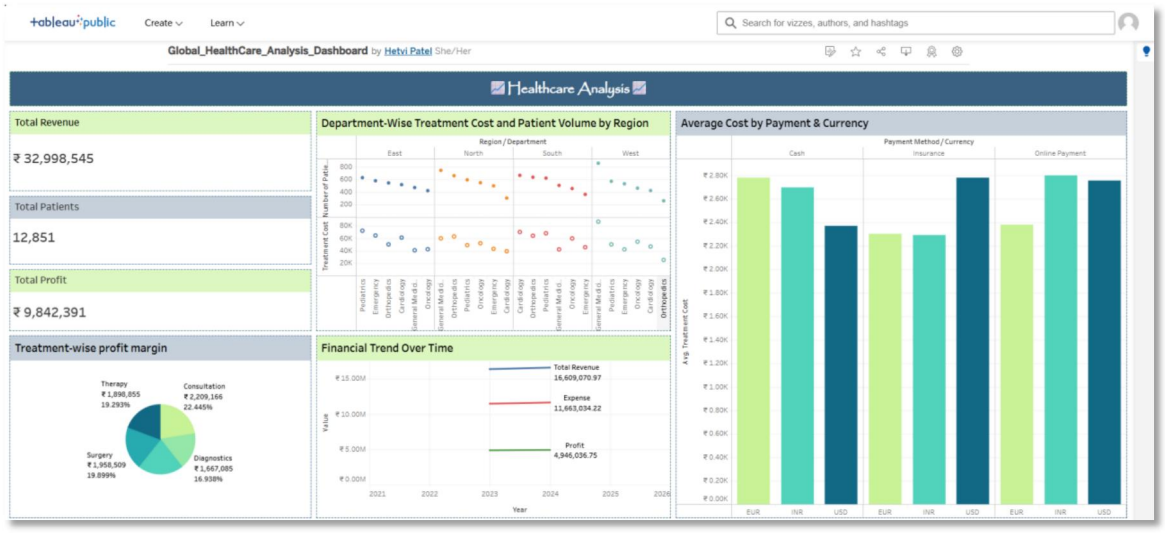
Concept Note – Final Dashboard

1. Project Title

"Global Healthcare Analysis Dashboard" Visualizing Global Healthcare Trends in Cost, Access, and Payment Behavior



2. Introduction to the Project

This project focuses on analyzing global healthcare trends across departments, regions, currencies, and patient volumes. It highlights disparities and patterns in patient access, treatment cost, and financial outcomes. Data analytics plays a crucial role in understanding where inefficiencies exist and where intervention is needed. This project contributes to SDG Goal 3 – Good Health and Well-being – by providing data-driven insights to support healthcare improvement globally.

3. Problem Statement

Healthcare costs, patient access, and service efficiency vary globally. Yet, decision-makers lack visibility into how payment methods, currencies, departments, and regional service capacity impact both patient outcomes and financial results. This analysis seeks to uncover meaningful insights from multi-dimensional global healthcare data.

4. Objective of the Project

- Visualize patient volume and treatment costs across global departments and regions

- Examine healthcare financial performance over time

- Identify currency and payment behavior associated with treatment cost

- Support SDG 3 by promoting equitable, accessible healthcare delivery through data analysis

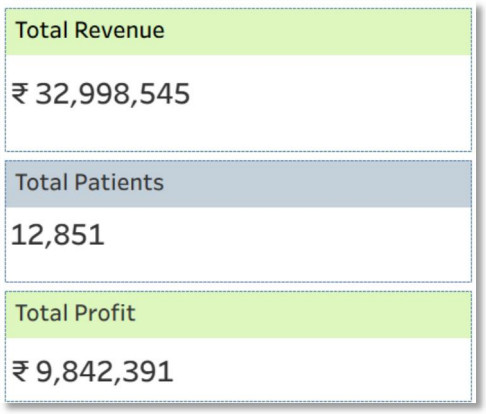
5. Hypothesis

Higher-cost healthcare treatments are more frequently paid via insurance, while lower-cost services are commonly paid through cash or online methods. These patterns vary by region and department.

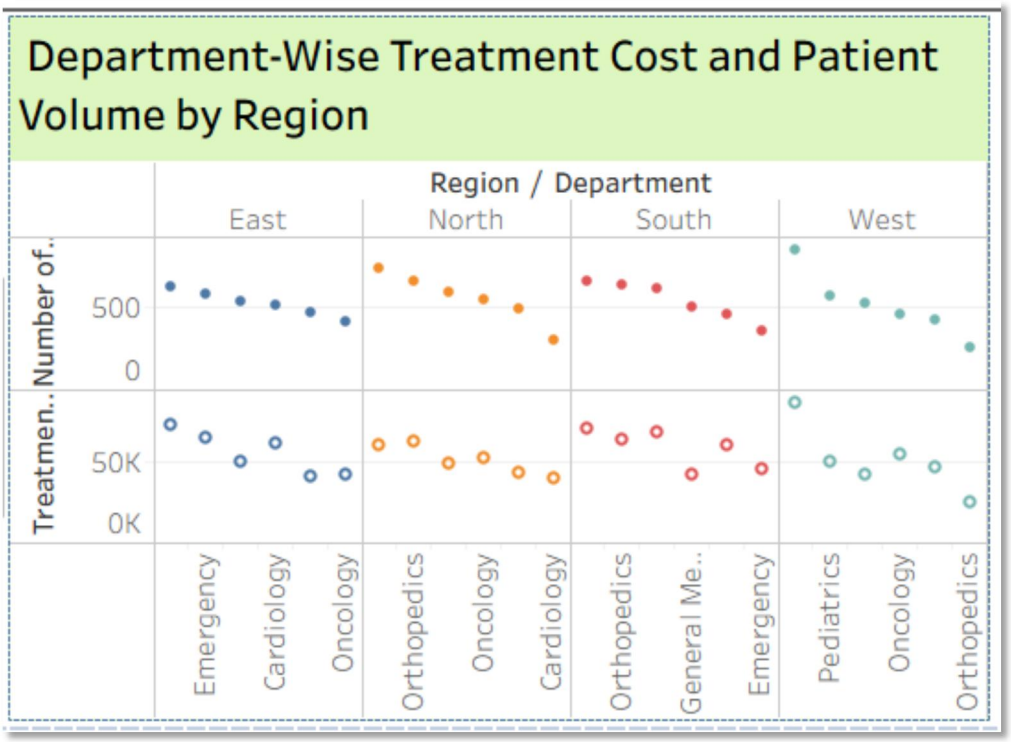
6. Analysis and Visualization (Tableau Dashboard Summary)

The final Tableau dashboard includes the following data visualizations:

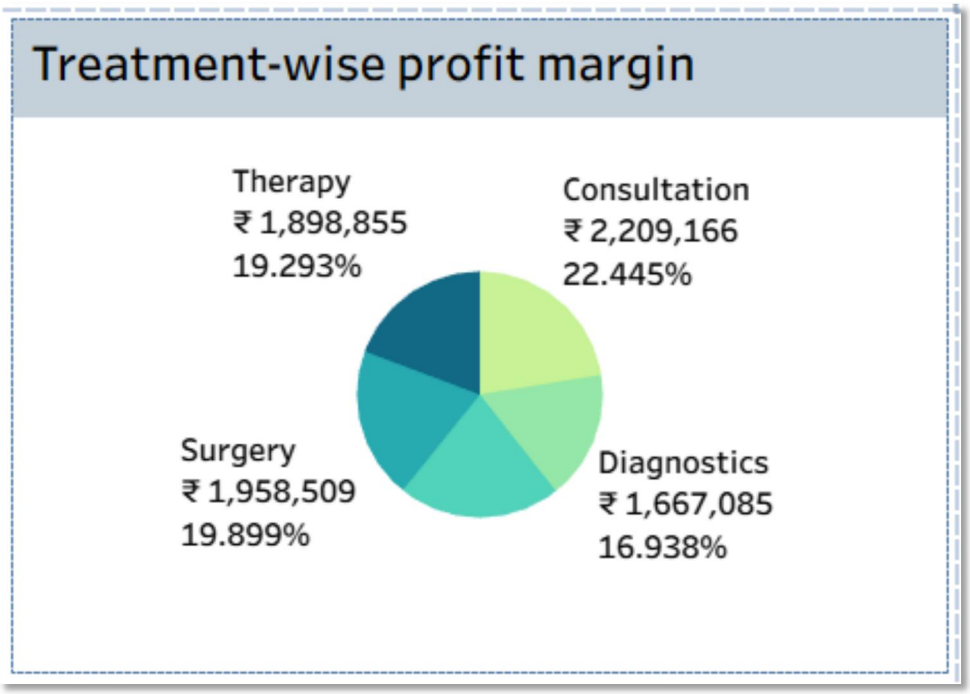
KPI Cards : Display Total Revenue, Total Patients, and Total Profit, giving an instant overview of performance.



Circle View - Department × Region : A dual-layer circle chart showing Treatment Cost (size) and Number of Patients (color) per department across global regions. This layout helps identify high-load or high-cost service areas.

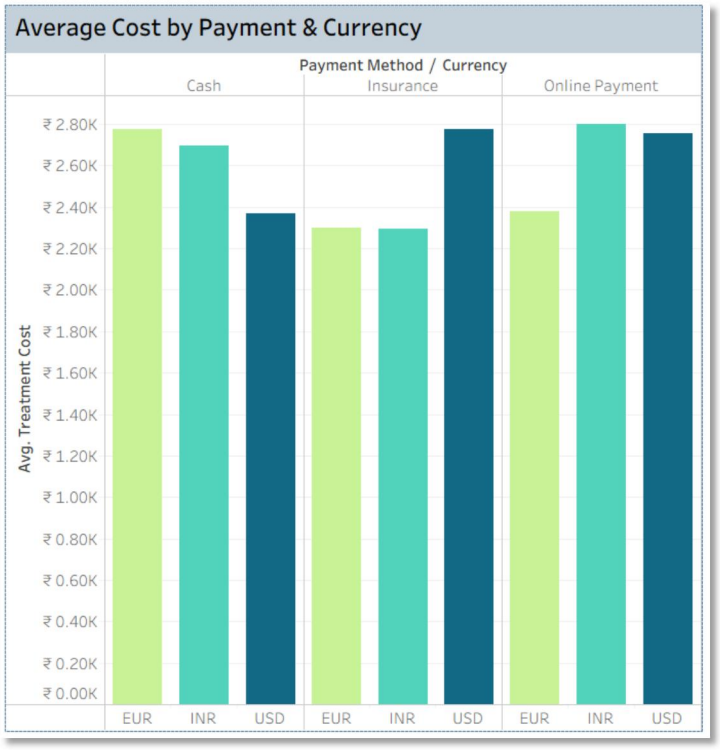


Pie Chart - Treatment-wise Profit Margin : Breaks down the overall profit by Treatment Type, displaying both absolute value and percentage share.

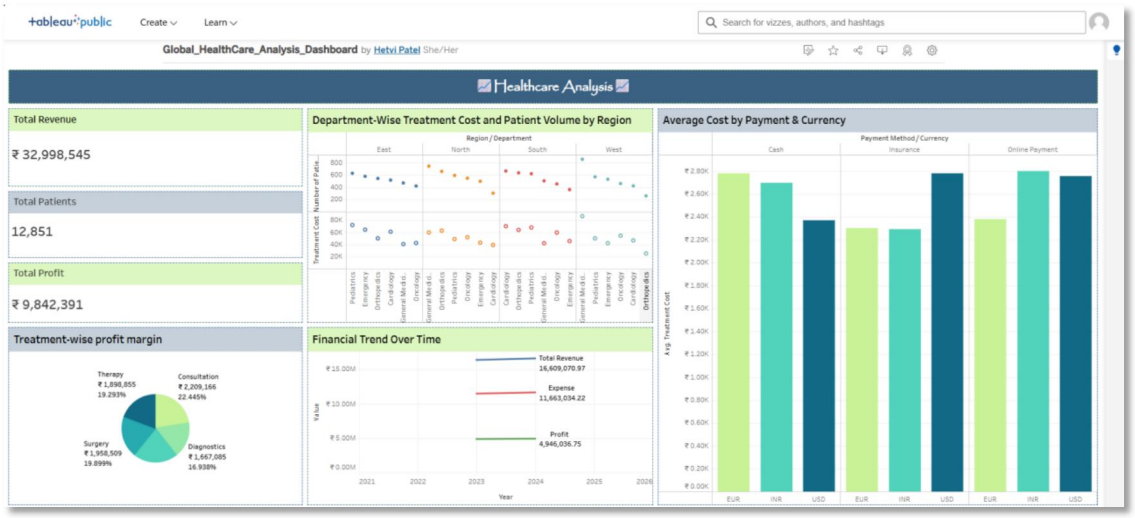


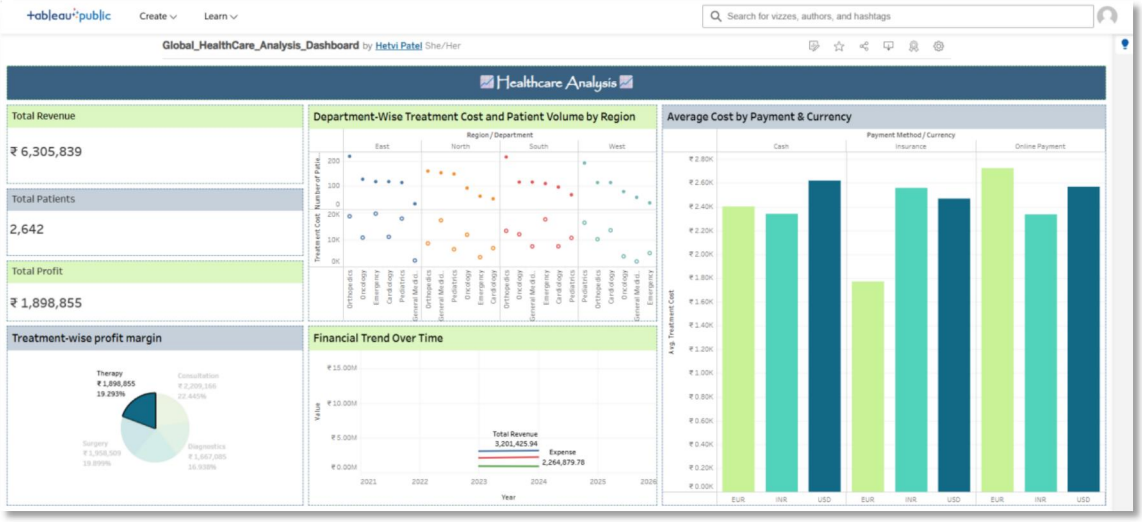
Line Chart - Financial Trend Over Time : Tracks yearly performance of Revenue, Profit, and Expense, providing insight into financial growth and fluctuations.

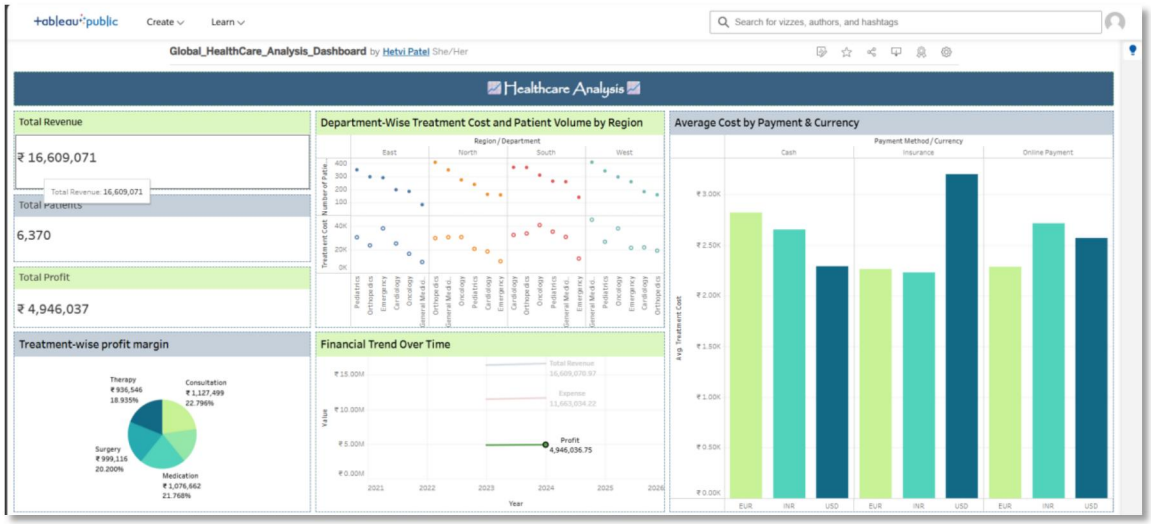
Grouped Bar Chart – Avg Cost by Payment & Currency : Compares average treatment costs for each payment method (Cash, Online, Insurance) across currencies (INR, USD, EUR). Reveals cost trends and currency behavior.



Interactivity includes tooltips, visual encodings, and optional filters.







7. Key Insights and Findings

1. Insurance is most used for high-cost treatments across multiple currencies.

2. Patient volume varies widely across regions and departments, indicating disparity in service capacity.

3. Certain departments generate high revenue but serve fewer patients, indicating specialized or premium services.

4. Financial performance over time is variable, with fluctuations in expense-to-revenue ratio.

5. Different currency payments (INR, USD, EUR) are typically associated with digital or insured payments.

8. Proposed Solutions and Recommendations

- Promote insurance access for high-cost services

- Encourage digital payments for mid-tier treatments to reduce cash dependency

- Analyze region-department combos with low efficiency for cost optimization

- Use revenue and patient distribution insights for global resource planning

9. Probable Outcomes and SDG Contribution

This project supports SDG 3 – Good Health and Well-being – by identifying treatment gaps, payment challenges, and financial patterns across global healthcare systems. Insights can inform equitable health service delivery, affordability, and efficiency.

10. Tools and Technologies Used

- Tableau Desktop for data visualization

- Microsoft Excel for source data

- Windows OS for local development

- Emoji/icon sets for visual enhancements

11. References

- Source Dataset: Healthcare.xlsx (provided)

- Internal dashboard samples and Tableau resources