	Kolkata	Haryana	161348	White	L	4.6	363	3710	
5	ORD1000003	45732	PROD3368	Product_3	Footwear	Samsung	2	32295.52	64591.04	18	No	Cash on Delivery	4290	Chennai	Rajasthan	352360	Red	L	2.1	237	4391	
6	ORD1000004	12284	PROD6856	Product_4	Appliances	Samsung	3	24487.06	73461.18	44	Yes	UPI	2210	Lucknow	Tamil Nadu	969609	Pink	Free Size	4.6	242	4433	
7	ORD1000005	7265	PROD5352	Product_5	Footwear	HP	4	32275.25	129101	2	Yes	Debit Card	4181	Lucknow	Uttar Pradesh	681079	White	S	3.8	295	4584	
8	ORD1000006	17850	PROD3423	Product_6	Beauty & Personal Care	Sony	4	9528.96	38115.84	13	No	UPI	2261	Mumbai	Rajasthan	127617	Silver	L	3.6	262	3297	
9	ORD1000007	38194	PROD7771	Product_7	Electronics	HP	4	22220.73	88882.92	4	No	Credit Card	740	Ahmedabad	Rajasthan	441030	Red	Free Size	4.3	194	708	
10	ORD1000008	22962	PROD6294	Product_8	Automotive	Tata	1	42307.6	42307.6	9	No	Credit Card	4768	Kolkata	Rajasthan	933134	Gold	Standard	1.1	428	2191	
11	ORD1000009	48191	PROD3376	Product_9	Books & Stationery	HP	1	34883.2	34883.2	20	Yes	Net Banking	3427	Kolkata	Gujarat	416743	Silver	L	1.5	45	2424	
12	ORD1000010	45131	PROD6402	Product_10	Beauty & Personal Care	Puma	2	1629.57	3259.14	45	No	Debit Card	4737	Bangalore	Haryana	146458	Silver	Free Size	1.5	388	4834	
13	ORD1000011	17023	PROD3341	Product_11	Home & Kitchen	Nike	4	32860.7	131442.8	2	No	Credit Card	4341	Jaipur	Karnataka	310565	Pink	XXL	4.7	150	2771	
14	ORD1000012	42090	PROD3450	Product_12	Grocery	Puma	1	26532.42	26532.42	1	No	Cash on Delivery	3172	Delhi	Tamil Nadu	813658	Gray	M	4.3	144	559	
15	ORD1000013	2685	PROD3855	Product_13	Footwear	Puma	1	45553.31	45553.31	32	Yes	Net Banking	4213	Mumbai	Maharashtra	231570	Yellow	Free Size	2.6	131	4604	
16	ORD1000014	1769	PROD5816	Product_14	Footwear	Philips	2	13976.15	27952.3	22	Yes	Debit Card	1299	Lucknow	Maharashtra	583161	White	M	3	65	1266	
17	ORD1000015	3433	PROD8819	Product_15	Health & Nutrition	Nike	1	23748.13	23748.13	38	Yes	Credit Card	3434	Mumbai	Tamil Nadu	988015	Silver	L	1.9	329	1778	
18	ORD1000016	6311	PROD1577	Product_16	Books & Stationery	Samsung	2	47288.39	94576.78	43	No	Debit Card	2336	Mumbai	West Bengal	213237	Yellow	M	1.1	233	171	
19	ORD1000017	38819	PROD6319	Product_17	Electronics	Dell	4	8948.77	35795.08	38	No	Net Banking	3344	Chennai	Karnataka	107374	Yellow	S	3.2	416	2503	
20	ORD1000018	40188	PROD4104	Product_18	Sports & Fitness	Apple	2	9814.06	19628.12	52	No	UPI	3391	Lucknow	Delhi	719422	Black	XXL	1.7	69	4625	
21	ORD1000019	18568	PROD2531	Product_19	Footwear	Mi	4	3645.59	14582.36	33	No	Debit Card	860	Hyderabad	Karnataka	998751	White	M	3.9	463	1771	
22	ORD1000020	20769	PROD4212	Product_20	Watches & Accessories	Nike	4	25021.55	100086.2	38	No	Cash on Delivery	3685	Kolkata	Delhi	940566	Pink	XL	2.9	375	384	
23	ORD1000021	29693	PROD5138	Product_21	Health & Nutrition	Puma	1	2694.19	2694.19	1	No	Net Banking	3610	Hyderabad	Gujarat	911857	Yellow	M	3.4	255	2545	
24	ORD1000022	7396	PROD4732	Product_22	Fashion	Dell	2	5382.48	10764.96	12	No	UPI	223	Delhi	Punjab	773063	White	XL	3.9	141	3036	
25	ORD1000023	28480	PROD3770	Product_23	Appliances	HUL	3	12905.51	38716.53	40	Yes	Net Banking	4036	Delhi	Haryana	614060	Yellow	Free Size	2.3	273	3542	
26	ORD1000024	42434	PROD7561	Product_24	Footwear	Philips	2	29868.35	59736.7	52	Yes	Cash on Delivery	1954	Mumbai	Punjab	323759	Black	XXL	4.5	50	1914	
27	ORD1000025	26658	PROD5893	Product_25	Beauty & Personal Care	Lenovo	4	25819.63	103278.52	6	No	Debit Card	956	Ahmedabad	Punjab	900054	Pink	L	4.3	53	3183	
28	ORD1000026	19942	PROD6395	Product_26	Gaming	Dell	4	30622.33	122489.32	59	No	Net Banking	2343	Jaipur	Rajasthan	364371	Green	XXL	4.2	191	3927	
29	ORD1000027	19431	PROD4153	Product_27	Health & Nutrition	HP	2	7820.04	15640.08	58	No	Debit Card	2045	Lucknow	Karnataka	989241	Red	M	1.6	11	3871	
30	ORD1000028	3747	PROD6332	Product_28	Electronics	LG	1	9155.12	9155.12	4	Yes	Credit Card	4550	Ahmedabad	Delhi	682153	White	XXL	3.7	31	3633	
31	ORD1000029	1189	PROD6751	Product_29	Gaming	Mi	2	19050.85	38101.7	21	No	Debit Card	276	Hyderabad	Gujarat	476663	Gold	M	1.1	416	1412	
32	ORD1000030	20118	PROD1931	Product_30	Footwear	LG	2	28129.58	56259.16	29	No	Cash on Delivery	4451	Mumbai	Punjab	544019	Green	XL	1.8	327	716	
33	ORD1000031	36773	PROD5870	Product_31	Books & Stationery	Adidas	4	29854.53	119418.12	48	No	Debit Card	2599	Delhi	Gujarat	406521	Red	XXL	4.8	156	282	
34	ORD1000032	2899	PROD8364	Product_32	Furniture	Apple	2	1816.73	3633.46	32	No	Cash on Delivery	4868	Ahmedabad	Gujarat	390025	Silver	S	3.4	431	4230	
35	ORD1000033	2267	PROD3824	Product_33	Fashion	Mi	2	44011.63	88023.26	13	Yes	Credit Card	3064	Bangalore	West Bengal	869915	Blue	S	2.3	439	3711	
36	ORD1000034	32551	PROD8166	Product_34	Home & Kitchen	Mi	2	35870.41	71740.82	56	No	Credit Card	1525	Delhi	West Bengal	396740	Red	M	3.2	107	345	

# DASHBOARD 1



# DASHBOARD 2



# Key Performance Metrics

100K

Total Orders

Complete dataset analyzed

₹6.3B

Total COGS

Cost of goods sold

₹5.1B

Total Revenue

Generated across period

₹1.6B

Total Profit

Net earnings achieved

24.5%

Profit Margin

Healthy profitability

3.0

Avg Rating

Customer satisfaction

These metrics demonstrate strong operational efficiency and consistent profitability across the analyzed period, with a robust profit margin indicating effective cost management and pricing strategies.

# Revenue vs Profit Performance

## Total Revenue

₹5,067.91 Million generated across all channels and categories

## Total Profit

₹1,553.58 Million with exceptional margin consistency

## Profit Margin

24.53% maintained throughout the period

The data reveals impressive profitability maintained consistently above 24% across the entire five-year period, demonstrating robust business fundamentals and effective operational management.



# Monthly Turnover Analysis

## Peak Performance Months

1

July

₹459.04M - Highest monthly turnover

2

January

₹442.47M - Strong year start

3

December

₹370.76M - Holiday season impact

## Strategic Insights

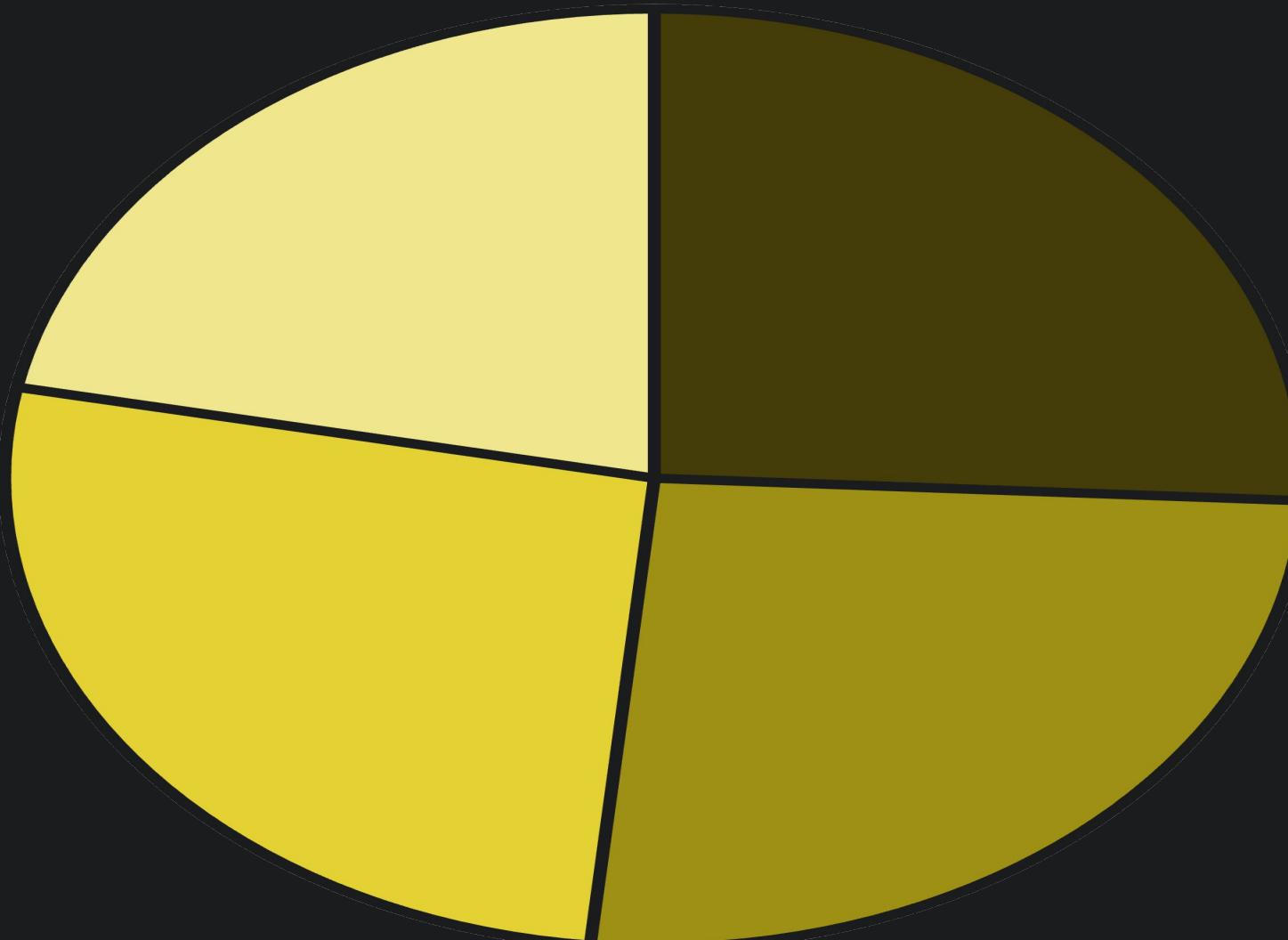
Monthly turnover ranges from ₹370.76M to ₹459.04M, with July representing peak sales activity.

October experienced a notable dip at ₹372.50M, suggesting potential for targeted promotional campaigns during this period.

The consistent performance across months indicates stable demand and effective inventory management.



# Quarterly Profit Distribution



Q1

Q3 Leads Performance

Third quarter achieved highest profitability at ₹412.19M (27%) of annual profit

Q2

Consistent Q1-Q3 Performance

First three quarters maintained steady profit levels between 26-27% each

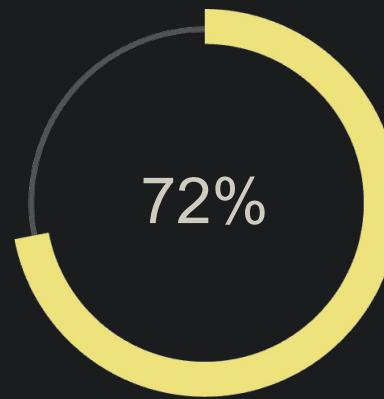
Q3

Q4

Q4 Opportunity Area

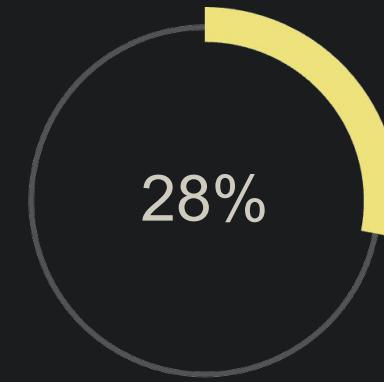
Fourth quarter at ₹340.12M (22%) presents growth potential for strategic intervention

## Order Patterns: Weekday vs Weekend



Weekday Orders

71,635 orders



Weekend Orders

28,365 orders



## Customer Behavior Insight

Weekdays dominate order volume, generating **71.7% of total profit**. This pattern suggests professional customers shopping during work hours or utilizing lunch breaks for online purchases.

Weekend traffic represents significant opportunity for targeted marketing campaigns and promotional activities to boost conversion rates during off-peak periods.

# Geographic Performance: State & City Analysis

## Top Performing States

1

Haryana

Leading state revenue

2

Punjab

Strong market presence

3

Karnataka

Tech hub advantage

4

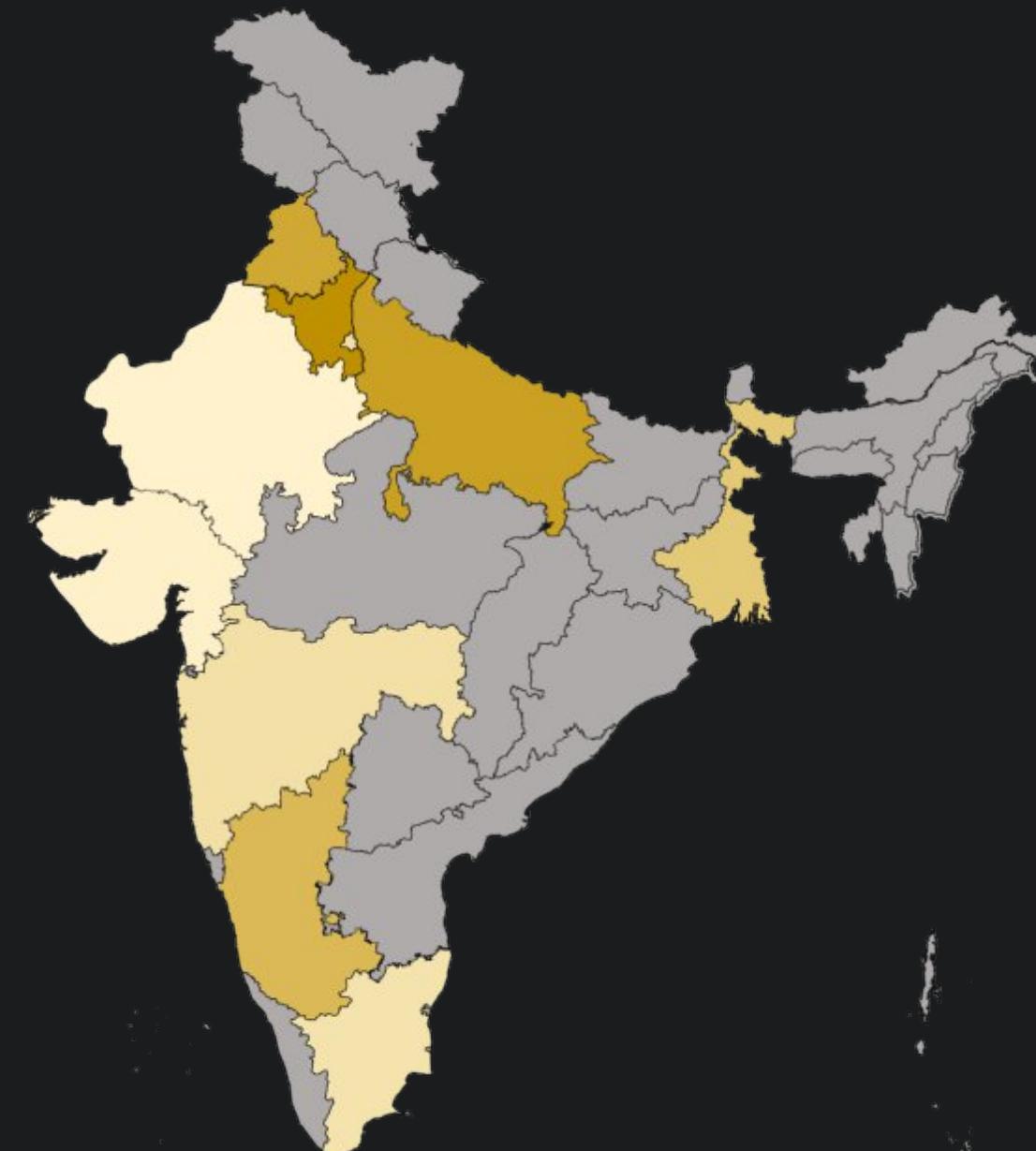
West Bengal

Eastern market leader

5

Maharashtra

Metro market strength



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- Top City Revenue: Single city generated ₹518.67M, representing 10.23% of total revenue, demonstrating strong urban market concentration.

# Top 5 Cities Driving Profitability



Kolkata

₹159.28M

Eastern India's profit leader



Jaipur

₹156.63M

Rajasthan market strength



Mumbai

₹156.07M

Financial capital performance



Bangalore

₹135.67M

Tech city contribution



Lucknow

₹155.38M

UP market dominance

These five metropolitan markets collectively contribute **50.4% of total profit**, highlighting the strategic importance of urban market penetration and the concentration of high-value customers in tier-1 cities.

# Product Category Performance Analysis

## Top 5 Revenue Categories

→ Home & Kitchen

₹346.36M - Leading category

→ Appliances

₹344.95M - Strong demand

→ Fashion

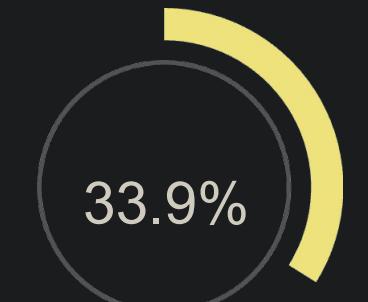
₹343.78M - Consistent performer

→ Sports & Fitness

₹341.59M - Growing segment

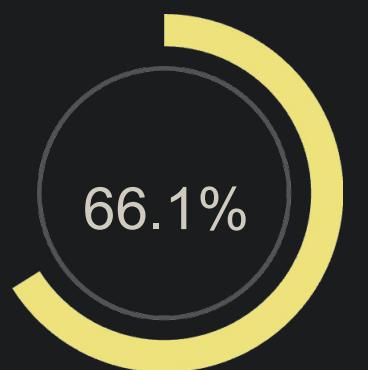
→ Footwear

₹341.53M - Competitive category



Top 5 Share

Market capture



Others

Long tail potential

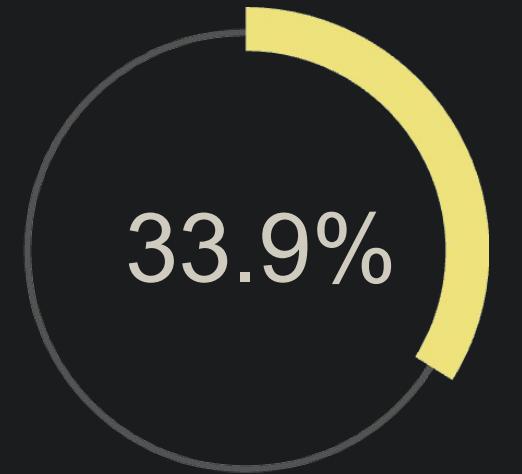
Category diversification creates revenue resilience, with top five categories showing balanced performance and significant opportunity in the long-tail segment.



# Top 5 Brands by Profit

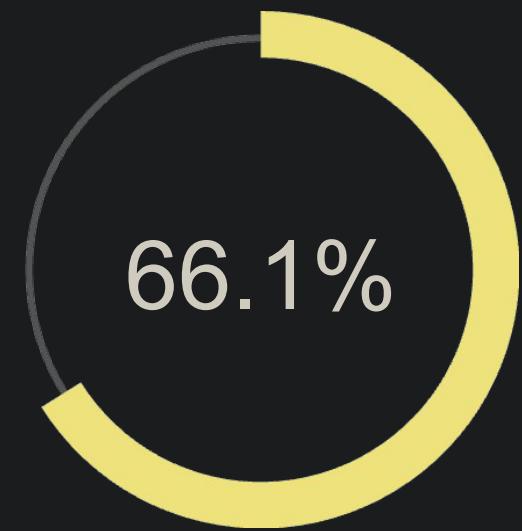
	Nike	₹107.92M	Leader in sportswear
	HUL	₹106.49M	Household consumer goods
	Philips	₹104.50M	Diverse electronics & health tech
	Samsung	₹104.37M	Global tech powerhouse
	Dell	₹104.17M	Trusted computing solutions

These five brands collectively demonstrate significant market influence, contributing a substantial portion to overall profitability.



Top 5 Brands

Profit share



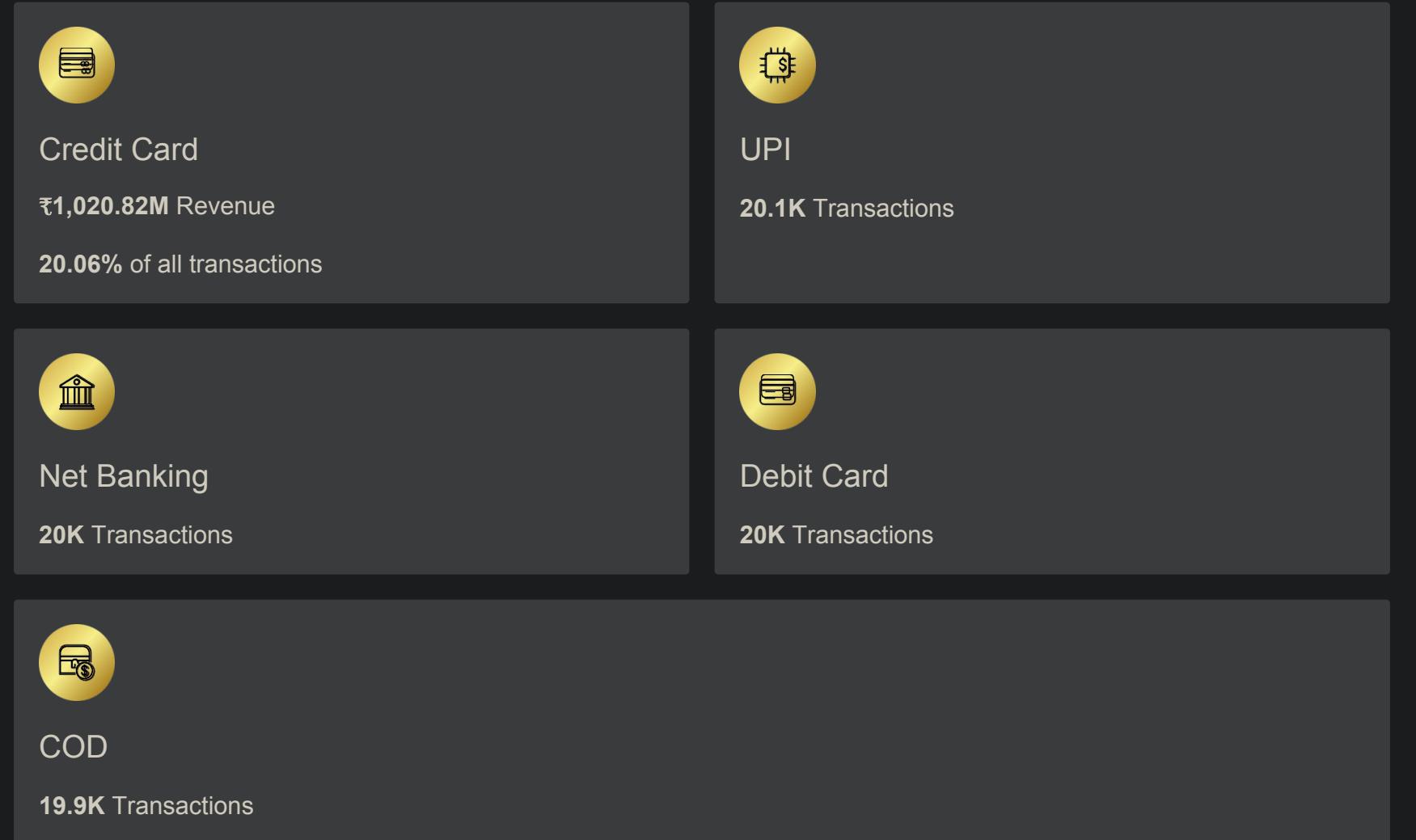
Other Brands

Profit share



# Payment Mode Insights

Understanding customer preferences for payment methods is crucial for optimizing the checkout experience and financial operations.



Credit Cards emerge as the leading payment method, contributing the highest revenue and a significant portion of total transactions, indicating a strong preference among high-value customers. Other digital payment methods like UPI, Net Banking, and Debit Cards show very similar transaction volumes, highlighting a diversified digital payment landscape.



# Order & Delivery Performance

95,113

Orders Delivered

High fulfillment success rate

4,887

Cancellations

Minimal order disruptions

6

Avg. Delivery Days

Efficient logistics turnaround

95.12%

Stock Clearance

Effective inventory management

237,547

Products Delivered

Vast volume reaching customers

12,189

Stock Remaining

Optimized inventory levels

Operational efficiency is evident with a high volume of delivered orders and products, coupled with a commendable stock clearance rate and efficient delivery times. The low cancellation rate further indicates customer satisfaction and accurate order processing.



# Business Insights & Key Takeaways



## Weekday Dominance

72% of orders occur during weekdays, indicating consistent demand and purchasing habits during the work week.



## Credit Card Preference

Credit Cards drive the highest revenue (₹1,020.82M), accounting for over 20% of all transactions.



## Q3 Profit Peak

The third quarter leads in profitability, securing 27% of the annual profit, marking it as a key performance period.



## Leading Product Categories

Home & Kitchen and Appliances are top revenue generators, contributing significantly to overall sales performance.



## High Delivery Efficiency

95% stock clearance and quick average delivery times reflect robust operational logistics and customer satisfaction.

# Recommendations & Conclusion

Based on our comprehensive analysis of Flipkart's sales and performance data, we present key recommendations to drive future growth and optimize operations.



## Strategic Expansion

Target and invest in underperforming states to unlock new market potential and broaden reach.



## Targeted Marketing

Strengthen marketing efforts for high-margin product categories to maximize profitability and revenue.



## Operational Excellence

Continuously improve delivery times and expand product diversity to enhance customer satisfaction and loyalty.



## Customer-Centric Growth

Leverage advanced data analytics to develop personalized customer retention strategies and foster long-term engagement.

