Project Documentation
For
GLAMORA Retail Fashion

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1. Introduction

1.1 Project Overview

This project involved the design, development, and deployment of a comprehensive Power BI dashboard solution to provide end-to-end visibility into sales, customer, product, and store. The dashboard integrates multiple datasets including transactions, customers, products, discounts, and campaigns.
It addresses the business need for actionable insights across different operational areas, enabling data-driven decision-making and improved performance tracking.

1.2 Business Objectives

- Consolidate multiple data sources into a single, interactive BI platform.
- Deliver real-time and historical sales and performance tracking.
- Provide KPIs to monitor revenue, customer behavior, product trends, store performance, and employee productivity.

1.3 Project Scope

In Scope:

- Data integration from transactional, product, customer, and campaign sources.
- ETL transformations in Power Query for data cleaning, enrichment, and standardization.
- Creation of a comprehensive Date table, currency exchange table, and relationships in the data model.
- Development of DAX measures for KPIs and advanced analytics.
- Dashboard pages for Executive Overview, Sales Performance, Customer Analytics, and Product Analysis.

Out of Scope:

- Predictive modeling beyond basic forecasting.
- Integration with external ERP systems beyond provided datasets.

1.4 Definitions, Acronyms, and Abbreviations

- **KPI:** Key Performance Indicator
- **AOV:** Average Order Value

2. Overall Description

2.1 Project Requirements

The client required a multi-page Power BI dashboard to visualize operational and sales data across customers, products, and stores.
Requirements included KPIs, advanced analytics, role-based access, and interactive filtering.

2.2 Project Requirements Analysis

2.2.1 Requirements Summary

- **Reporter**: Business Intelligence team
- **Data Format:** CSV files for multiple tables (Transactions, Customers, Products, Stores, Employees, Discounts)
- **Tools Used:** Power BI Desktop, Power Query, DAX
- **Expected Output:** Multi-page interactive dashboard with KPIs, trends, segmentation, and store-level analysis
- **Goal**: Improve strategic and operational decision-making through data visualization and analytics

2.2.2 User Classes and Characteristics

ID	Role	Needs	Business Value	Acceptance Criteria
1	Sales Manager	Overview of sales performance	To identify topperforming Countries and products	Dashboard updates daily with sales KPIs
2	Marketing Manager	Campaign effectiveness insights	Optimizing promotional strategies	Discount & campaign impact analysis available

3. Project Execution

3.1 Data Collection

3.1.1 Data Sources

Data Sources:

- Transactions (sales & returns)
- Customer profiles
- Product catalog
- Store information
- Employee records
- Discounts & campaigns
- Currency exchange rates
- Date table

3.2 Data Description

3.2.1 Identify Data Points

- Revenue, sales quantity, returns, discounts, transaction dates/times
- Customer demographics: age, gender, location
- Product attributes: category, subcategory, size, color
- Store attributes: location, number of employees
- Campaign start/end dates and discount percentages

3.2.2 Define Tables

- Fact Table**:** Transactions
- Dimension Tables: Customers, Products, Stores, Employees, Discounts, Date, CurrencyConversion

3.3 Data Integration

3.3.1 ETL Process

- Load CSV files into Power Query
- Apply cleaning steps: remove special characters, trim text, standardize formats, Based Currency

- Add calculated columns: age groups, price range, markup
- Create Date and Currency tables
- Merge and append as needed
- Load into Power BI data model

3.4 Data Preprocessing

3.4.1 Data Cleaning

- Standardized date formats
- Removed duplicates
- Filled missing values where possible

3.4.2 Data Normalization & Transformation

- Created calculated fields for grouping (age group, season)
- Standardized currency values using CurrencyConversion

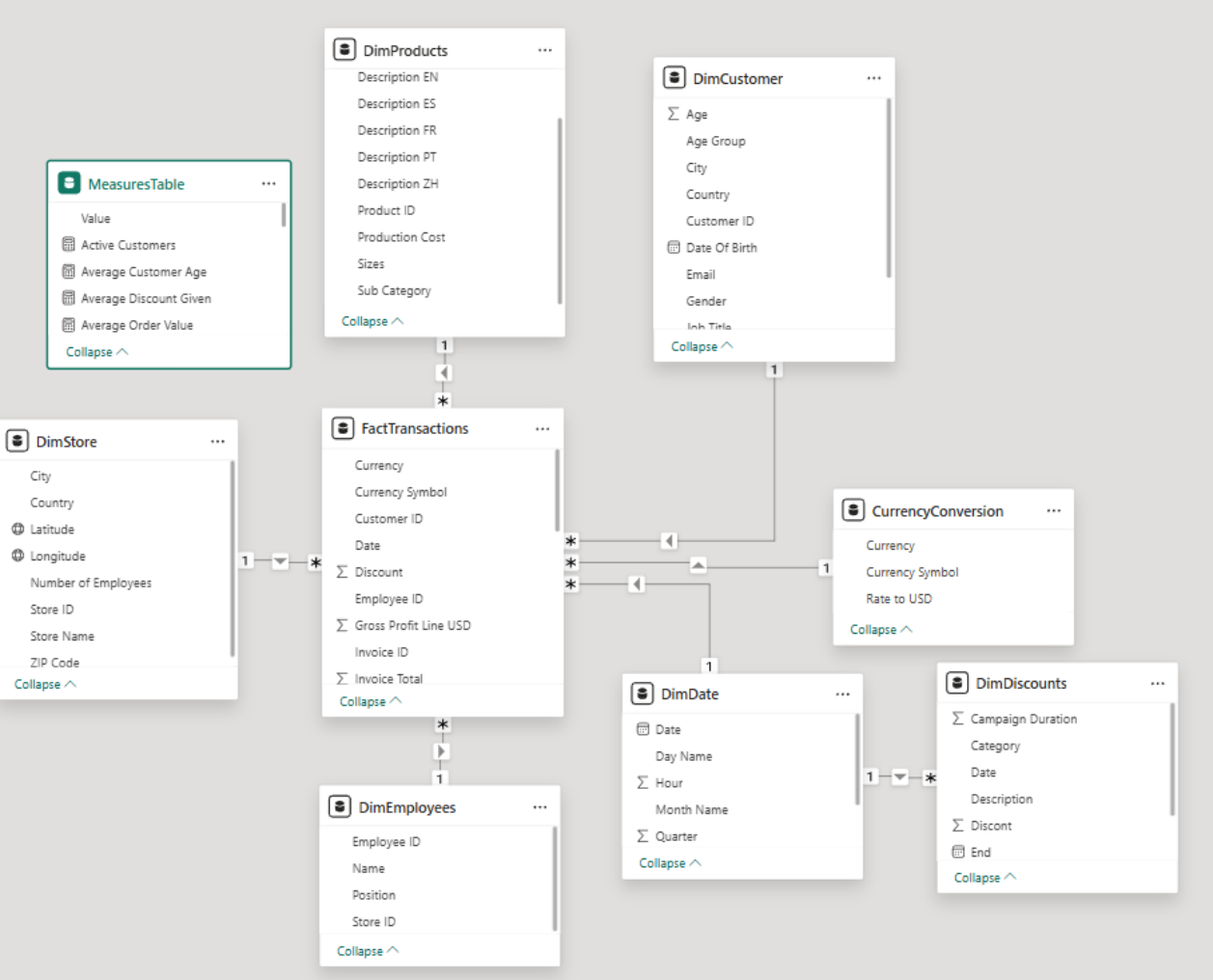
3.5 Data Modeling

3.5.1 Dimensional Model Structure

Star schema with Transactions as the fact table connected to multiple dimension tables (Customers, Products, Stores, Employees, Date, Discounts,CurrencyConversion).

3.5.2 Relationship Details

- Transactions[Customer ID] → Customers[Customer ID]
- Transactions[Product ID] → Products[Product ID]
- Transactions[Store ID] → Stores[Store ID]
- Transactions[Employee ID] → Employees[Employee ID]
- Transactions[Date] → Date[Date]
- Employees[Store ID] → Stores[Store ID]
- Transactions[Currency] → CurrencyConversion[Currency]



3.6 Measures and Calculations

3.6.1 Key Performance Indicators (KPIs)

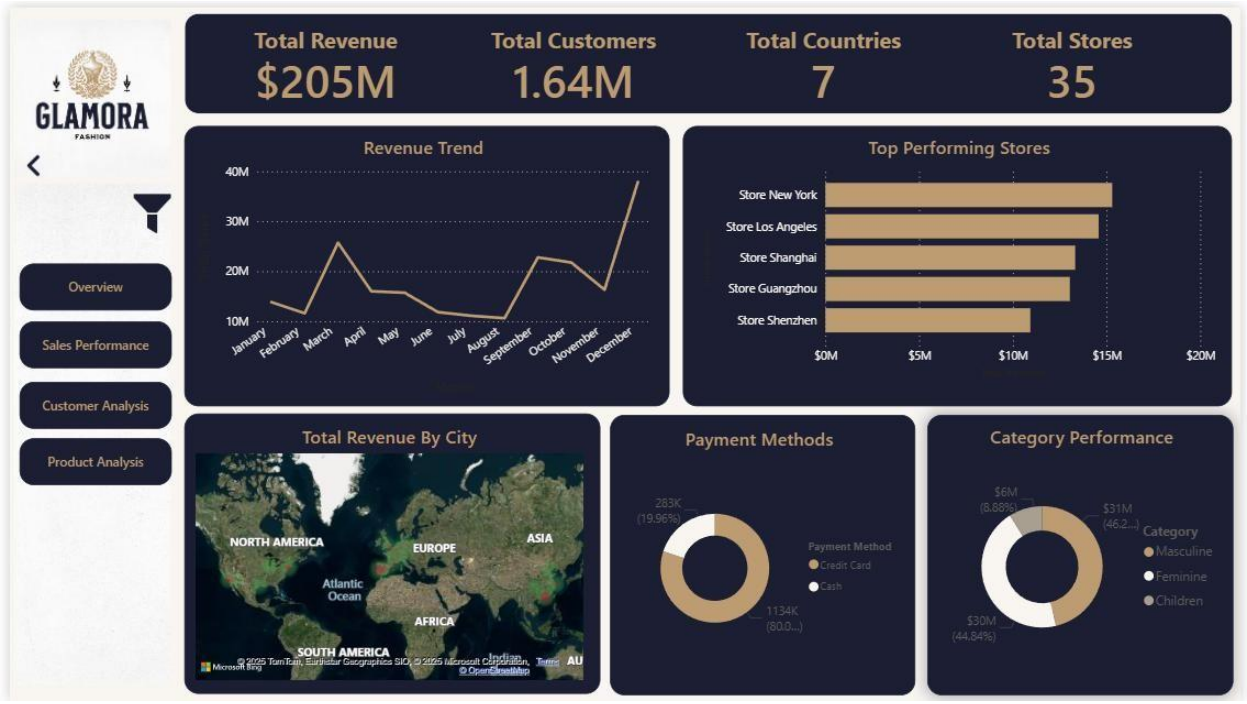
- Total Revenue
- Total Sales & Returns
- Net Revenue
- Sales Quantity
- Return Rate (%)
- Average Order Value
- Gross Margin (%)
- Active Customers, Returning Customers
- Average Customer Age
- Total Cost
- Total employees
- Total Countries

- Units sold
- Total Products
- Total Customers

3.7 Data Visualization

3.7.1 Dashboard Design and layout

- **Overview:** KPIs, revenue trends, top stores, category performance.
- **Sales Performance:** Sales trends, category breakdowns, heatmaps, top products, discount analysis.
- **Customer Analytics:** Customer KPIs, demographics.
- **Product Analysis:** Product performance, slow movers, cross-sell analysis.

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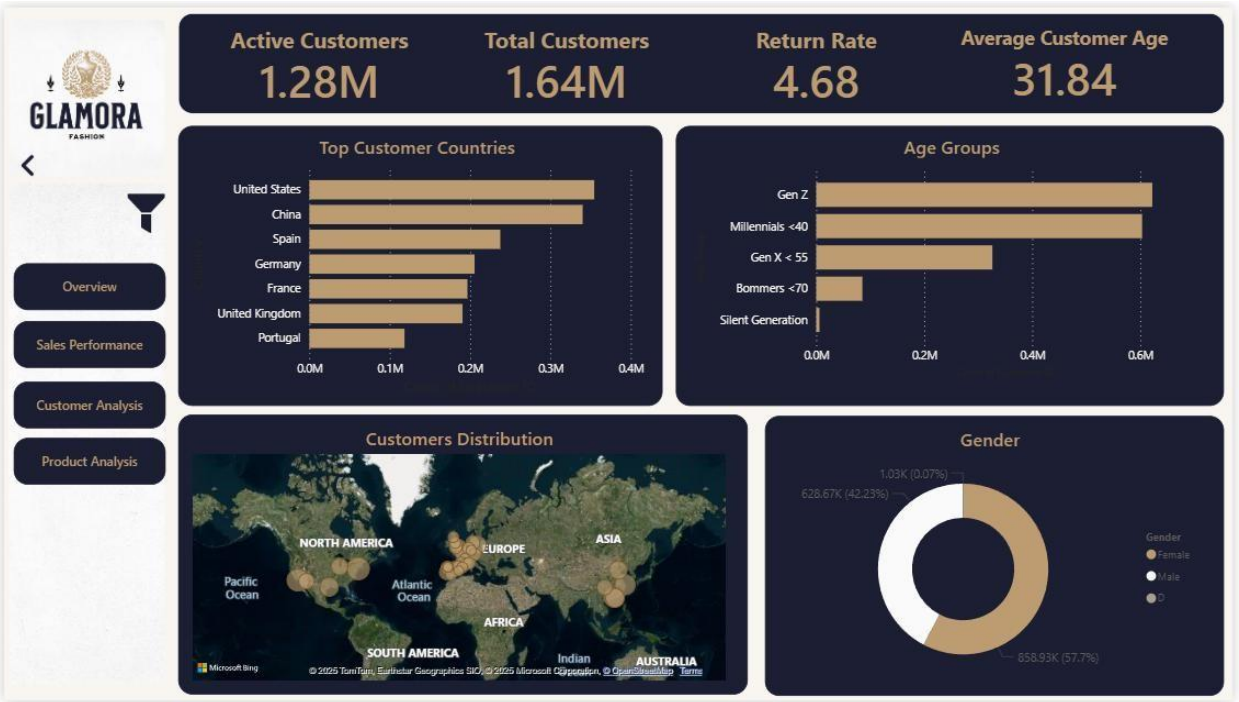
Overview
Sales Performance
Customer Analysis
Product Analysis
Total Revenue
$205M
Total Customers
1.64M
Return Rate
4.68
Gross Margin
59.73
Sales Trend
40M
30M
20M
10M
Jan 2023
Jul 2023
Jan 2024
Jul 2024
Jan 2025
Sales Pattern by Day and Hour
Day Name | 15 | 16 | 17 | 18 | 19 | 20
Friday | $369,867 | $906,343 | $916,625 | $898,319 | $897,629 | $906,
Monday | $418,823 | $1,008,620 | $1,019,832 | $1,016,441 | $1,016,129 | $1,018,
Saturday | $759,507 | $1,884,019 | $1,822,778 | $1,837,062 | $1,857,272 | $1,837,
Sunday | $792,910 | $1,893,592 | $1,916,274 | $1,903,906 | $1,896,481 | $1,882,
Thursday | $381,453 | $907,863 | $912,271 | $917,723 | $912,467 | $923,
Tuesday | $387,435 | $922,231 | $926,213 | $947,944 | $928,550 | $930,
Wednesday | $389,615 | $947,962 | $947,564 | $948,037 | $936,134 | $919,
Total | $3,499,611 | $8,470,629 | $8,461,556 | $8,469,433 | $8,444,662 | $8,418,
Sub Category | Sales Quantity | Total Revenue | Return Rate %
Accessories | 306978.00 | $4,791,241 | 4.76
Baby (0-12 months) | 70852.00 | $1,961,872 | 4.67
Coats | 103993.00 | $4,380,319 | 4.62
Coats and Blazers | 452362.00 | $27,865,226 | 4.64
Dresses and Jumpsuits | 258258.00 | $12,836,284 | 4.66
Girl and Boy (1-5 years, 6-14 years) | 144772.00 | $5,074,346 | 4.63
Lingerie and Pajamas | 107304.00 | $2,956,511 | 4.70
Pajamas | 80245.00 | $2,143,614 | 4.53
Pants and Jeans | 464453.00 | $26,037,210 | 4.72
Shirts | 258127.00 | $6,396,434 | 4.71
Top Performing Countries
United States
China
Germany
France
United Kingdom
Portugal
Spain
0.0M
0.5M
1.0M


GLAMORA
FASHION
Overview
Sales Performance
Customer Analysis
Product Analysis
Active Customers
1.28M
Total Customers
1.64M
Return Rate
4.68
Average Customer Age
31.84
Top Customer Countries
United States
China
Spain
Germany
France
United Kingdom
Portugal
0.0M
0.1M
0.2M
0.3M
0.4M
Age Groups
Gen Z
Millennials <40
Gen X < 55
Bommers <70
Silent Generation
0.0M
0.2M
0.4M
0.6M
Customers Distribution
NORTH AMERICA
EUROPE
ASIA
Pacific Ocean
Atlantic Ocean
AFRICA
SOUTH AMERICA
Indian
AUSTRALIA
Microsoft Bing
Gender
1.03K (0.07%)
628.67K (42.23%)
858.93K (57.7%)
Gender
Female
Male

3.7.2 Charts, Graphs and Visuals

- KPI cards
- Line, bar, and combo charts
- Donut charts
- Heatmaps
- Scatter plots
- Treemaps
- Matrix tables
- Geographic maps

3.7.3 Interactivity and User Experience

- Slicers for date, country, currency
- Bookmarks for different scopes views
- Forecast lines and trend lines

4. Insights and Recommendations

4.1 Summary of Key Findings

- **Seasonality:** Q4 strongest ($130.6M avg), Q1 weakest ($56.7M)
- **Weekly:** Weekend sales 2x higher than weekdays
- **Growth:** Strong upward trend from 2023 to 2024
- **Geographic:** US leads with 354K customers (21.6%)
- **Category Split:** Feminine (44.84%), Masculine (46.28%), Children (8.9%)
- **Size Preference:** M size dominates ($309.8M revenue)

4.2 Recommended Actions

Seasonal Strategy:

- Maximize Q4 potential with holiday campaigns
- Boost Q1 performance with New Year promotions

Weekend Focus:

- Increase weekend marketing spend
- Weekend-specific promotions

Market Penetration:

- Strengthen presence in top markets (United states, China)

Category Investment:

- Focus on blazer/formal wear - Jeans and Pants - Sports Wear