Executive Summary

In response to growing concerns within Fly Fast Airlines Corporation's Board regarding potential challenges in customer satisfaction, a comprehensive survey was initiated under my leadership as the Chief Marketing Officer. The survey aimed to evaluate customer satisfaction and position Fly Fast Airlines relative to industry competitors, particularly considering media reports on airfare escalations.

Background: The imperative to assess customer satisfaction arose from recent Board deliberations emphasizing its paramount significance. Media reports highlighting industry-wide airfare escalations intensified concerns, prompting proactive engagement to conduct an exhaustive survey.

Problem and Research Questions: The primary problem addressed in this report is identifying factors influencing customer satisfaction with Fly Fast Airlines. Specific research questions include understanding customer demographics, travel patterns, and potential correlations with satisfaction levels.

Purpose of the Report: This report seeks to analyze survey findings to understand customer satisfaction levels and formulate strategic initiatives to enhance overall customer satisfaction for Fly Fast Airlines Corporation.

Scope and Limitations: The research focuses on analyzing survey data related to customer demographics, preferences, and satisfaction. Limitations include potential biases in self-reported data and a reliance on survey responses as the primary source of information.

Sources and Methods: Data analysis relies on survey responses collected from Fly Fast Airlines' clientele and competitors. Descriptive statistics, charts, and graphs are employed to present a comprehensive overview of customer characteristics, behaviors, and satisfaction levels.

Summary of Findings:

- On average, clients display a satisfaction rate of 3.37 out of 5.
- Clients take an average of 20.06 flights during the studied period.
- Most clients (95%) exhibit low price sensitivity (within the range of 1-2).
- Business travel constitutes the majority (61.14%) of Fly Fast Airlines' services.
- Clients aged 30-59 form the majority, with a notable absence of those aged 80+.
- Eco class dominates, with 81.16% of clients, while Business class exhibits the highest satisfaction rate (3.55 out of 5).

Recommendations:

- Incentivize Loyalty: Create discount plans and incentives for loyal clients, considering factors like longevity, the number of flights, and age range.
- Expand Offerings: Increase the range of offers for loyal clients to encourage repeat business.
- Points System: Implement a points system rewarding clients for loyalty, age, and number of loyalty cards to enhance customer retention.
- Target Business Travelers: Focus on business class enhancements, considering its significance and higher satisfaction rates.

- Improve Airport Experience: Enhance offerings and services at airports to increase client spending.

Purpose

The objective of this analysis is to determine some of the possible factors that influence customer satisfaction with our airline.

Background

In my capacity as the Chief Marketing Officer of Fly Fast Airlines Corporation, recent deliberations during our Board meeting underscored the paramount significance of customer satisfaction and the imperative to evaluate our positioning in relation to industry counterparts. A prevailing sentiment within the boardroom articulated apprehensions regarding potential challenges in customer satisfaction, conceivably intensified by recent media reports highlighting prevalent airfare escalations in the industry. In response to this perceived concern, I proactively initiated engagement with an agency to conduct an exhaustive survey encapsulating both our airline's clientele and that of our competitors.

Freshly acquired, the survey results present a comprehensive dataset elucidating diverse facets of customer interactions. Our ongoing efforts are centered on a scrupulous scrutiny of these survey responses to discern the sentiments articulated by the respondents. My particular commitment lies in comprehending the levels of satisfaction among our flyers, identifying specific customer segments expressing dissatisfaction, and elucidating any salient patterns or notable observations within their feedback. This exhaustive analysis is strategically devised to furnish a comprehensive overview of the prevailing landscape, facilitating the formulation of judicious initiatives and precise enhancements aimed at augmenting the overall customer satisfaction paradigm for Fly Fast Airlines Corporation.
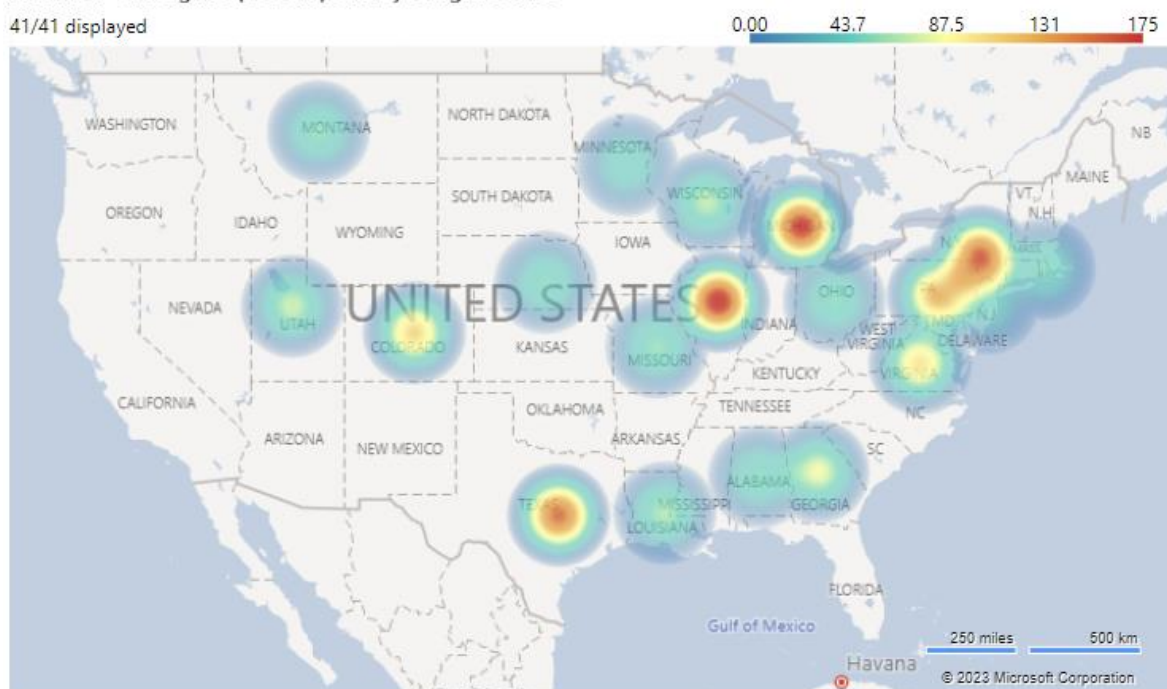
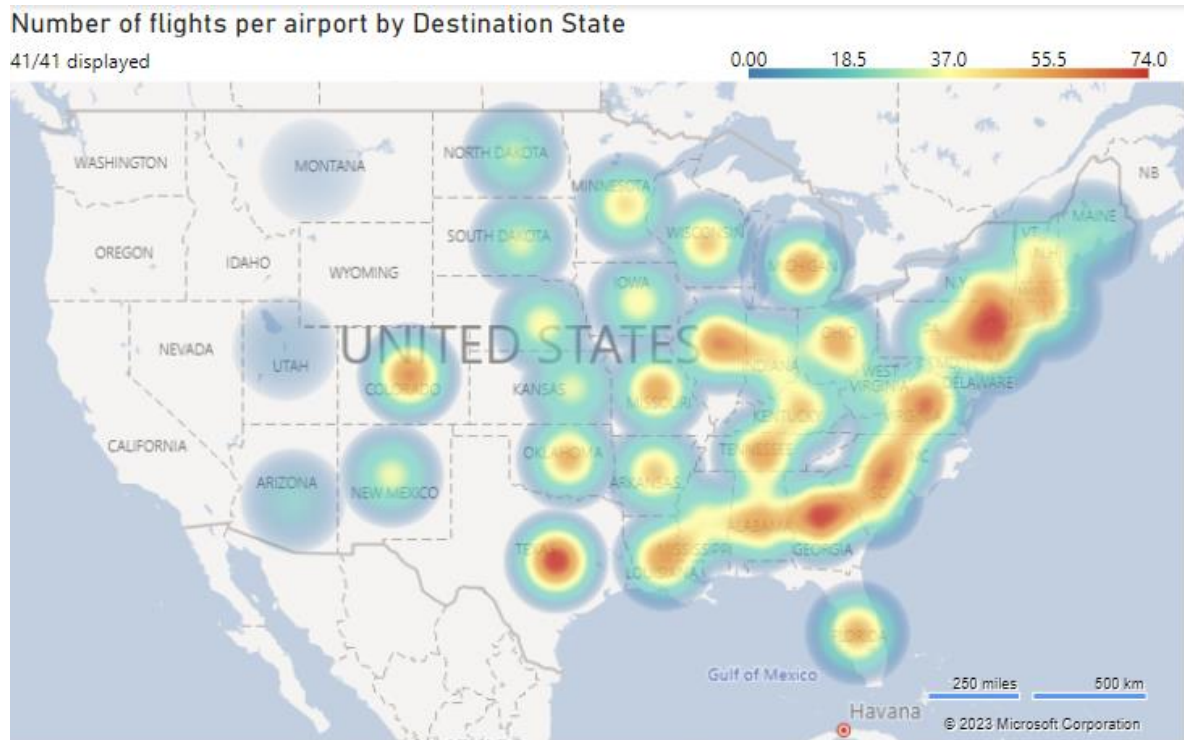# Discussion of Findings

Map of flight routes
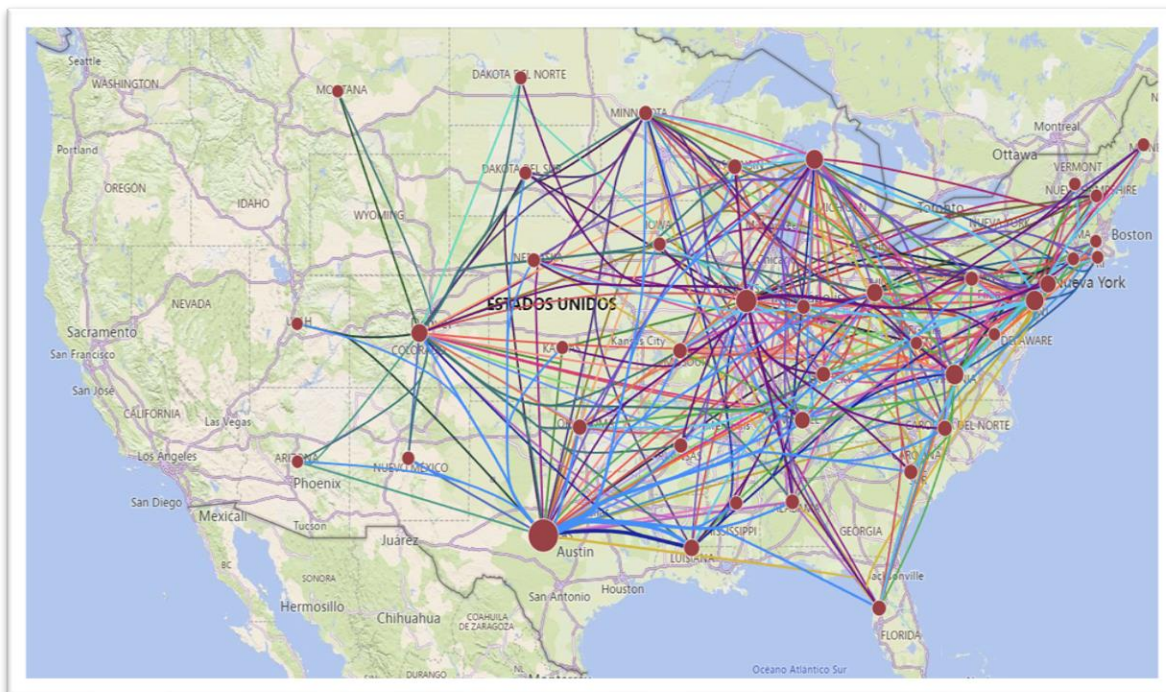
First, we analyzed the number of flights per airport by Origin State and destination state. For that we used a heat map to help us visualize easier the distribution over the geography of the U.S.

we analyzed the descriptive statistics of the numerical variables of the dataset to get a general overview about the current situation of customers that use our airline:

	n	mean	sd	median	trimmed	mad	min	max	range	skew	kurtosis	se
Satisfaction	10958	3.37	0.99	4.00	3.37	1.48	1.00	5.00	4.00	-0.30	-0.61	0.01
No of Flights p.a.	10958	20.06	14.47	17.00	18.75	13.34	0.00	100.00	100.00	0.82	0.42	0.14
% of Flight with other Airlines	10958	0.09	0.09	0.07	0.08	0.04	0.01	0.84	0.83	2.36	7.17	0.00
Shopping Amount at Airport	10958	26.41	52.51	0.00	13.48	0.00	0.00	879.00	879.00	3.32	17.60	0.50
Eating and Drinking at Airport	10958	68.79	54.01	60.00	62.18	44.48	0.00	750.00	750.00	2.27	12.49	0.52
Departure Delay in Minutes	10958	21.34	46.60	0.00	9.71	0.00	0.00	600.00	600.00	3.88	21.86	0.45
Arrival Delay in Minutes	10958	21.73	46.86	0.00	10.07	0.00	0.00	624.00	624.00	3.95	22.91	0.45
Flight time in minutes	10958	74.65	34.85	69.00	71.32	35.58	13.00	241.00	228.00	0.86	0.51	0.33
Flight time in hours	10958	1.24	0.58	1.15	1.19	0.59	0.22	4.02	3.80	0.86	0.51	0.01
Flight Distance	10958	478.82	261.62	430.00	454.73	281.69	73.00	1325.00	1252.00	0.71	-0.16	2.50

Table 1 Descriptive statistics for numerical variables

In average our clients have a satisfaction rate of 3.37 out of 5, each client took approximately 20.06 flights for the studied period. Something positive is that the % of clients that fly with us and use another airline is very low, around 0.09% of the sample. Each client spent in average around $26.41 at the airport and $68.79 on eating and drinking at the airport, which in total summarizes $95.2 spent at the airport in average for each client. Something surprising was to find that the departure and arrival delay times are very similar in average, 21:34 minutes for departure and 21:73 for arrival. The average flight time was 74:65 minutes or 1:24 hours, which is according to the territory and the distances that our flights cover all over the U.S geography that in average is 478.82 km.

After this primary analysis, we selected some of the most relevant categorical variables in order to know more about our clients and see how we could use that data to convert it into information that helped us understand the possible influencing factors that are affecting the satisfaction of our clients and also being able to provide possible strategies to overcome that.

Age range	Count	% of total
0-19	673	6.141632
20-29	1349	12.310641
30-39	2203	20.104034
40-49	2305	21.034860
50-59	1875	17.110787
60-69	1317	12.018617
70-79	783	7.145465
80+	453	4.133966

Distribution of Age Ranges
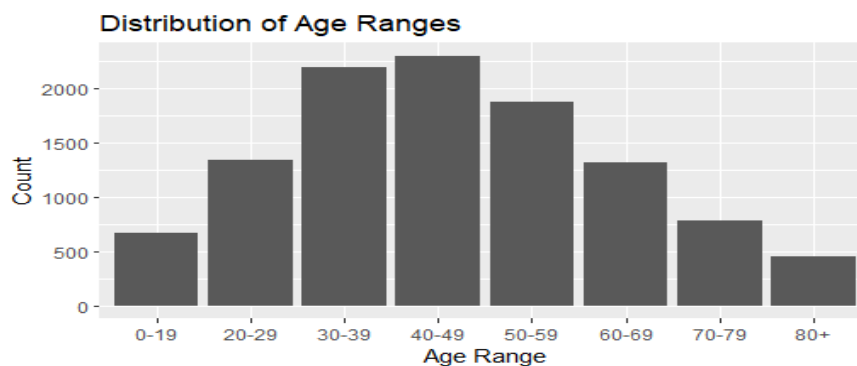
Gender	Count	% of total
Female	6190	56.48841
Male	4768	43.51159

Price sensitivity	Count	% of total
0	357	3.2578938
1	7300	66.6179960
2	3123	28.4997262
3	159	1.4509947
4	19	0.1733893

Type of travel	Count	% of total
Business travel	6700	61.142544
Mileage tickets	846	7.720387
Personal Travel	3412	31.137069

No of other loyalty cards	Count	% of total
0	5709	52.0989232
1	2149	19.6112429
2	1997	18.2241285
3	779	7.1089615
4	235	2.1445519

5	61	0.5566709
6	16	0.1460120
7	7	0.0638803
8	5	0.0456288

Class	Count	% of total
Business	891	8.131046
Eco	8893	81.155320
Eco Plus	1174	10.713634

Flight Cancelled	Count	% of total
No	10958	100

Arrival Delay greater 5 Mins	Count	% of total
no	6652	60.70451
yes	4306	39.29549

After checking the descriptive statistics for the selected categorical variables, we found that the gruesome of our clients lies between the range of 30 to 59 years, but still the other ranges of age have an important participation over the total of clients that fly with us. Is important to note that not many older people 80+ years of age flies with us, which might be caused because most of our clients fly on Eco class, which is the one with lower fares and thus offers less comfort in terms of seating space, food, and entertainment which might be a deterrent to fly with us for older populations. The chart below shows the Age range segmented by Class of flight.
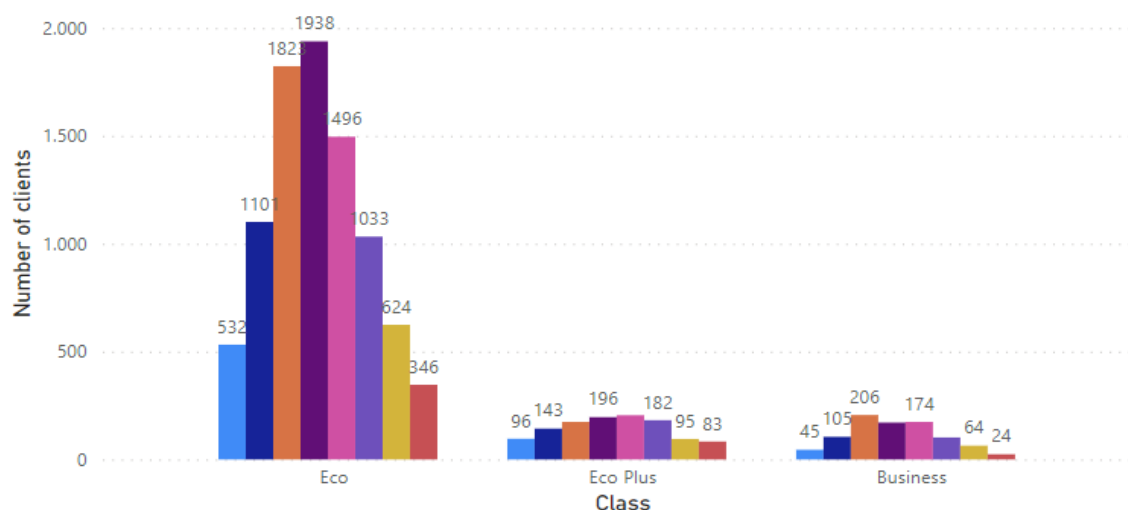

In terms of Gender, the distribution of clients that fly with us is dominated by women, where 56.48% of our clients are females and 43.51 are males. In terms of price sensitivity, we observed that fortunately for us, our clients have a low-price sensitivity where approximately 95% has a lie within the range of 1-2 which means that a change on our fares won´t affect drastically their decision to fly with us. This is confirmed by seeing the average price sensitivity 1.29.

By examining the type of travel our clients take we see that 61.14% use our services for business, 7.72% using their miles and 31.13% for personal travels. Our clients rely on our services because as we can see in the next chart, that the clients that experienced arrival delays of more than 5 minutes are always lower that those who experienced the opposite.

Arrival Delay greater 5 Mins by Flight Distance
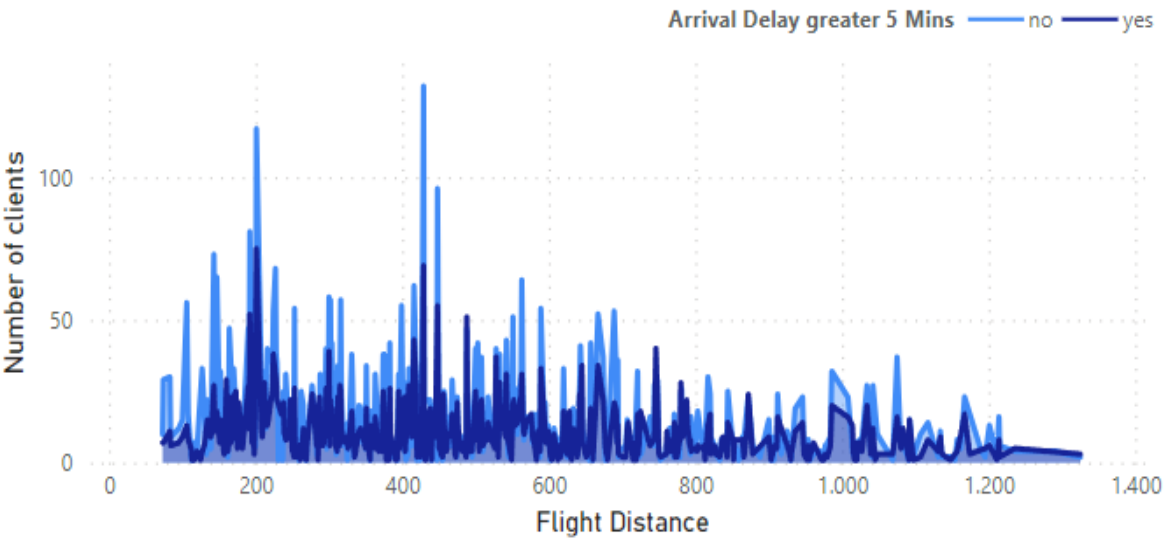
The trend on the arrival delays greater than 5 minutes is even more noticeable for tips than have a longer distance in kms.

In terms of the clients that have loyalty cards with other airlines and the number of cards for client we can see that more than half of our clients don´t have any card with another airline. That can be an indication of satisfaction with our services but of course it means too that the other half have at least one card with another airline and there´s an opportunity of improvement.

Number of other loyalty cards
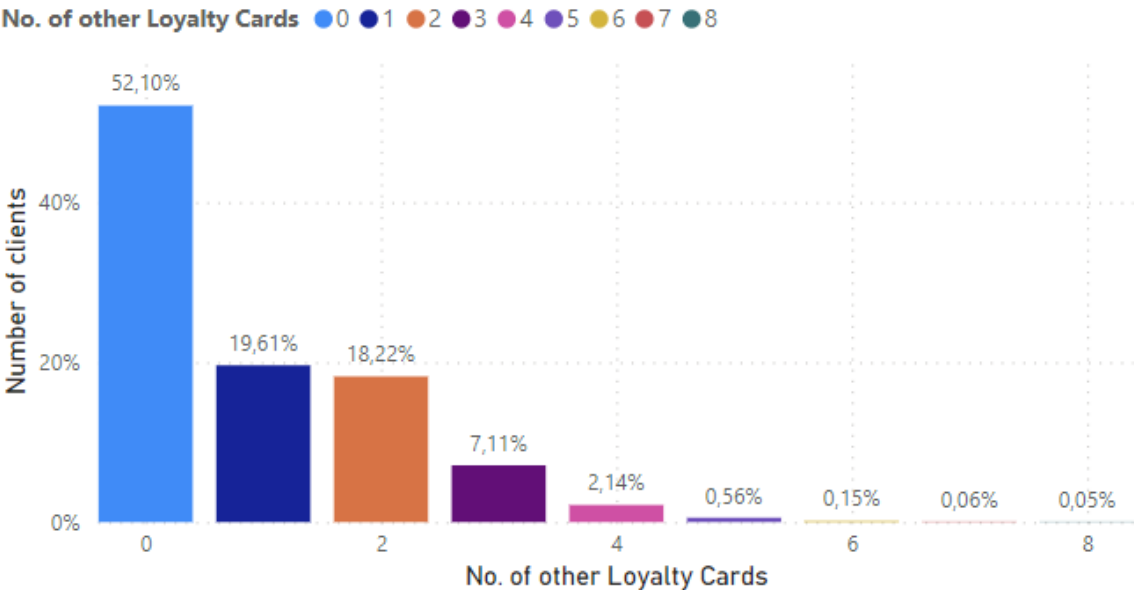
Finally, we evaluated the client satisfaction with our airline taking into account variables like age range and average number of flights.

Average % of Flights with other Airlines & average Satisfaction by Class & Age Range
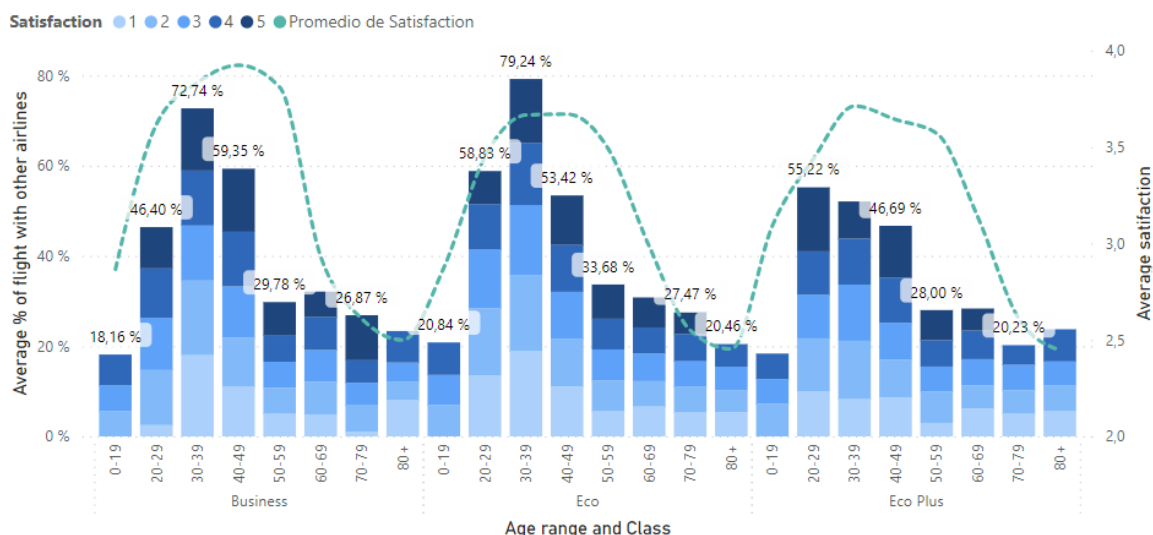
From this chart we observed that the clients from 30 – 39 years are the ones that in average fly more with another airlines, and those who travel less with other airlines are those from 0 – 19 years. This char also suggests that as we stated previously, older people feel less satisfied with our airline in comparison to those in the middle age range. This chart provides another indication that we should focus on the business class, since they represent the biggest number of clients that fly with us and have the highest satisfaction rate among the other two classes with 3,55% out of 5 in average, followed by eco with 3.36% and eco plus 3.32%.

Airline Status	Business	Eco	Eco Plus	Total
Silver	10,79 %	10,89 %	8,15 %	**10,62 %**
Gold	12,58 %	10,48 %	8,02 %	**10,45 %**
Platinum	12,72 %	9,86 %	4,47 %	**9,92 %**
Blue	8,25 %	9,06 %	7,53 %	**8,82 %**
Total	**9,45 %**	**9,58 %**	**7,64 %**	**9,36 %**

On this table we can see more clearly the percentages of clients that fly with other airlines too divided by class and airline status.

Airline Status	Business	Eco	Eco Plus	Total
Silver	4,11	3,93	3,91	**3,95**
Gold	3,87	3,78	3,58	**3,77**
Platinum	3,72	3,64	3,94	**3,67**
Blue	3,30	3,12	3,14	**3,13**
Total	**3,55**	**3,36**	**3,32**	**3,37**

On this one we can see the same categories (Class and Airline status) but representing the satisfaction rate with our airline.

Conclusions and Recommendations

After the analysis process we could see that the clients that feel more satisfied with our services are those belonging to the eco class. We observed that most of the trips had a business motivation, by looking at the type of travel that our clients usually take. From that we can conclude that when it comes to business trips, most people will choose the economic fare, and that makes sense, since the comfort is not a big requirement for someone who is travelling alone most of the time and also doesn´t have to take very long trips.

That´s why if we want to increase the general satisfaction rate of our clients with the services we offer we should create discount plans and increase the range of offers for those clients that remain loyal to us, since more than half of our clients don't have another loyalty card with our competitors. By creating a system of points that gives our clients more points based on the time they have with us, the number of loyalty cards and the age range, we could create incentives for people to travel more with us and also increase the spending at the airport, since we already offer small delay times and also more than 95% of our clients are not strongly price sensitive, which may mean that they enjoy our services and are ok with the fares but just need more reasons to travel more with us and enjoy more their trips.