# Data-Driven Sales Analysis for Client Retail Store

A Data-driven Approach To Optimizing Sales And Marketing Strategies

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# **Business Objective**

- To analyze sales, customer behavior, and product performance.
- ➤ Provide actionable insights for CRM, marketing, and campaign strategies.
- ➤ Identify trends and patterns to optimize future marketing strategies and revenue Growth.

## **Problem Statement**

The client is one of the leading retail chains in India and wants datadriven insights from the point of sales data.

#### **Key Focus Areas**

- Customer purchasing patterns.
- Product category performance and sales trends.
- ➤ Store-level and channel performance.

# Dataset Understanding

#### **Dataset Summary**

- The dataset includes records from September 2021 to October 2023.
- The dataset includes 39 stores randomly selected from 535 stores.

## <u>Challenges</u>

- ➤ No Data Dictionary provided
- Possible missing and inconsistent data.

# Data Overview - 6 tables data is given in the data set

Table Name	No of Columns	No of Rows	Description
Customers	4	99,441	Data is given about Customer City , State, Gender for unique customer Id's.
StoresInfo	4	535	Data about seller city, seller state, Region for unique Store Id's is given.
ProductsInfo	9	32951	Details like Product Name length, Description length, Weight, length, Height, Width is given.
OrderPayments	3	103886	Details like payment type, payment value is given.
OrderReview_Rat ings	2	100000	Customer Satisfaction Score is given for every unique Order id's.
Orders	11	112650	Channel, Bill date timestamp, Delivered StoreID, Quantity, Cost Per Unit, MRP, Discount, Total Amount details are given.

# Data Dictionary (1/4)

#### **≻** Customers Table

Column Name	Description
Custid	Unique Identifier for each customer
customer_city	City in which customer belongs to
customer_state	State in which customer belongs to
Gender	Determines customer is Male or Female

## ➤ Order Payments Table

Column Name	Description
order_id	Identifier linking payments to order
payment_type	Payment type used
payment_value	Amount paid

# Data Dictionary (2/4)

#### ➤ Stores Info Table

Column Name	Description
StoreID	Unique Identifier for each store
seller_city	City in which store belongs to
seller_state	State in which store belongs to
Region	Location in which store belongs to

#### ➤ Order Review Ratings Table

Column Name	Description		
order_id	Identifier linking review to an order		
Customer_Satisfaction_Score	Rating given by customer		

# Data Dictionary (3/4)

#### ➤ Orders Table

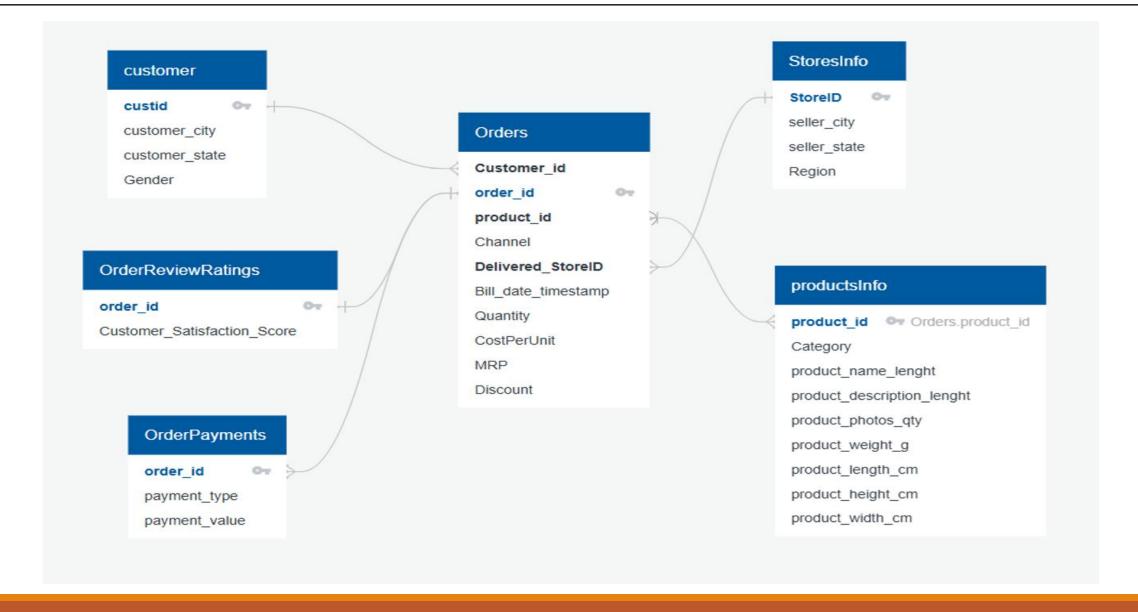
Column Name	Description
Customer_id	Identifier linking Order to a customer
order_id	Unique Identifier for each order
product_id	Identifier linking order to a product
Channel	Channel through which order has been made
Delivered_StoreID	Store from which order has been Delivered
Bill_date_timestamp	The date and time when the order was officially recorded
Quantity	Number of items that has been ordered
Cost Per Unit	Cost per unit of the product
MRP	Maximum Retail Price of the product
Discount	Discount applied to the product
Total Amount	The payable amount after applying the discount.

# Data Dictionary (4/4)

#### ➤ Products Info Table

Column Name	Description		
product_id	Unique identifier for each product		
Category	Category of the product		
product_name_lenght	Length of the product name		
product_description_lenght	Length of the product description		
product_photos_qty	Quantity of product photos		
product_weight_g	Weight of the product in Grams		
product_length_cm	Length of the product in Cm		
product_height_cm	Height of the product in Cm		
product_width_cm	Width of the product in Cm		

## **ER DIAGRAM**



# ER Diagram Relationship

Customers and Orders

One-to-Many One customer can place multiple orders. Each order is placed by one customer

➤Orders and ProductInfo

Many-to-Many One order can have multiple products, and one product can be part of many orders.

➤ Orders and StoresInfo

Many-to-One Many Orders are linked to one Store.

Orders and Order Payments

One-to-Many One Order can have multiple Payment Methods.

➤ Orders and Order Review Ratings

One-to-One Relationship Each Order has one review or rating

## Inconsistencies in Data (1/11)

➤ In the Orders table Same Order id is given for different customers which causes data Descrepency and Number of such Order id's are 5.

Customer Id	Order id	product_id	Bill_date_tim e stamp	Qty	Cost	MRP	Disc ount	Total Amount
70418248 11	001ab0a7578dd66cd4b0 a71f5b6e1e41	0b0172eb0fd18479d29c3 bc122c058c2	01-04-2023 02:33:00	1	24.89	42.52	0	42.52
85972907 55	001ab0a7578dd66cd4b0 a71f5b6e1e41	0b0172eb0fd18479d29c3 bc122c058c2	01-04-2023 02:33:00	2	24.89	48.52	6	85.04
85972907 55	001ab0a7578dd66cd4b0 a71f5b6e1e41	0b0172eb0fd18479d29c3 bc122c058c2	01-04-2023 02:33:00	3	24.89	42.52	0	127.56

- ➤ Data Cleaning: Here I am choosing the customer with Highest Total because it indicates the most valuable transaction.
- Here we will use row number () window function, partition using order id and order by Total Amount in Descending Order and name it as rnk.
- And we will delete rows where rnk is greater than 1. keeps record with highest total amount.

# Inconsistencies in Data (2/11)

In the Order Payments Table there are some orders with 0 payment value. No of such Orders 9

order_id	payment_type	payment_value
8bcbe01d44d147f901cd3192671144db	voucher	0
fa65dad1b0e818e3ccc5cb0e39231352	voucher	0

#### **→ Data Cleaning:**

- The orders with payment value 0 can not be considered Valid.
- >Therefore we need to delete these records from the data set.
- ➤ We can directly write the code in sql by Delete From Order Payments where Payment Value is equals to 0

# Inconsistencies in Data (3/11)

>Same product id having different MRP in Orders table coming from same store.

product_id	Bill_date_timestamp	Delivered_StoreID	MRP
001795ec6f1b187d37335e1c4704762e	12/18/2022 0:39	ST103	55.01
001795ec6f1b187d37335e1c4704762e	12/18/2022 0:39	ST103	69.01

#### **Data Cleaning:**

- ➤ Here We can consider taking Average of MRP as the correct MRP can not be Determined.
- ➤ In Sql we have to use Update Command to modify Orders table by setting MRP to average value of each product where the Product Id is same.

## Inconsistencies in Data (4/11)

Multiple reviews for the same Order Id in Order review ratings table. No of such Orders 209.

order_id	Customer_Satisfaction_Score
03c939fd7fd3b38f8485a0f95798f1f6	3
03c939fd7fd3b38f8485a0f95798f1f6	4
03c939fd7fd3b38f8485a0f95798f1f6	3

#### **→ Data Cleaning:**

- As there are multiple Customer Satisfaction Scores for the same order id taking average of them is best.
- In sql use update command to modify Order Review ratings Table and setting the Customer Satisfaction score to its Average where order id is same.

# Inconsistencies in Data (5/11)

In Orders Table Same Order Id having different Bill date which is wrong. No of such Orders 334.

order_id	Bill_date_timestamp
01cce1175ac3c4a450e3a0f856d02734	7/25/2023 20:43
01cce1175ac3c4a450e3a0f856d02734	7/23/2023 20:43

#### **→ Data Cleaning:**

- Since Multiple Bill Date and Time Stamp exist for the same Order id then we should try to keep the Most recent Bill Date and Time Stamp.
- ➤ In Sql by using the update command to modify the table by setting the Bill Date and Time stamp to latest, (Max) of bill date for each order id.

## Inconsistencies in Data (6/11)

➤In Orders table the same customer id, product id, order id, cost per unit, MRP and Discount is appearing multiple times where as Total amount is sequentially increasing .

Customer id	Order id	Product id	Qunati ty	CostPer Unit	MRP	Discou nt	Total Amount
7691263536	00526a9d4ebde463b aee25f386963ddc	0c4a0f8ab44f9acd2d 04e7024f9ba362	1	33.89	42.29	0	42.29
7691263536	00526a9d4ebde463b aee25f386963ddc	0c4a0f8ab44f9acd2d 04e7024f9ba362	2	33.89	42.29	0	84.58
7691263536	00526a9d4ebde463b aee25f386963ddc	0c4a0f8ab44f9acd2d 04e7024f9ba362	3	33.89	42.29	0	126.87
7691263536	00526a9d4ebde463b aee25f386963ddc	0c4a0f8ab44f9acd2d 04e7024f9ba362	4	33.89	42.29	0	169.16

- ➤ Data Cleaning: Taking the last row is best approach for Data cleaning because the data is sequentially Increasing in Quantity and Total Amount representing the previous rows.
- ➤ In sql using the row number() function and partition by order id and order by quantity in descending order will give us the record with highest quantity.

## Inconsistencies in Data (7/11)

**▶** Customers who have not placed any Orders – No of such customers are 866

#### **→** Data Cleaning:

- To remove customers who have not done any orders, in Sql create a subquery by left joining Customers with Orders by using Customer Id then give condition where order id is null.
- Then use Delete from customers where customer id is in that subquery to remove such customers.
- ➤ One order has no payment type but appears three times after joining Orders and Order Payments tables.

#### **▶** Data Cleaning:

- ➤ Use left join between Orders and Orders Payments table on Order Id.
- Filter the rows where payment type is null then Delete orders from Orders Payment table where Order Id does not exist in Orders Table.

## Inconsistencies in Data (8/11)

- **▶** Stores from which No orders has been Placed No of such stores 497
- **→ Data Cleaning:**
- > Use Left join between StoresInfo and Orders table on store id and Delivered store id.
- Filter the rows where Order id is null, then Delete stores from StoreInfo where orders does not exist.
- ➤ Some Order id's from the Order Review Ratings Table are not in the Orders Table No of such Order id's 778.
- **→ Data Cleaning:**
- ➤ Use Left join between Order Review ratings and Orders Table on Order id.
- Filter the rows where Order id is null, then Delete the Order id's from Order Review Ratings Table where orders does not exist.

## Inconsistencies in Data (9/11)

- **▶** Some of the Data is missing in Product Info table.
- ➤ No of Missing Values in product\_name\_length column is : 610
- ➤ No of Missing Values in product\_description\_length column is : 610
- ➤ No of Missing Values in product\_photos\_qty : 610
- No of Missing Values in product\_weight\_g column is: 2
- No of Missing Values in product\_length\_cm column is: 2
- No of Missing Values in product\_height\_cm column is: 2
- No of Missing Values in product\_width\_cm column is : 2
- ➤ Data Cleaning: we can directly delete the rows as there are 32950 rows 600 rows if deleted no problem
- ➤ In Sql write Delete from ProductInfo with condition where product\_name\_length is null or product\_description\_length is null..........

## Inconsistencies in Data (10/11)

## **Duplicate Records**

The Stores Info table contains 1 duplicate value in a column that was intended to be a Primary Key.

StoreID	Seller city	Seller state	Region
ST410	Chandia	Madhya Pradesh	North
ST410	Chandia	Madhya Pradesh	North

- ➤ OrderReview\_Ratings Table Contains 350 duplicate Values.
- ➤ Order Payments Table Contains 615 duplicate values.

#### **▶** Data Cleaning:

For Deleting Duplicate Values while keeping Unique Records is, by using Row Number() window function and order by count then deleting rows that are Greater than 1.

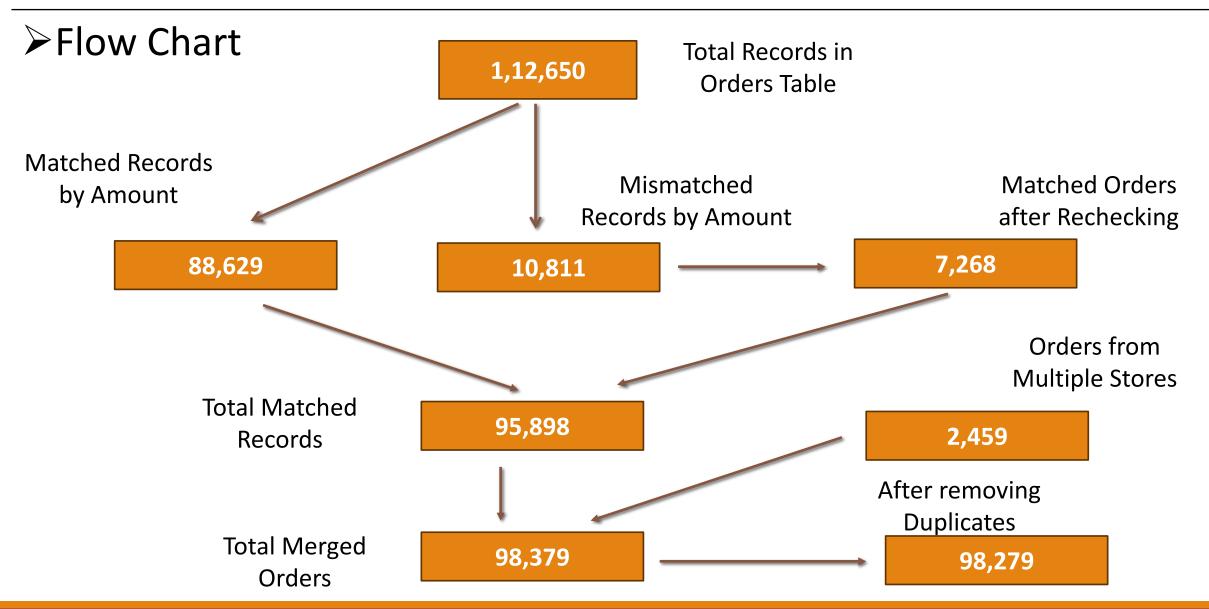
# Inconsistencies in Data (11/11)

Same Order Id is coming from multiple Stores. No of such Orders 1007.

order_id	product_id	Delivered _StoreID	Bill_date_t imestamp	Quantity	Cost Per Unit	MRP	Total Amount
002f98c0f7efd42638e d6100ca699b42	880be32f4db1d9f6e 2bec38fb6ac23ab	ST103	08-10-2022 09:30:00	2	44.9	52.06	104.12
002f98c0f7efd42638e d6100ca699b42	d41dc2f2979f52d75 d78714b378d4068	ST301	08-10-2022 09:30:00	1	8.99	41.56	41.56

- After joining orders and orders payment table by the sum of Total Amount and sum of payment value based on Order id, there are some orders in which the total amount of orders table is not matching with payment value of order payments table.
- ➤ No of such Orders 12,685

# Data Cleaning (1/3)



## Data Cleaning Steps - Finalised\_Records Table (2/3)

- >1,12,650: Total records in the Orders table before any transformation.
- ➤ 98,671 : Created a temporary table by aggregating Total\_Amount per order and customer from the Orders table.
- ➤99,440 : Created a table from OrderPayments by aggregating payment\_value per order.
- ➤ 88,629 : Orders where payment amount matches the order amount exactly added to MatchedOrders Table.
- ➤ 10,811 : Found mismatches between order and payment amounts stored in OrdersNotMatching Table.
- >7,268: From the mismatches, identified orders that could still be corrected by rechecking values added to RemainingOrders Table.
- ➤95,898 : Combined matched and corrected orders into one clean table using UNION

# Data Cleaning Steps - Finalised\_Records Table (3/3)

- ➤ 2,459: Identified orders where multiple stores fulfilled the same order stored in Temp\_Multiple\_Store\_Orders.
- ≥98,379 : Merged these additional records into the enriched table:
- 88,629 (Matched) + 7,268 (Corrected) + 2,481 (Multi-store handling)
- > 2,326 : Saved multi-store records separately in Add\_records for duplication check.
- 98,276: After reviewing, 103 duplicates were found in Finalised\_Records\_no. These were removed to create the final cleaned table Finalised\_Records\_1.

## **High Level Metrics**:

#### ➤Order Level

Metric	Value
Total Orders	96.896 K
Total Quantity Sold	108.881 K
Average Order Value	159.498
Average Number of items Per Order	1.123
Average Number of Distinct Categories in each Order	1.004
Percentage of Single Category Orders	99.53
Percentage of Multi Category Orders	0.46

## **High Level Metrics**

#### > Customer Level

Metric	Value
Total Customers	96.805 K
Average Transactions Per Customer	1.0009
Average Amount spent per customer	159.648
Average Profit Per Customer	22.565
Percentage of Customers with more than one purchase (repeat buyers)	0.037
Percentage of Customers who purchased only once	99.962

## **High Level Metrics**

➤ Discount and Profit Metrics

Metric	Value
Total Revenue Generated	15.45 Million
Total Discount Given	0.491 Million
Average Discount per Order	5.075
Total Profit Generated	2.184 Million
Total Cost	13.27 Million
Discount Percentage	3.18
Profit Percentage	14.13

## **High Level Metrics**

➤ Store Level

Metric	Value
Total number of unique stores	37
Total number of unique cities	37
Total number of unique states	7
Total number of unique sales regions	4
Total number of unique sales channels	3

## **High Level Metrics**

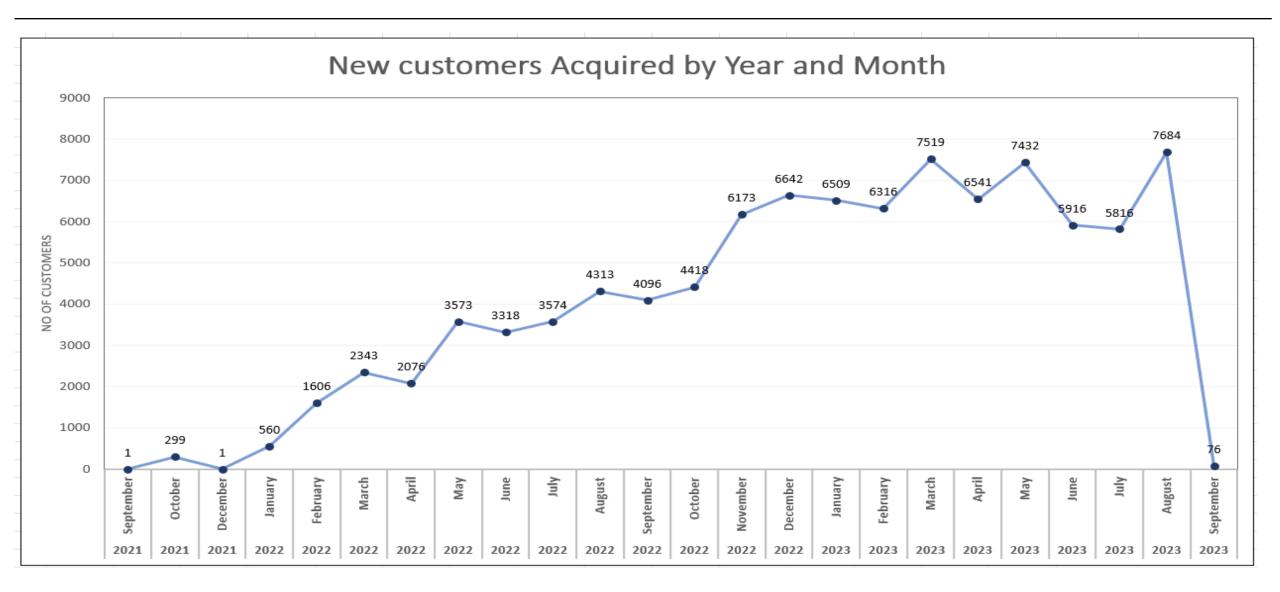
Product and Category Metrics

Metric	Value
Total Quantity Sold	108.881 K
Total Distinct Product Id's	31.753 K
Total Distinct Categories	14

Weekend and Weekday Metrics

Metric	Value
Total Weekend Transactions	20.586 K
Total Weekday Transactions	77.690 K

## **EXPLORATORY DATA ANALYSIS**



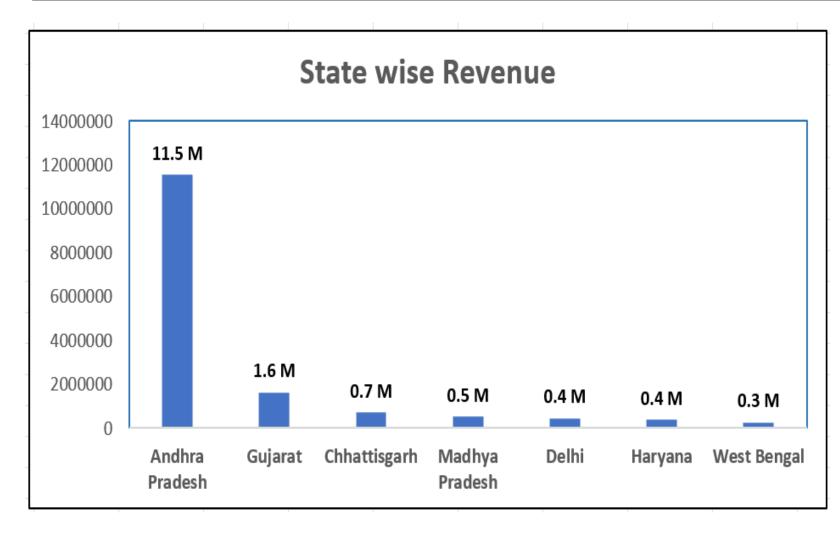
## New Customers Acquired Every Month From (2021-2023)

year	month	New_customers
2021	September	1
2021	October	299
2021	December	1
2022	January	560
2022	February	1606
2022	March	2343
2022	April	2076
2022	May	3573
2022	June	3318
2022	July	3574
2022	August	4313
2022	September	4096
2022	October	4418
2022	November	6173
2022	December	6642
2023	January	6509
2023	February	6316
2023	March	7519
2023	April	6541
2023	May	7432
2023	June	5916
2023	July	5816
2023	August	7684
2023	September	76

#### **Insights and Recommendations:**

- ➤ Slow Start in 2021: Very few new customers in 2021, with just 1 new customer in both September and December.
- ➤ Rapid Growth in 2022: Significant growth starts in 2022, jumping from 560 in January to over 6000 by November and December.
- ➤ Peak Period: The highest number of new customers was in May 2023 (7432) and August 2023 (7684).
- Analyze Peak Months: Study what worked well in May and August 2023— campaigns, offers, or events—and try to replicate them.
- ➤ Maintain Consistency: Focus on strategies that gave steady growth during 2022 and early 2023.
- ➤ Plan Ahead for End of Year: Since growth tends to increase towards the end of the year (as seen in 2022), prepare strong campaigns for Q4 2024.

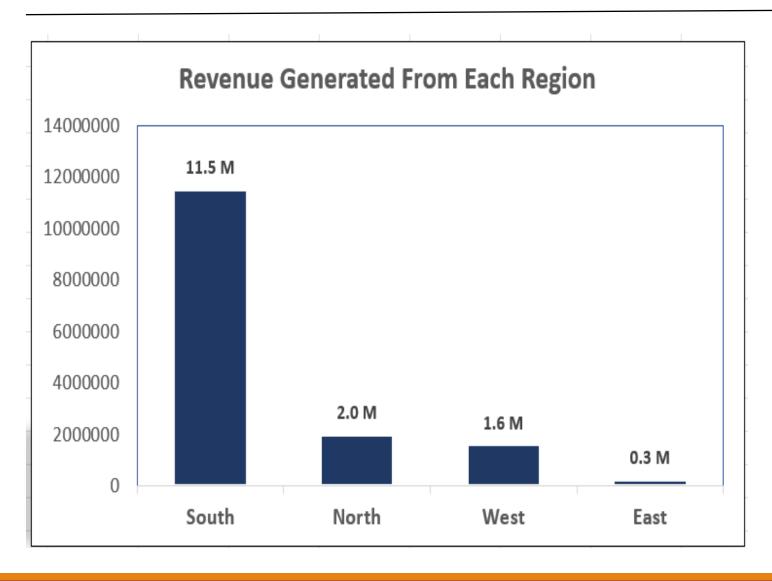
## Revenue Generated From Each State



#### **Insights & Recommendations:**

- Andhra Pradesh is the topperforming state.
- ➤ It brings in the highest revenue, showing strong customer demand.
- ➤ West Bengal is the leastperforming state.
- ➤ Revenue is low, which may mean low demand, less marketing, or fewer stores.
- Learn what's working in Andhra Pradesh and apply it to improve other regions.

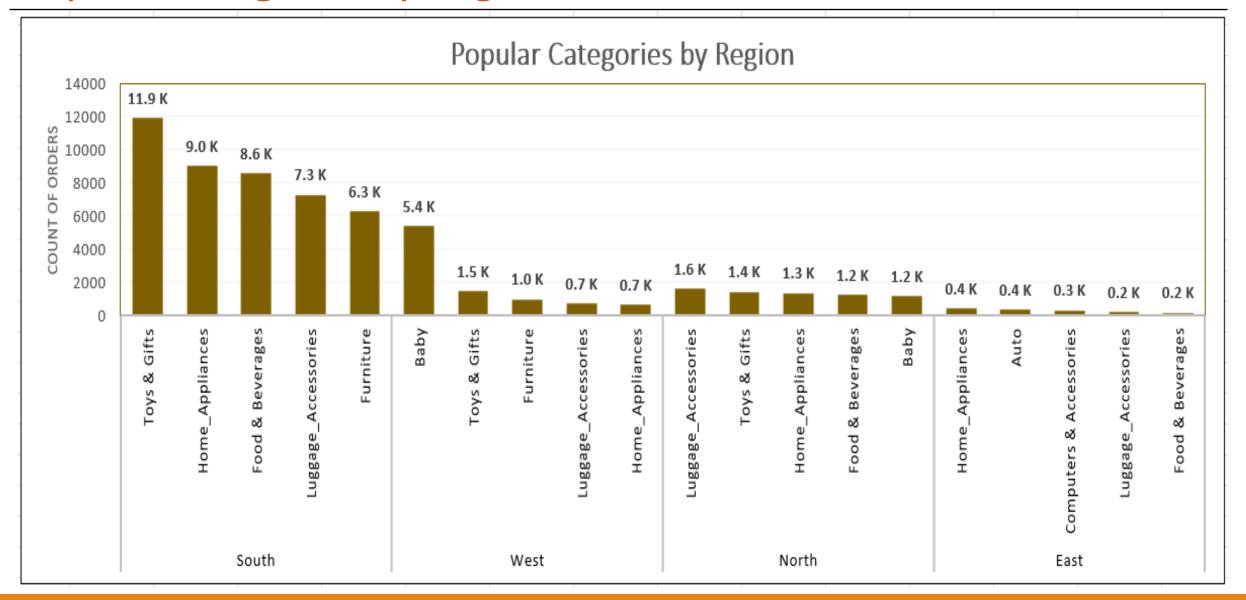
# Region Wise Analysis Based on Revenue



## **Insights & Recommendations:**

- South region have the highest Revenue indicating strong customer activity.
- ➤ Invest More in South increase inventory, staffing, or marketing to maintain and boost growth.
- ➤ Use this data to plan warehouse locations, delivery networks, and regional promotions.
- Increase staff in the South region to handle higher order volumes efficiently and maintain service quality as demand grows.

## Popular Categories by Region, Based on Count of Orders



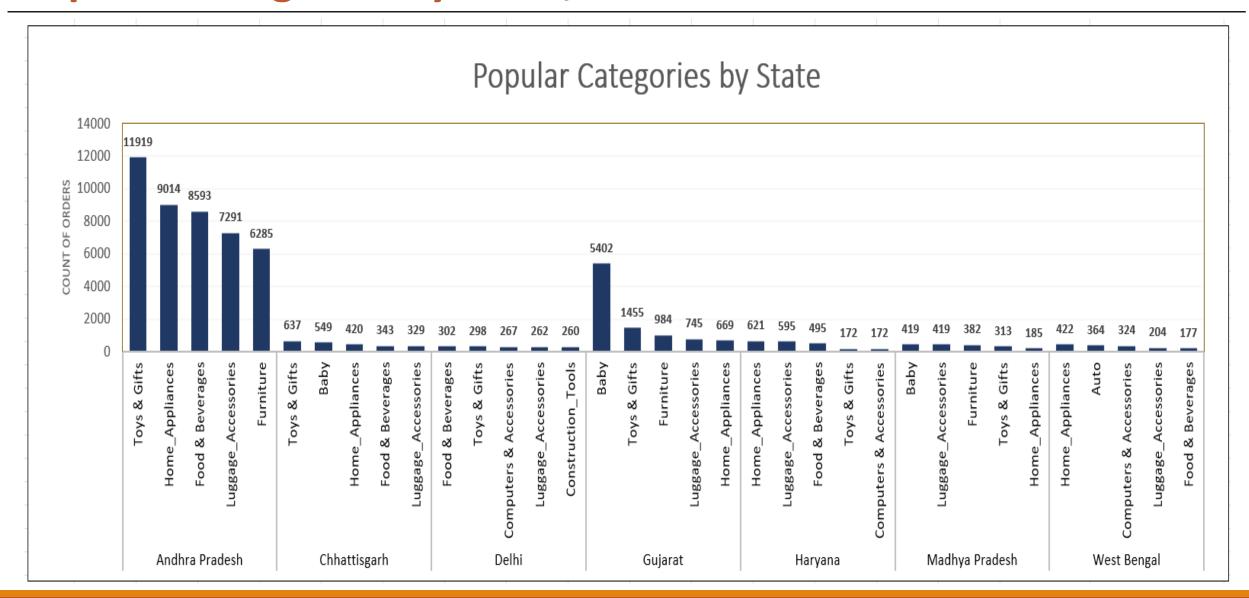
## Popular Categories by Region based on Count of Orders

Row Labels	Count of order_id
<b>□</b> South	43102
Toys & Gifts	11919
Home_Appliances	9014
Food & Beverages	8593
Luggage_Accessories	7291
Furniture	6285
<b>∃West</b>	9255
Baby	5402
Toys & Gifts	1455
Furniture	984
Luggage_Accessories	745
Home_Appliances	669
□North	6785
Luggage_Accessories	1605
Toys & Gifts	1420
Home_Appliances	1343
Food & Beverages	1240
Baby	1177
<b>⊟ East</b>	1491
Home_Appliances	422
Auto	364
Computers & Accessorie	es 324
Luggage_Accessories	204
Food & Beverages	177

## **Insights & Recommnedations:**

- ➤ In the South, Toys & Gifts is the most popular category, followed by Home Appliances and Food & Beverages.
- The West region has a strong preference for Baby products. Stock more Baby products in the West, as they are in high demand.
- ➤In the North, no single category stands out demand is evenly spread across all top 5 categories.
- ➤ In the North, test offers across multiple categories to find the best-performing one
- Increase marketing efforts in the East to boost interest in key categories.
- Adjust inventory in each region based on what people are most interested in.

### Popular Categories by State, Based on Count of Orders

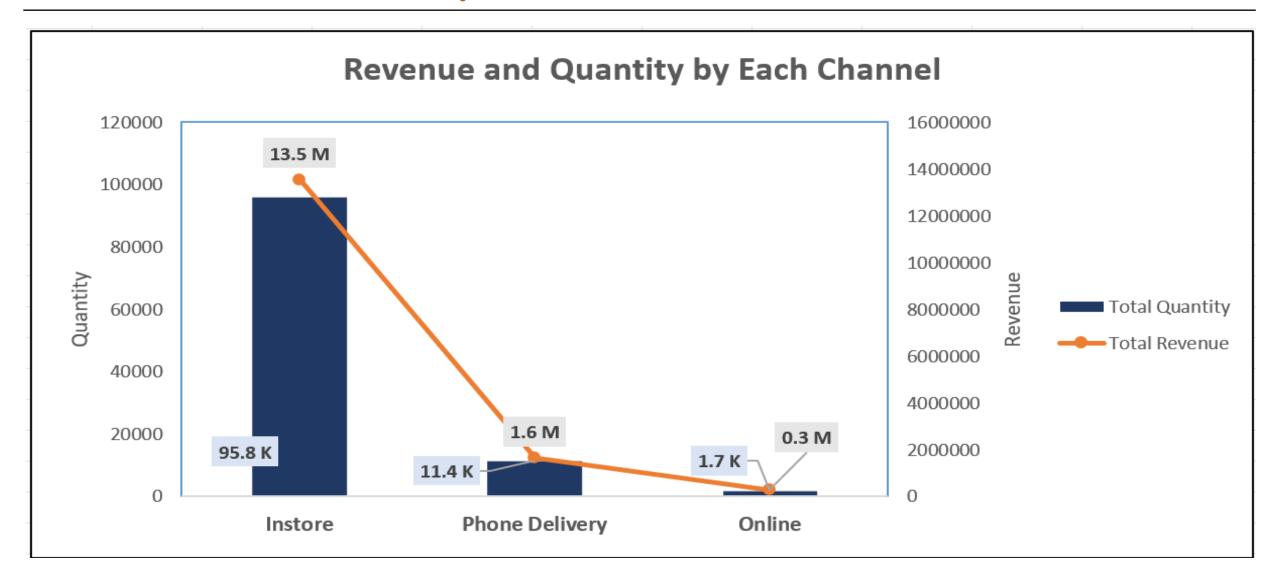


## Popular Categories by State based on Count of Orders

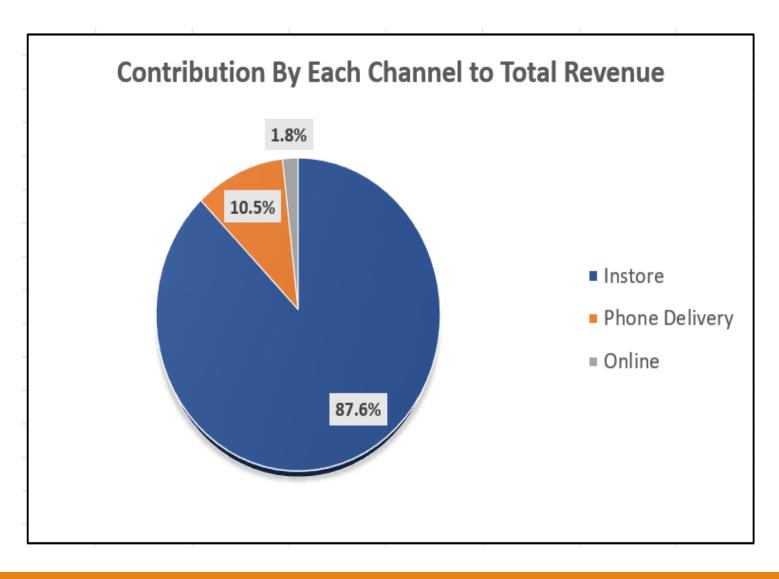
### **Insights & Recommnedations:**

- Andhra Pradesh has the highest number of orders, mainly for Toys & Gifts and Home Appliances.
- ➤ Gujarat has a very high number of orders for Baby products.
- ➤Other states like Chhattisgarh, Delhi, Haryana, Madhya Pradesh, and West Bengal have much fewer orders.
- Focus more on Toys & Gifts and Home Appliances in Andhra Pradesh.
- ➤ Increase Baby product promotions in Gujarat.
- ➤ Plan more offers and promotions in low-order states to boost sales.
- ➤ Cross-sell Luggage & Accessories with travel-related items.
- >Run different promotions for each state based on what is popular there.

# **Channel Wise Analysis**



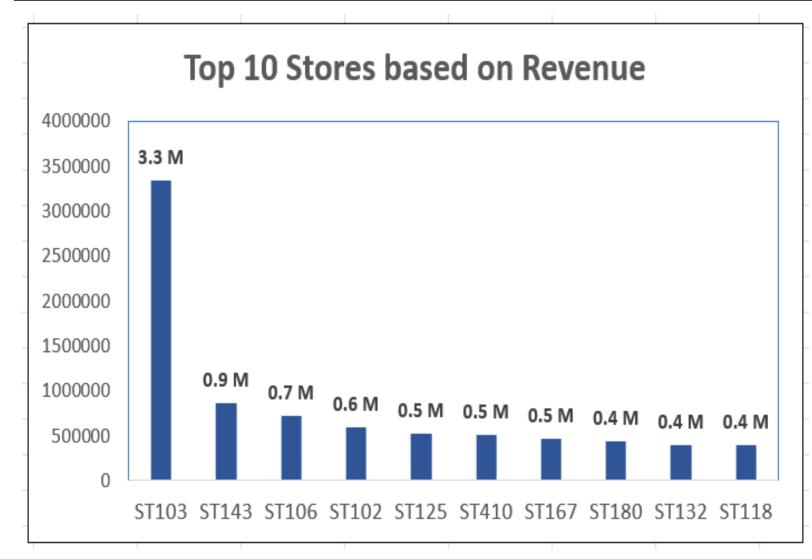
### Channel Wise Revenue Contribution



#### **Insights & Recommendations:**

- ➤ High Revenue in Instore indicates strong customer presence and brand connection at physical locations.
- Customers are more likely to buy extra items in-store because they can see products and get help from staff right away.
- Add features like self-checkout, personalized assistance, or faster service to improve satisfaction to increase Revenue.

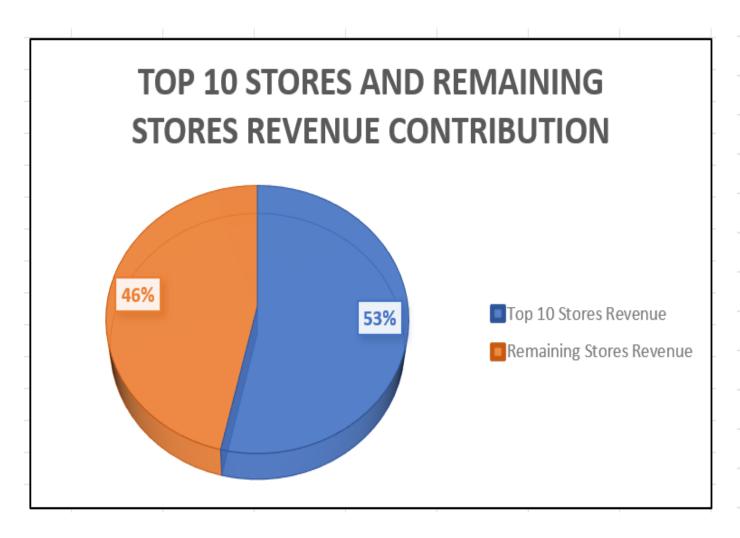
# Top Performing Stores (Revenue Wise)



#### **Insights & Recommendations**:

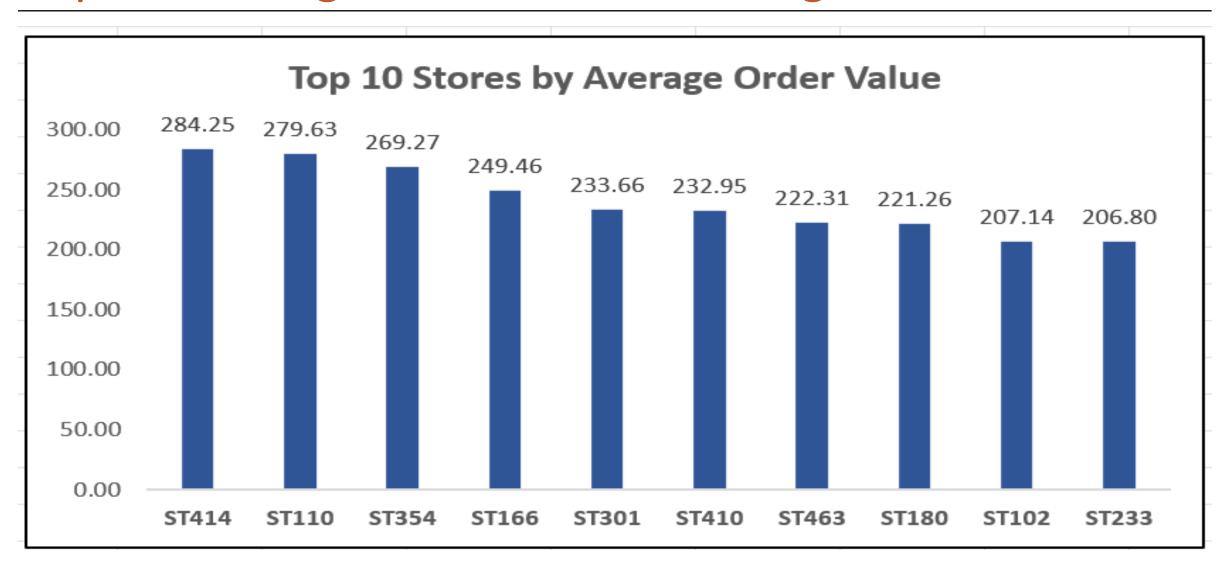
- ➤ST103 alone contributes ₹3.3M, which is nearly 3.6x higher than the second-best store (ST143).
- ➤ Identify what makes top stores successful. Use those insights to uplift mid and lowperforming stores.
- Support top stores with better inventory and marketing. Plan expansion in similar regions to top stores.

### Top 10 Stores (Revenue wise) & their Contribution to Revenue

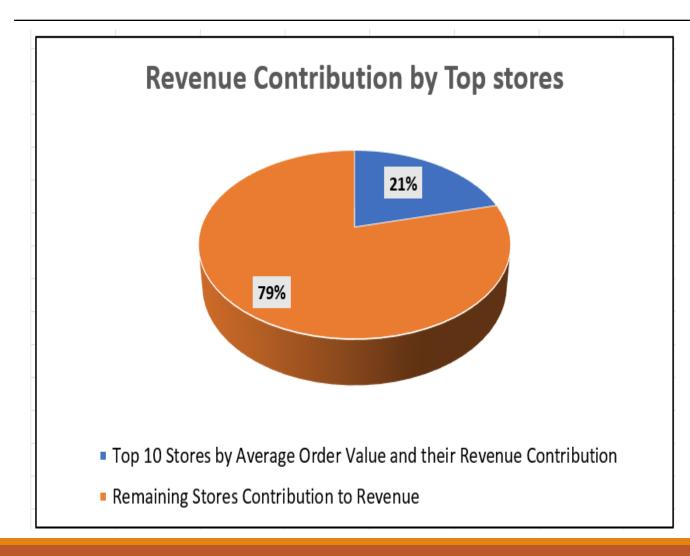


Store ID	Revenue Generated	Percentage Contributed
ST103	3.3 M	21.61
ST143	0.9 M	5.59
ST106	0.7 M	4.64
ST102	0.6 M	3.79
ST125	0.5 M	3.37
ST410	0.5 M	3.24
ST167	0.5 M	3
ST180	0.4 M	2.79
ST132	0.4 M	2.56
ST118	0.4 M	2.56
	8.2 M	53.15

### Top Performing Stores based on Average Order Value

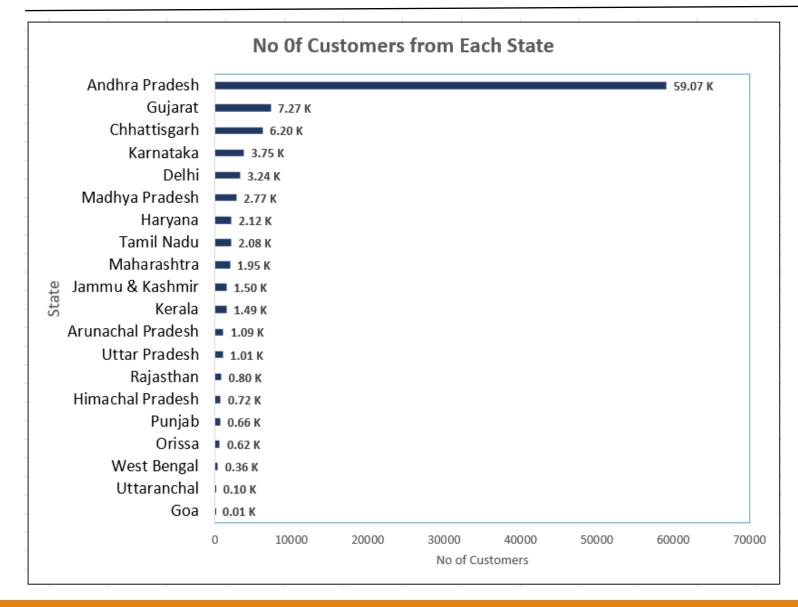


# Top 10 Stores by Average Order Value & their Contribution to Revenue



Store ID	Revenue Generated	Percentage Contributed
ST102	0.59 M	3.79
ST410	0.50 M	3.24
ST180	0.43 M	2.79
ST110	0.38 M	2.43
ST301	0.33 M	2.13
ST414	0.25 M	1.63
ST233	0.22 M	1.4
ST166	0.22 M	1.39
ST463	0.19 M	1.25
ST354	0.15 M	0.95
	3.25 M	21

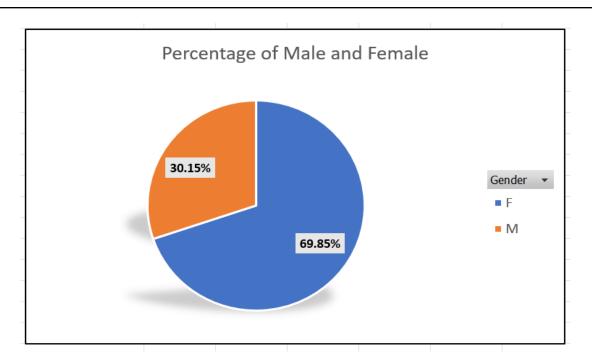
### **CUSTOMER BEHAVIOUR**

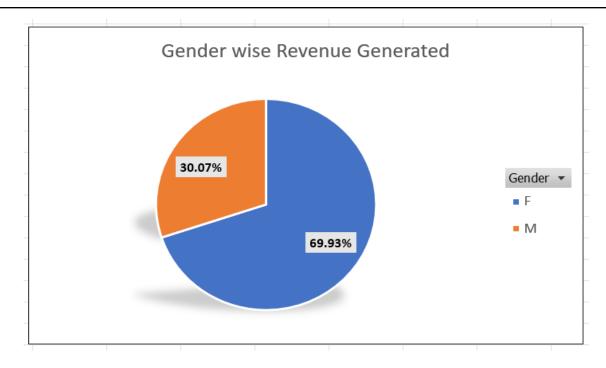


#### **Insights & Recommendations**

- ➤ Andhra Pradesh has the most customers (59.07K). It is the strongest market.
- ➤ Gujarat and Chhattisgarh have good potential with 7.27K and 6.20K customers.
- ➤ Karnataka, Delhi, and Madhya Pradesh have medium numbers (between 2K–4K customers).
- ➤ Goa, Uttaranchal, and West Bengal have very few customers (less than 1K).
- Use successful strategies from Andhra Pradesh in other states.
- Boost marketing in Gujarat and Chhattisgarh to increase customers.
- Improve engagement in Karnataka, Delhi, and Madhya Pradesh with customer feedback.

### Male and Female Customers Analysis

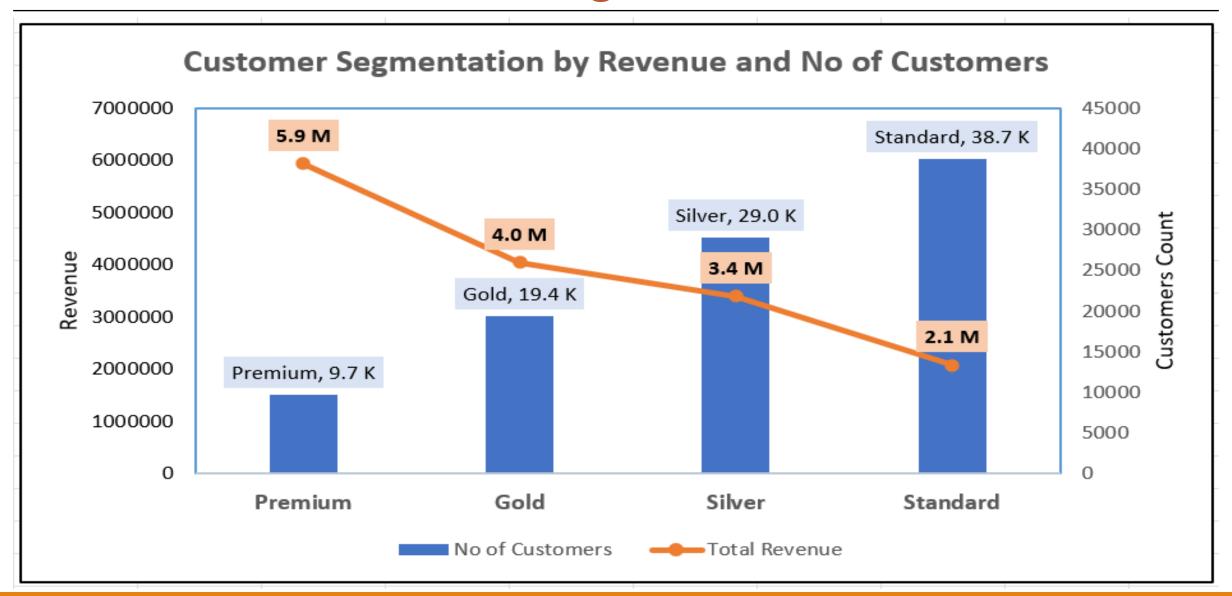




#### **Insights and Recommendations:**

There are 67,609 Female Customers, 29,196 Male Customers. Revenue from female customers is ₹1,08,07,472, while male customers contribute ₹46,47,290. Targeted campaigns could help grow the number of male customers and increase revenue. Create ads, offers, and product bundles that appeal to female preferences.

### Revenue Wise Customer Segmentation



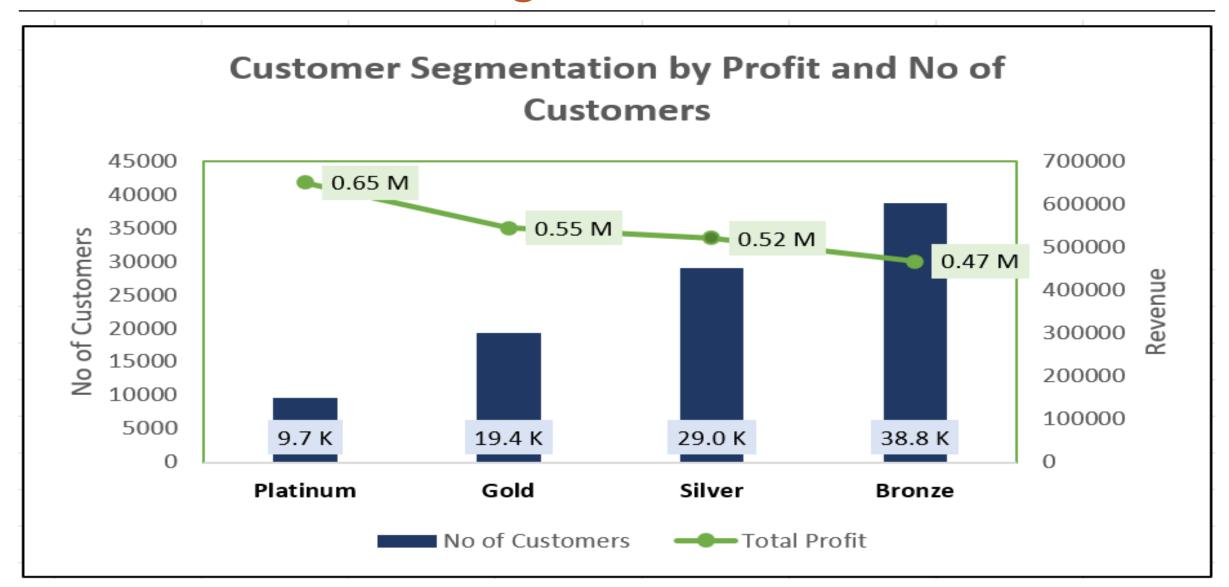
### Customer Segmentation by Revenue

Segment	No of Customers	Total Revenue
Premium	9.7 K	5.9 M
Gold	19.4 K	4.0 M
Silver	29.0 K	3.4 M
Standard	38.7 K	2.1 M

#### **Insights and Recommendations:**

- ➤ Premium Segment Only 9.7K customers, but contributing the highest revenue ₹5.9M.
- ➤ Gold Segment Moderate customer base 19.4K generating ₹4.0M.
- > Silver Segment Largest middle segment, 29K customers, bringing in ₹3.4M.
- ➤ Standard Segment Biggest segment with 38.7K customers but generating on ₹2.1 M.
- Focus on retaining Premium customers by offering personalized services and exclusive benefits.
- Engage Standard customers with discounts and referral programs to boost their activity.
- >Run targeted campaigns for each segment based on their value and behavior.

### **Profit Wise Customer Segmentation**



# **Customer Segmentation by Profit**

Segment	No of Customers	Total Profit
Platinum	9.7 K	0.65 M
Gold	19.4 K	0.55 M
Silver	29.0 K	0.52 M
Bronze	38.8 K	0.47 M

#### Insights and Recommendations:

- ➤ Platinum customers generate the highest profit despite being the smallest group.
- ➤ Gold customers are moderately profitable, with a decent-sized base, Silver customers contribute slightly less profit, but still significant.
- ➤ Bronze customers are the largest group but have the lowest profit.
- >Retain Platinum customers with personalized service Encourage Gold customers to spend more through upselling and targeted offers.
- ➤ Engage Bronze customers with low-cost offers and campaigns to improve profitability.

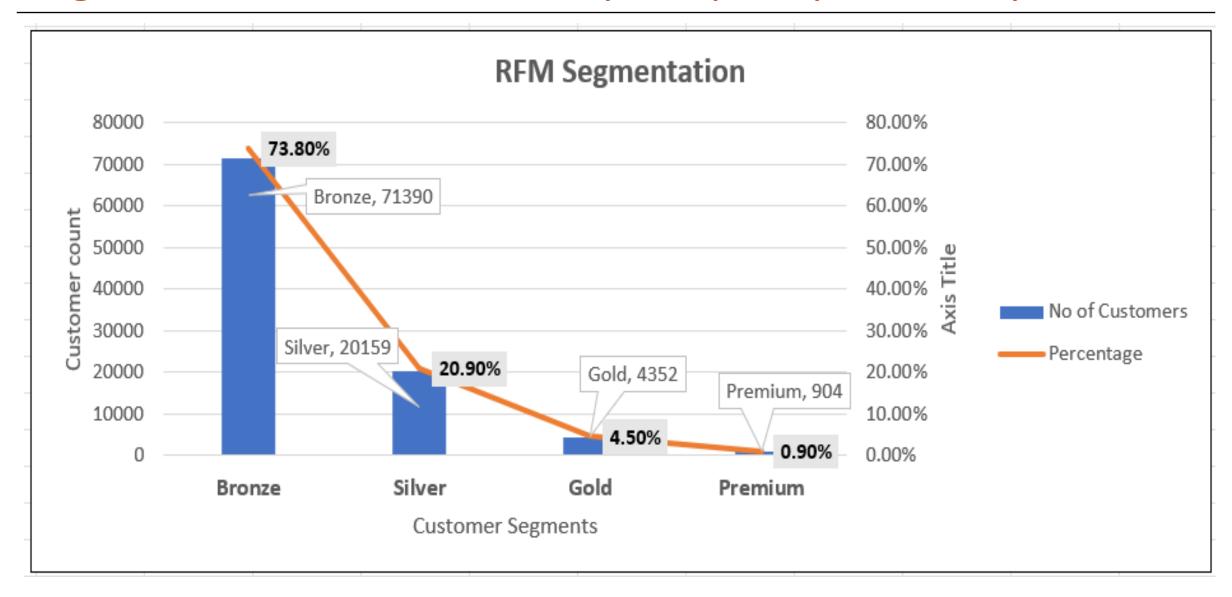
### RFM SEGMENTATION

- > Recency (R): How recently a customer made a purchase.
- > Frequency (F): How often a customer makes a purchase over a certain period.
- >Monetary (M): How much money a customer spends on purchases over a certain period.
- Each customer is assigned a score for **Recency, Frequency**, and **Monetary** using the NTILE(4) function, which divides the customers into quartiles (groups of 4).
- > Recency Score: A score for recency, where the most recent buyers get higher scores.
- Frequency Score: A score for frequency, where customers who have made more purchases get higher scores.
- ➤ Monetary core: A score for monetary value, where customers who have spent more money get higher scores.

#### ❖Total RFM Score

This step combines the R, F, and M scores and the customer with the highest scores in all three categories will have a total score of 12 (4 + 4 + 4).

### Segmentation Based on Recency, Frequency, Monetary



# RFM Segmentation

#### **Insights & Recommendations:**

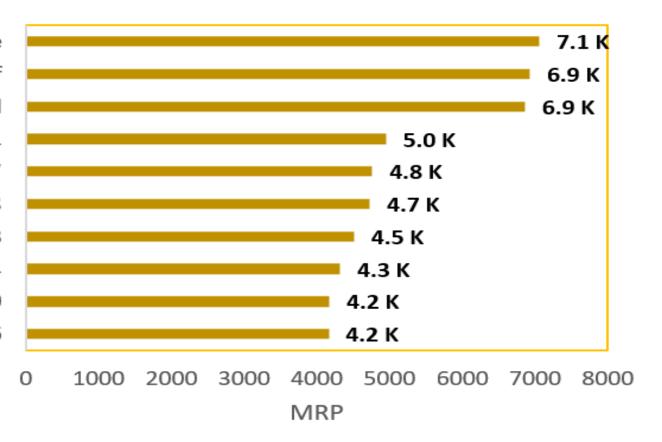
- ➤ Most customers (73.8%) are in the Bronze segment.
- ➤ Silver segment has around 21% of customers.
- ➤ Very few customers are in the Gold (4.5%) and Premium (0.9%) segments.
- ➤ Bronze customers are the largest group but have low value.
- >Try to move Bronze customers to Silver by offering discounts or deals.
- ➤ Give special offers and rewards to Gold and Premium customers to keep them loyal.
- ➤ Encourage Silver customers to buy more so they become Gold.
- ➤ Check customer segments regularly to see if they are improving.
- ➤Offer exclusive early access to sales or products for high-value customers.
- >Run feedback surveys for Premium customers to understand their needs better.
- ➤ Share customer success stories to build trust. Run festive or seasonal campaigns to increase engagement.

# **Expensive Products Based on MRP**



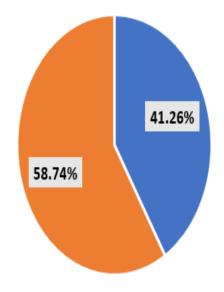
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Product ID



# Discount and Non-Discount Seekers Analysis

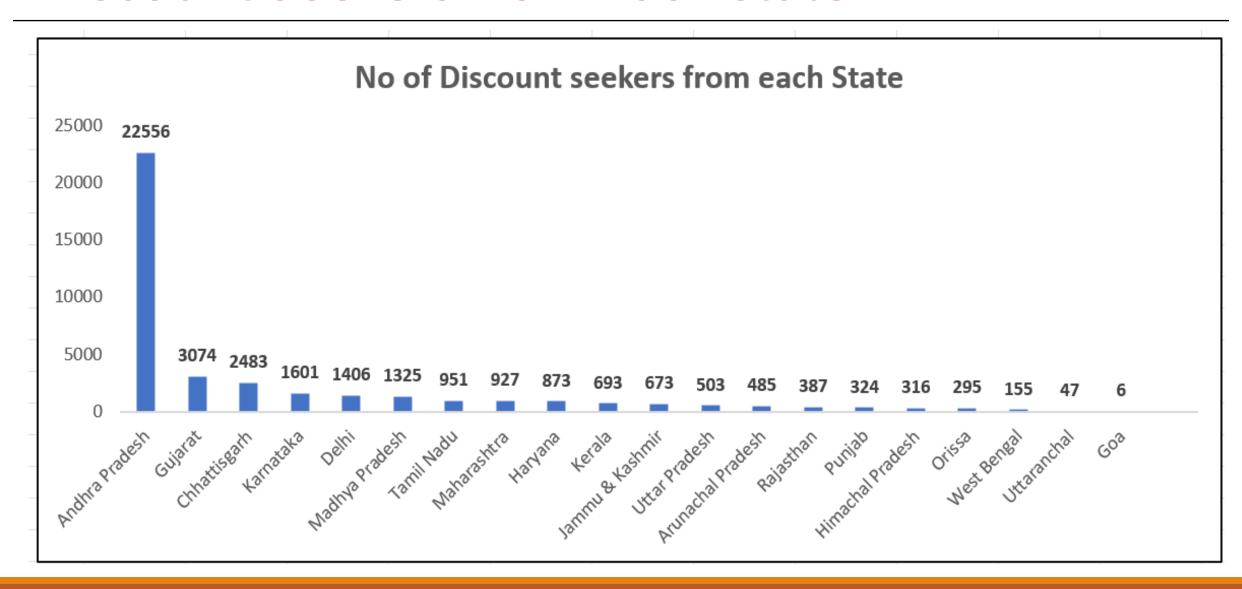




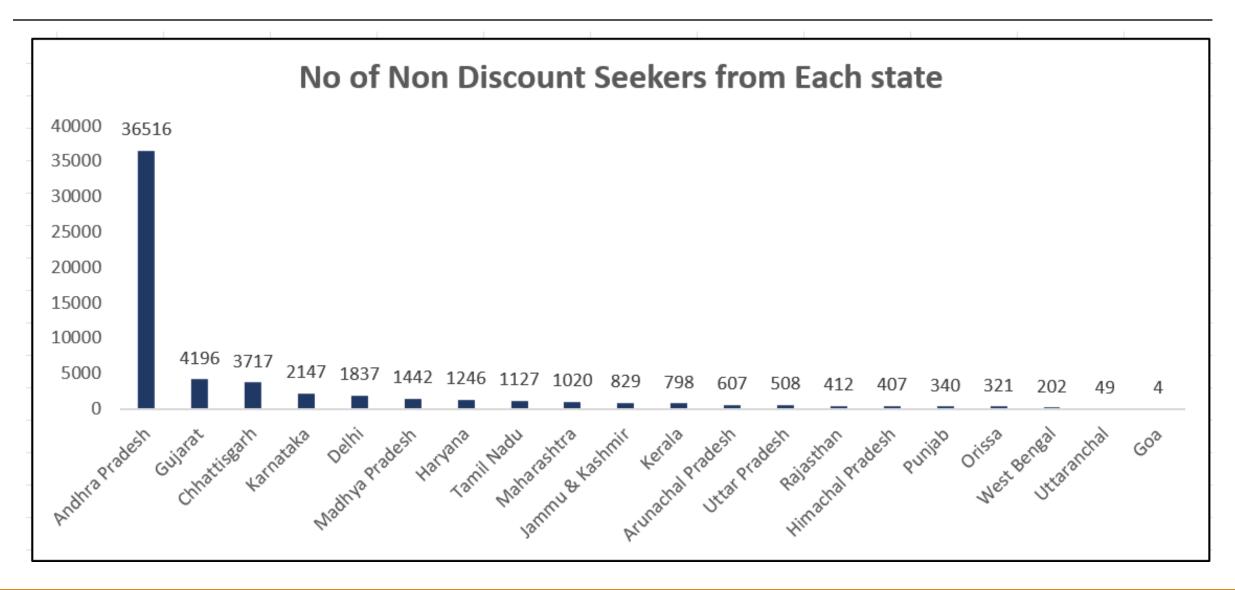
- Revenue Contributed by Discount Seekers
- Revenue Contributed by Non Discount Seekers

Discount Seek Non-Discount		Revenue Generated	Percentage Contributed
No of Discount Seekers	39.08 K	6.38 M	41.26 %
No of Non- Discount Seekers	57.73 K	9.08 M	58.74 %

### Discount Seekers from Each state



# Non-Discount Seekers from Each State



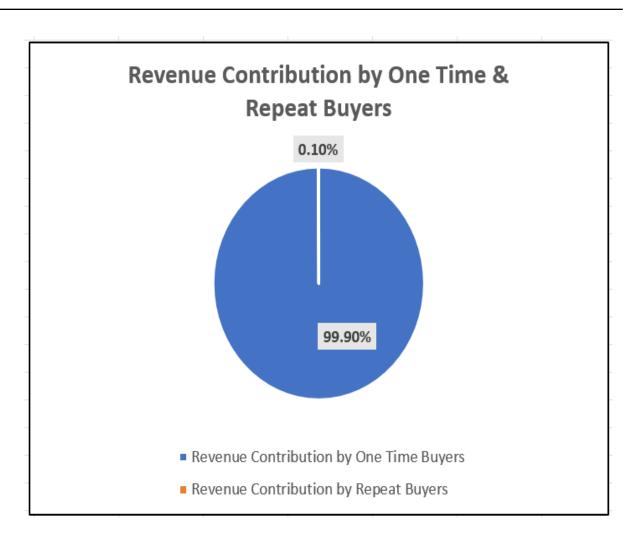
# Discount & Non-Discount Seekers Analysis

#### **Insights & Recommendations:**

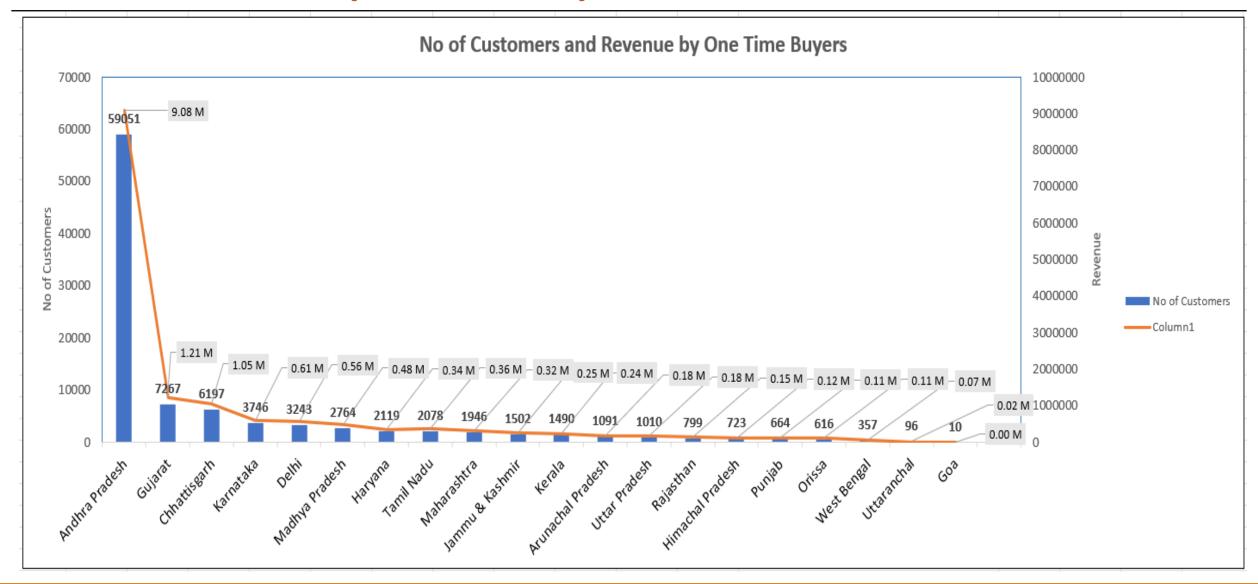
- ➤ Non-discount seekers bring in more revenue than discount seekers.
- More customers do not rely on discounts.
- Discount seekers still spend a lot per purchase.
- Pricing strategies can be improved to balance both groups.
- >Keep premium customers happy: Offer exclusive benefits and loyalty rewards.
- > Make discounts smart: Give limited-time deals based on customer behavior.
- ➤ Use personalized marketing: Create offers based on customer spending habits.
- Increase sales: Improve user experience and suggest relevant products.

# Behaviour of One Time & Repeat Buyers

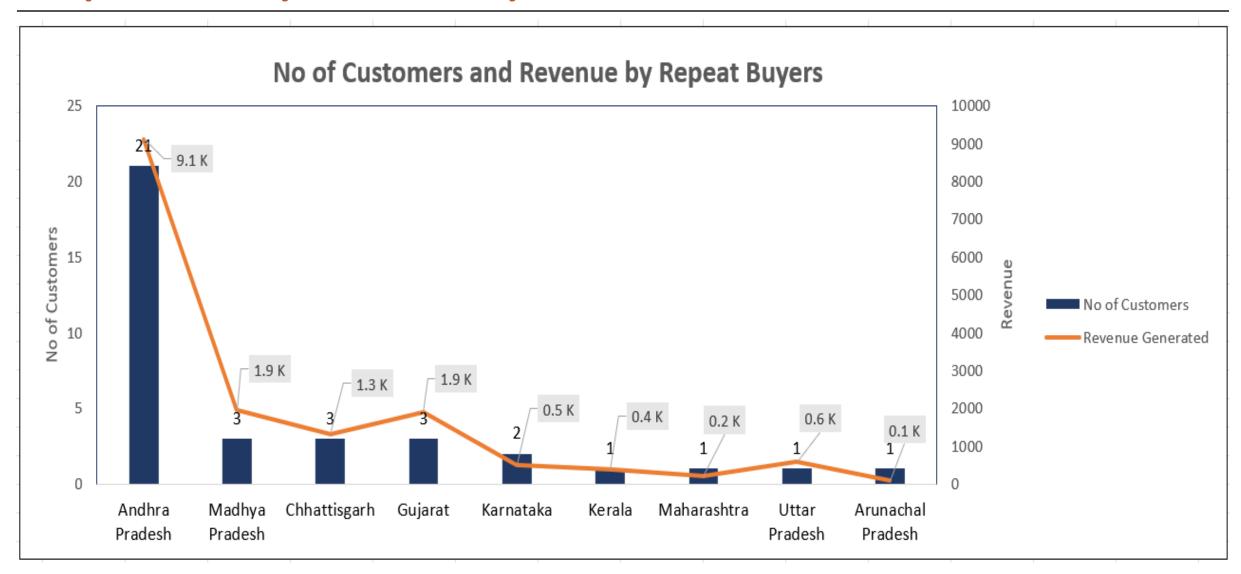
	No of Customers	Revenue Generated
One Time Buyers	96,769	15.44 M
Repeat Buyers	36	0.016 M



# One Time Buyers Analysis



# Repeat Buyers Analysis

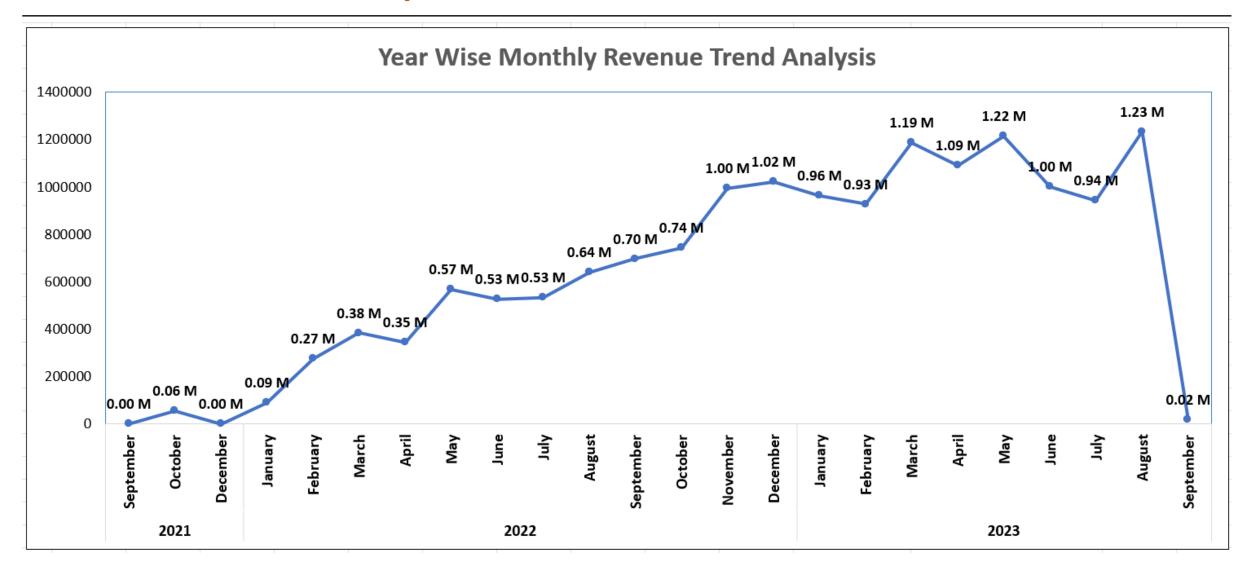


# One Time & Repeat Buyers Analysis

#### **Insights & Recommendations:**

- The vast majority of customers (96,769 out of 96,805) are one-time buyers, contributing 99.90% of the total revenue.
- ➤ Only 36 customers are repeat buyers, generating small amount of revenue.
- Repeat purchases are extremely low, indicating a lack of loyalty incentives or engagement strategies.
- If even a small portion of one-time buyers could be converted into repeat customers, it could significantly boost revenue
- ➤ Offer exclusive discounts or incentives for returning customers
- ➤ Utilize personalized recommendations based on past purchases.
- Send follow-up communications such as thank-you emails or special offers for second purchases.
- > Use targeted remarketing to re-engage one-time buyers via email, SMS, or push notifications

# Sales Trend Analysis: 2021 to 2023

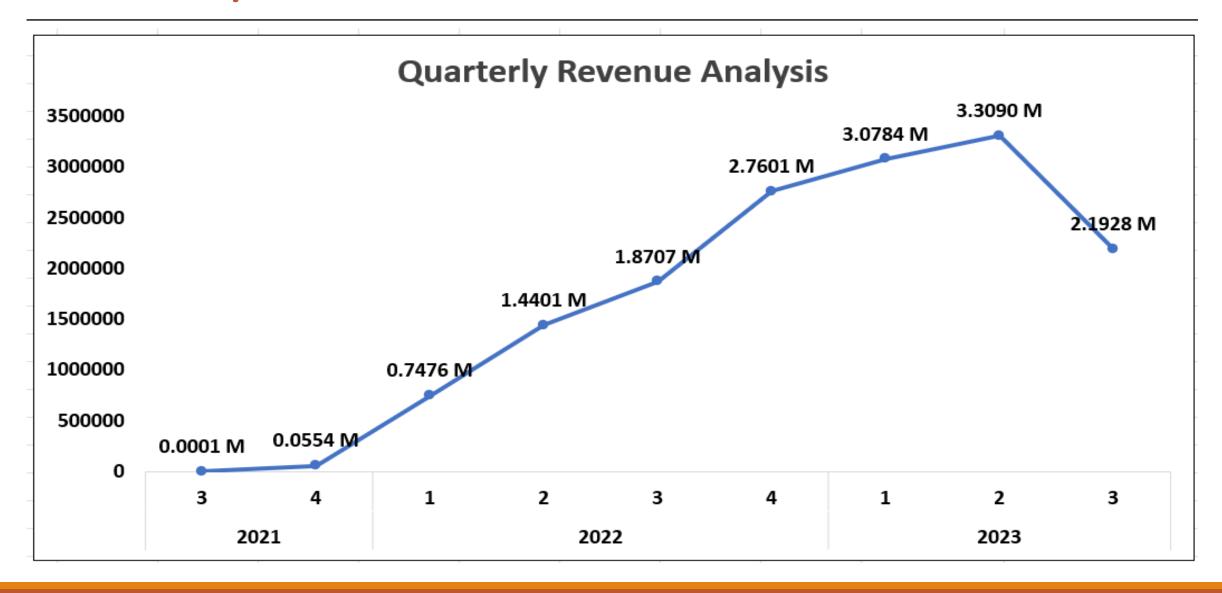


### **Sales Trend Analysis**

### **Insights and Recommendations:**

- ➤ Revenue has shown strong growth from 2021 to 2023.
- ➤ In 2022, revenue steadily increased month by month.
- >2023 saw a significant jump in revenue across most months.
- >August 2023 recorded the highest monthly revenue so far.
- Small dips in June and July 2023 were followed by a quick recovery.
- ➤ Overall, the business is growing rapidly and consistently.
- ➤ Learn from August 2023 The highest revenue month. Use similar ideas for future growth.
- Focus on customer satisfaction to keep them engaged and prevent losses.
- >Adjust pricing, marketing, or promotions to help maintain steady growth.

# Quarterly Sales Performance: 2021 to 2023



# Quarterly Revenue Trend Analysis

#### **Insights & Recommendations:**

- ➤ Strong Growth Over Time Revenue increased from 0.0001 M in Q3 2021 to 3.31 M in Q2 2023, showing steady growth.
- ➤ Peak in Q2 2023 The highest revenue of 3.31 M indicates strong performance during this period.
- ➤ Drop in Q3 2023 Revenue declined to 2.19 M, suggesting challenges that need investigation.
- ➤ Consistent Increases Until Q2 2023 Revenue grew each quarter, showing effective strategies.
- > Repeat successful strategies from Q2 2023 to maintain growth.
- ➤ Analyze the revenue drop in Q3 2023 and find ways to improve.
- > Ensure stable growth by monitoring trends and preparing for fluctuations
- > Explore new markets or products to boost revenue further.

# Thank you