

Elevating Passenger Experience Through In-Flight Connectivity Insights

Name: Makayla Recker

Role Applying For: Customer Experience Analyst



Agenda

Objective: Use realistic customer behavior data to uncover insights that can improve WiFi performance and passenger satisfaction

- Tools & Fields
- Key Insights
- Forecast: Reducing Dropouts
- Trend Analysis
- Recommendations
- Conclusion & Q&A

Tools & Methods



Excel

Analyzed raw data, created pivot tables



Tableau

Created visuals to generate key insights



Python

Used for quick correlation analysis



SQL (BigQuery)

Used to segment trends and calculate key metrics



ChatGPT- Data Set

150 simulated passengers using Viasat powered in-flight WiFi

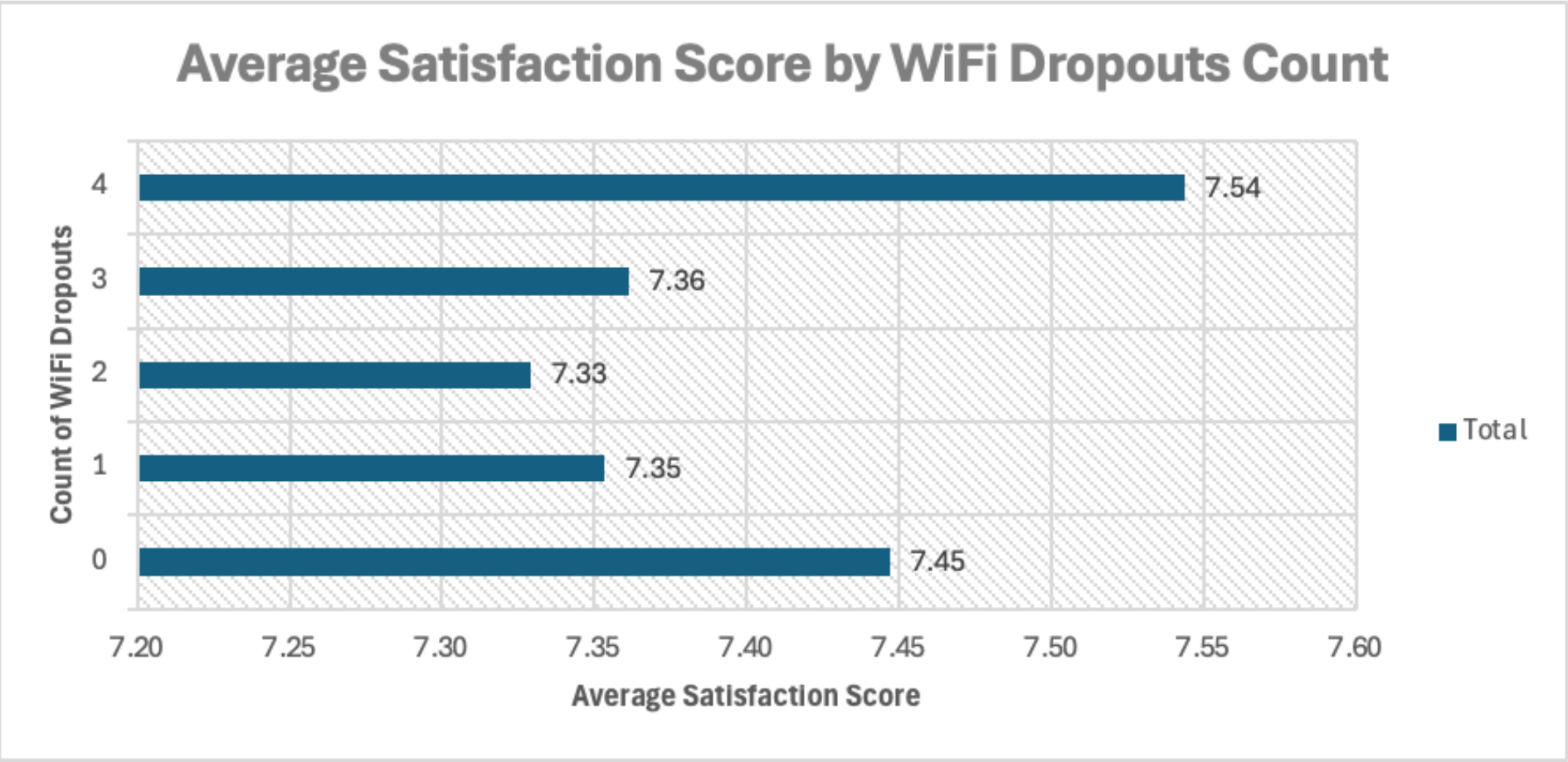
Fields

- Passenger_ID
- Flight_Date
- Seat_Class
- Flight_Delay_Min
- Checkin_Time_Min
- WiFi_Rating
- Streaming_Experience_Rating
- Satisfaction_Score
- Loyalty_Status
- Booking_Channel
- Complaint_Ticket
- Avg_Devices_Connected
- WiFi_Dropouts
- Content_Streaming
- VPN_Use

WiFi Dropouts vs Satisfaction

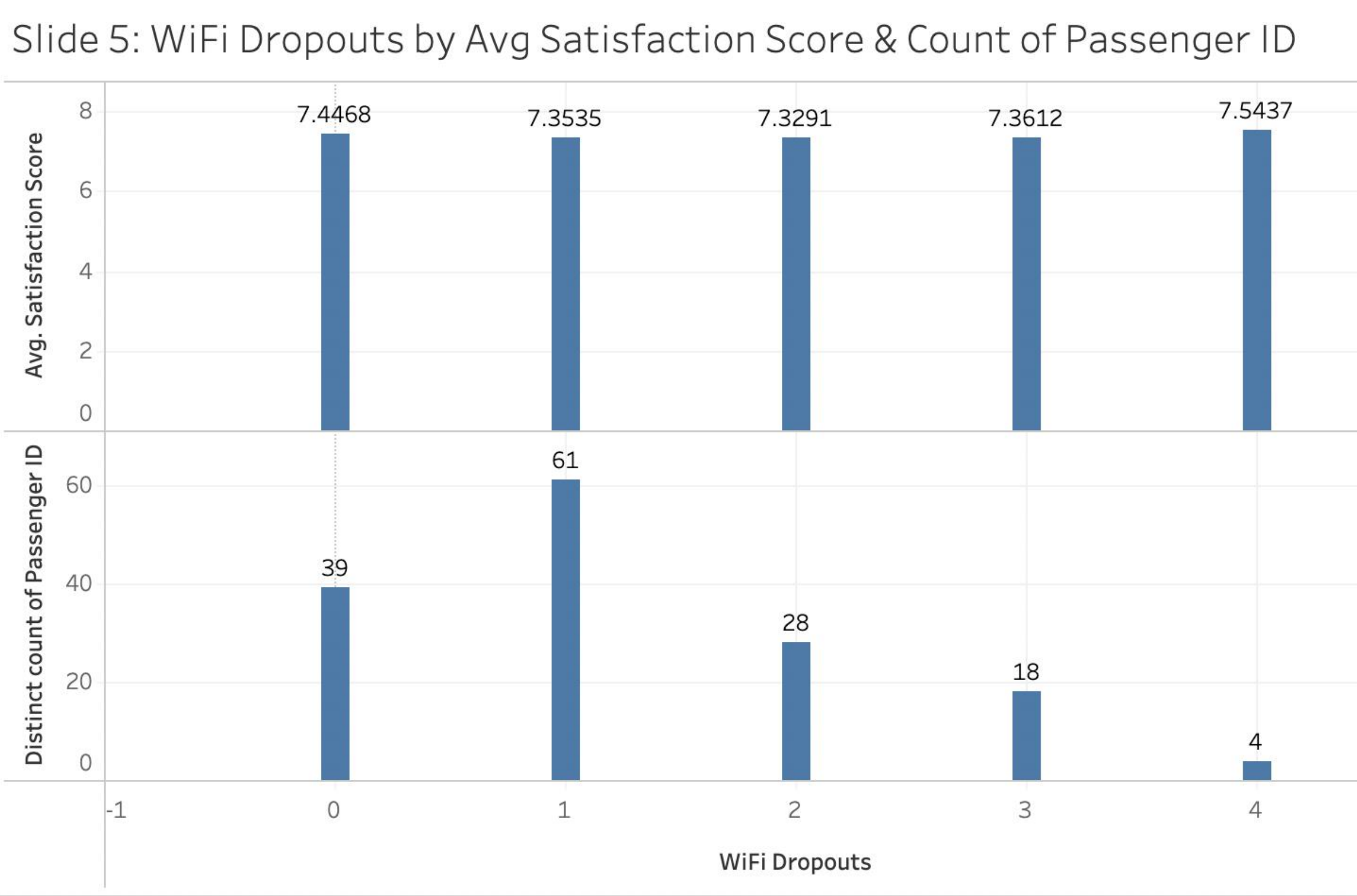
Row	WiFi_Dropouts	Avg_Satisfaction
1	0	7.45
2	1	7.35
3	2	7.33
4	3	7.36
5	4	7.54

SQL



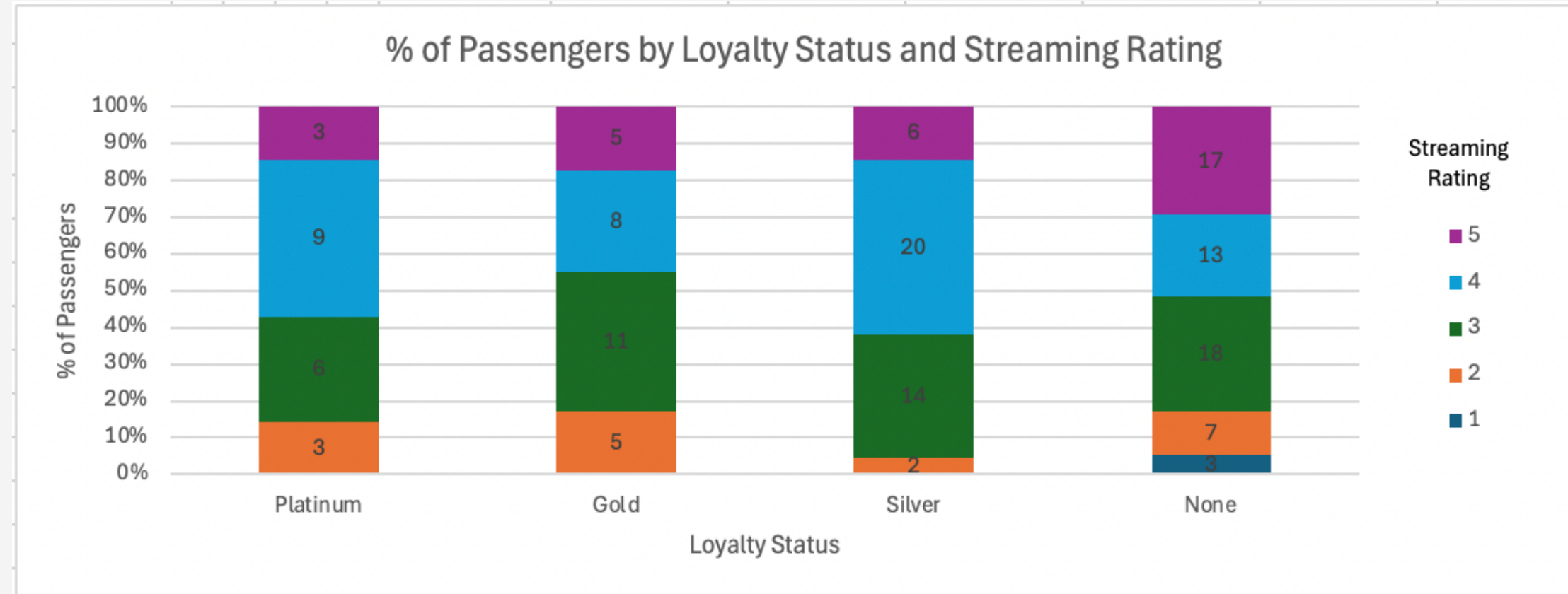
Excel

WiFi Dropouts vs Satisfaction Cont

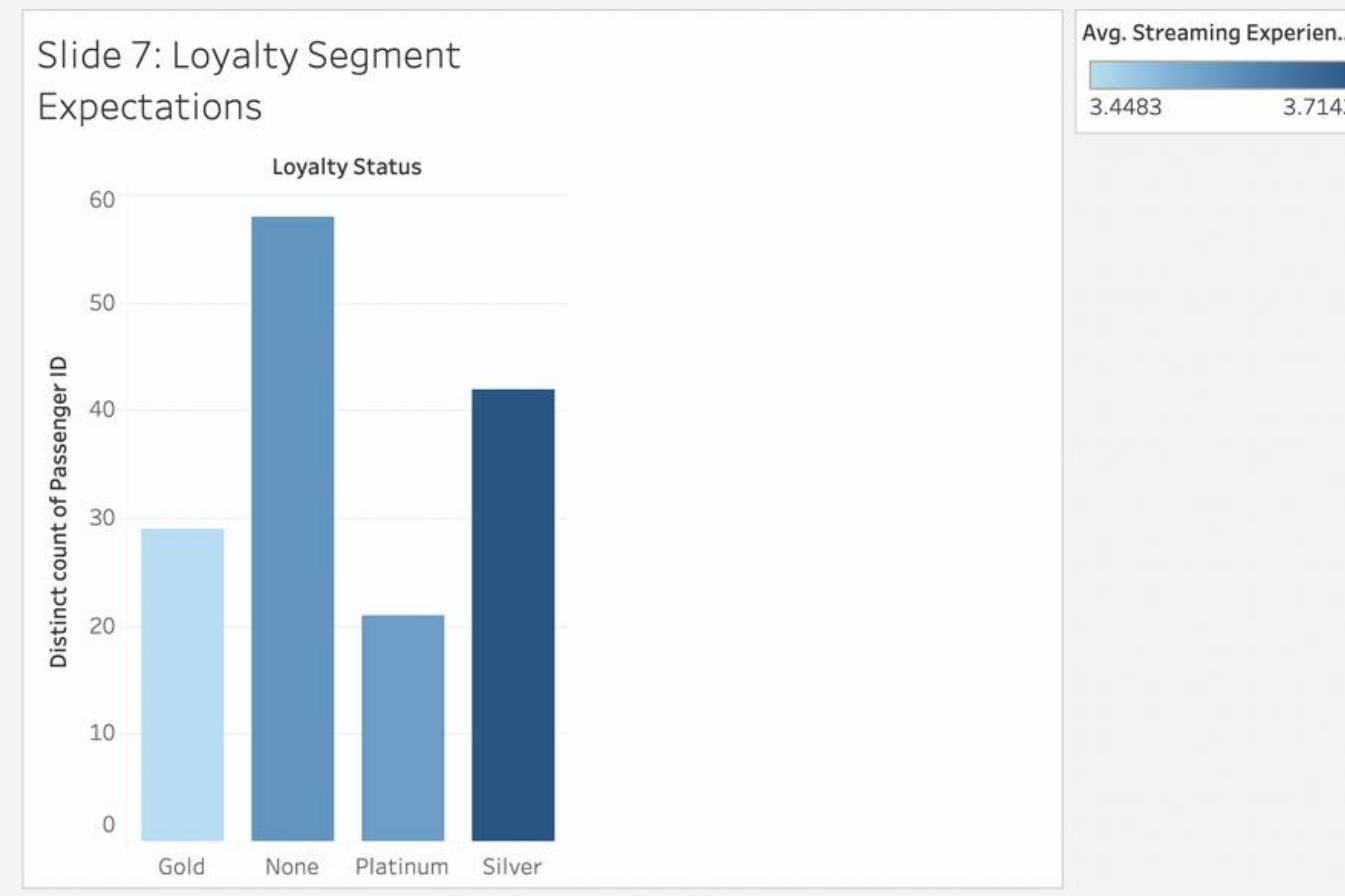


Tableau

Loyalty Segment Expectations

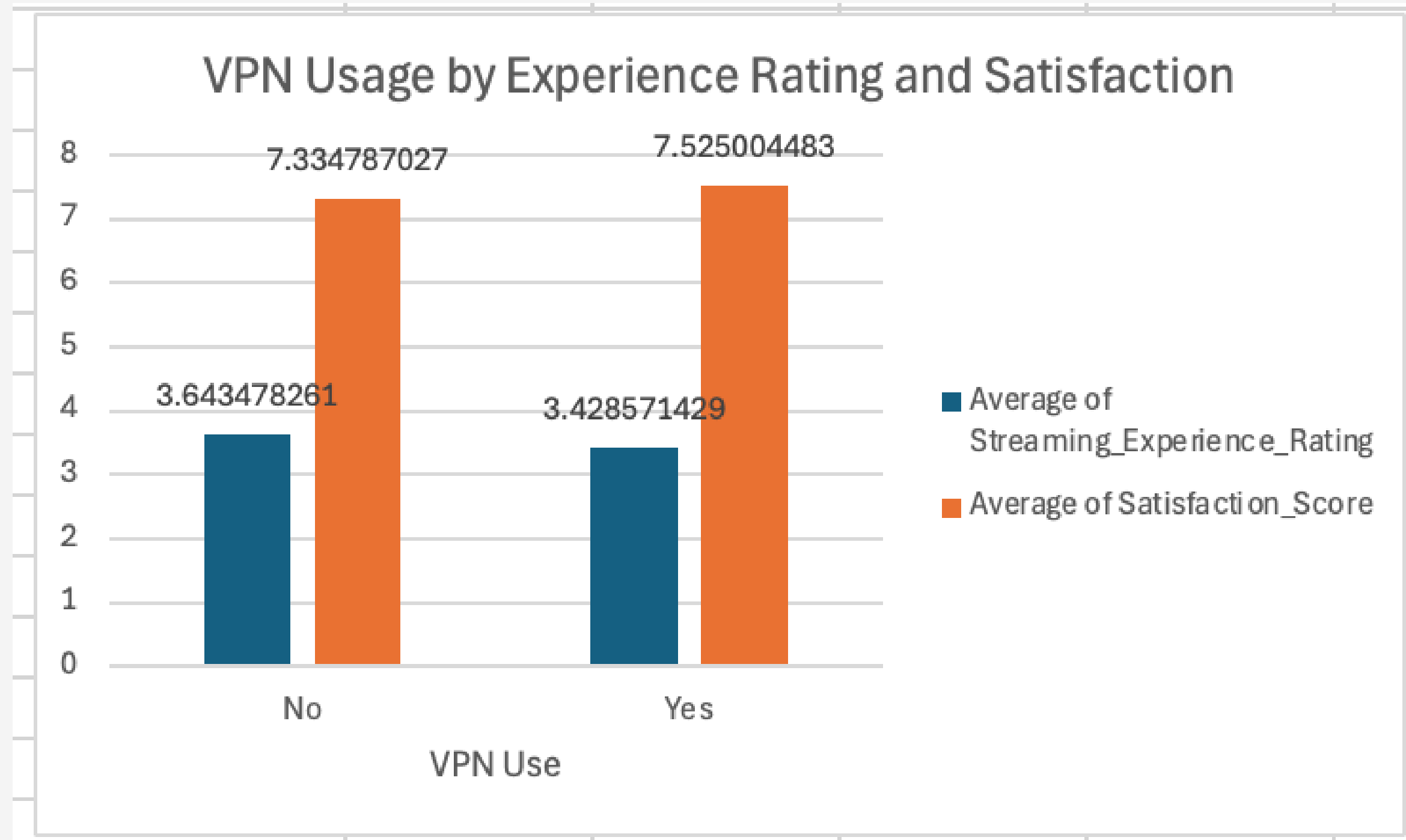


Excel



Tableau

VPN Usage Impact

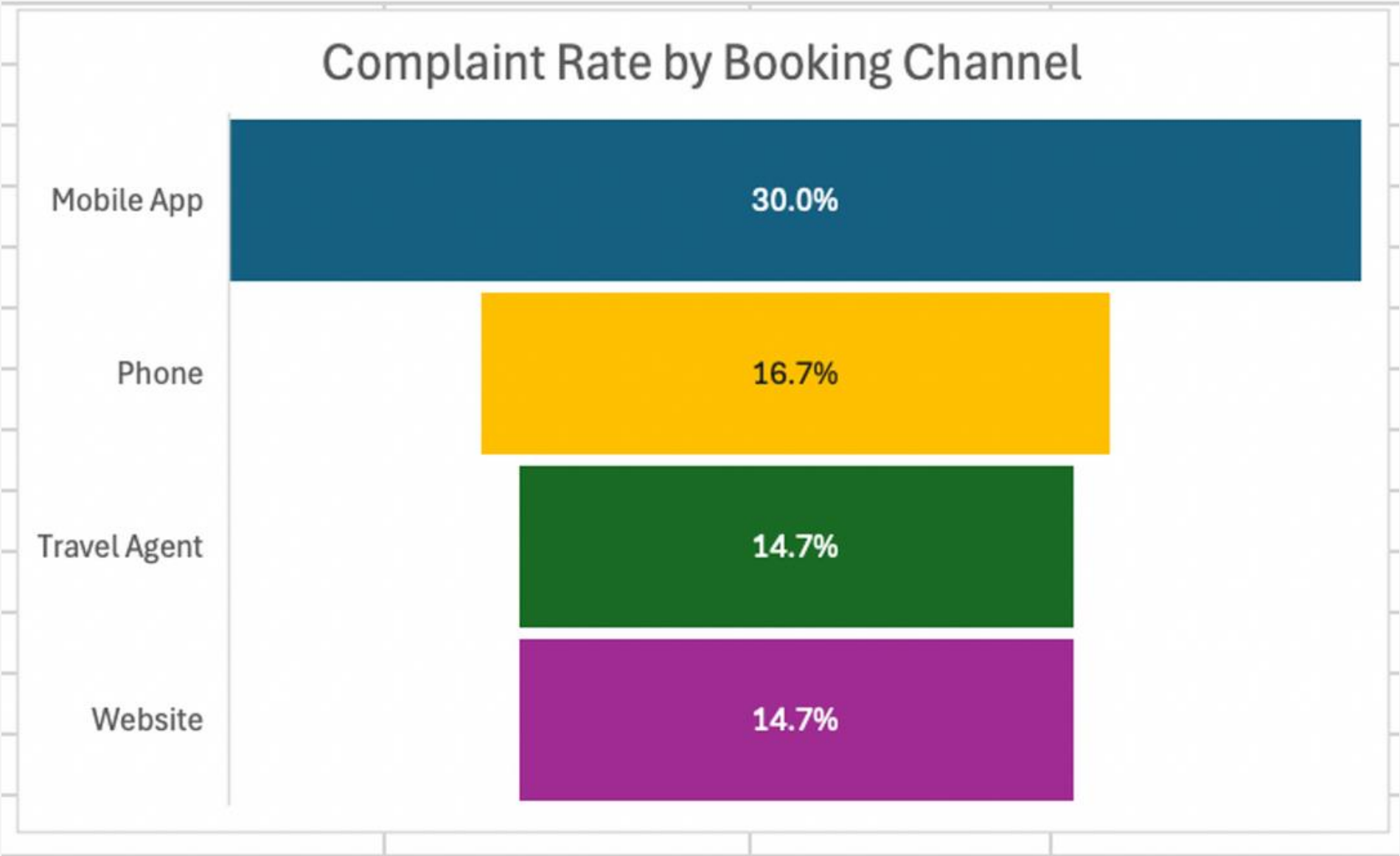


Excel

Complaint Rate by Booking Channel

Row	Booking_Channel	Complaint_Rate_Pct
1	Mobile App	30.0
2	Phone	16.67
3	Travel Agent	14.71
4	Website	14.71

SQL

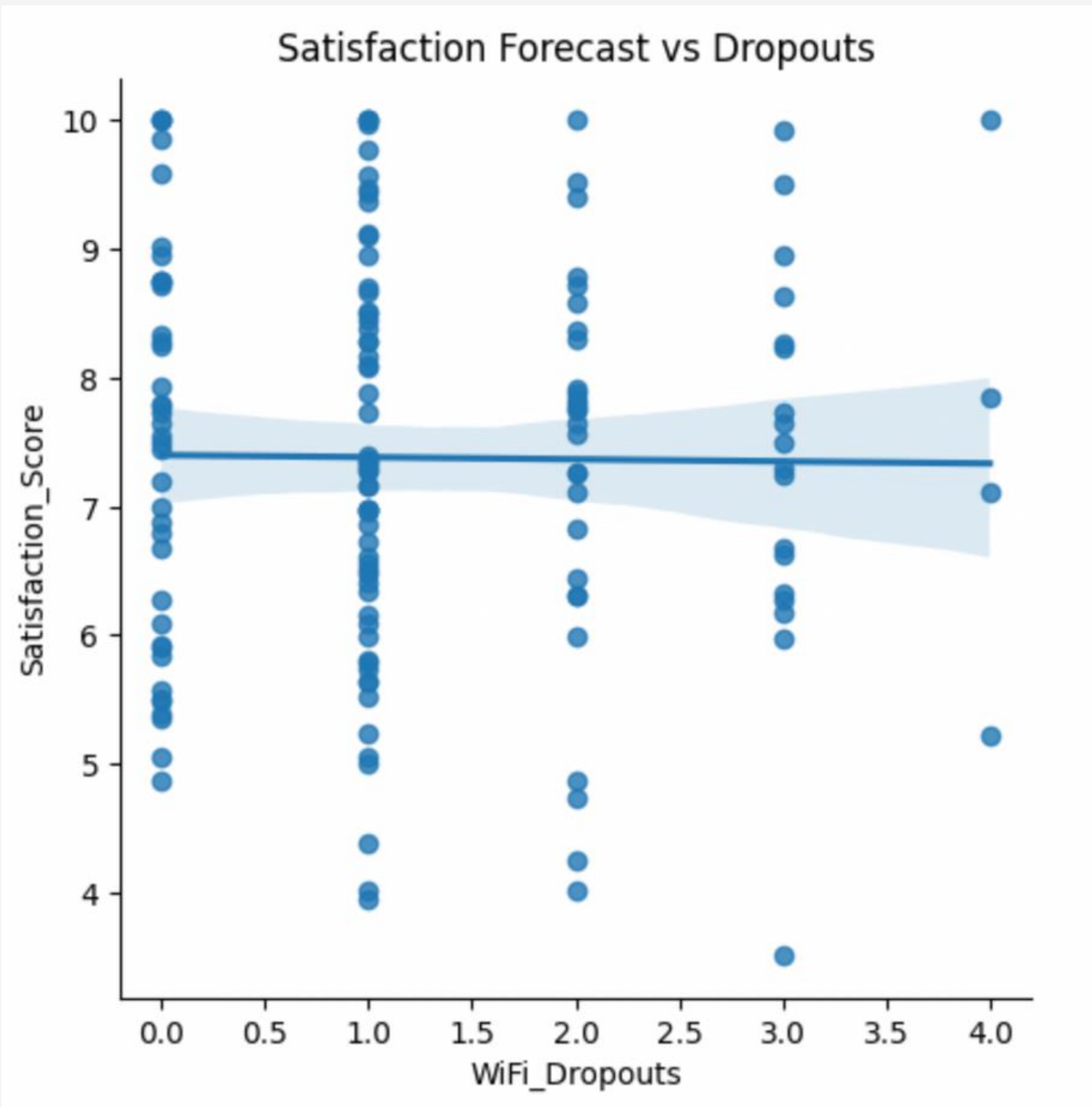


Excel

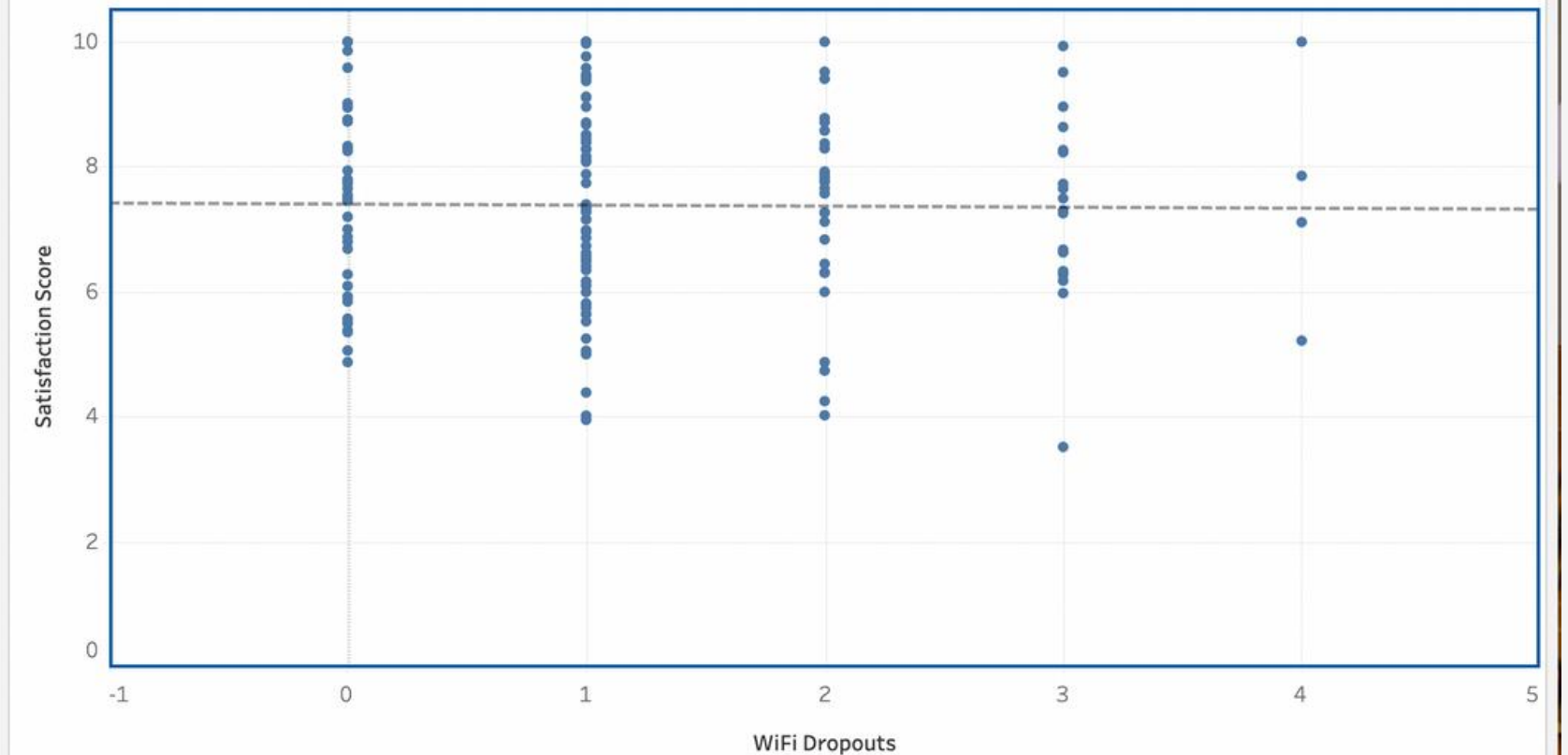
Forecasting Dropout Reduction

Python

Tableau



Slide 10: Forecasting Dropout Reduction



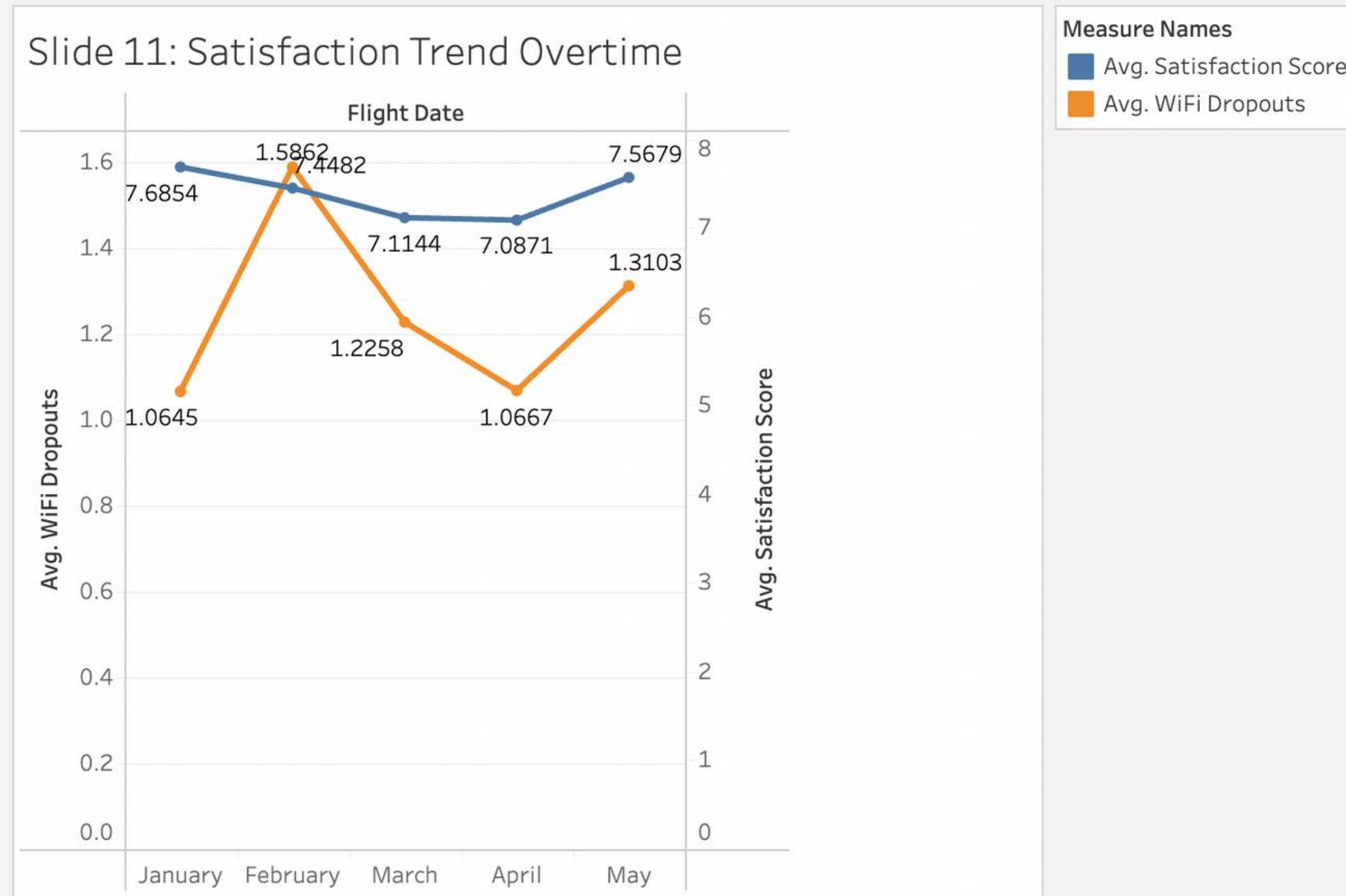
P-value: 0.891174

Equation: Avg. Satisfaction Score = $-0.0163581 \times \text{WiFi Dropouts} + 7.39956$

Coefficients

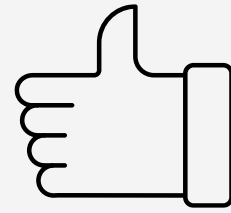
<u>Term</u>	<u>Value</u>	<u>StdErr</u>	<u>t-value</u>	<u>p-value</u>
WiFi Dropouts	-0.0163581	0.119355	-0.137054	0.891174
intercept	7.39956	0.194662	38.0124	< 0.0001

Satisfaction Trend Overtime



Tableau

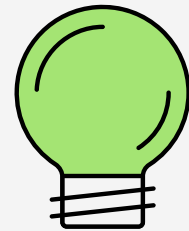
Recommendations: Aligning Experience with Expectations



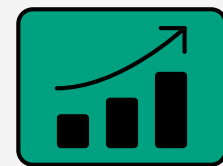
Address Satisfaction Decline Among Loyalty Members



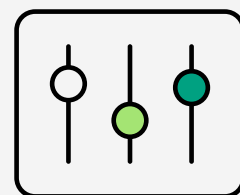
Investigate Mobile App Complaint Rate



Continue Reducing WiFi Dropouts to Protect Satisfaction



Analyze Drop in Satisfaction in March for Root Causes



Segment Future Analysis by Aircraft Type or Flight Duration

What Was Learned

- Loyalty members are less forgiving
- Mobile App users file the most complaints
- Satisfaction dropped in March despite improved metrics
- Trend analysis requires volume context

What It Means

- Improving the in-flight WiFi experience requires more than technical performance
- Segmentation by tier, channel and route is key
- Targeted changes drive satisfaction without overengineering

