

Projects Insights

Maven Rail Challenge

❖ Revenue Insights

- Total revenue: €649.3K with €92.6K in refunds.
- Revenue by ticket class: Standard class contributes significantly more (€516K) compared to First class (€133K).
- Revenue by ticket type: Advance tickets lead with €272K, followed by Off Peak (€202K) and Anytime (€175K).
- Revenue by payment method: Credit card payments dominate (€396.7K), followed by contactless (€206.3K) and debit card (€46.4K).

❖ Ticket Sales and Popular Routes

- Most revenue generating route: London Kings Cross to York (€172,599.5).
- Popular routes by bookings: Manchester Piccadilly to Liverpool Lime Street (4628 bookings)
- London Euston to Birmingham New Street (4209 bookings)
- Top 5 popular routes by revenue are dominated by connections starting or ending in London.

❖ Delay and Cancellation Analysis

- 86.82% of trains are on time.
- Major delay reasons: Weather conditions (1372 instances), signal failure (970), staff shortage (809), technical issues (707), and traffic (314).
- Stations with the highest number of delayed trains:
 - Liverpool Lime Street (900 delays)
 - Manchester Piccadilly (672 delays)
- Stations with the highest number of cancelled trains:
 - London Paddington (357 cancellations)
 - Manchester Piccadilly (315 cancellations)

❖ Passenger Insights

- Most bookings are made online (58.51%).
- The average ticket price is €23.4.
- Majority of revenue is from passengers without rail cards (€574K), followed by adult (€86K), disabled (€52K), and senior (€30K).

❖ Recommendations

- Improve On Time Performance

Address frequent delay causes: Enhance signal systems, improve weather related preparedness, and ensure sufficient staffing.

Consider investing in technology to better predict and mitigate delays.

➤ Optimize Revenue

Encourage the sale of First-class tickets through targeted promotions, as it has a higher price point but currently lower sales.

Increase marketing efforts for Advance and Off-Peak tickets, which are more popular and contribute significantly to revenue.

➤ Enhance Customer Experience

Improve services on popular routes (e.g., London Kings Cross to York) to maintain high revenue and booking numbers.

➤ Reduce Cancellations

Focus on the stations with the highest cancellations, like London Paddington and Manchester Piccadilly, to identify and rectify recurring issues.

Implement a robust contingency plan to handle cancellations more efficiently and improve customer satisfaction.