

# Christmas Market Analysis Dashboard

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## Introduction

The Christmas Market Analysis Dashboard is designed to provide an in-depth overview of the sales performance, customer satisfaction, and product trends during the Christmas season. The dashboard offers interactive visuals and actionable insights to support data-driven decision-making for optimizing inventory, marketing, and sales strategies.

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## Purpose

The primary objective of this dashboard is to:

- Analyse
  - sales and transactions throughout the year, focusing on the holiday season.
  - Assess customer satisfaction levels and demographic preferences.
  - Monitor product category performance to identify high-demand and high-revenue items.
  - Aid stakeholders in understanding market trends and improving business strategies.
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## Components and Insights

### 1. Total Transactions (Bar Chart)

- Description: Displays the monthly count of transactions in bar format.
- Insights:
  - Identifies peak transaction months.
  - Highlights seasonality trends, particularly around the Christmas season.

### 2. Total Sales (Line Chart)

- Description: A line chart showing monthly total sales.
- Insights:
  - Tracks revenue fluctuations over the year.
  - Pinpoints months with the highest sales, assisting in sales forecasting.

### 3. Customer Satisfaction (Donut Chart with KPI)

- Description: A donut chart segmented by gender, with an overall satisfaction score.
- Insights:
  - Measures customer satisfaction (e.g., 2.95/5).
  - Gender segmentation provides demographic insights for targeted marketing.

#### 4. Total Quantity Sold (Line Chart)

- Description: A line chart showing total quantities sold monthly.
- Insights:
  - Reflects product demand trends.
  - Identifies months of high or low sales volume.

#### 5. Category Selector (Image Carousel)

- Description: An interactive image carousel displaying product categories (e.g., Decorations, Clothing).
- Insights:
  - Enables detailed exploration of specific product categories.
  - Engages users with visually appealing navigation.

#### 6. Sum of Quantity by Product Name (Heatmap)

- Description: A heatmap comparing product categories by quantities sold.
- Insights:
  - Highlights best-performing product categories.
  - Assists in inventory management by identifying high-demand items.

#### 7. Total Price by Category (Pie Chart)

- Description: A pie chart showing percentage contributions of each category to total sales.
- Insights:
  - Reveals revenue-driving categories.
  - Aids in prioritizing product offerings and marketing efforts.

#### 8. Available Categories for Shopping (Circular Network Chart)

- Description: A network chart showing shopping categories and their availability.
- Insights:
  - Helps customers locate available products quickly.
  - Encourages exploration of diverse product options.

#### 9. Product Revenue Contribution (Bubble Chart)

- Description: A bubble chart comparing revenue contributions of categories (e.g., Decorations, Electronics).
- Insights:
  - Identifies highest revenue-generating product lines.
  - Assists in assessing financial impact and planning future inventory.

## Key Features

1. Interactivity:
    - Dropdown menus, clickable images, and filters allow users to customize views.
  2. Visual Appeal:
    - Festive elements like Christmas tree visuals and thematic design enhance user experience.
  3. Comprehensive Insights:
    - Combines customer satisfaction, sales, and product performance for a holistic market view.
  4. Ease of Navigation:
    - Sidebar icons for quick access to LinkedIn, GitHub, and other tools.
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## Use Cases

- Sales Analysis: Track and forecast sales trends during the holiday season.
  - Customer Insights: Understand demographic preferences to improve customer satisfaction.
  - Inventory Management: Identify high-demand products to optimize stock levels.
  - Marketing Strategies: Focus on top-performing categories to increase revenue.
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## Conclusion

The Christmas Market Analysis Dashboard serves as a powerful tool for understanding market dynamics and making informed business decisions. By leveraging its insights, stakeholders can maximize holiday season sales and ensure customer satisfaction, ultimately driving business success.

# Festive Movie Preferences Dashboard

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## 1. Purpose of the Dashboard

This dashboard provides insights into festive movie preferences, analyzing data such as viewership by age group, movie genres, ratings, global trends, and historical content data. It is designed to support media companies, marketers, and content creators in making informed decisions during the festive season.

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## 2. Dashboard Components and Insights

### 2.1 Movie Watch by Highest Age Group (Line Chart)

- Description: Displays the number of movies watched by different age groups.
- Key Insight:
  - Adults are the most engaged viewers (12M views).
  - Teens are the second largest group (9.9M views), followed by Kids (2.6M views).
- Purpose: Identifies target demographics for festive movies.

### 2.2 Most Viewed Movie Genres (Pie Chart)

- Description: Highlights the percentage of views by genre.
- Key Insight:
  - Dramas (32.27%) and Comedies (22.95%) dominate viewership.
  - Genres like Horror (4.83%) and Children's content (7.46%) have less engagement.
- Purpose: Guides genre-focused content creation and promotion.

### 2.3 Sum of Show IDs by Ratings (Bar Chart)

- Description: Shows the total number of shows available by rating categories.
- Key Insight:
  - TV-MA leads with the highest number of shows (25M IDs).
  - TV-G and NR ratings have minimal content.
- Purpose: Helps identify the distribution of content by ratings.

### 2.4 Total Movie Durations (Horizontal Bar Chart)

- Description: Displays the total movie duration categorized by ratings.
- Key Insight:
  - TV-MA content has the highest cumulative duration (533K minutes).
- Purpose: Highlights the availability of long-duration content for different ratings.

### 2.5 Earliest Date Added (Bar Chart and KPI)

- Description: Tracks the earliest date content was added and yearly content additions.
- Key Insight:
  - The earliest content was added on 01 January 2008.
  - Content additions increased steadily over time.
- Purpose: Understands content growth trends.

## 2.6 Global Movie Preferences (Map)

- Description: Shows regions with the highest engagement in festive movies.
- Key Insight:
  - High engagement in regions like North America, Europe, and Asia.
- Purpose: Identifies geographic trends for targeted marketing.

## 2.7 Earliest Release Year (Line Chart)

- Description: Tracks the release year of the oldest festive movies.
- Key Insight:
  - The earliest release date is 25 April 1905.
  - Growth in releases over time, showing a steady increase in festive movie production.
- Purpose: Highlights the longevity and historical importance of festive movies.

## 2.8 Top Countries by Content Availability (Tiles)

- Description: Displays a grid of countries where festive movies are popular or available.
- Key Insight:
  - Countries like France, Argentina, Australia, and Belgium are top markets.
- Purpose: Understands geographic diversity in content availability.

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## Specific Questions

1. What is the most-watched age group during the festive season?
  2. Which genres dominate viewership, and which are underperforming?
  3. How does TV-MA content compare with other ratings in terms of show count and duration?
  4. How old is the earliest festive movie, and how have releases evolved?
  5. Which countries have the highest festive movie availability?
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## 4. Use Cases

### For Media Companies:

- Identify target age groups and genres for festive promotions.

- Analyze historical trends to curate classic movie lists.

For Marketers:

- Design region-specific campaigns based on global trends.
- Focus on popular genres like Dramas and Comedies for promotions.

For Content Creators:

- Create content tailored to high-performing genres and age groups.
  - Address gaps in underperforming categories like Horror or Children's content.
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# Holiday Spending Analysis

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## Overview

The "Holiday Spending Analysis" dashboard provides insights into retail and warehouse sales performance during the holiday season. Its visually appealing layout combines functional metrics with festive-themed aesthetics to make data interpretation engaging and intuitive.

Key Metrics Displayed:

### 1. Total Sales Retail:

- A trend line graph breaking down total sales in various categories such as:
  1. Liquor
  2. Wine
  3. Beer
  4. Non-Alcoholic Drinks
  5. Other Supplies
- Displays overall sales performance in the retail segment.
- Presented with a trend line and total value (e.g., 1.03M).
- Supports comparative analysis within item types.

Insight: Liquor is the leading category in retail sales, showing strong consumer preference during holidays.

Questions:

- What marketing strategies could further boost liquor sales?
- Are there any item types underperforming that need additional promotion?

### 2. Total Warehouse Sales:

- A bar chart providing a count of sales for each item type in the warehouse.
- Highlights warehouse sales figures with a trend line representation.
- Includes total value (e.g., 822.93K).
- Categories include:
  - Beer
  - Wine
  - Liquor
  - Kegs
  - Non-Alcoholic Beverages
  - Dunnage

Insight: Beer and Wine have the highest counts in warehouse sales, suggesting they are in high demand.

Questions:

- Are these high-demand items being restocked efficiently?
- How does warehouse inventory turnover compare between categories?

3. Retail Transfers-to-Sales Ratio:

- A doughnut chart illustrating the percentage contribution of retail transfers:
  - Liquor (40.24%)
  - Wine (29.64%)
  - Beer (28.17%)
  - Non-Alcoholic (1.48%).
- Illustrated with a circular gauge visualization to track the proportion of retail transfers contributing to total sales (e.g., 0.95).

Insight: Liquor contributes the largest share of retail transfers, followed closely by Wine and Beer.

Questions:

- What factors are driving liquor's dominance in retail transfers?
- Could the low percentage of non-alcoholic transfers be addressed through promotions?

4. Retail Transfers & Sales by Supplier:

- A bar chart breaking down contributions of suppliers to both retail transfers and sales, with suppliers such as:
  - Diageo North America
  - E & J Gallo
  - Anheuser-Busch
  - Miller Brewing

Insight: Diageo North America is the top contributor to both retail transfers and sales, showing strong supplier performance.

Questions:

- What distinguishes Diageo's performance from other suppliers?
- Are there opportunities to partner with underperforming suppliers for better results?

Navigation and Aesthetic Elements

- Navigation Buttons:
  - Left-aligned buttons for navigation, including:
    - Home



- LinkedIn
- GitHub
- Forward/Backward navigation.
- Festive Decorations:
  - A golden reindeer on the left side with sparkling effects.
  - Other icons like snowmen and festive wine glasses add a holiday-themed visual.

## Key Insights

1. Retail sales dominate holiday spending, with Liquor being the top-performing category.
2. Warehouse sales show high counts for Beer and Wine, suggesting strong demand.
3. Retail transfers play a crucial role, with high transfer-to-sales efficiency (0.95 ratio).
4. Supplier performance is varied, with leading contributors from major beverage suppliers.

## Use Cases

- Identifying high-performing products for stock prioritization.
- Planning inventory based on warehouse and retail trends.
- Understanding supplier contributions for future collaborations.

# Holiday Traffic Insights Dashboard

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## Introduction

The Holiday Traffic Insights Dashboard provides a detailed analysis of traffic patterns during the holiday season. It helps stakeholders understand vehicle flow, peak times, and seasonal trends to enhance planning, safety, and resource allocation during the festive period.

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## 1. Objectives

The primary goals of the dashboard are:

- To analyze traffic flow trends during holidays.
  - To identify peak traffic periods by time, day, and month.
  - To track vehicle counts over multiple years.
  - To provide actionable insights for traffic management and safety planning.
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## 2. Key Features and Components

### a) Sum of Junction by Month (Pie Chart)

- Chart Type: Pie Chart
- Purpose: Displays the percentage distribution of traffic at junctions by month.
- Insights:
  - Highlights the busiest months (e.g., June and May have higher percentages).
  - Helps identify seasonal traffic variations.

### b) Sum of Vehicles by Time (Line Chart)

- Chart Type: Line Chart
- Purpose: Tracks vehicle traffic throughout the day.
- Insights:
  - Identifies peak hours (e.g., traffic increases significantly in the afternoon).
  - Helps plan for traffic control and management during high-traffic periods.

### c) Sum of Vehicles by Year (Bar Chart)

- Chart Type: Bar Chart
- Purpose: Compares total vehicle counts over the years.
- Insights:

- Demonstrates year-over-year growth in traffic (e.g., significant increases from 2015 to 2017).
    - Assists in long-term planning for traffic infrastructure.
  - d) Sum of Vehicles by Year, Quarter, Month, and Day (Area Chart)
    - Chart Type: Area Chart
    - Purpose: Visualizes traffic trends across different time periods.
    - Insights:
      - Shows granular traffic patterns by year, quarter, month, and day.
      - Guides resource planning for high-traffic seasons and days.
  - e) Sum of Junction by Day (Heatmap)
    - Chart Type: Heatmap
    - Purpose: Represents total traffic at junctions for each day of the week.
    - Insights:
      - Highlights the busiest days (e.g., Saturday shows the highest junction count).
      - Assists in traffic personnel allocation and resource planning for specific days.
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### 3. Benefits

- Traffic Management: Provides insights for optimizing traffic flow during peak holiday periods.
  - Safety Planning: Identifies high-traffic times and areas for enhanced safety measures.
  - Resource Allocation: Guides efficient use of resources like traffic personnel and infrastructure.
  - Long-Term Insights: Tracks trends over years to aid in infrastructure improvement and urban planning.
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### 4. Data Sources

The dashboard integrates data from:

- Traffic monitoring systems.
  - Historical vehicle count records.
  - Real-time traffic sensors and counters.
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### 5. Target Audience

This dashboard is tailored for:

- Traffic management authorities.
  - Urban planners and city administrators.
  - Logistics and transportation businesses.
  - Safety and emergency response teams.
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## 6. Conclusion

The Holiday Traffic Insights Dashboard is an essential tool for managing and analyzing traffic during the festive season. By providing clear insights into traffic patterns, it enables stakeholders to enhance operational efficiency, improve safety measures, and optimize resource allocation.