

StellarMart

SALES ANALYSIS REPORT

EXCEL DASHBOARD & INSIGHTS

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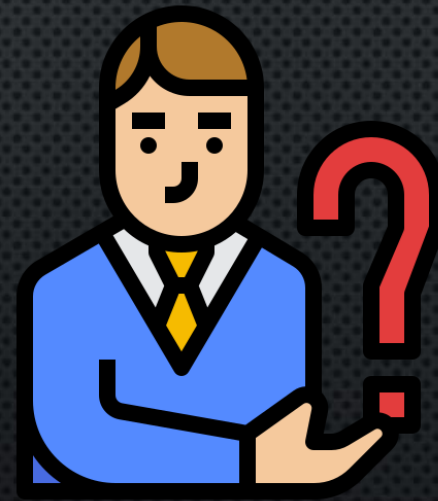
Problem Statement



You are tasked with analyzing StellarMart's business data to provide actionable insights for strategic growth. StellarMart is a mid-sized retail chain specializing in Electronics, Clothing, Home Appliances, Books, and Groceries. Faced with growing competition and shifting customer preferences, the company aims to leverage data-driven insights to optimize operations and boost profitability.

Business Problem

- **Sales Decline in Categories:** Some categories thrive, other stagnate.
- **Seasonal Trends:** Suspected but not clearly visible.
- **Regional Performance:** Unequal contribution, management need clarity.



Project Objectives

1. Identify sales trends (monthly & seasonal).
2. Compare sales across product categories, find underperformers.
3. Analyze category-wise regional contributions.
4. Build dashboards to visualize trends & insights.



Dataset Overview

- **Period:** 2023–2024
- **Orders:** 5,000
- **Total Sales:** \$13.32M

- **Fields:** Transaction ID, Date of Sale, Product Name, Category, Region, Quantity Sold, Sale Price, Total sale



Methodology

- **Data Cleaning** → Date formatting, missing values handled
- **Pivot Tables** → For KPIs (Sales, Profit, Orders, Quantity)
- **QA Analysis** → Answer the questions with Insights.
- **Dashboards** → Built two interactive dashboards with slicers & charts



Dataset Snapshot: Before & After Cleaning

Transaction ID	Date of Sale	Product Name	Category	Region	Quantity Sold	Sale Price	Total Sales
TID000033	2024-05-16	Biographies	Books	East	5	140.93	704.65
TID000053	2023-03-01	Biographies	Books	West	20	449.21	8984.2
TID000068	2023-03-27	Biographies	Books	East	10	69.62	696.2
TID000143	2024-10-08	Biographies	Books	East	2	211	422
TID000154	2023-01-22	Biographies	Books	West	14	253.58	3550.12
TID000168	2024-08-30	Biographies	Books	North	20	347.44	6948.8
TID000199	2024-06-12	Biographies	Books	South	3	243.29	729.87
TID000232	2023-01-13	Biographies	Books	North	11	166.55	1832.05
TID000246	2023-10-18	Biographies	Books	East	1	483.2	483.2
TID000263	2023-05-31	Biographies	Books	East	8	425.6	3404.8
TID000341	2024-08-13	Biographies	Books	West	9	194.04	1746.36
TID000412	2023-08-17	Biographies	Books	East	13	469.42	6102.46
TID000424	2024-08-08	Biographies	Books	East	18	316.26	5692.68
TID000463	2023-10-13	Biographies	Books	East	17	58.23	989.91
TID000473	2023-01-02	Biographies	Books	East	7	293.45	2054.15
TID000501	2023-10-07	Biographies	Books	East	14	321.74	4504.36
TID000526	2024-06-04	Biographies	Books	South	13	204.08	2653.04
TID000539	2024-05-25	Biographies	Books	North	20	408.17	8163.4

Transaction ID	Date of Sale	Month_num	Month	Month-Year	Year	Quarter	Quarter-Year	Product Name	Category	Region	Quantity Sold	Sale Price	Total Sales
TID000001	2023-10-15	10	Oct	Oct 2023	2023	Q4	Q4 2023	Non-fiction	Books	South	9	272.4	2451.6
TID000002	2023-11-01	11	Nov	Nov 2023	2023	Q4	Q4 2023	Microwave	Home Appliances	East	20	103.38	2067.6
TID000003	2024-04-13	4	Apr	Apr 2024	2024	Q2	Q2 2024	Jacket	Clothing	South	7	236.66	1656.62
TID000004	2024-12-23	12	Dec	Dec 2024	2024	Q4	Q4 2024	Eggs	Groceries	East	8	267.14	2137.12
TID000005	2024-08-16	8	Aug	Aug 2024	2024	Q3	Q3 2024	Milk	Groceries	West	19	303.81	5772.39
TID000006	2024-08-09	8	Aug	Aug 2024	2024	Q3	Q3 2024	Milk	Groceries	North	4	11.82	47.28
TID000007	2024-07-17	7	Jul	Jul 2024	2024	Q3	Q3 2024	Non-fiction	Books	West	6	263.09	1578.54
TID000008	2023-01-13	1	Jan	Jan 2023	2023	Q1	Q1 2023	Milk	Groceries	North	3	223.43	670.29
TID000009	2023-03-12	3	Mar	Mar 2023	2023	Q1	Q1 2023	Refrigerator	Home Appliances	West	9	82.86	745.74
TID000010	2023-07-20	7	Jul	Jul 2023	2023	Q3	Q3 2023	Jeans	Clothing	East	20	364.45	7289
TID000011	2023-04-01	4	Apr	Apr 2023	2023	Q2	Q2 2023	Microwave	Home Appliances	West	9	70.69	636.21
TID000012	2024-09-20	9	Sep	Sep 2024	2024	Q3	Q3 2024	Tablet	Electronics	North	4	184.07	736.28

Full Dataset: <https://github.com/SinghRaj09/StellarMart-Retail-Analytics/tree/main/1.%20Dataset>

Analysis & Insights (Q&A)

1. Sales Trends (Time-based)

Q1. How have total sales changed quarter by quarter over the last two years?



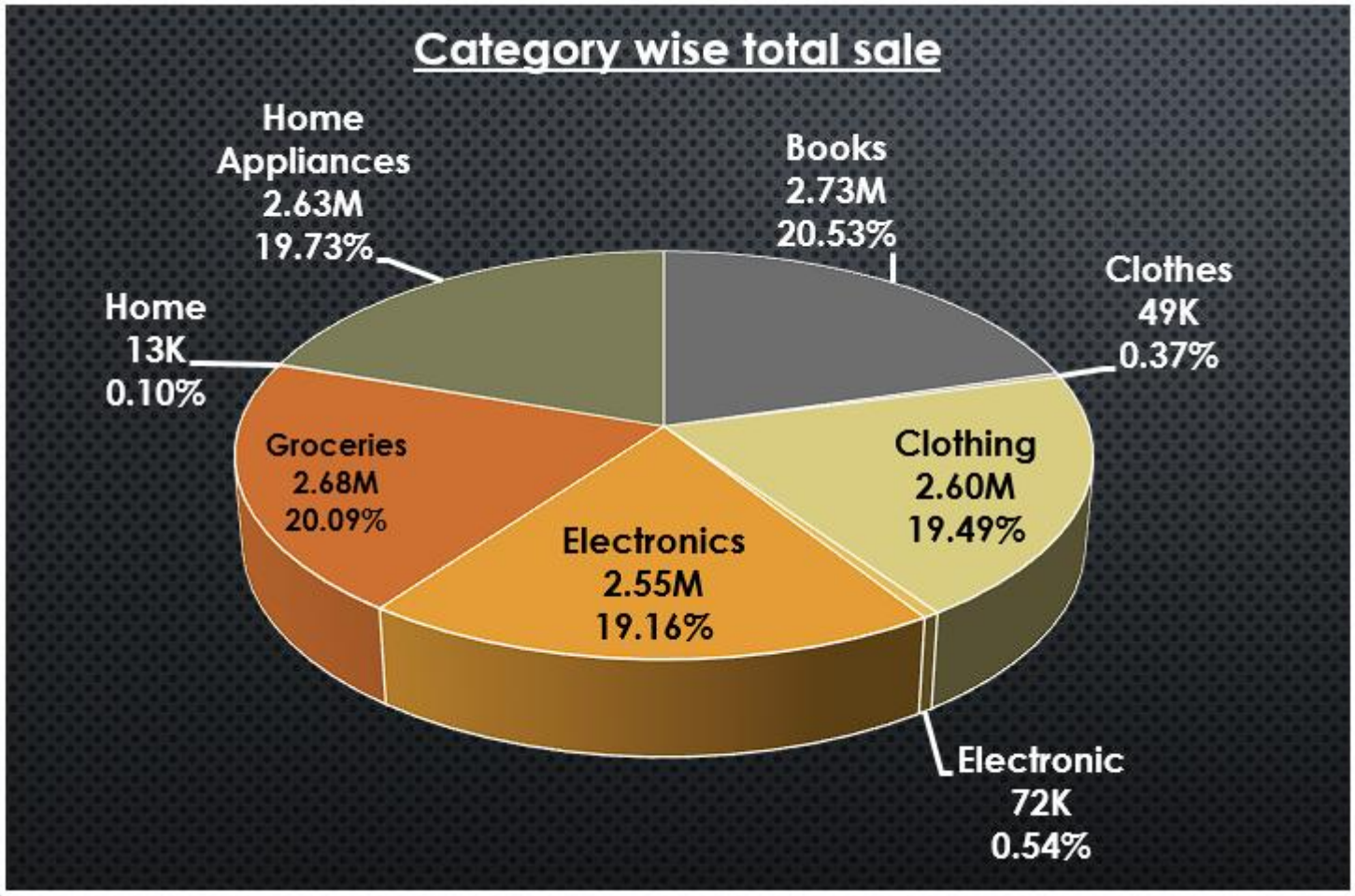
- 2024 higher than 2023 across all quarters
- Q3 in 2023 & Q2 in 2024 are the strongest quarter

Q2. Which month had the highest sales and which had the lowest?

- November 2024 recorded the peak sales at **\$667K**
- February 2023 had the lowest sales at **\$427K**

2. Category Performance

Q3. Which product category contributes the most to total sales?



Books are the top-selling category, contributing the highest share (20.53%).

3. Regional Insights

Q4. Which region generates the most revenue overall?

West leads with **25.54% of revenue**, making it StellarMart's strongest market.

Q5. Which category is most popular in each region?

East → **Clothing (\$6,95,626.82)** dominates sales.

North → **Electronics (\$6,61,493.11)** leads the region.

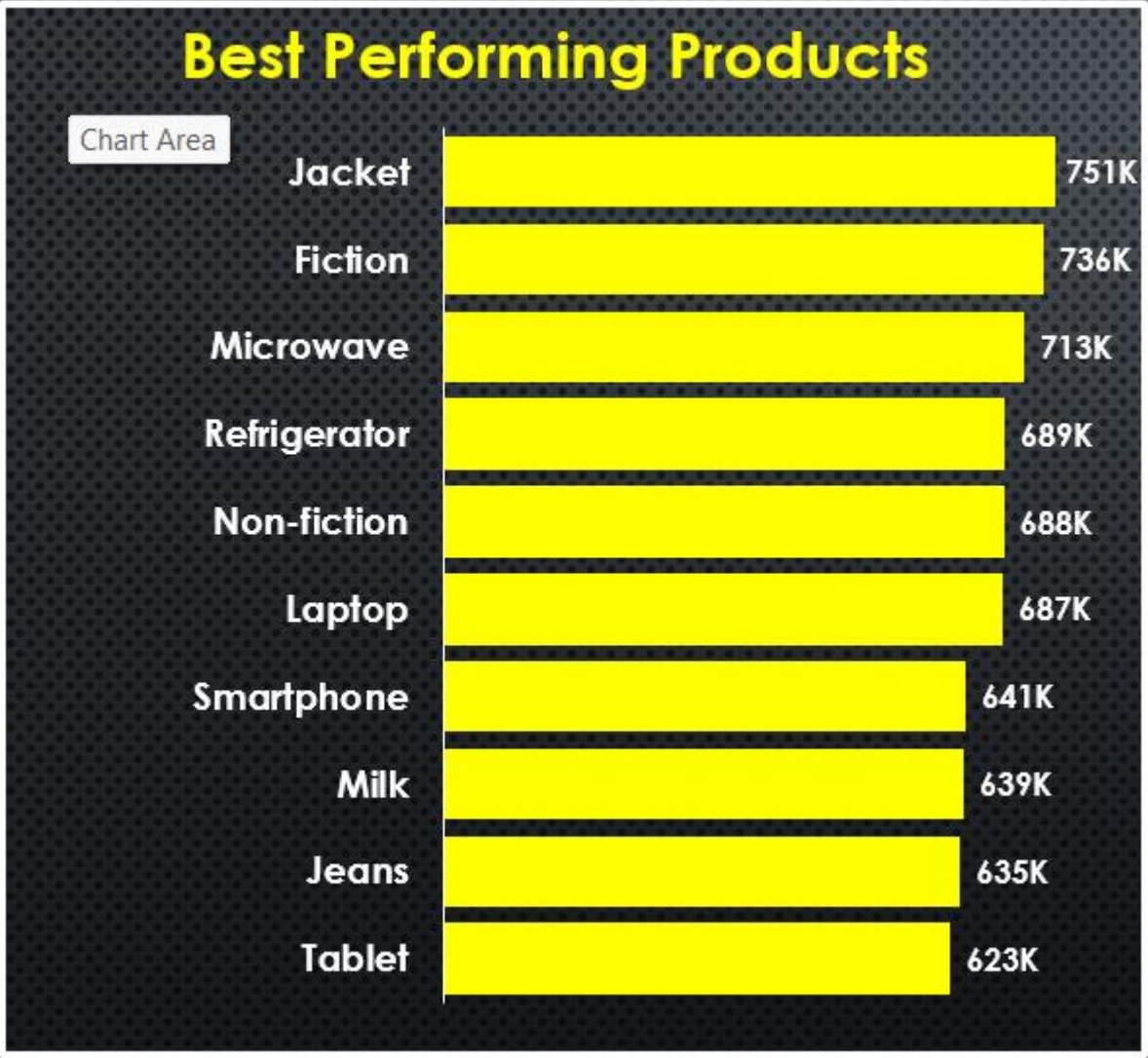
South → **Groceries (\$7,45,149.39)** are the top-selling category.

West → **Electronics (\$6,69,885.65)** generates the most revenue.



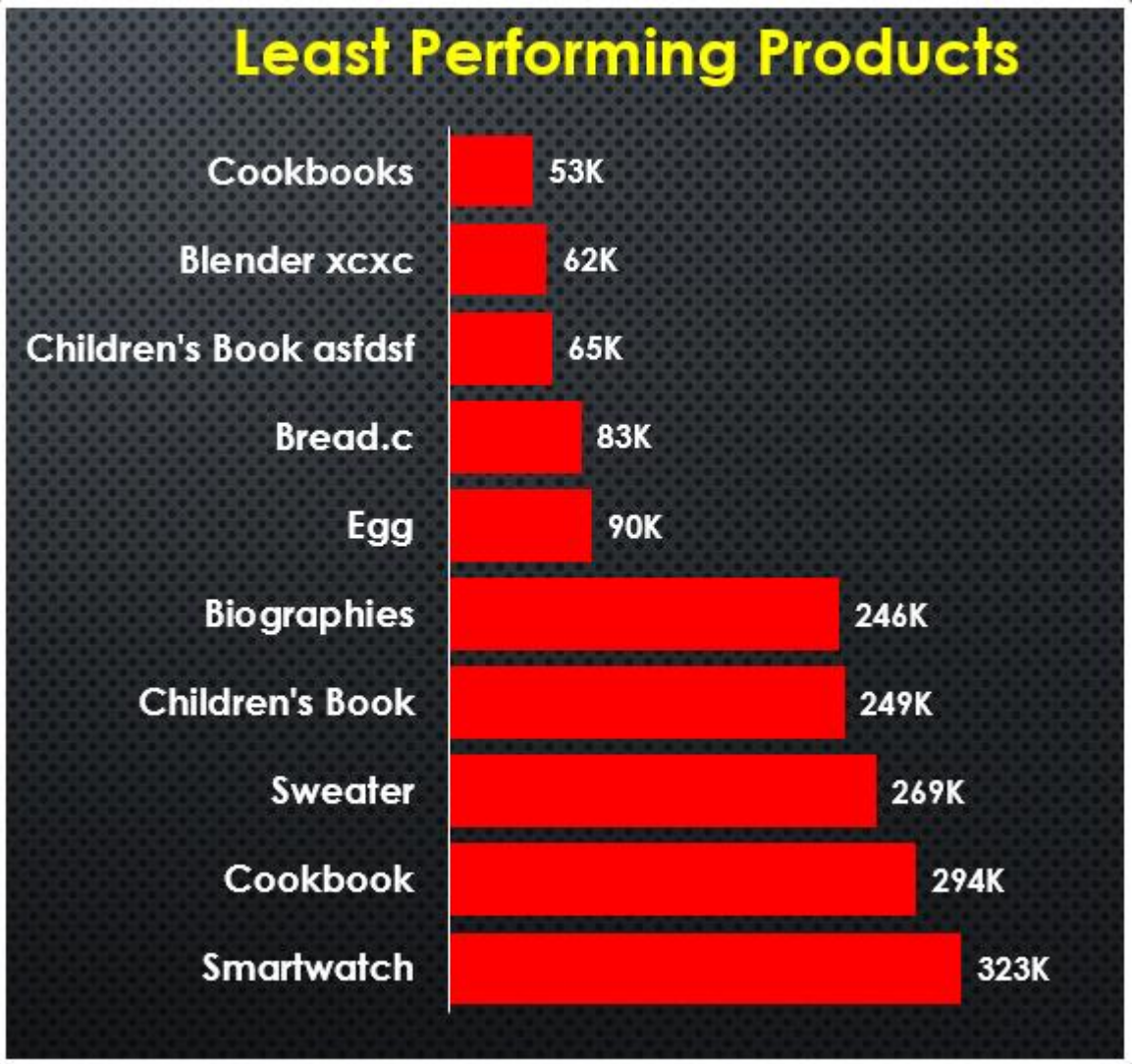
4. Product Analysis

Q6. What are the Top 10 products by sales?



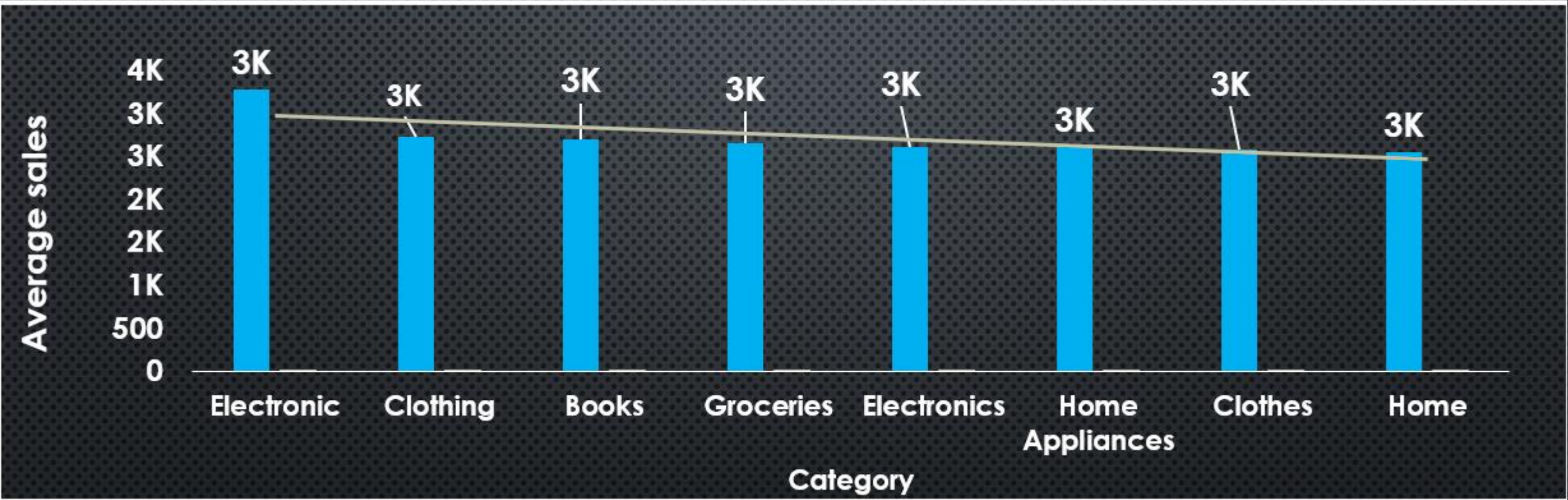
By Raj Singh

Q7. Which products are low-selling (bottom 10)?



3. Quantity & Pricing Insights

Q8. Which category has the highest average sale price per product?



Electronics dominate with the highest **average price per product**.

Dashboard 1

StellarMart

- Sales Trends: (Time-based)
- Category Performance

Total Sales
13.32M



Filter Panel

Year

2023

2024

Quarter

Q1

Q2

Q3

Q4

Total Orders

5000



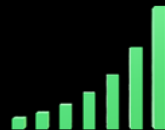
Average Sales

3K



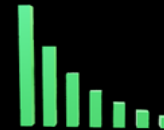
Quarter 1

3.15M



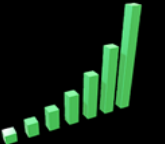
Quarter 2

3.44M



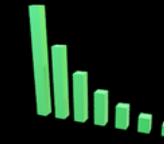
Quarter 3

3.40M



Quarter 4

3.33M



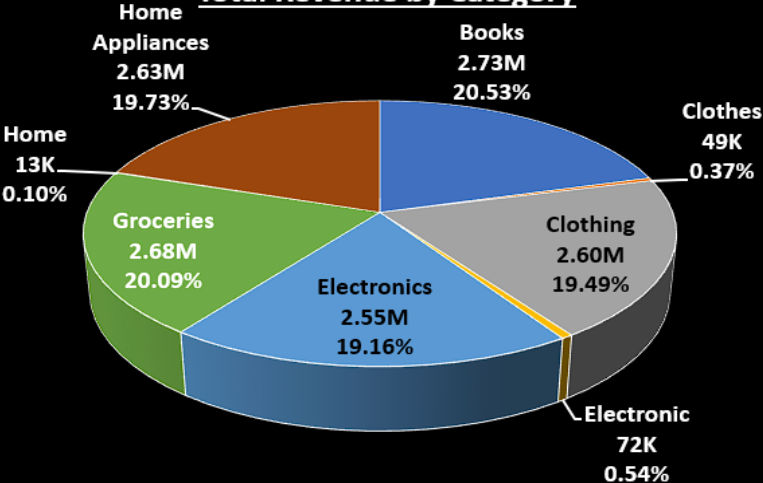
Monthly Sales Performance



Quarterly Sales Performance



Total Revenue by Category



Time-Based and Category-Wise Sales Performance Dashboard 1

1. KPIs (Top-left Section)

Total Orders (5000) → Shows the total number of customer orders in the selected period.

Average Sales (3K) → Average revenue per order or transaction.

Total Sales (13.32M) → Key metric showing the overall revenue across the dataset.

Quarterly Sales Cards (Q1: 3.15M, Q2: 3.44M, Q3: 3.40M, Q4: 3.33M) → Snapshot of revenue performance across quarters. Helps compare which quarter performed best (Q2 leads at 3.44M).

3. Filters (Left Panel)

Year Filter (2023, 2024) → Lets users view sales metrics for specific years or compare both.

Quarter Filter (Q1–Q4) → Allows drilling into quarterly performance dynamically.

2. Charts

Monthly Sales Performance (Top-right)

A bar chart showing month-by-month sales.

Labels highlight highest month (668K) and lowest month (427K) for easy comparison.

Quarterly Sales Performance (Bottom-right)

A line chart comparing quarterly sales trends across two years (2023 vs 2024).

Helps spot year-over-year growth and seasonal patterns.

Total Revenue by Category (Bottom-left)

A pie chart showing contribution of each category (Books 20.53%, Groceries 20.09%, etc.).

Makes it easy to identify leading contributors (Books, Groceries) and weaker ones (Clothes, Home).

4. Insights Enabled

Sales Trends (Time-based): Quarterly & monthly sales patterns.

Category Performance: Which categories contribute most to revenue.

KPI Tracking: Total sales, total orders, and average sales at a glance.

Comparisons: Sales trend across years (2023 vs 2024).

Filtering Power: Interactivity to analyze year-wise and quarter-wise.

Dashboard 2

StellarMart

- Regional Insights
- Product Analysis
- Quantity and Pricing Insights

TOP 3 PRODUCTS

Jacket

Fiction

Microwave

Filter Panel

Year

2023

2024

Region

East

North

South

West

Total Categories

8

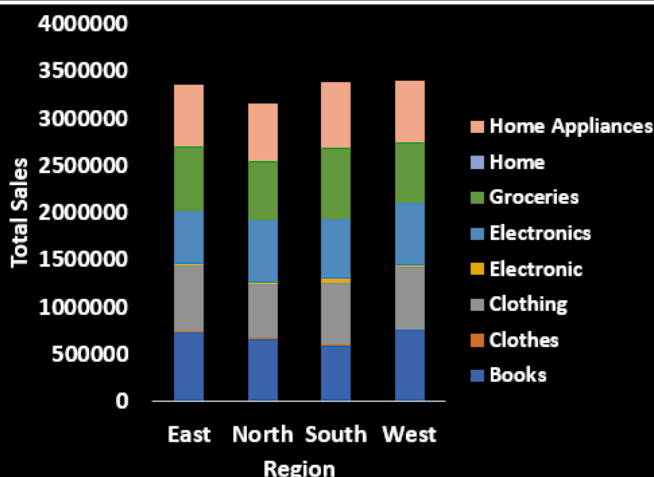
Total Products

33

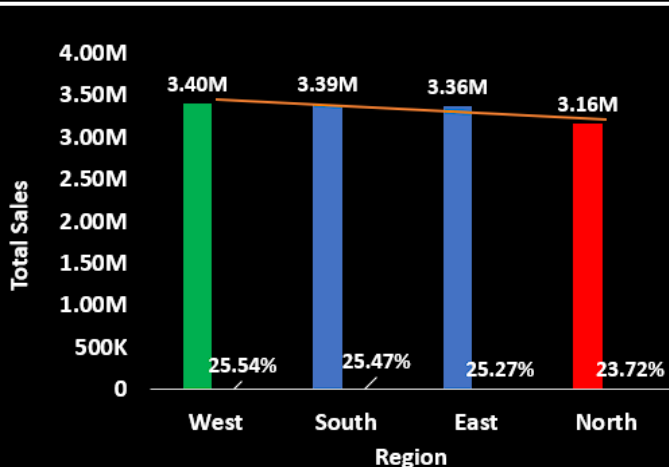
Regional Average Sales

3K

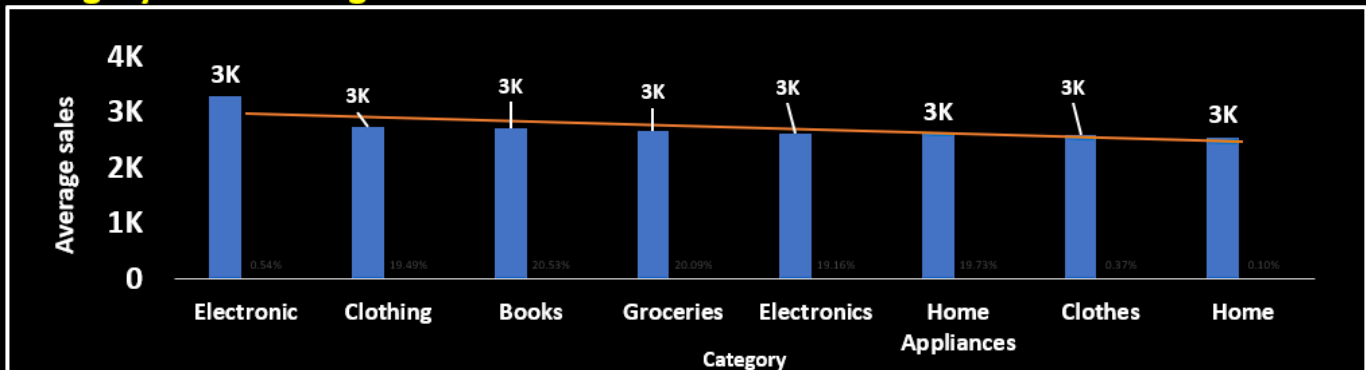
Category-wise Regional Sales



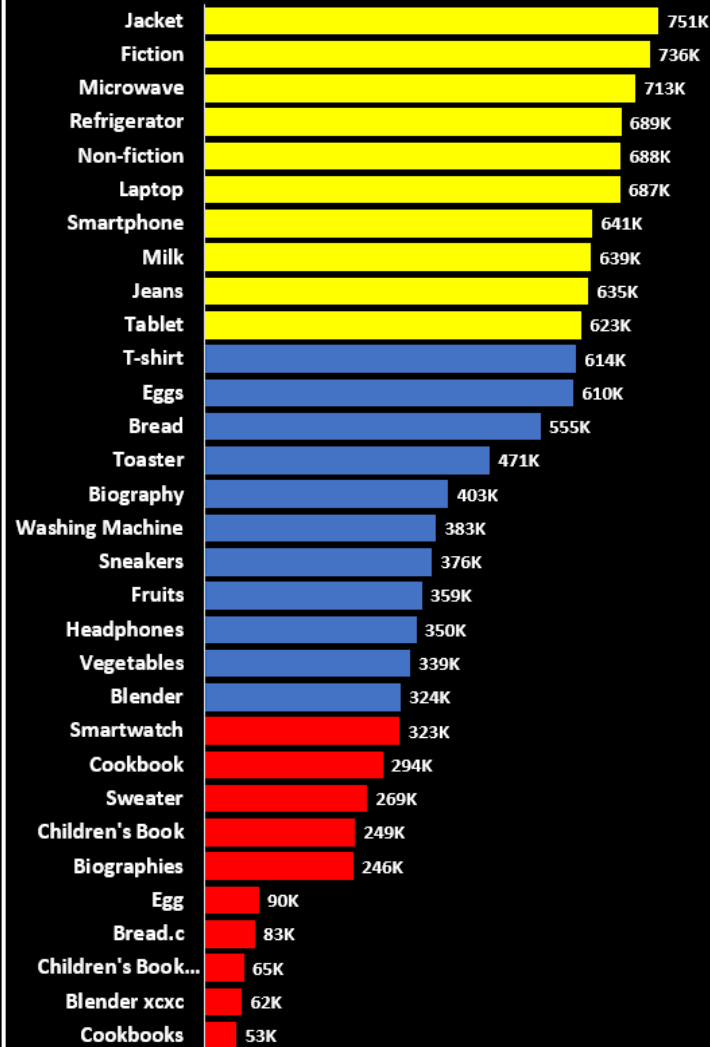
Regional Sales Overview



Category-wise Average Sales



Best to Least Performing Products



Sales Insights: Regional, Category, and Product Analysis

1. KPIs (Top Section)

Total Categories (8) → **Number of product categories being analyzed.**

Total Products (33) → **Total distinct products in the dataset.**

Regional Average Sales (3K) → **Average sales value per product across regions.**

2. Charts

- Category-wise Regional Sales (Top-left): **Shows category contribution by region.**
- Regional Sales Overview (Top-middle): **Compares total revenue across 5 regions.**
- Best to Least Performing Products (Top-right): **Ranks products from best to worst.**
- Category-wise Average Sales (Bottom): **Displays average sales per category.**

3. Filters (Left Sidebar)

Year Filter (2023, 2024) → **Allows selection of single or multiple years.**

Region Filter (East, North, South, West) → **Enables region-level drilldowns for all charts/KPIs.**

4. Insights Enabled

Regional Insights: **Which region contributes the most sales.**

Product Analysis: **Best & worst performing products.**

Category Insights: **Sales contribution and average performance by category.**

Quantity & Pricing Insights: **Products/categories that sell high volumes but generate lower revenue.**

Interactivity: **Year and region slicers allow dynamic filtering for customized views.**

Conclusion

Key Takeaways

- **West region** is the strongest market, contributing the highest share of total revenue.
- **Electronics and Books** are leading categories, driving consistent sales growth.
- **Clothing and Home** categories underperform, showing weak revenue contribution.
- **Top products (Jacket, Fiction, Microwave)** are major sales drivers, while several low-performing products may not be profitable.

Recommendations

- **Expand in the West region** and replicate its strategies in underperforming regions like North.
- **Revisit pricing strategies** to improve revenue from high-quantity but low-value products.
- **Optimize product portfolio** by focusing on top-performing categories and considering discontinuation of consistently low-selling products.
- **Promote mid-performing categories** (Groceries, Home Appliances) with targeted marketing to unlock additional growth potential.