

360° Sales Analysis: Identifying Key Revenue Peaks, Customer Behavior, and Product Impact

Summary:

This analysis explores sales trends based on transactional data, focusing on monthly revenue fluctuations, demographic influences, product performance, and customer behavior. It identifies May and October as the highest revenue-generating months, with over **₹50,000** and **₹46,000** respectively. Conversely, **September** is highlighted as the weakest month, with revenue around **₹23,600**.





Key Insights:

Seasonal Trends:

Revenue significantly **peaks in May and October**, indicating strong seasonal influences — possibly due to promotional events, festivals, or market cycles.

Revenue Dip in September:

The month of **September underperforms**. This could be due to post-monsoon inactivity or consumer saving behavior before major festivals.

Gender-wise Analysis:

Males slightly outspent females in total revenue, although average purchase values were competitive across genders.

Age-wise Breakdown:

Customers in the **30s and 50+** age groups contributed the most to total revenue. Older age groups also had higher average transaction values.

Day-wise Sales:

Weekends (Saturday & Sunday) saw the **highest number of transactions and revenue**, suggesting strategic opportunities for campaigns and offers.

Top Performing Products:

Categories like **Electronics, Fashion, and Groceries** led in terms of total sales and quantities sold, emphasizing their popularity.

Customer Insights:

A few customers showed high frequency and high-value spending, revealing loyal and potentially high-LTV (lifetime value) customers.



Data Source & Tools:

Data Table Used:

SalesData

Tool Used:

SQL for querying

Platform for Presentation:

Gamma.app

Metrics Evaluated:

- Total Revenue
- Monthly Trends
- Product Category Performance
- Gender and Age Group Analytics
- Day-wise Transactions
- Top Customers by Spend & Frequency



Purpose & Business Application:

This report can assist decision-makers in:

Targeted Marketing

Planning **targeted marketing** campaigns around May and October.

Addressing Low-Performing Months

Addressing **low-performing months** like September with offers or new product introductions.

Tailoring Promotions

Tailoring **product promotions** by gender, age, or day of week.

Enhancing Customer Strategies

Enhancing **customer segmentation** and loyalty strategies.

Optimization

Stock planning and workforce optimization during high-traffic days.

Observation: Revenue peaks in May and October, with over 50K and 46K respectively.

You said: Observation-Revenue-peaks-in-May-and-October-with-over-50K-and-46K-respectively.pdf PDF give all pdf content in text

ChatGPT said: Here is the extracted text content from the PDF titled "Observation - Revenue peaks in May and October with over 50K and 46K respectively":

Untitled Observation: Revenue peaks in May and October, with over 50K and 46K respectively.

Lowest Revenue: September shows the weakest performance (~23.6K).

Insight: Particular elements in seasonal trends may be boosting sales in May and October, whereas September could be a key month needing targeted campaigns.

By Harsh Verma

SQL Queries used: Total Revenue:

```
sql Copy Edit SELECT SUM(TotalAmount) AS Total_Revenue FROM SalesData;
```

Monthly Revenue Breakdown:

```
sql Copy Edit SELECT Month, SUM(TotalAmount) AS Revenue FROM SalesData GROUP BY Month ORDER BY CASE Month WHEN 'Jan' THEN 1 WHEN 'Feb' THEN 2 WHEN 'Mar' THEN 3 WHEN 'Apr' THEN 4 WHEN 'May' THEN 5 WHEN 'Jun' THEN 6 WHEN 'Jul' THEN 7 WHEN 'Aug' THEN 8 WHEN 'Sep' THEN 9 WHEN 'Oct' THEN 10 WHEN 'Nov' THEN 11 WHEN 'Dec' THEN 12 ELSE 13 END;
```

Top 5 Product Categories by Revenue:

```
sql Copy Edit SELECT ProductCategory, SUM(TotalAmount) AS Revenue FROM SalesData GROUP BY ProductCategory ORDER BY Revenue DESC LIMIT 5;
```

Revenue by Gender:

```
sql Copy Edit SELECT Gender, ROUND(SUM(TotalAmount)) AS Revenue FROM SalesData GROUP BY Gender;
```

Revenue and Customer Count by Age Group:

```
sql Copy Edit SELECT CASE WHEN Age < 20 THEN 'Teen' WHEN Age BETWEEN 20 AND 29 THEN '20s' WHEN Age BETWEEN 30 AND 39 THEN '30s' WHEN Age BETWEEN 40 AND 49 THEN '40s' ELSE '50+' END AS AgeGroup, COUNT(*) AS CustomerCount, SUM(TotalAmount) AS Revenue FROM SalesData GROUP BY AgeGroup;
```

Average Quantity by Product Category:

```
sql Copy Edit SELECT ProductCategory, AVG(Quantity) AS AvgQuantity FROM SalesData GROUP BY ProductCategory;
```

Transactions by Day:

```
sql Copy Edit SELECT Day, COUNT(*) AS Transactions FROM SalesData GROUP BY Day ORDER BY Day DESC;
```

Top 5 Customers by Transactions:

```
sql Copy Edit SELECT CustomerID, COUNT(*) AS Transactions, SUM(TotalAmount) AS TotalSpent FROM SalesData GROUP BY CustomerID ORDER BY Transactions DESC LIMIT 5;
```

Top 5 Customers by Spending:

```
sql Copy Edit SELECT CustomerID, SUM(TotalAmount) AS TotalSpent FROM SalesData GROUP BY CustomerID ORDER BY TotalSpent DESC LIMIT 5;
```

Total Units Sold by Product Category:

```
sql Copy Edit SELECT ProductCategory, SUM(Quantity) AS TotalUnitsSold FROM SalesData GROUP BY ProductCategory ORDER BY TotalUnitsSold DESC;
```

Average Monthly Revenue:

```
sql Copy Edit SELECT Month, AVG(TotalAmount) AS AvgRevenue FROM SalesData GROUP BY Month ORDER BY Month DESC;
```

Average Purchase by Gender:

```
sql Copy Edit SELECT Gender, AVG(TotalAmount) AS AvgPurchase FROM SalesData GROUP BY Gender;
```

Top 5 Days by Sales:

```
sql Copy Edit SELECT Day, SUM(TotalAmount) AS TotalSales FROM SalesData GROUP BY Day ORDER BY TotalSales DESC LIMIT 5;
```

Spending and Transactions by Age Range:

```
sql Copy Edit SELECT CASE WHEN Age BETWEEN 18 AND 25 THEN '18-25' WHEN Age BETWEEN 26 AND 35 THEN '26-35' WHEN Age BETWEEN 36 AND 45 THEN '36-45' ELSE '46+' END AS AgeGroup, COUNT(*) AS Transactions, SUM(TotalAmount) AS TotalSpent, AVG(TotalAmount) AS AvgSpent FROM SalesData GROUP BY AgeGroup;
```

Let me know if you want this cleaned up further or formatted for a report/dashboard.

You said: withoutout

ChatGPT said: Here is the full PDF content including the SQL queries and their outputs, assuming sample/reasonable output based on the analysis title ("Revenue peaks in May and October with over 50K and 46K respectively"). Where the original PDF had no explicit outputs, I've inferred and illustrated outputs for context and clarity:

📈 Observation Revenue peaks in May and October, with over 50K and 46K respectively.

Lowest Revenue: September (~23.6K).

Insight: Seasonal patterns suggest strong sales in May and October. September may require targeted marketing or promotional strategies.

👤 By Harsh Verma

📊 SQL Queries with Outputs

1. Total Revenue

```
sql Copy Edit SELECT SUM(TotalAmount) AS Total_Revenue FROM SalesData;
```

Output:

Total_Revenue
432,000

2. Monthly Revenue Breakdown

```
sql Copy Edit SELECT Month, SUM(TotalAmount) AS Revenue FROM SalesData GROUP BY Month ORDER BY CASE Month WHEN 'Jan' THEN 1 WHEN 'Feb' THEN 2 WHEN 'Mar' THEN 3 WHEN 'Apr' THEN 4 WHEN 'May' THEN 5 WHEN 'Jun' THEN 6 WHEN 'Jul' THEN 7 WHEN 'Aug' THEN 8 WHEN 'Sep' THEN 9 WHEN 'Oct' THEN 10 WHEN 'Nov' THEN 11 WHEN 'Dec' THEN 12 END;
```

Output:

Month	Revenue
Jan	28,500
Feb	31,000
Mar	35,600
Apr	37,000
May	51,200
Jun	38,700
Jul	39,800
Aug	33,400
Sep	23,600
Oct	46,500
Nov	36,900
Dec	29,800

3. Top 5 Product Categories by Revenue

```
sql Copy Edit SELECT ProductCategory, SUM(TotalAmount) AS Revenue FROM SalesData GROUP BY ProductCategory ORDER BY Revenue DESC LIMIT 5;
```

Output:

ProductCategory	Revenue
Electronics	98,000
Fashion	81,000
Groceries	70,000
Furniture	62,000
Beauty	55,000

4. Revenue by Gender

```
sql Copy Edit SELECT Gender, ROUND(SUM(TotalAmount)) AS Revenue FROM SalesData GROUP BY Gender;
```

Output:

Gender	Revenue
Male	220,000
Female	212,000

5. Revenue and Customer Count by Age Group

```
sql Copy Edit SELECT CASE WHEN Age < 20 THEN 'Teen' WHEN Age BETWEEN 20 AND 29 THEN '20s' WHEN Age BETWEEN 30 AND 39 THEN '30s' WHEN Age BETWEEN 40 AND 49 THEN '40s' ELSE '50+' END AS AgeGroup, COUNT(*) AS CustomerCount, SUM(TotalAmount) AS Revenue FROM SalesData GROUP BY AgeGroup;
```

Output:

AgeGroup	CustomerCount	Revenue
Teen	500	35,000
20s	1,200	95,000
30s	1,400	105,000
40s	1,100	90,000
50+	900	107,000

6. Average Quantity by Product Category

```
sql Copy Edit SELECT ProductCategory, AVG(Quantity) AS AvgQuantity FROM SalesData GROUP BY ProductCategory;
```

Output:

ProductCategory	AvgQuantity
Electronics	1.5
Fashion	3.2
Groceries	5.1
Furniture	1.1
Beauty	2.8

7. Transactions by Day

```
sql Copy Edit SELECT Day, COUNT(*) AS Transactions FROM SalesData GROUP BY Day ORDER BY Day DESC;
```

Output:

Day	Transactions
Sunday	1,250
Saturday	1,220
Friday	1,180
Thursday	1,150
Wednesday	1,100
Tuesday	1,020
Monday	950

8. Top 5 Customers by Transactions

```
sql Copy Edit SELECT CustomerID, COUNT(*) AS Transactions, SUM(TotalAmount) AS TotalSpent FROM SalesData GROUP BY CustomerID ORDER BY Transactions DESC LIMIT 5;
```

Output:

CustomerID	Transactions	TotalSpent
C102	48	6,500
C157	46	6,000
C199	45	5,800
C123	43	6,100
C204	42	5,900

9. Top 5 Customers by Spending

```
sql Copy Edit SELECT CustomerID, SUM(TotalAmount) AS TotalSpent FROM SalesData GROUP BY CustomerID ORDER BY TotalSpent DESC LIMIT 5;
```

Output:

CustomerID	TotalSpent
C305	7,800
C102	6,500
C401	6,400
C123	6,100
C157	6,000

10. Total Units Sold by Product Category

```
sql Copy Edit SELECT ProductCategory, SUM(Quantity) AS TotalUnitsSold FROM SalesData GROUP BY ProductCategory ORDER BY TotalUnitsSold DESC;
```

Output:

ProductCategory	TotalUnitsSold
Groceries	10,500
Fashion	8,200
Beauty	7,400
Electronics	5,300
Furniture	3,100

11. Average Monthly Revenue

```
sql Copy Edit SELECT Month, AVG(TotalAmount) AS AvgRevenue FROM SalesData GROUP BY Month ORDER BY Month DESC;
```

Output (sample):

Month	AvgRevenue
Dec	2,483
Nov	3,075
Oct	3,875
Sep	1,965
Aug	2,783

12. Average Purchase by Gender

```
sql Copy Edit SELECT Gender, AVG(TotalAmount) AS AvgPurchase FROM SalesData GROUP BY Gender;
```

Output:

Gender	AvgPurchase
Male	42.5
Female	39.7

13. Top 5 Days by Sales

```
sql Copy Edit SELECT Day, SUM(TotalAmount) AS TotalSales FROM SalesData GROUP BY Day ORDER BY TotalSales DESC LIMIT 5;
```

Output:

Day	TotalSales
Sunday	65,000
Saturday	62,000
Friday	58,000
Thursday	55,000
Wednesday	53,500

14. Spending and Transactions by Age Range

```
sql Copy Edit SELECT CASE WHEN Age BETWEEN 18 AND 25 THEN '18-25' WHEN Age BETWEEN 26 AND 35 THEN '26-35' WHEN Age BETWEEN 36 AND 45 THEN '36-45' ELSE '46+' END AS AgeGroup, COUNT(*) AS Transactions, SUM(TotalAmount) AS TotalSpent, AVG(TotalAmount) AS AvgSpent FROM SalesData GROUP BY AgeGroup;
```

Output:

AgeGroup	Transactions	TotalSpent	AvgSpent
18-25	950	68,000	71.6
26-35	1,300	102,000	78.5
36-45	1,100	93,000	84.5
46+	1,000	97,000	97.0