

Retail Sales Analysis for KSAmart(2022-2024)

Descriptive Analysis | Portfolio Project | Excel + Power BI | Saudi Market

Data Overview

- 30k+ rows of retail sales data (2022–2024), modeled on Saudi market.
- Challenges: Missing values, duplicates, outliers, inconsistent pricing.
- All monetary values are represented in Saudi Riyals (SAR).
- Note:
 - KSAmart is a fictional retail company created for the purpose of this project.

Tools & Approach

Tools Used:

- Microsoft Excel (Power Query, Pivot Tables, Charts)
- Power BI (Dashboarding, DAX)

Methodology:

- Data Cleaning (Missing, Duplicates, Outliers)
- Exploratory Data Analysis
- Business Question Mapping
- KPI Extraction
- Insights and Recommendations

Objective:

Business Problem:

KSA Mart is a retail business operating across major cities in Saudi Arabia. The company aims to optimize overall sales performance and better understand customer purchasing behavior across regions, seasons, and demographics

This analysis focuses on:

- Identifying **seasonal sales trends** to improve demand forecasting.
- Understanding **customer segments** (nationality, gender, age group) that drive the most value.
- Pinpointing **top-performing product categories** across different cities.
- Analyzing **regional sales distribution** to allocate inventory and marketing effectively.
- Monitoring **payment method preferences** to support digital transformation strategies.

KPIs Dashboard

Total Sales
249M (SAR)

Total Orders
29.85k

Average Order
8.33k

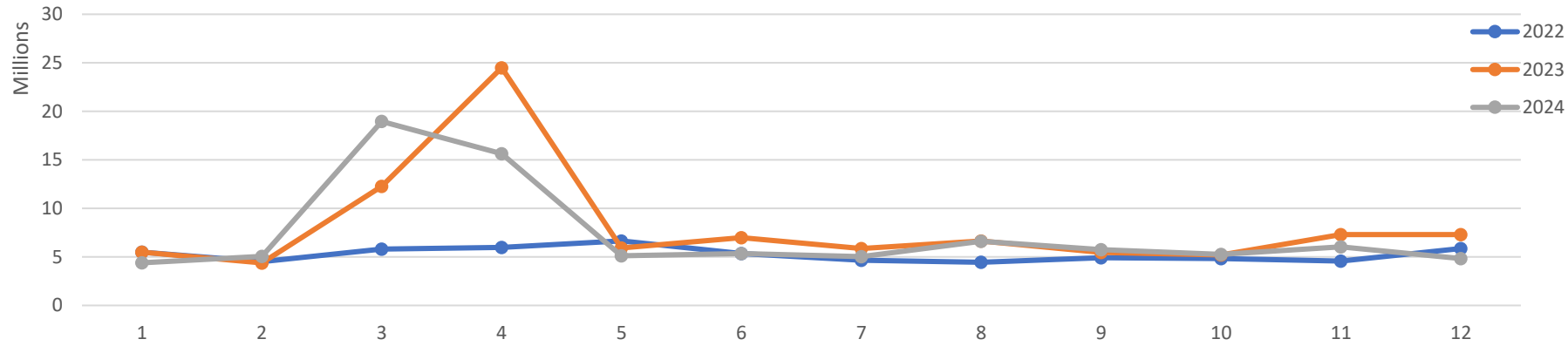
**Total Returned
Orders**
1.4k

Return Order Rate
4.69%

Total Customers
13k

Yearly Sales Trends and Seasonal Peaks

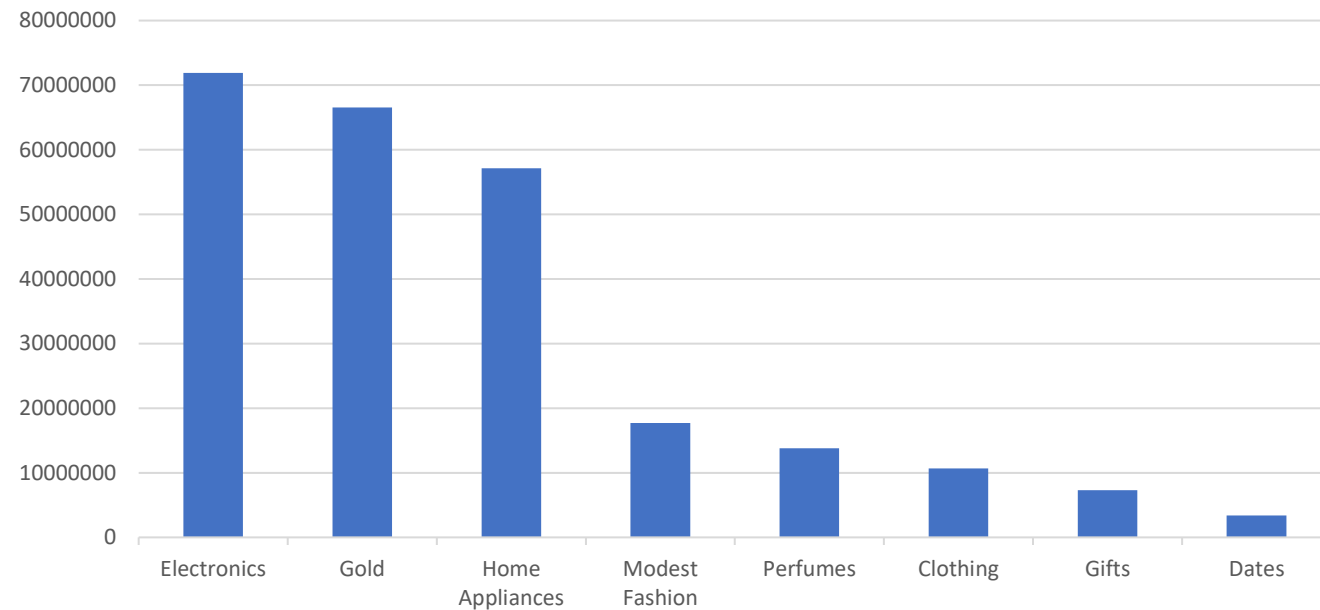
- **2023 had the highest total sales**, followed by 2024, with 2022 trailing behind.
- **Sales consistently spiked in February to April**, aligning with **Ramadan and Eid** in those years.
- **Q2 outperformed all other quarters**, indicating strong **seasonal demand patterns**.
- Despite similar events, **2022 underperformed**, likely due to limited campaigns or early-year inactivity.



- **Seasonal Stock Planning:** Increase inventory for high-demand items starting **January**, anticipating **Ramadan-related surges**.
- **Campaign Timing:** Launch major marketing and discount campaigns **at least 4–6 weeks before Ramadan**.
- **Product Prioritization:** Focus Q1–Q2 efforts on top-performing categories like **Electronics, Modest Fashion, and Home Appliances**.

Product Categories Sales Distribution

- Electronics, gold & jewelry, and home appliances are the top-performing product categories, generating the highest share of overall revenue and indicating strong and consistent consumer demand.

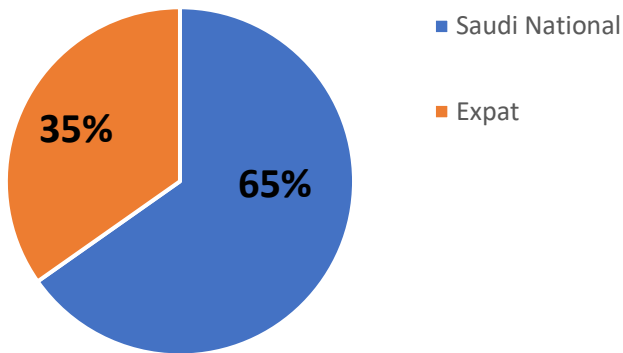


- Prioritize inventory planning and promotions** around Electronics, Gold, and Home Appliances — especially during peak seasons.
- Bundle high-value items** (e.g., electronics + accessories or gold + perfumes) to increase basket size.

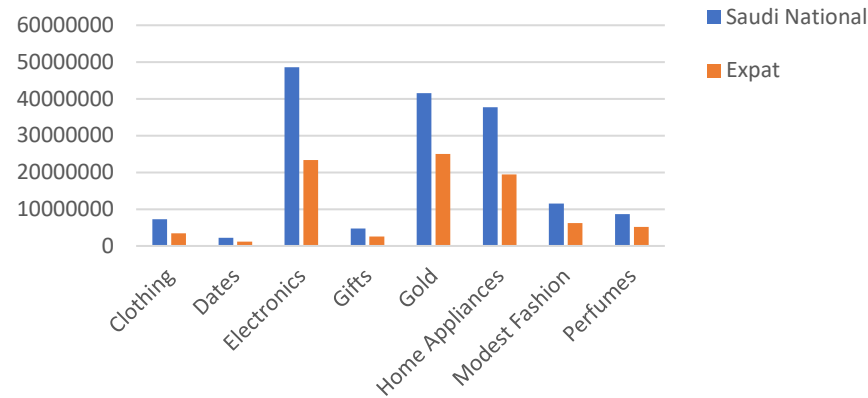
Customer Segment Analysis

- Saudi Nationals contribute to **~65% of total sales**, while Expats account for the rest. Both groups show active participation, but **repeat purchases** are higher among Nationals.
- Top 5 customers are all repeat buyers and contribute disproportionately to total revenue. **Saudi Nationals** and **Expats** both lean toward electronics, gold and home appliances.

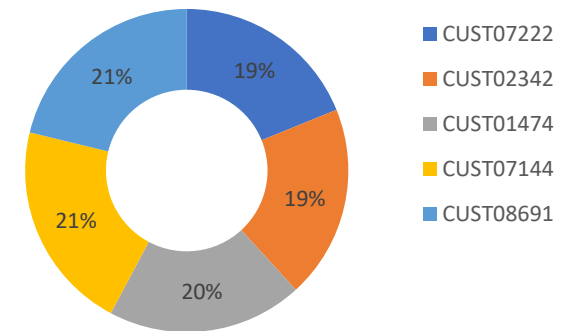
Total sales by customer type



Sales by customer type and category



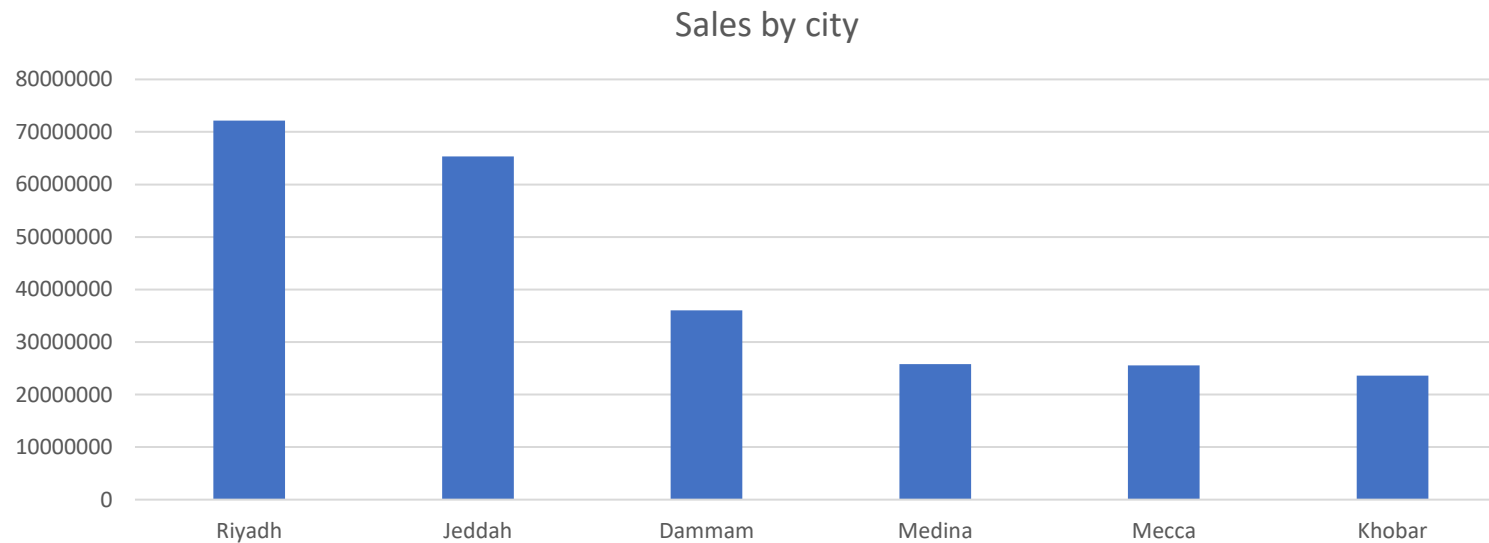
Top 5 customers



- Run **loyalty programs and exclusive promotions** tailored to Saudi Nationals. For Expats, consider **discount-based campaigns** or culturally relevant offers to drive conversion.
- Implement **personalized offers or VIP benefits** for top customers to retain loyalty. Use segmentation to **tailor product bundles** per customer type, increasing relevance and repeat sales.

City-Wise Sales Distribution

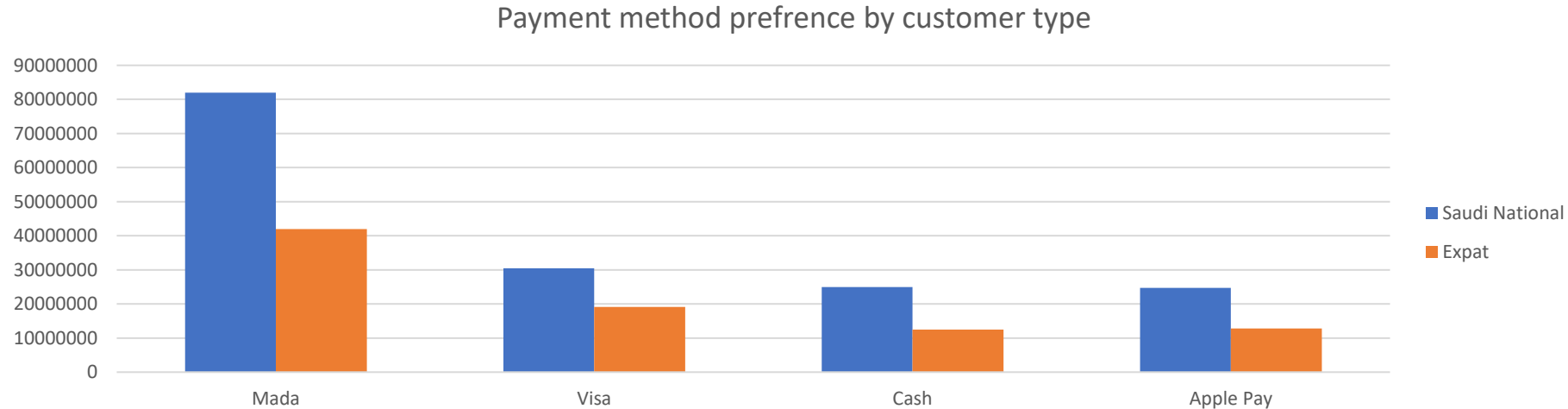
- Riyadh and Jeddah dominate total sales, with Riyadh leading significantly. Madina and Dammam follow, while Khobar and Mecca contribute lower sales.



- Focus marketing and inventory optimization efforts in **Riyadh and Jeddah**. Evaluate opportunities for growth in **Medina and Mecca**, potentially by localizing product assortments or promotions.

Payment Preferences Across KSA Customers

- Mada is the most used payment method across both customer types.
- Apple pay is least preferred.

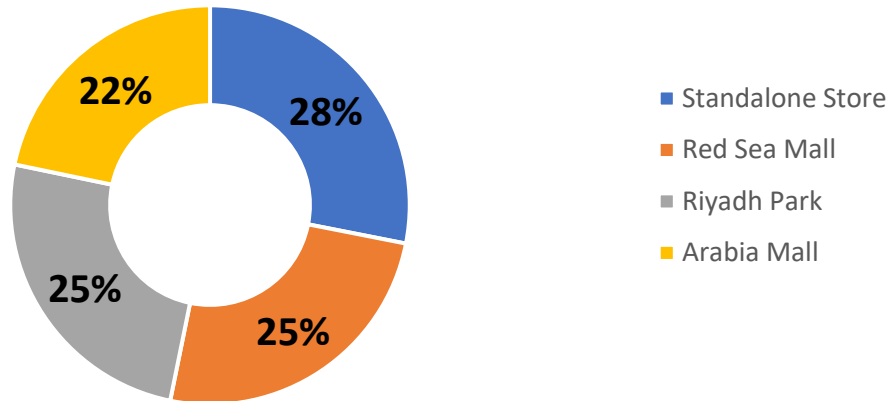


- Ensure **payment infrastructure supports Mada and Visa seamlessly** in all locations.
- Educate users about **digital payment benefits** to reduce cash handling and improve operational efficiency.

Store Type (Mall vs Standalone) Performance by Region

- Sales are **evenly distributed** across store types. **Standalone stores contribute 28%**, followed closely by **Red Sea Mall (25%)**, **Riyadh Park (25%)**, and **Arabia Mall (22%)**. This indicates **no single store type dominates** performance.

Total Sales Malls vs standalone stores



- **Maintain a diversified store strategy** — both mall-based and standalone outlets are performing comparably.
- **Monitor local trends** to adapt store-specific strategies — promotions, inventory, or layouts tailored to each location.

Strategic Recommendations & Next Steps

Key Insights Summary:

Sales peaked in Q1–Q2 across all years, strongly influenced by Ramadan and Eid seasons. Saudi Nationals drove higher purchase volume, especially in cities like Riyadh and Jeddah. Electronics, gold, and home appliances emerged as top-performing categories. Standalone stores slightly outperformed malls in total sales. Mada remains the dominant payment method, but Visa and cash have growing adoption.

Recommended Actions:

Seasonal Strategy: Launch promotions and optimize inventory 1–2 months before Ramadan and Eid to capitalize on high demand.

Product Focus: Prioritize and expand offerings in electronics, gold, and home appliances categories.

Customer Segmentation: Target high-value Saudi customers with loyalty programs; explore tailored offers for expats.

Store Strategy: Invest in standalone store visibility and consider scaling successful mall locations like Red Sea Mall.

Payment Strategy: Ensure seamless Mada payment processing and explore incentives for using digital wallets.

Business Impact:

These data-driven strategies aim to enhance profitability, improve inventory turnover, and align retail decisions with actual market demand.