Chinook Music Store – SQL + Power BI Analytics

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About the Dataset

The Chinook dataset is a sample database designed to represent the operations of a digital music store. It contains 11 interrelated tables covering sales, customers, music catalogs, and employees.

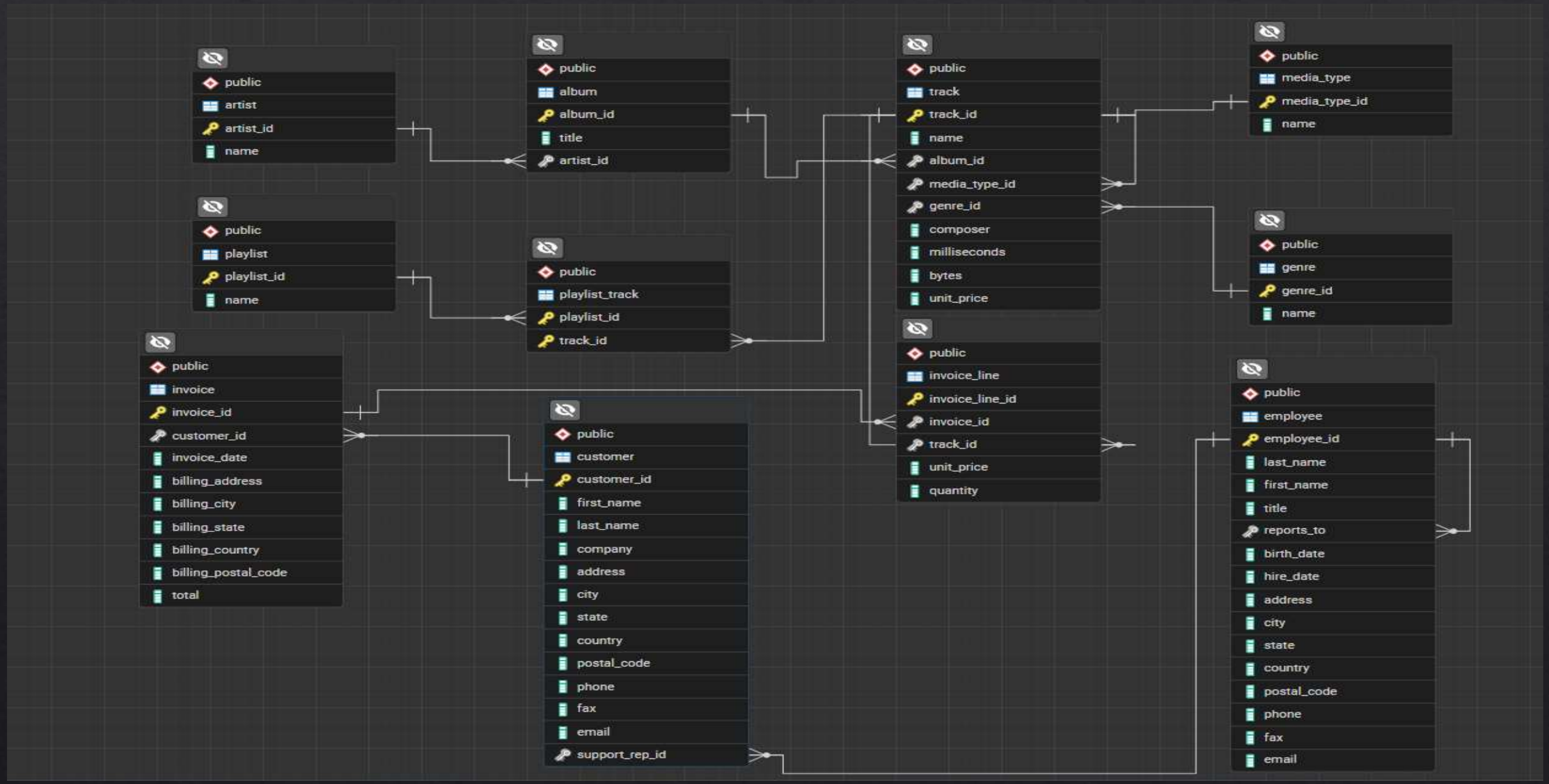
Key Entities

•Customers: Personal details, location, and support representative
•Invoices & Invoice Lines: Customer orders and detailed items purchased
•Tracks: Individual songs with duration, price, and metadata
•Artists & Albums: Music catalog structure
•Genres & Media Types: Classification of music
•Employees: Support reps handling customers

Why this dataset is useful

•Models a realistic retail sales environment
•Includes strong relationships between tables
•Ideal for SQL joins, aggregations, and analytics
•Suitable for creating dashboards for revenue, customer analysis, and product performance
This report analyzes key business questions such as top customers, top artists, genre revenue, and monthly sales trends.

Database Schema Diagram



SQL Key Business Questions Answered

1. Which country has the most invoices?
2. Who is the best-selling artist?
3. Identify the top 5 customers by total spending.
4. Which genre generates the most revenue?
5. Categorize customers into High Spender vs Low Spender.
6. What are the top 5 tracks by revenue?
7. Which countries generate the highest revenue?
8. What is the monthly sales trend?
9. Which employee brings the highest revenue?
10. What is the Average Order Value (AOV)?
11. What percentage of total revenue comes from the top 20% of customers (Pareto Analysis)?

SQL Outputs Screenshot

1. Top revenue-generating countries

	country character varying (40)	highest_revenue numeric
1	USA	523.06
2	Canada	303.96
3	France	195.10
4	Brazil	190.10
5	Germany	156.48
6	United Kingdom	112.86
7	Czech Republic	90.24

2. Best-Selling Genre

	genre_id [PK] integer	genre character varying (120)	revenue numeric
1	1	Rock	826.65
2	7	Latin	382.14
3	3	Metal	261.36
4	4	Alternative & Punk	241.56
5	19	TV Shows	93.53

3. Best-selling artist?

	artist_id [PK] integer	artist_name character varying (120)	total_sales numeric
1	90	Iron Maiden	138.60
2	150	U2	105.93
3	50	Metallica	90.09
4	22	Led Zeppelin	86.13
5	149	Lost	81.59
6	156	The Office	49.75
7	113	Os Paralamas Do Sucesso	44.55

4. Top 5 Customers by Spending

	customer_id [PK] integer	full_name text	total_spending numeric
1	6	Holý Helena	49.62
2	26	Cunningham Richard	47.62
3	57	Rojas Luis	46.62
4	45	Kovács Ladislav	45.62
5	46	O'Reilly Hugh	45.62

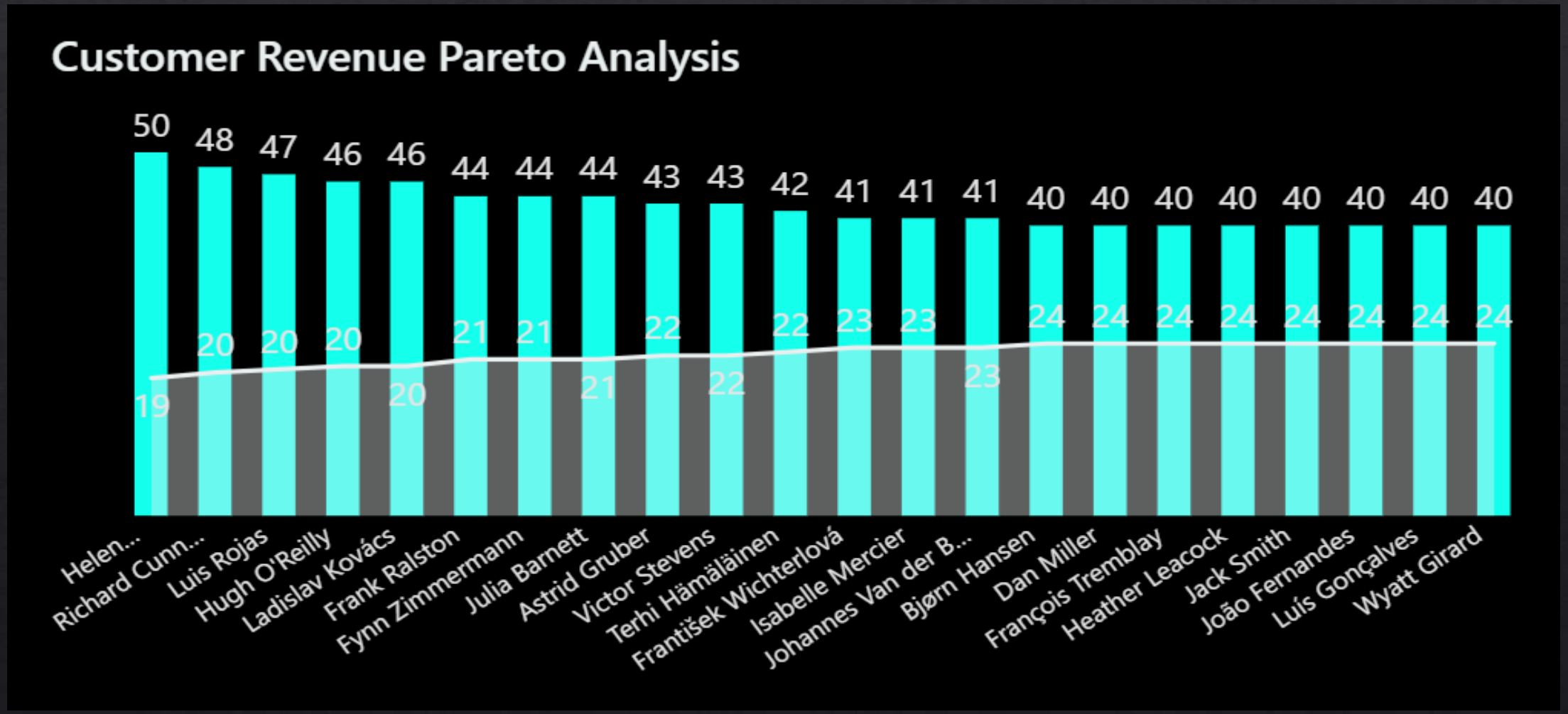
Power BI Dashboard Preview

KPI Summary

- Total Customers: 59
- Total Revenue: $2.33k
- AOV(Average Order Value): $5.65
- Top country by revenue: USA ($523)
- Top genre: Rock
- Top 20% customers contributed 26.40% of revenue (Pareto).
- Recommendation: [example: "Focus marketing on top 20% customers; optimize catalog for top genres."]

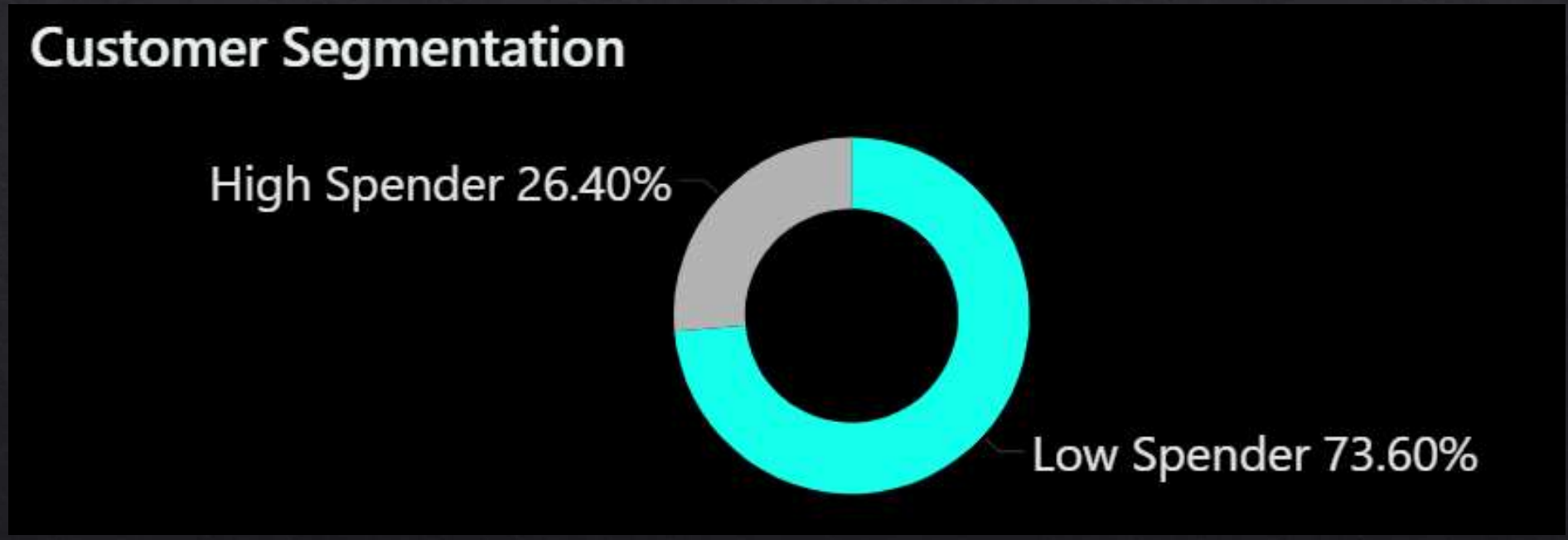
Pareto Chart Insights

Top 20% customers contribute 26.40% of revenue.



High/Low Spender Segmentation

The business relies heavily on a small segment of High Spenders (26.40%) while most revenue is geographically concentrated in the USA ($523) and Canada ($304).



Business Insights

•**North American Dominance:** Revenue is heavily concentrated in North America, with the **USA ($523)** and **Canada ($304)** together generating a majority of the total sales, indicating a strong but geographically dependent revenue model.

•**Critical High-Value Segment:** The business is highly dependent on a small group of **High Spenders (26.40%)**, while the majority of customers fall into the **Low Spender (73.60%)** category, highlighting a significant disparity in customer value contribution.

•**Leading International Markets:** Outside North America, **France ($195)**, **Brazil ($190)**, and **Germany ($156)** are the top three revenue-generating countries, demonstrating successful market penetration in specific key international regions.

•**Opportunity in Low Spender Base:** The large segment of **Low Spenders** represents a major opportunity to increase overall revenue if targeted marketing efforts can successfully convert a portion of these customers to higher spending tiers.

Business Recommendations

•**Customer Lifecycle Optimization:** Focus on developing personalized retention strategies (e.g., loyalty programs, exclusive content) for the critical **High Spender** segment to ensure continued high lifetime value.

•**Conversion Campaigns:** Launch data-driven campaigns (e.g., bundled deals, subscription offers) specifically targeting the **Low Spender** base to encourage higher purchase frequency and increase the proportion of high-value customers.

•**International Strategy Replication:** Conduct a deep dive analysis into the success drivers in **Brazil** and top European countries (France, Germany) to replicate proven marketing and sales strategies in other high-potential but lower-revenue markets (e.g., Portugal, India, Chile).