🎬 Silver Screen Movie Theater Efficiency Analysis

Welcome to the Silver Screen Movie Theater Efficiency Analysis. This presentation details our project to enhance the profitability and operational strategies of Silver Screen, a recently acquired movie theater chain in New Jersey. We aim to model monthly performance across all three locations.

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🎯 Project Objective

Identify High Performers

Pinpoint top-grossing movies.

Compare Profitability

Analyse revenue vs. rental cost per location.

Detect Underperformers

Highlight struggling movies or locations.

Guide Strategic Decisions

Inform content and location planning.

Our objective is to develop a consolidated table, providing a granular view of movie performance. This enables leadership to make data-driven decisions on content and location strategies.

🗃️ Data Sources

- movie_catalogue: Movie metadata for 2024 rentals.
- invoices: Rental costs per movie, location, and month.
- nj_001: Raw transaction data for Location 1.
- nj_002: Aggregated daily sales for Location 2.
- nj_003: Mixed product sales for Location 3, requiring filtering.

Data is derived from five distinct sources, each with unique structures. These include movie metadata, rental costs, and varying sales data from three theater locations.

🔍 Challenges Addressed

Data Inconsistency

Varying structures, column names, and granularities across locations.

Data Cleaning

Standardizing formats and unifying naming conventions.

Complex Filtering

Extracting movie_id and isolating ticket sales from mixed data.

Aggregation

Harmonizing daily and transaction data to a monthly level.

We addressed significant challenges, including data inconsistencies across locations and complex filtering requirements. Our process involved extensive data cleaning and aggregation to achieve a unified monthly view.

🛠️ Tools & Technologies

dbt

Data Build Tool for modeling, transformation, documentation.

Snowflake

Cloud data warehouse for querying and storage.

SQL

Core language for transformations and modeling.

We leveraged dbt for data transformation, Snowflake as our cloud data warehouse, and SQL as the foundational language. This tech stack ensures robust, scalable, and efficient data processing.

📈 Final Output

Fact Table

A comprehensive monthly summary for each movie.

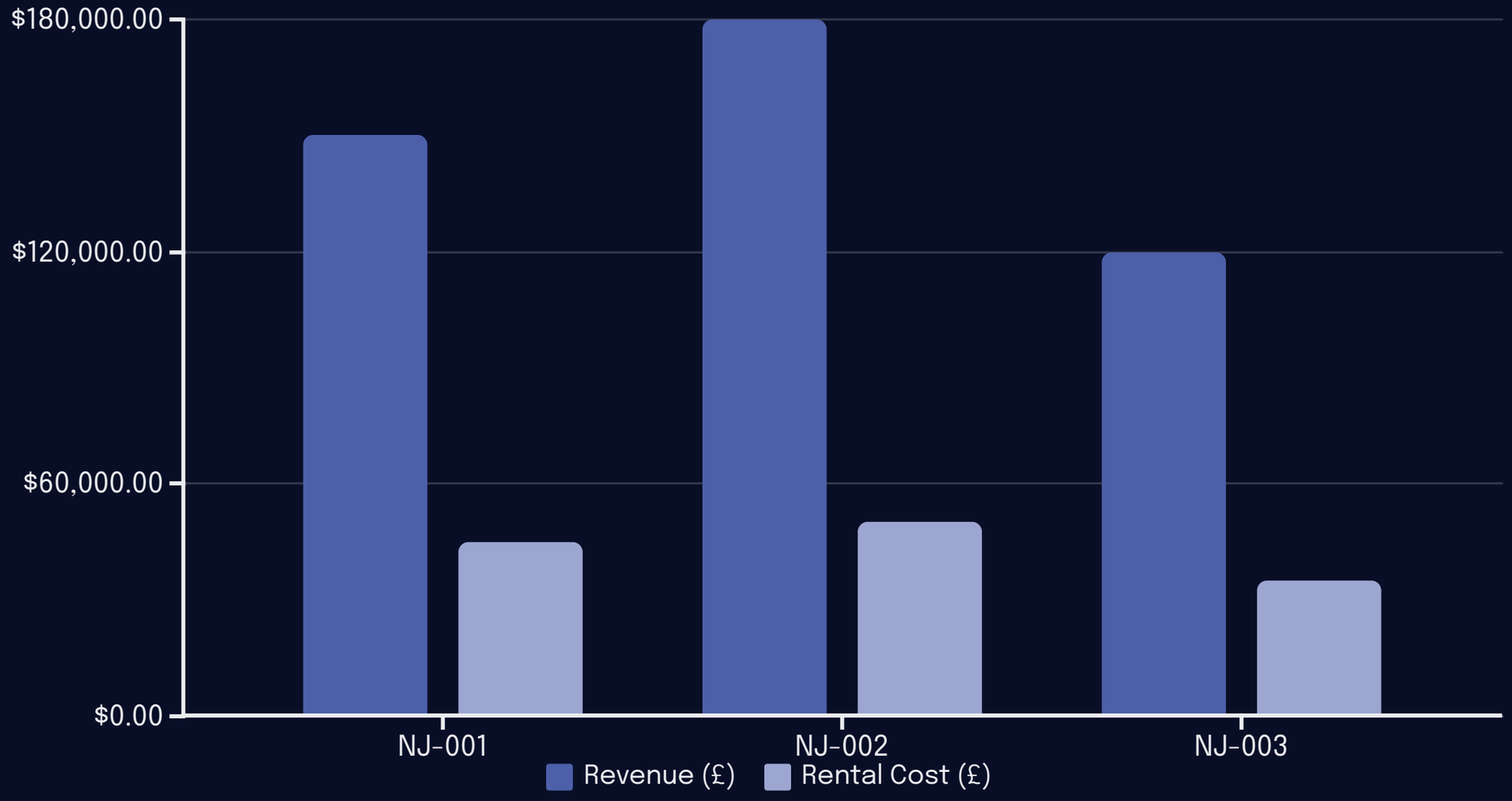
Displays financial performance per location.

dbt Pipeline

- Source freshness testing.
- Staging and cleaning processes.
- Intermediate aggregation steps.
- Final model combines all data.

The final fact table provides a holistic monthly summary of movie financial performance. It's built through a modular dbt pipeline, ensuring data quality and enrichment at every stage.

Revenue vs. Rental Cost by Location



This chart illustrates the revenue generated against rental costs for each Silver Screen location. NJ-002 shows the highest revenue, while NJ-003 maintains the lowest rental cost.

Top Performing Genres

Action

High revenue, consistent ticket sales.

Comedy

Strong audience appeal, steady performance.

Drama

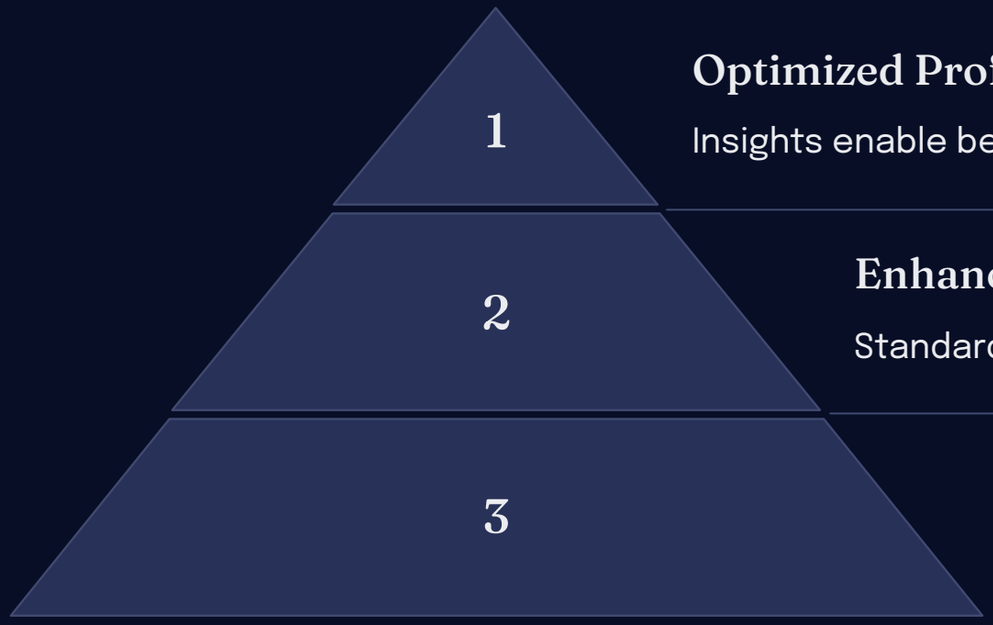
Niche market, but dedicated viewership.

Family

Seasonal peaks, good weekend performance.

Our analysis reveals Action and Comedy as top-performing genres, consistently driving revenue and ticket sales. Drama caters to a dedicated audience, while Family films see seasonal peaks.

Key Takeaways



Optimized Profitability

Insights enable better content and location decisions.

Enhanced Data Quality

Standardized and reliable performance metrics.

Strategic Planning

Unified view supports future growth strategies.

This analysis provides key insights for optimizing profitability through better content and location decisions. It ensures enhanced data quality and supports strategic planning for future growth across the Silver Screen chain.

Next Steps

Regular Reporting

Automate monthly performance reports for all stakeholders.

Stakeholder Workshops

Conduct sessions to review findings and gather feedback.

Expand Data Scope

Integrate snack bar sales for a holistic view of revenue.

Our next steps include automating regular performance reports and conducting workshops with stakeholders to review findings. We also plan to expand our data scope to include snack bar sales for a more comprehensive revenue analysis.