Chelsea's Mega Store Sales Analytics Report

SALES ANALYSIS REPORT

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1. Introduction

This project focuses on analyzing sales performance data from **Chelsea's Mega Store**, a retail brand specializing in beauty, skincare, and personal care products. The goal of the analysis is to uncover trends, identify profitable products and customer segments, and provide meaningful insights that support data-driven business decisions.

2. Project Overview

The project involves building an interactive Sales Performance Dashboard that visualizes revenue, customer demographics, top-performing products, and year-on-year sales performance. Through comprehensive data analysis and visualization, the project highlights the store's profitability drivers, customer purchase behavior, and areas requiring strategic improvement.

The dashboard was developed to assist management in:
- Tracking key performance indicators (KPIs)
- Understanding customer behavior across demographics
- Identifying high-performing products and categories
- Supporting strategic planning for marketing and product expansion

3. Problem Statement

Chelsea's Mega Store lacked a unified system to:
- Monitor overall sales performance in real time
- Identify which products and categories drive the highest revenue
- Understand customer purchase patterns by age group and location
- Compare yearly revenue performance
- Evaluate how competition level affects revenue generation

The absence of clear insights made it challenging for management to make informed decisions on inventory, marketing, and customer targeting.

4. Dataset Overview

The dataset contains transactional sales records for two years (**2021 and 2022**) and includes the following key variables:
- **Product Name**
- **Product Category**
- **Product Type**
- **Age Group of Customer**
- **Gender**

- **Location (City, Suburb, Rural)**
- **Competition Level (High, Medium, Low)**
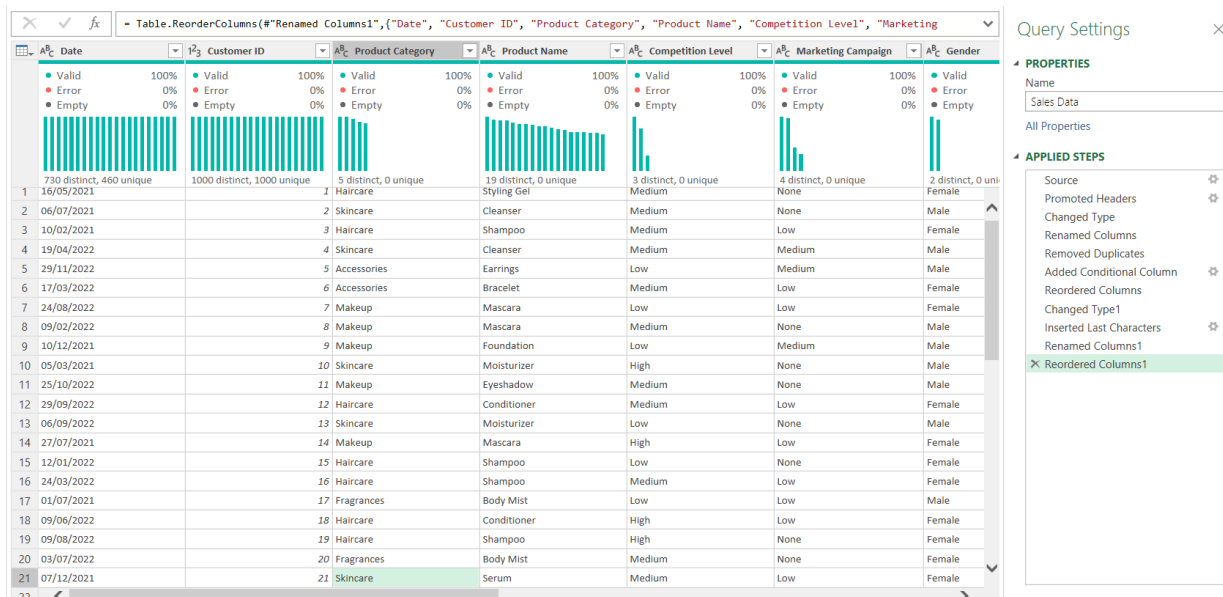- **Revenue**
- **Customer Count**
- **Year**

The dataset allowed extensive analysis of sales trends from both a product and customer standpoint.

5. Tools Used

- **Microsoft Excel** → Initial data review, preprocessing and visualization.
- **Power Query** → Data cleaning & transformation.

6. Data Cleaning Steps

Data cleaning was carried out in **Power Query** and involved:

- Removing duplicates and blank records
- Correcting spelling inconsistencies in product names and categories
- Standardizing age groups and gender labels
- Checking for missing or incorrect revenue figures
- Ensuring accurate date and year formats

The cleaned data was then loaded into Power BI for modeling and visualization.

7. Observations & Key Insights

1. Key Performance Indicators (KPIs)

i. Overall Sales Performance

- Total Revenue**:** $5,302,363.50

Total Revenue

$5,302,363.50

- Total Customers: 25,749

Total Customer

25,749

ii. Top Performing Products

Profitable product

Perfume

- Perfume, Cologne, and Foundation were the highest revenue generators.
- Perfume alone contributed $366,524.10, leading all product types.

iii. Most Profitable Category

Profitable product category

Makeup

- **Makeup** emerged as the most profitable product category.
- Perfume was the single **most profitable product**.

iv. Customer Demographics

Location with the highest revenue

Rural

Most profitable age group

25-34

- The **25–34 age group** generated the highest revenue.
- **Rural customers** contributed the highest revenue among location types ($1.79M).

2. INSIGHTS

i. Top 10 Selling Products

Top 10 selling product

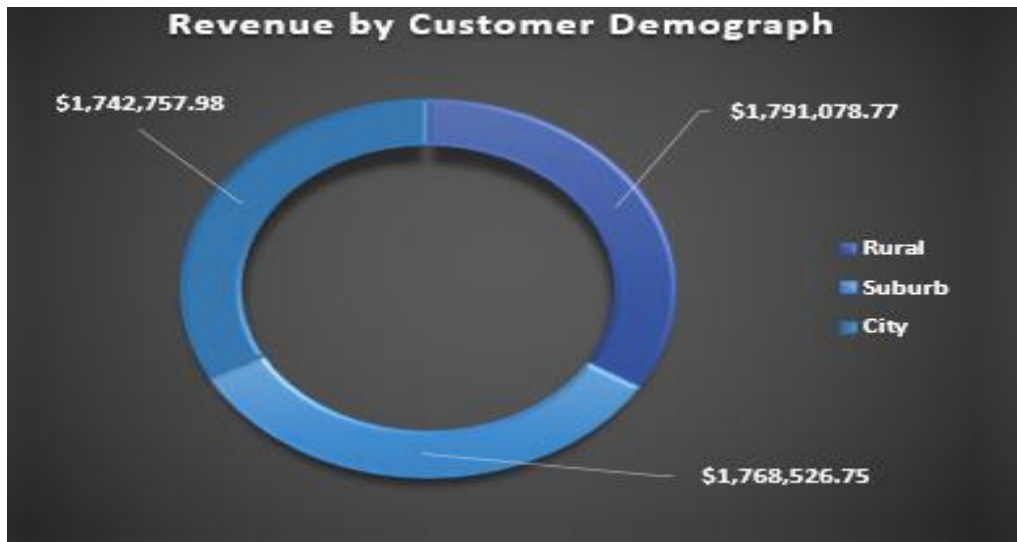| Product	Revenue
Perfume	$356,524.10
	$344,447.81
Cologne	$339,551.18
	$280,256.97
Foundation	$279,580.06
	$273,015.48
Eyeshadow	$272,876.37
	$269,986.17
Mascara	$268,369.59
	$267,754.63
Conditioner	$267,031.21
	$264,915.45
Earrings	$264,114.98
	$263,838.01
Styling Gel	$261,579.52
	$261,349.10
Cleanser	$260,972.63
	$256,732.21
Necklace	$249,468.03

The top-selling products by revenue are dominated by Fragrances and Beauty items, with Perfume, Cologne, and Foundation taking the lead.

- Perfume generated the highest revenue at $366,524.10, followed closely by Cologne ($344,447.81) and Foundation ($339,551.18).
- Cosmetics such as Eyeshadow, Mascara, and Conditioner also appear prominently, showing strong customer demand.

  Insight:

  Fragrances and essential makeup items are high-value revenue drivers and should be prioritized for stocking, promotions, and product expansion.

ii. Revenue by Customer Demo graph

Revenue by Customer Demograph

$1,742,757.98

$1,791,078.77

Rural
Suburb
City

$1,768,526.75

Revenue distribution across customer locations shows significant variation:

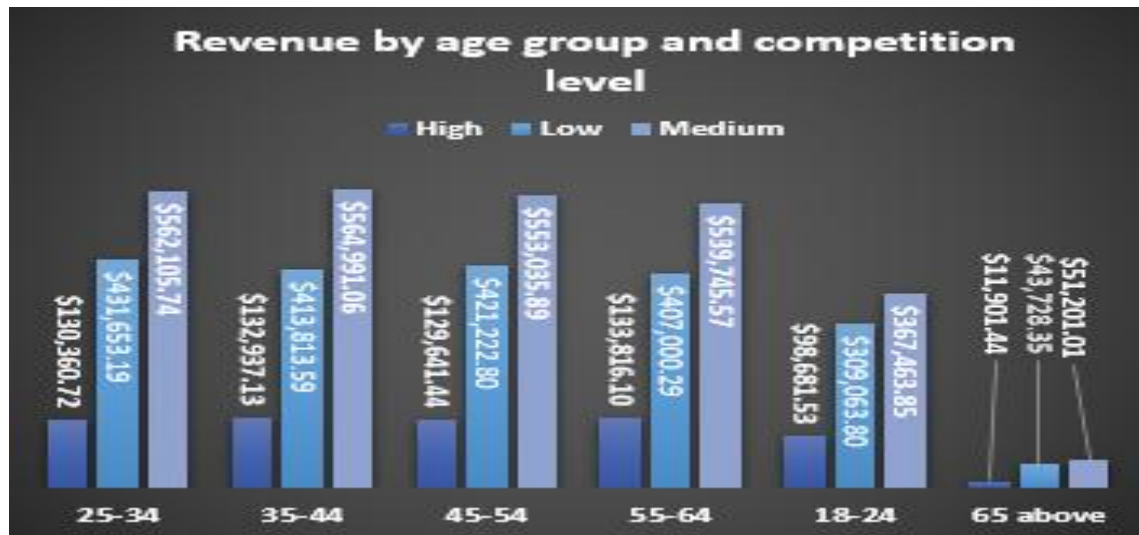- **Rural**: $1,791,078.77
- **City:** $1,742,757.98
- **Suburb:** $1,768,526.75

Although the differences are not extreme, rural customers generate the highest revenue, suggesting strong market penetration in non-urban regions.

Insight:

Rural areas hold the highest purchasing power for this business. Increasing inventory, sales agents, or localized promotions in rural regions could yield even greater revenue.

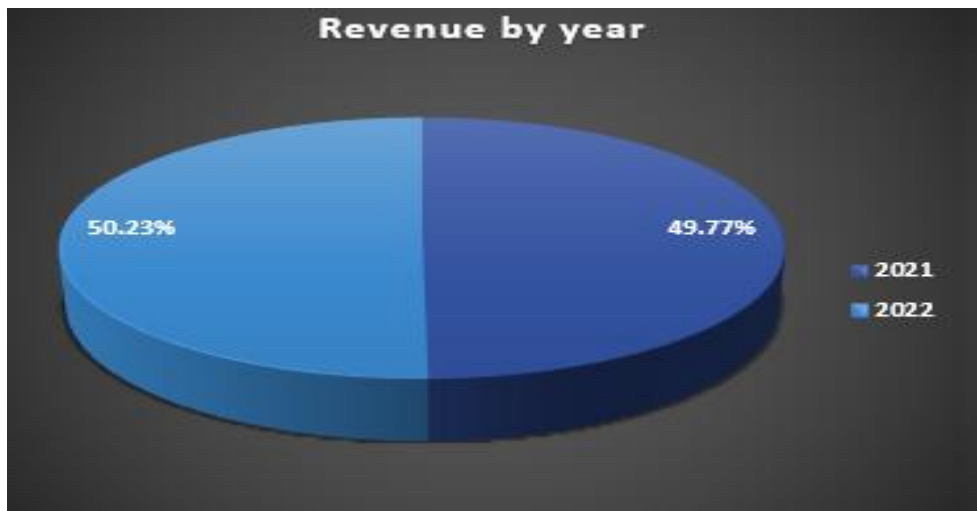### iii. Revenue by Age Group and Competition Level

Revenue varies significantly across customer age segments and market competition levels:

- The **25–34 age group** leads in revenue generation, followed by **35–44** and **45–54**.
- Revenue remains strong across **High**, **Medium**, and **Low** competition areas, with the highest revenue consistently coming from customers aged **25–54** regardless of competition.

Insight:

The store performs best among **working-age adults**, even in high-competition markets. Targeting these age groups with loyalty programs, ads, and promotions is likely to increase profitability.

iv. Revenue by Year (2021 vs 2022)

Revenue is almost equally split between the two years:

- **2021:** 50.23%
- **2022:** 49.77%

This indicates **stable performance** with no major growth or decline.

Insight:

There is consistency in revenue, but the lack of growth suggests a need for improved marketing strategies, new product offerings, or customer engagement programs to stimulate year-on-year growth.

v. Revenue by Product Category

Product categories show relatively balanced revenue levels, but a clear leader emerges:

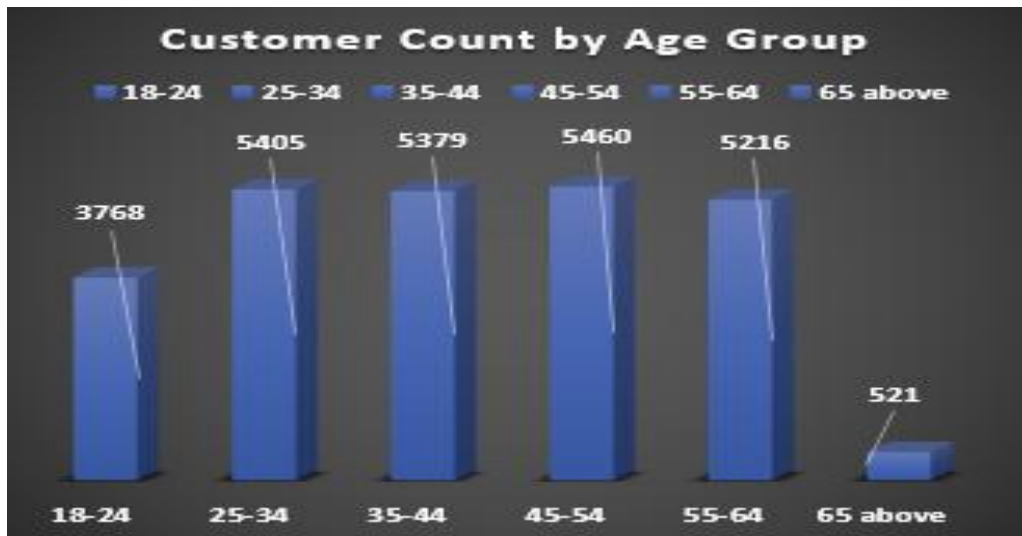- **Makeup:** $5,303
- **Haircare:** $5,143
- **Fragrances:** $5,133

- **Accessories:** $5,107
- **Skincare:** $5,063

Although revenues appear close, **Makeup stands out as the strongest category**.

Insight: Makeup is the most profitable category and should remain a core part of store strategy, with potential for product bundling and promotions.

vi.   Customer Count by Age Group

Customer distribution is concentrated in middle age brackets:
- Highest: **55–64 (5,216 customers)**
- Followed by **25–34 (5,405)**, **35–44 (5,379)**, and **45–54 (5,460)**
- Lowest: **65+ (521)** and **18–24 (3,768)**

Insight:

The store attracts a strong and loyal customer base among **25– 64year-olds**, especially older adults. This suggests opportunities for premium product lines, skincare, haircare, and fragrance bundles tailored for mature customers.

8. Recommendations

Based on the insights obtained:

1. Invest in High-Performing Products
- Expand inventory for Perfume, Cologne, and Makeup items.
- Implement targeted marketing around these top products.

2. Focus on High-Value Demographics
- Prioritize the 25–34 and 35–44 age segments with promotions and digital marketing.
- Create loyalty programs tailored to these groups.

3. **Expand Rural Market Presence**

- Rural areas generate the highest revenue—expand distribution and visibility.
- Introduce mobile or localized campaigns for deeper market penetration.

4. **Improve Sales in Low Competition Areas**

- Low competition areas show weaker revenue—opportunity for aggressive expansion.
- Consider promotional bundles or pop-up stores.

5. **Explore Category Growth Opportunities**

- All categories perform fairly evenly; investing in branding and cross-selling may boost total revenue.
- Perfume and Makeup categories should be used as anchor products in campaigns.

6. **Strengthen Yearly Growth Strategy**

- Revenue stagnation between 2021 and 2022 suggests the need for seasonal discounts, online ads, and product bundling to drive higher year-on-year growth.

12. Conclusion

The analysis of Chelsea's Mega Store sales data provides valuable insights into product performance, customer behavior, and revenue distribution across age groups and locations. The findings show that **Makeup and Fragrances** are the store's strongest revenue drivers, with **Perfume** emerging as the best-performing individual product. Customer analysis reveals that the **25–34 age group** contributes the highest revenue, while **Rural areas** generate the largest share of total sales—highlighting strong demand outside major urban centers.

Overall, the store demonstrates stable year-on-year performance, supported by a wide customer base across multiple age groups. However, the minimal difference between 2021 and 2022 revenue indicates room for growth. By focusing on high-performing products, strengthening rural market strategies, and implementing targeted marketing for dominant age segments, the company can improve customer engagement and unlock greater profitability.

In summary, the dashboard equips management with actionable insights that can guide strategic decisions in product planning, marketing, and customer targeting ensuring that Chelsea's Mega Store remains competitive and continues to grow sustainably.