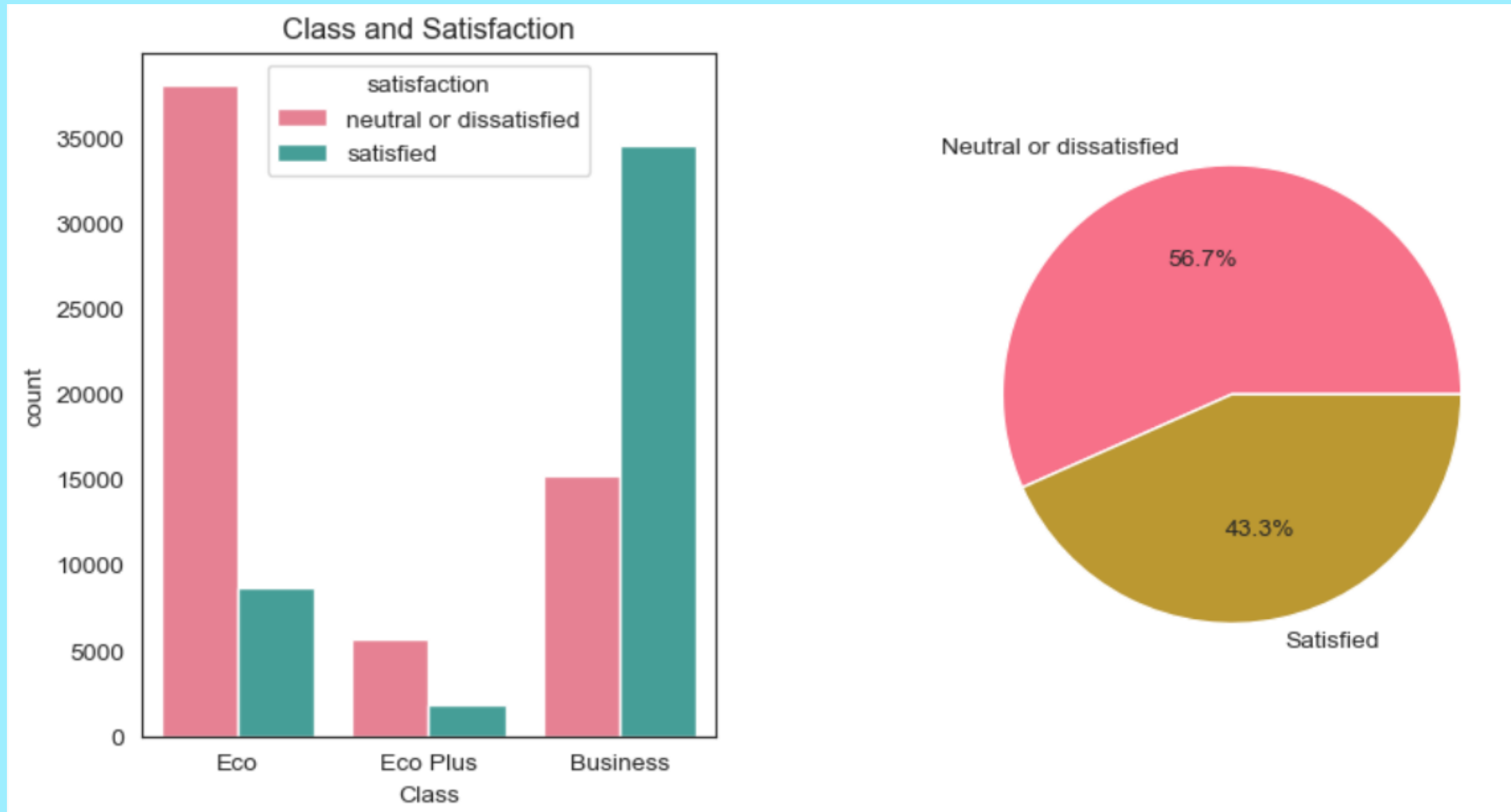


Airline Insights Briefing

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Amar.



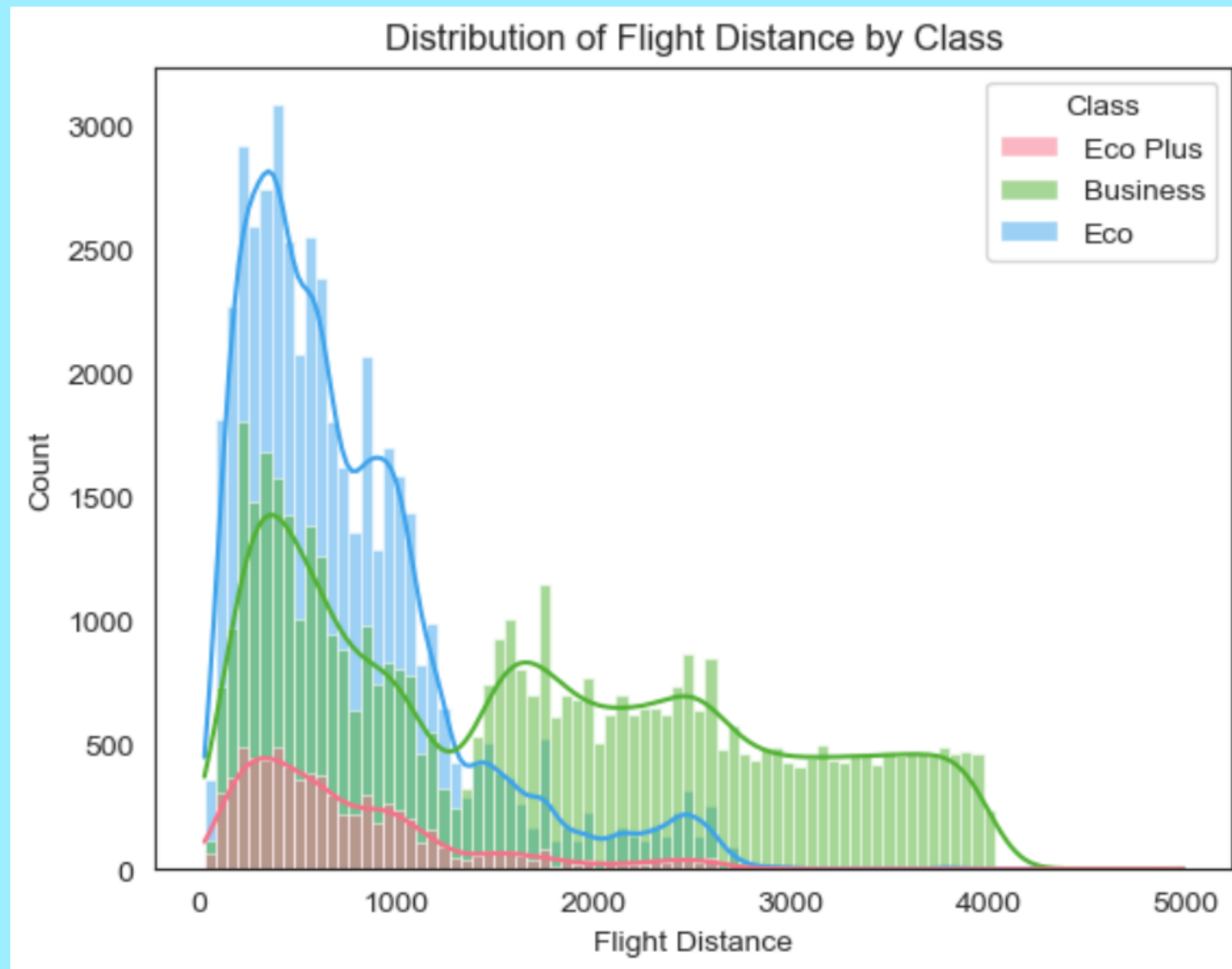
General overview of the data



The primary focus of the dataset is customer satisfaction, categorized as satisfied, neutral, or dissatisfied.

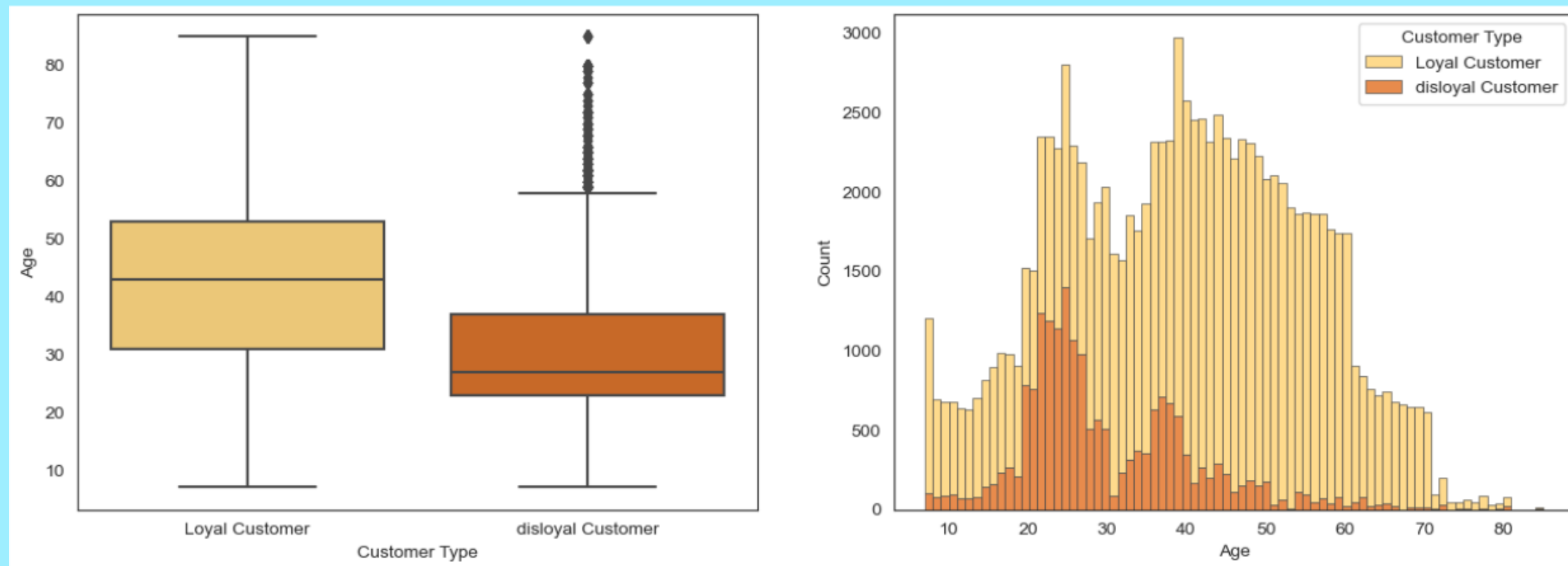
- 56.7% of passengers surveyed were either neutral or dissatisfied, while the remaining were satisfied.
- Economy and Economy Plus: Higher proportion of neutral or dissatisfied customers compared to satisfied customers.
- Business Class: More satisfied customers than dissatisfied ones.
- Lowest count in the dataset, indicating an unequal distribution of customer classes.

General overview of the data



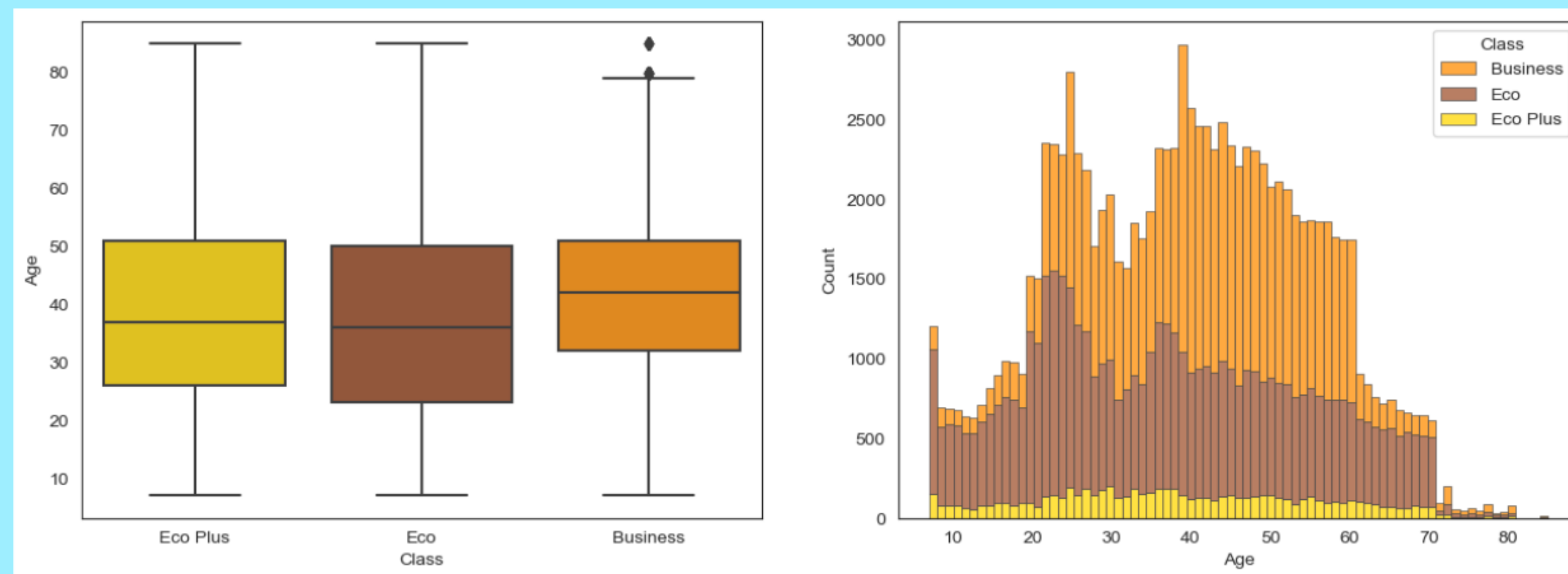
- Increased Flight Distance: Higher tendency of passengers choosing Business Class over Economy or Economy Plus.
- Short Distances (Under 1000 miles): Dominant preference for Economy class.
- Economy Plus is the least favored option among all flight classes regardless of the distance.

Insight 1:



Age Demographics of Airline Customers:

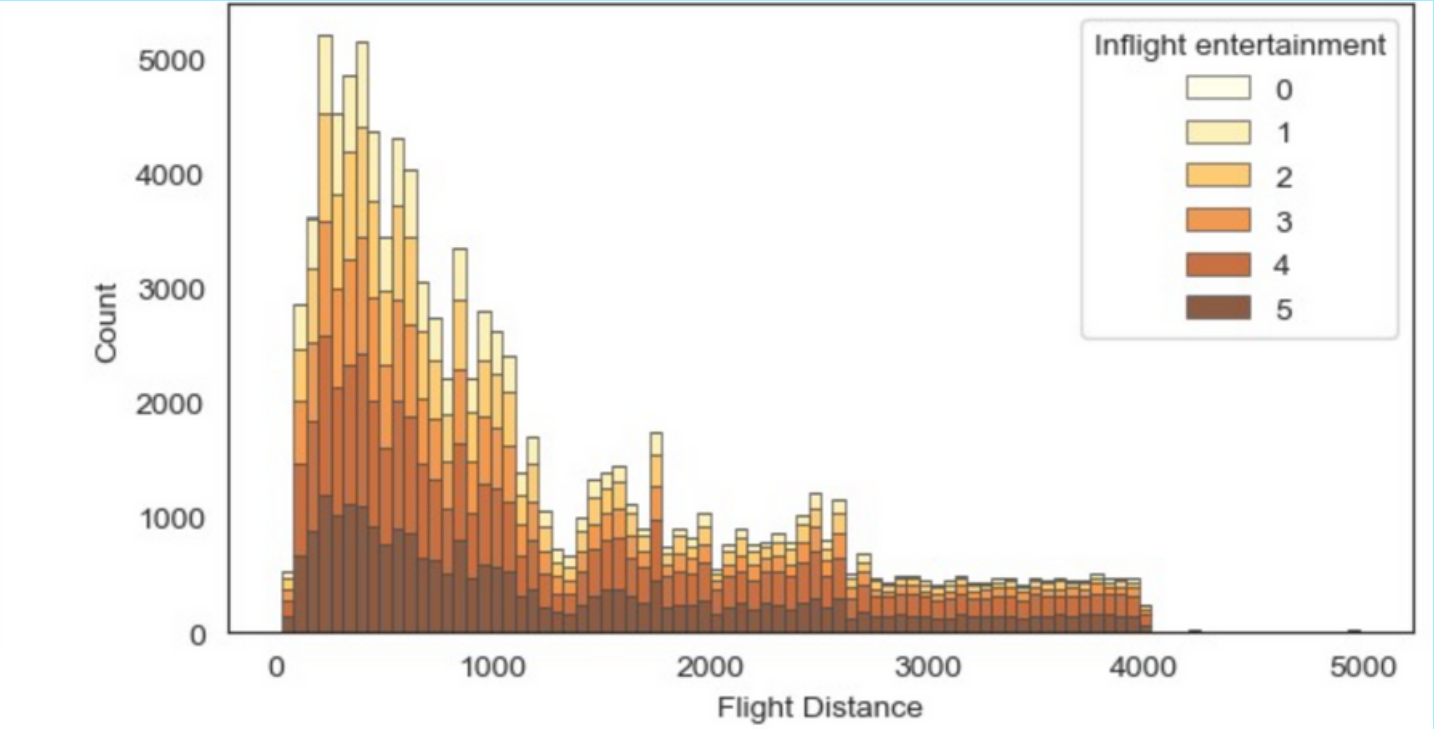
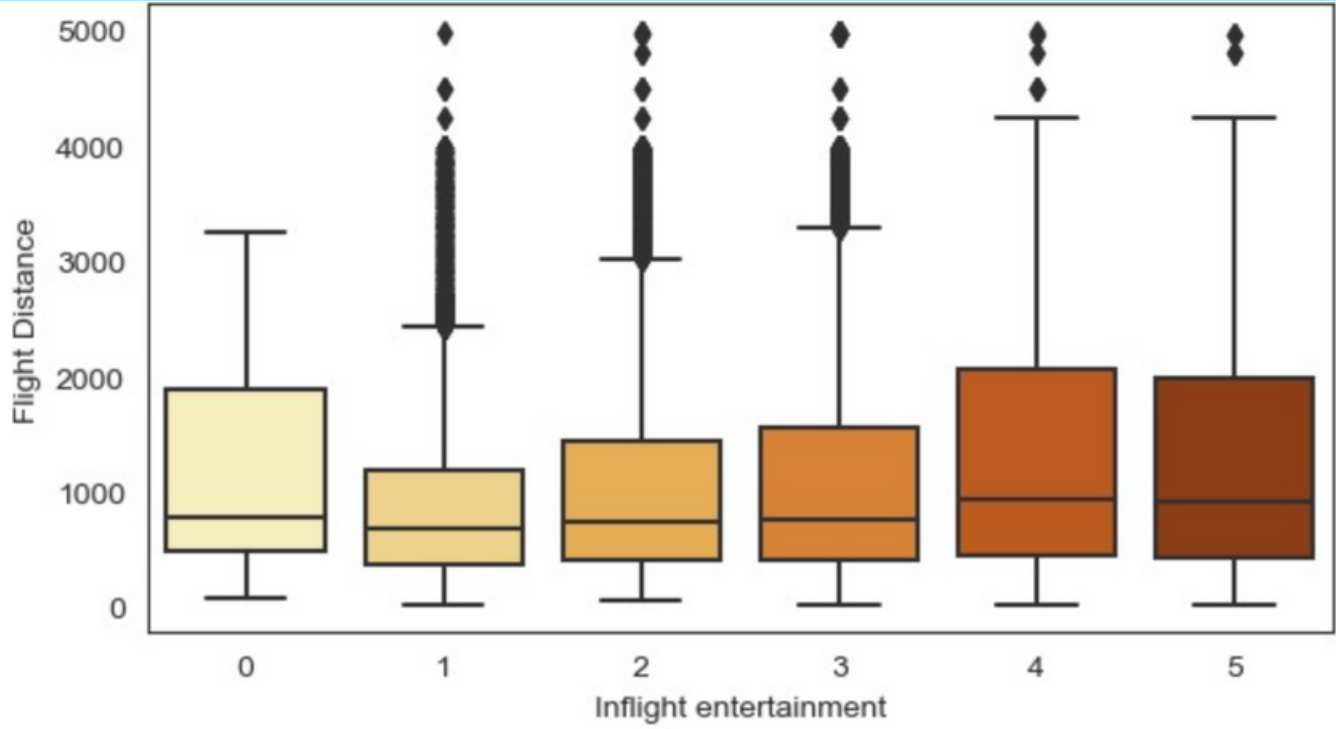
- Regular Customers: Majority aged between 30 and 50 years, with an average age slightly over 40.
- Non-Regular Customers: Age range primarily from 25 to 40 years, averaging slightly less than 30.



Correlation Between Customer Age and Travel Class:

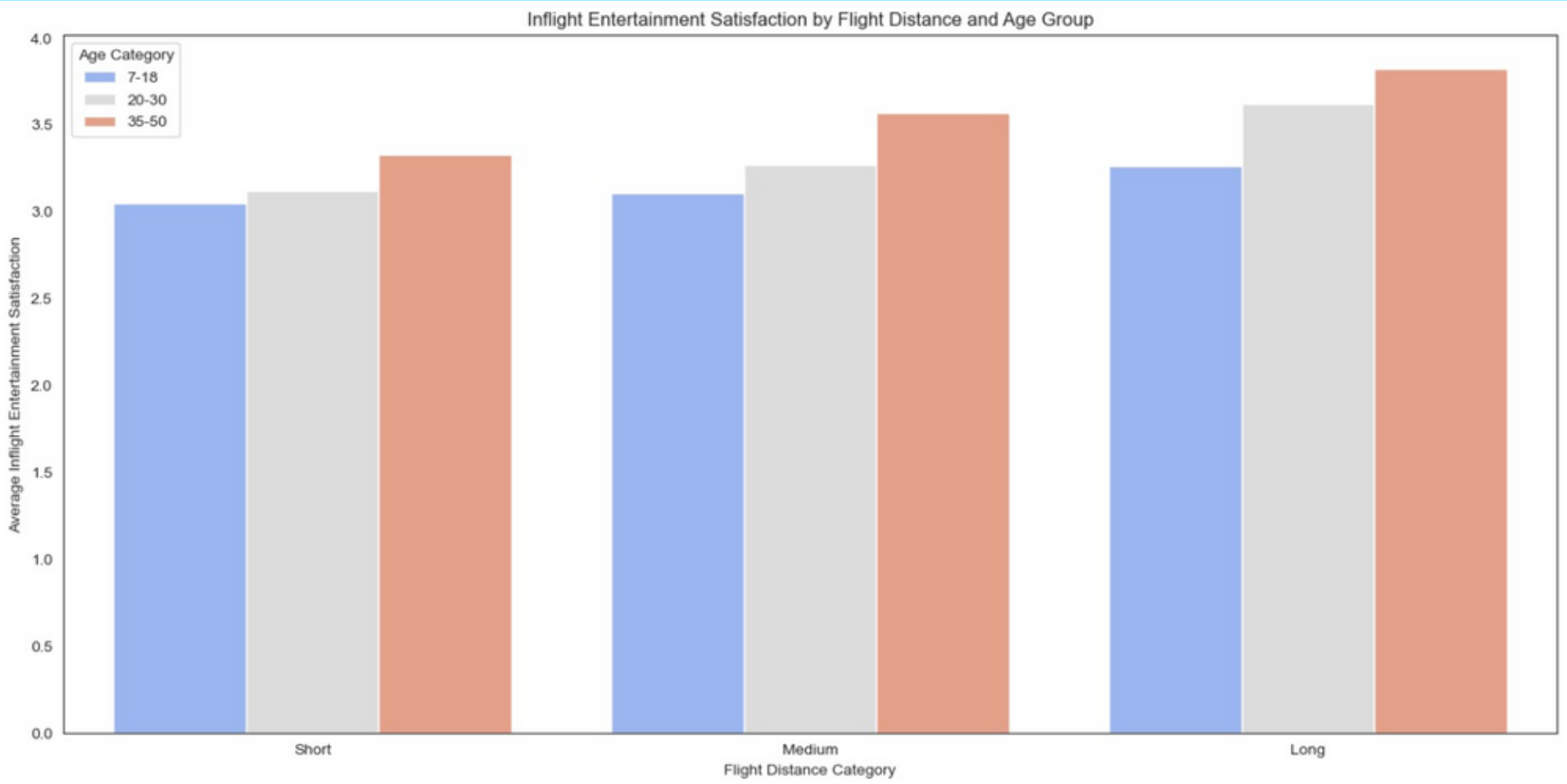
- Business Class Passengers: Average age range aligns with that of regular customers (30 to 50 years).

Insight 2:



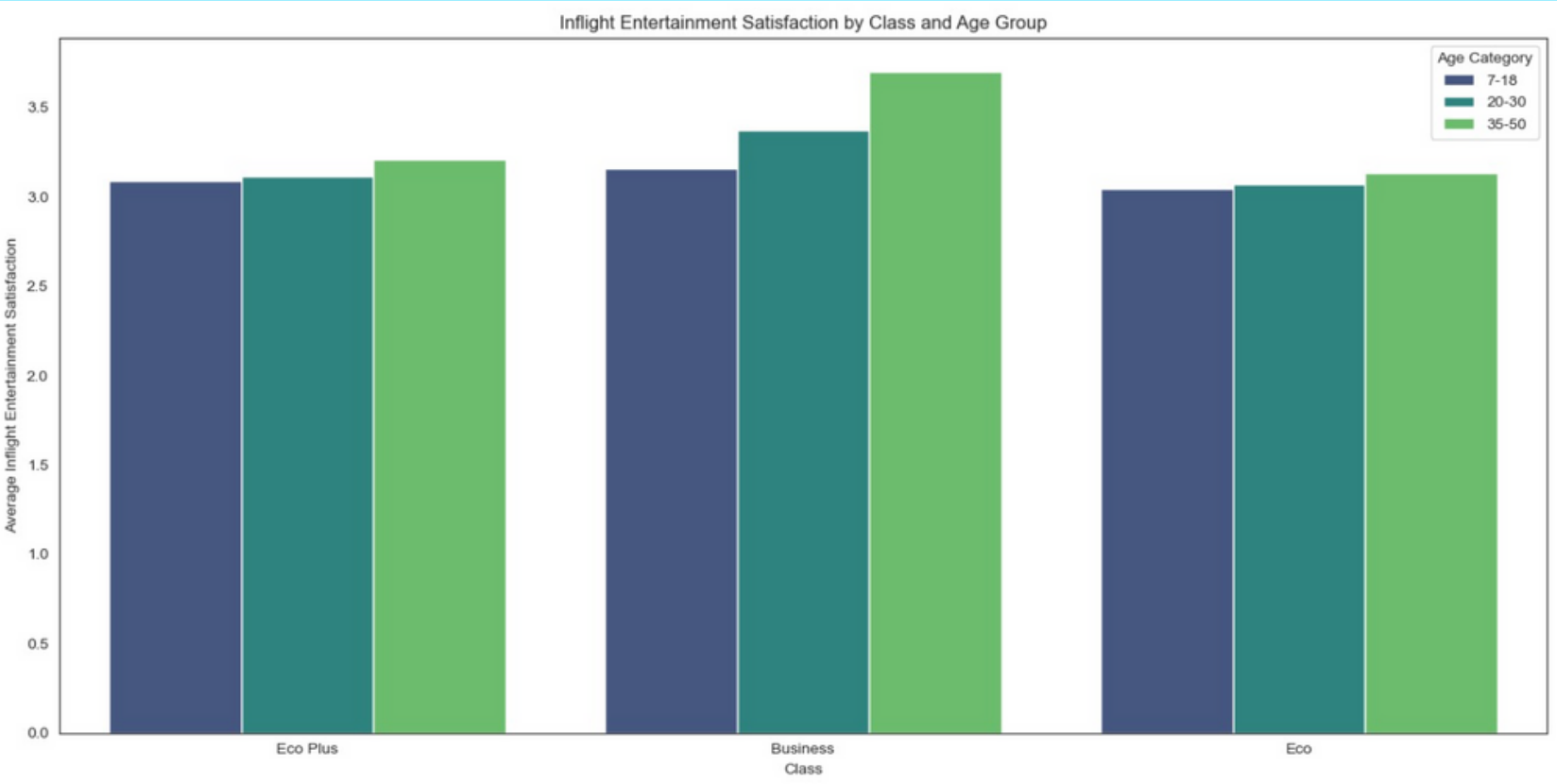
Flight Distance and Passenger Satisfaction:

- Longer Flights: Higher levels of satisfaction with in-flight entertainment.
- Observation: Satisfaction with these amenities increases with the distance traveled.



Inflight Entertainment Satisfaction:

- Ages 7-18: Consistently high across all distances.
- Adults : Increases with longer flights.



Satisfaction by Class:

- Ages 7-18: High in all classes.
- Adults: Prefer upper classes for better entertainment.



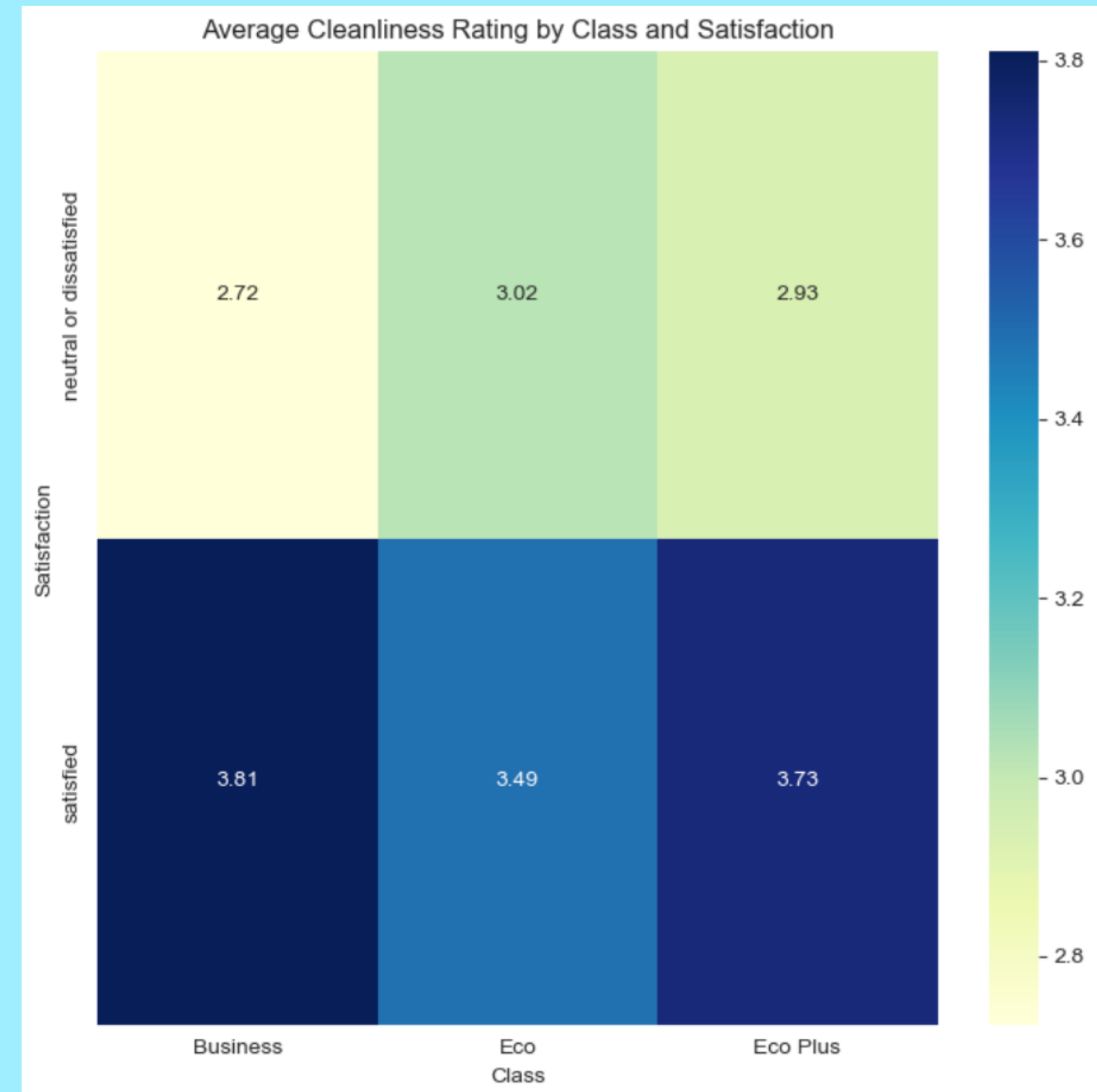
Insight 3:

Average Cleanliness Ratings and Passenger Satisfaction:

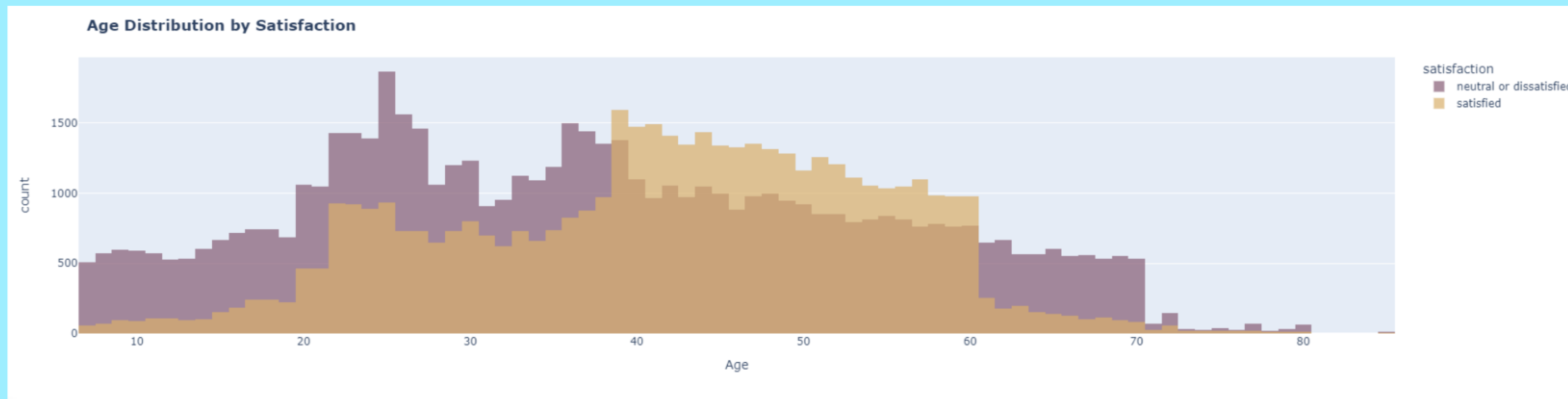
Clear Correlation: Higher satisfaction levels across all classes are positively linked with cleanliness.

Business Class Insights:

Highest Cleanliness Ratings: Satisfied passengers in Business Class rate cleanliness very highly, reflecting elevated standards and expectations in this class.

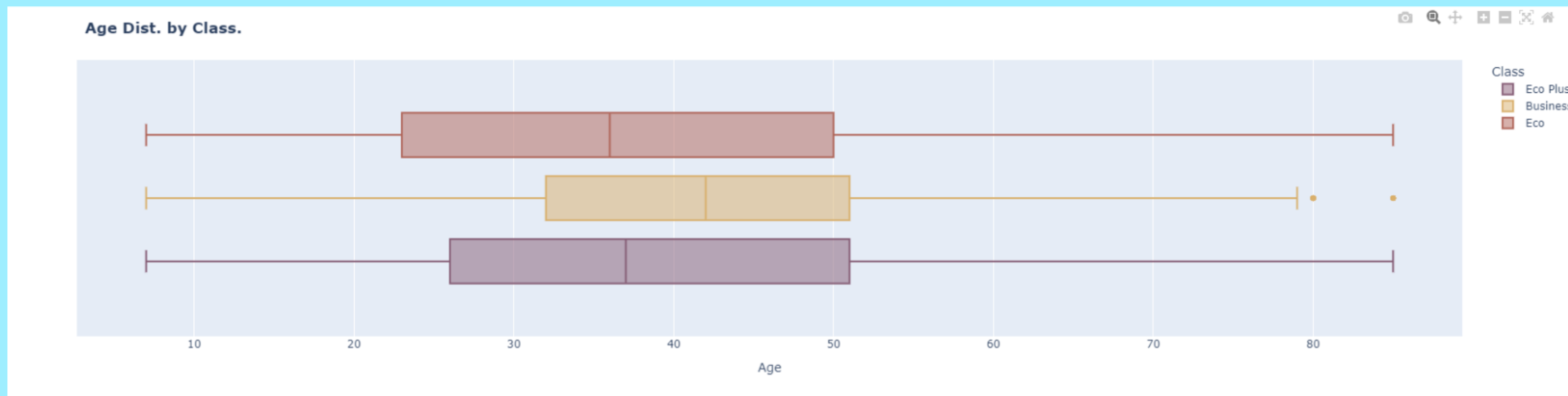


Insight 4:

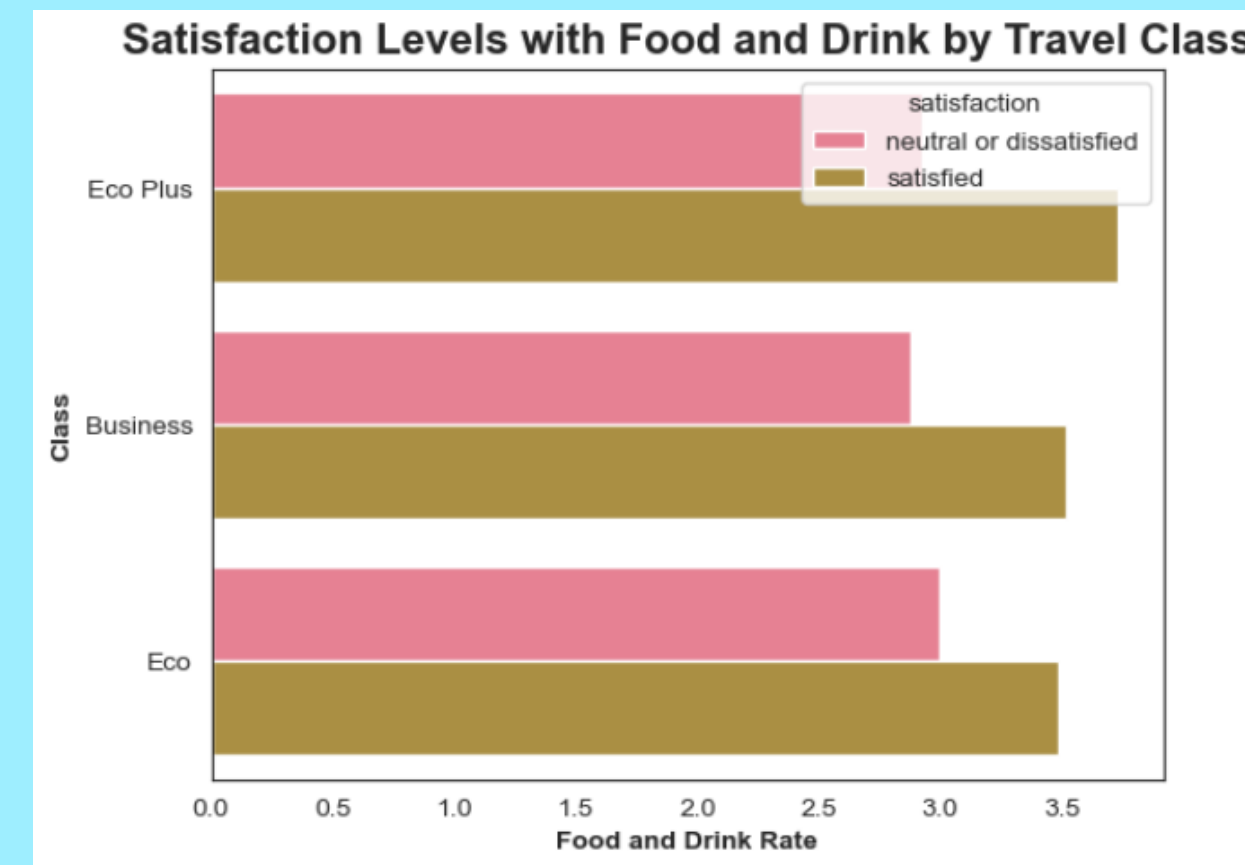
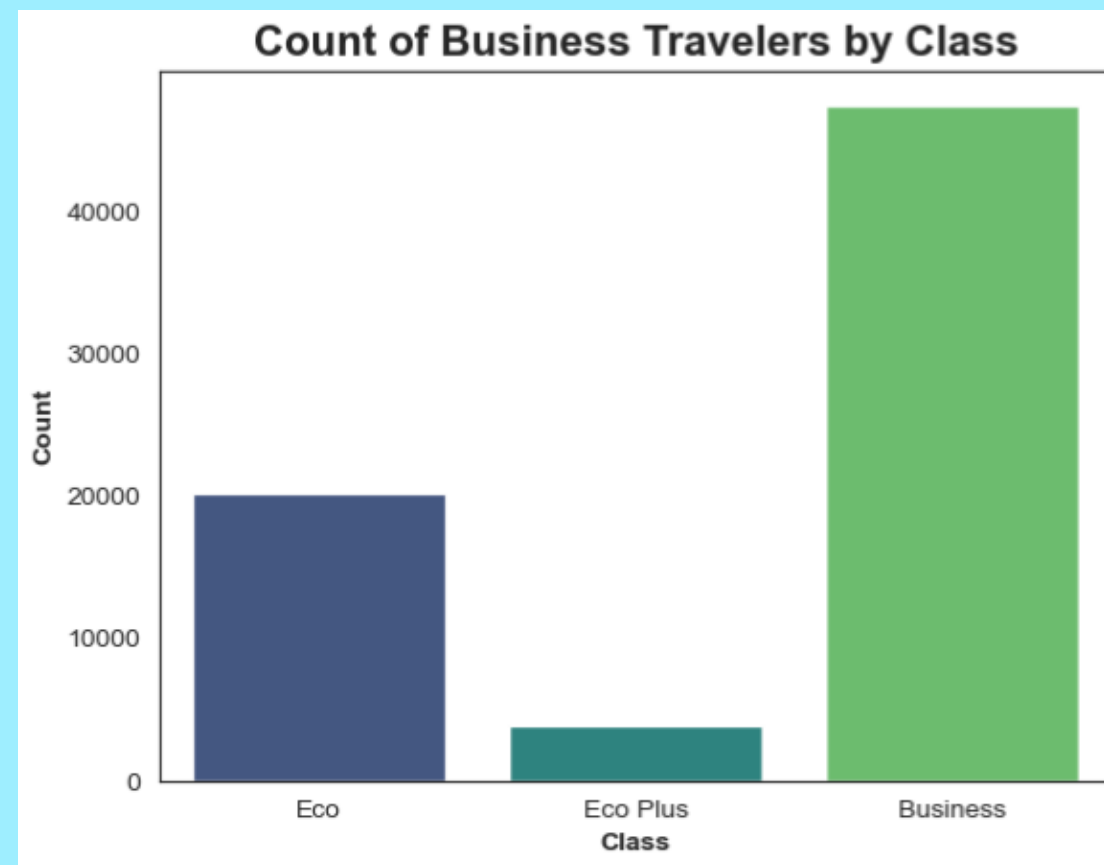
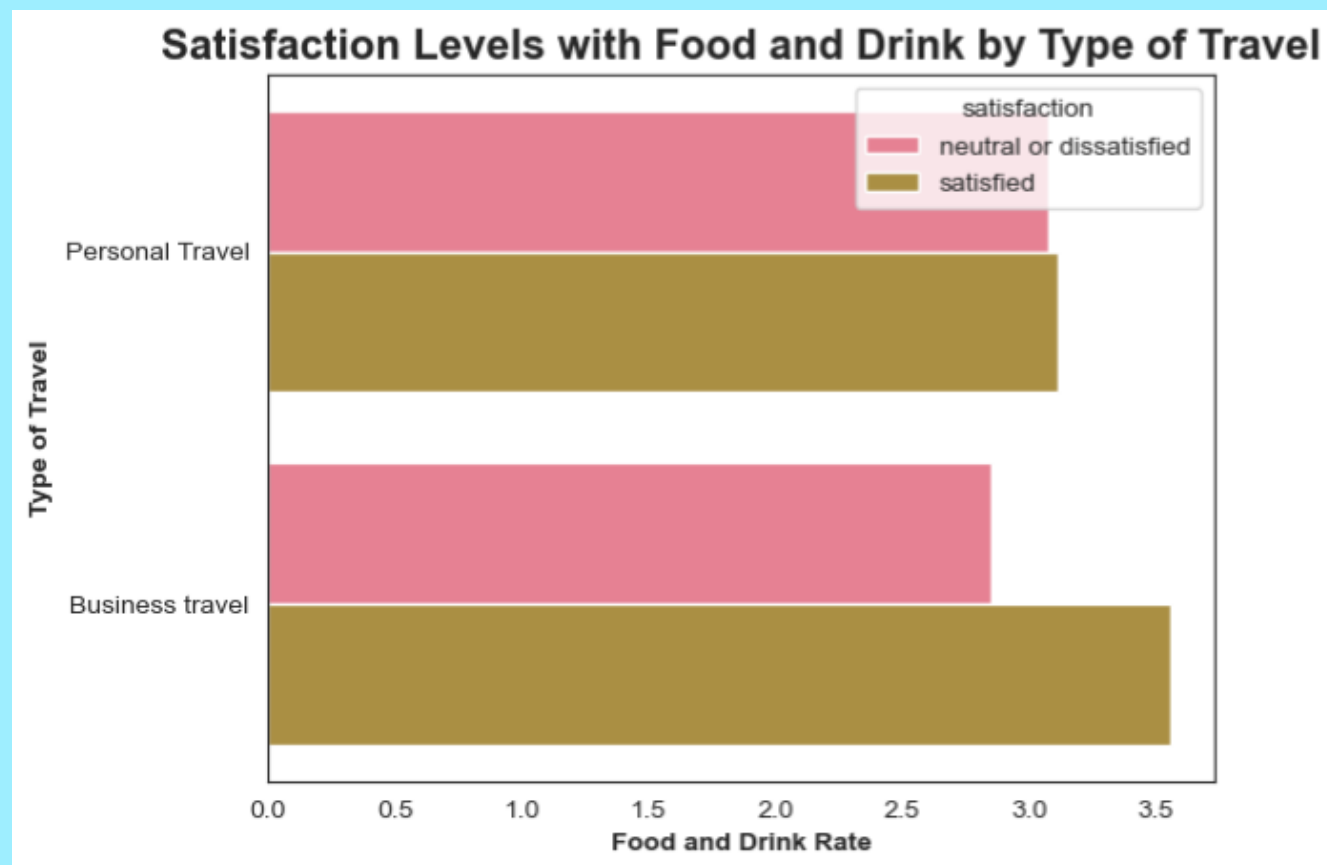


Age Range and Class Correlation:

- The age range of passengers typically satisfied with the airline's services corresponds closely with the age range of those who predominantly fly in Business Class. This similarity suggests that the specific needs and expectations of this age demographic are effectively met in Business Class, providing a possible explanation for their higher satisfaction levels.



Insight 5:



Personal vs. Business Travelers' Satisfaction with Food and Drink:

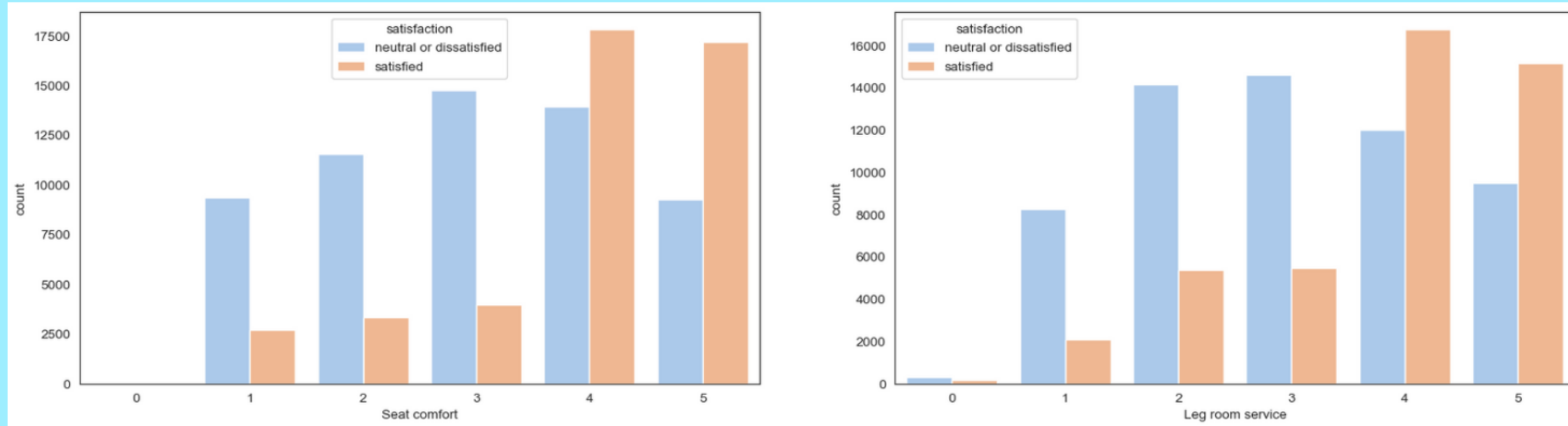
- In personal travel, satisfaction with food and drink is evenly distributed regardless of satisfaction level.
- In business travel, there's a higher satisfaction rate with food and drink among satisfied customers compared to dissatisfied customers.

Business Travelers' Preference:

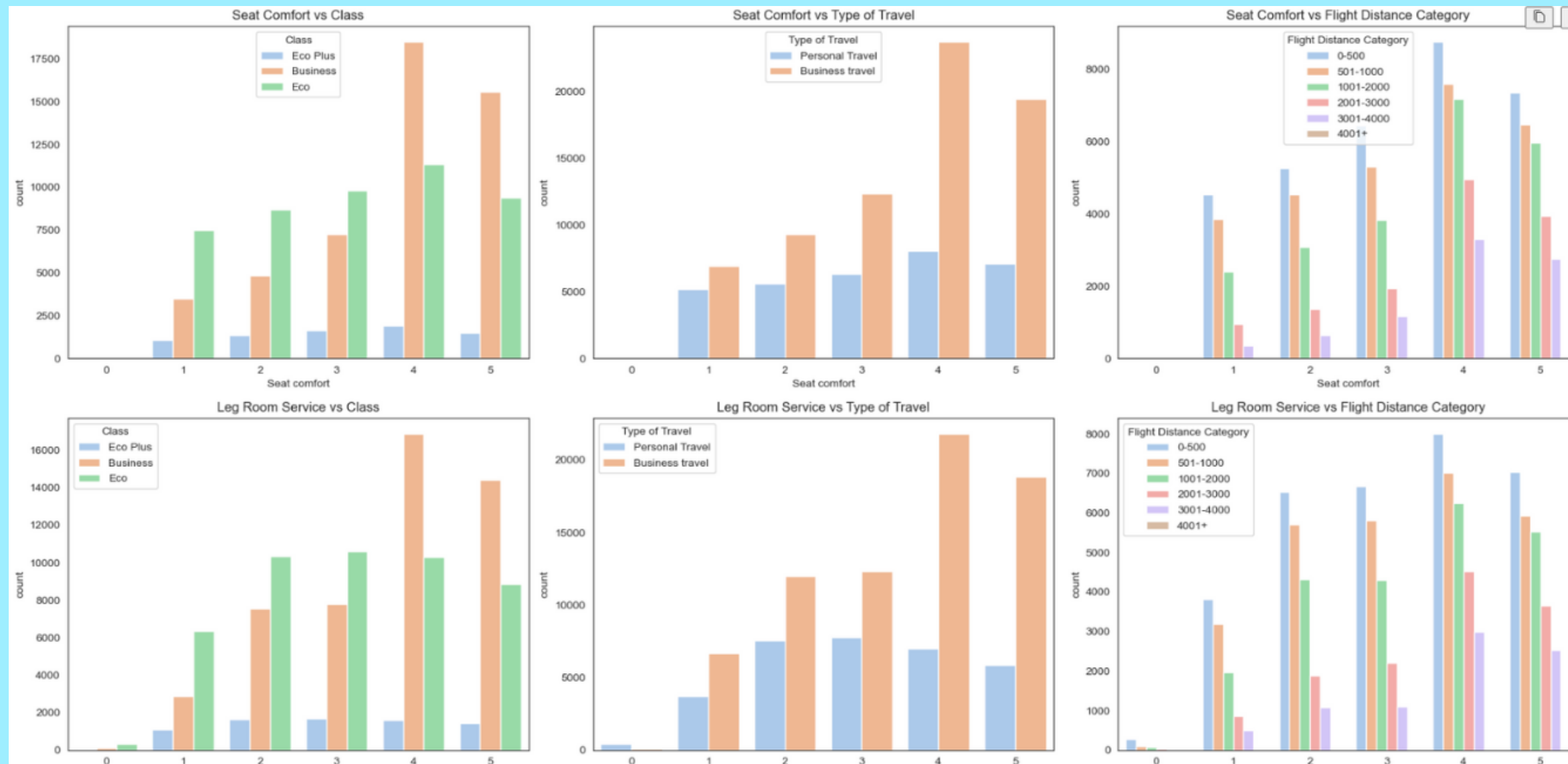
- A significant majority of business travelers fly in Business Class.

- The higher satisfaction rates for food and drink among business travelers can be linked to the fact that most travel in Business Class, where service quality is perceived to be higher.

Insight 6:



- Passengers who rated seat comfort and extra legroom highly, with 4 or 5 points out of 5, predominantly expressed satisfaction with their flight experience.



Influence of Travel Class, Type, and Distance on Seat Comfort and Legroom Satisfaction:

- Class of Travel:**
 - Business Class passengers report higher satisfaction with seat comfort and legroom.
- Type of Travel:**
 - Business travelers show a tendency to be more satisfied with these aspects compared to those traveling for personal reasons.
- Flight Distance:**
 - Passengers on longer flights are likely to experience greater satisfaction with seat comfort and legroom.

Insight 7:

```
1 # calculate dissatisfied_rate
2 pivot_satisfaction(df,"Ease of Online booking")
```

	Ease of Online booking	neutral or dissatisfied	satisfied	total	dissatisfied_rate
0	0	1507	2980	4487	33.585915
1	1	10935	6590	17525	62.396576
2	2	16720	7301	24021	69.605762
3	3	16912	7537	24449	69.172563
4	4	9180	10391	19571	46.906137
5	5	3625	10226	13851	26.171396

```
1 # calculate dissatisfied_rate for Ease of Online booking - business
2 pivot_satisfaction(Business_Travel,"Ease of Online booking")
```

	Ease of Online booking	neutral or dissatisfied	satisfied	total	dissatisfied_rate
0	0	389	2292	2681	14.509511
1	1	5580	6532	12112	46.070013
2	2	7730	7268	14998	51.540205
3	3	7755	7444	15199	51.023094
4	4	5288	9218	14506	36.453881
5	5	3167	8992	12159	26.046550

```
1 # calculate dissatisfied_rate for Ease of Online booking - personal
2 pivot_satisfaction(Personal_travel,"Ease of Online booking")
```

	Ease of Online booking	neutral or dissatisfied	satisfied	total	dissatisfied_rate
0	0	1118	688	1806	61.904762
1	1	5355	58	5413	98.928505
2	2	8990	33	9023	99.634268
3	3	9157	93	9250	98.994595
4	4	3892	1173	5065	76.841066
5	5	458	1234	1692	27.068558

Impact of Booking Experience on Overall Satisfaction:

- Among passengers rating ease of booking at 4-5 points, dissatisfaction rates are as low as 26%.

```
1 # calculate dissatisfied_rate
2 pivot_satisfaction(df,"Online boarding")
```

	Online boarding	neutral or dissatisfied	satisfied	total	dissatisfied_rate
0	0	1077	1351	2428	44.357496
1	1	9219	1473	10692	86.223345
2	2	15486	2019	17505	88.466153
3	3	18845	2959	21804	86.429096
4	4	11596	19166	30762	37.695859
5	5	2656	18057	20713	12.822865

```
1 # calculate dissatisfied_rate for Online boarding - business
2 pivot_satisfaction(Business_Travel,"Online boarding")
```

	Online boarding	neutral or dissatisfied	satisfied	total	dissatisfied_rate
0	0	227	865	1092	20.787546
1	1	4748	1377	6125	77.518367
2	2	8211	1895	10106	81.248763
3	3	10616	2733	13349	79.526556
4	4	5868	17942	23810	24.645107
5	5	239	16934	17173	1.391720

```
1 # calculate dissatisfied_rate for Online boarding - personal
2 pivot_satisfaction(Personal_travel,"Online boarding")
3
```

	Online boarding	neutral or dissatisfied	satisfied	total	dissatisfied_rate
0	0	850	486	1336	63.622754
1	1	4471	96	4567	97.897964
2	2	7275	124	7399	98.324098
3	3	8229	226	8455	97.327025
4	4	5728	1224	6952	82.393556
5	5	2417	1123	3540	68.276836

Correlation Between Online Boarding Scores and Passenger Satisfaction:

- Among passengers rating ease of booking at 4-5 points, dissatisfaction rates are as low as 13%.

Value Across Traveler Types:

- For business travelers, as the score increase to 5, the dissatisfaction rate fall to 1%.
- In contrast, we can observe that for personal travelers, the dissatisfaction rate remain high no matter the rate.

Insight 8:

```
1 # calculate dissatisfied_rate
2 pivot_satisfaction(df, 'Checkin service')
```

	Checkin service	neutral or dissatisfied	satisfied	total	dissatisfied_rate
0	0	1	0	1	100.000000
1	1	9806	3084	12890	76.074476
2	2	9640	3253	12893	74.769255
3	3	15694	12752	28446	55.171202
4	4	15692	13363	29055	54.007916
5	5	8046	12573	20619	39.022261

```
1 # calculate new dissatisfied_rate
2 pivot_satisfaction(Business_Travel, 'Checkin service')
```

	Checkin service	neutral or dissatisfied	satisfied	total	dissatisfied_rate
0	0	1	0	1	100.000000
1	1	6365	2707	9072	70.160935
2	2	6254	2874	9128	68.514461
3	3	7658	11812	19470	39.332306
4	4	7461	12447	19908	37.477396
5	5	2170	11906	14076	15.416311

```
1 # calculate new dissatisfied_rate
2 pivot_satisfaction(Personal_travel, 'Checkin service')
```

	Checkin service	neutral or dissatisfied	satisfied	total	dissatisfied_rate
0	1	3441	377	3818	90.125720
1	2	3386	379	3765	89.933599
2	3	8036	940	8976	89.527629
3	4	8231	916	9147	89.985788
4	5	5876	667	6543	89.805899

Check-In Service Impact on Overall Satisfaction:

- Check-in service satisfaction has a less pronounced effect on overall passenger satisfaction, with more than half indicating dissatisfaction even with a score of 4.
- Differential Value Among Travelers:
 - Business travelers seem to place more importance on check-in services, which may influence investment decisions based on the airline's target demographic.
 - Personal travelers don't really put importance into the check-in service, since rates from 0 to 5 show a level of dissatisfaction around 90%.

Conclusion

- ✦ Regular customers aged 30-50 show a distinct preference for Business Class, indicating the value of demographic-focused service enhancements to meet their expectations.
- ✦ Food and beverage quality and seating comfort are pivotal in determining passenger satisfaction, particularly for business travelers, highlighting the necessity for dedicated improvements in these areas.
- ✦ The significance of in-flight entertainment and legroom on long-haul flights is clear, with a notable demand for higher standards in Business Class, especially regarding cleanliness.
- ✦ A robust and user-friendly online booking system is integral to customer satisfaction, suggesting that investment in digital platforms could serve as a strategic tool to foster customer perception and loyalty.
- ✦ A segmented approach to service delivery and marketing is essential to cater to the diverse needs of various passenger groups, underlining the importance of enhancing key service elements to increase overall passenger satisfaction and loyalty.