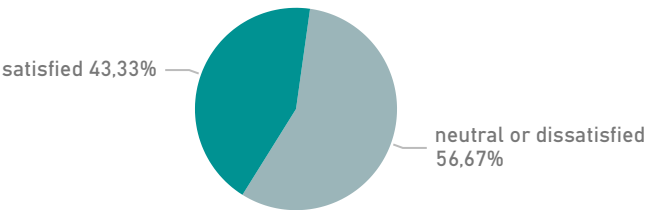


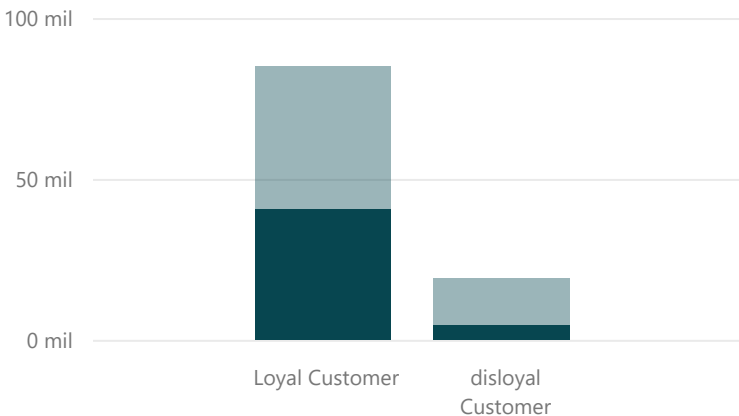
Perfil del viajero



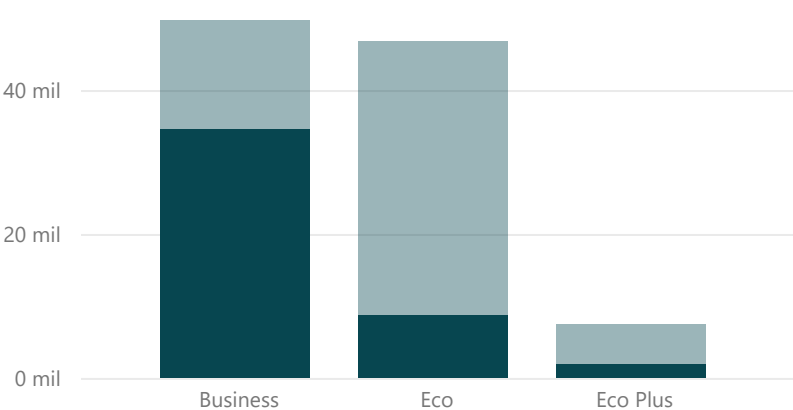
satisfaction



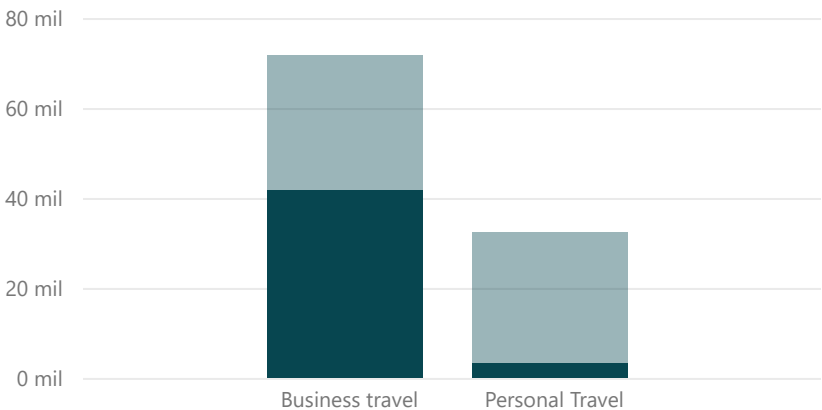
Customer Type



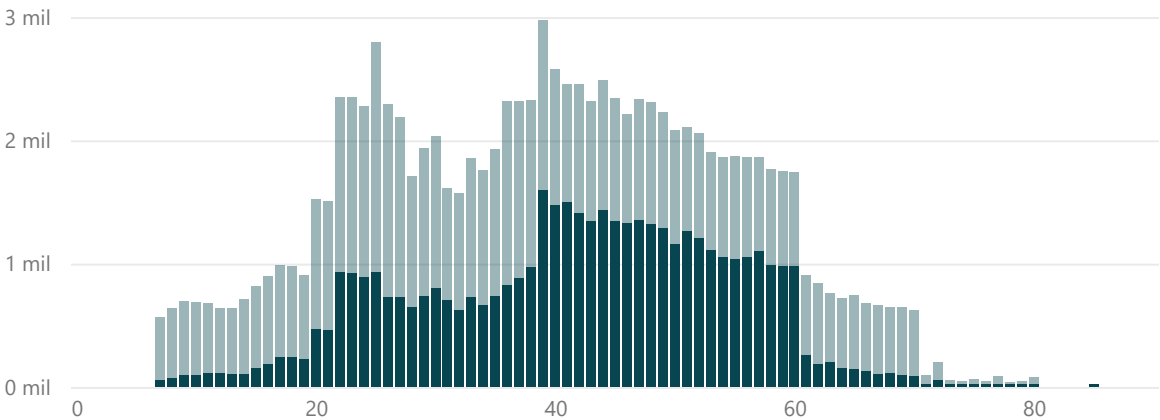
Class



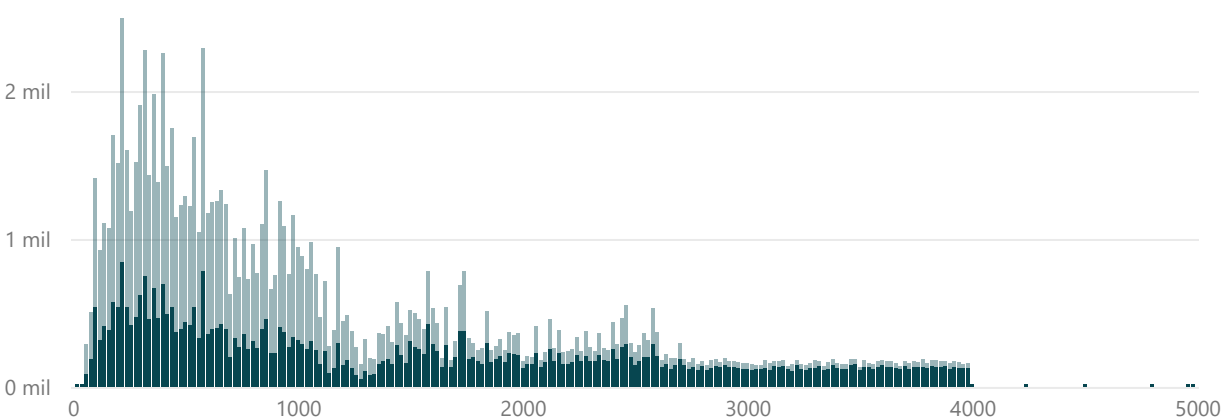
Type of Travel



Age



Flight Distance



Conclusiones sobre el perfil del viajero

Elementos influyentes clave Segmentos principales

Qué influye en satisfaction para ser satisfied ?



Cuando...

...la probabilidad de que satisfaction sea satisfied se incrementa por

Type of Travel es Business travel

5.73x

Class es Business

3.51x

Customer Type es Loyal Customer

1.89x

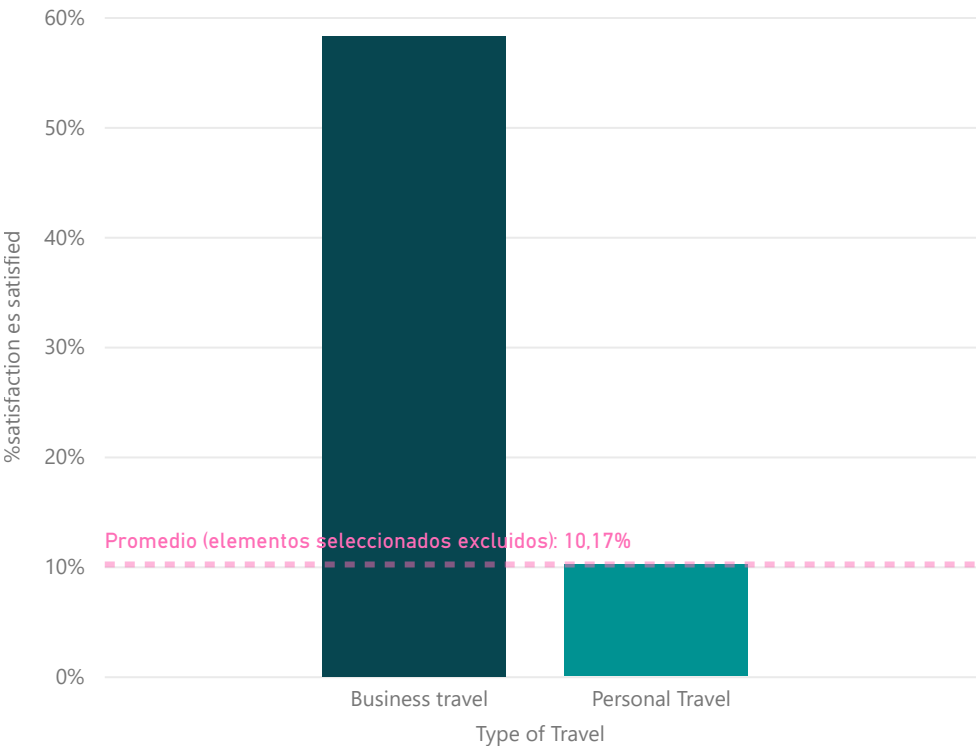
Suma de Age es 39 - 60

1.83x

Suma de Age es 37 - 39

1.10x

← De media, es más probable que satisfaction sea satisfied cuando Type of Travel es Business travel que de lo contrario.



☐ Mostrar solo los valores que son influyentes

Importancia de las características del modelo

Type of Travel

Todas

Inflight wifi service

Todas

Customer Type

Todas

Baggage handling

Todas

Online boarding

Todas

Inflight service

Todas

Seat comfort

Todas

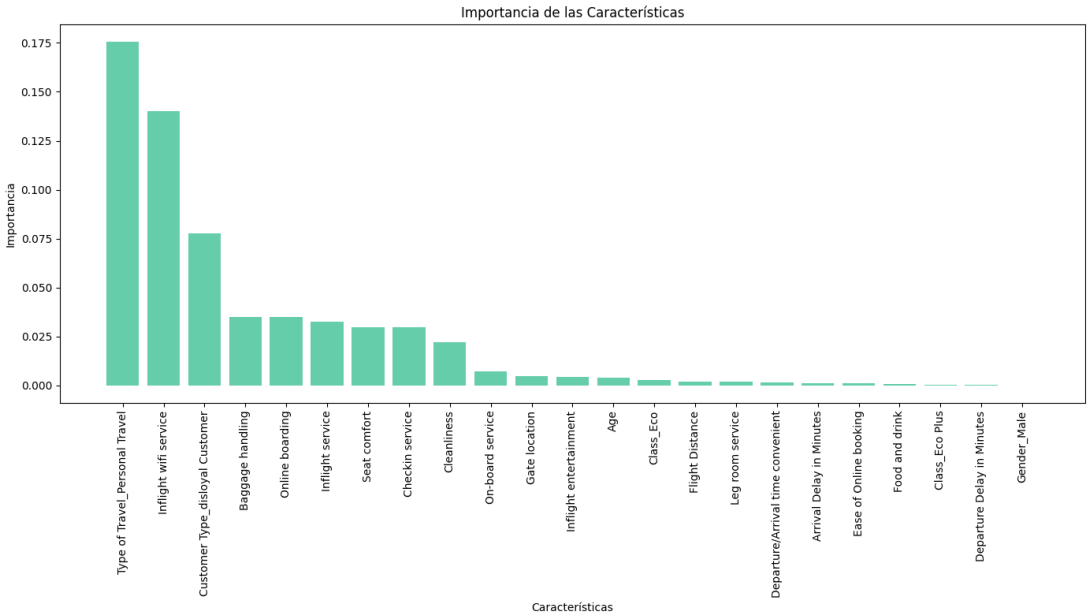
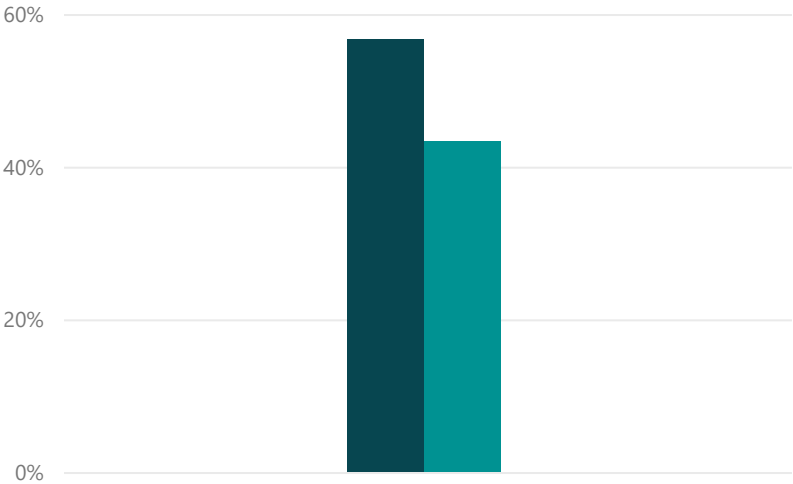
Checkin service

Todas

Weight	Feature
0.1757 ± 0.0022	Type of Travel_Personal Travel
0.1400 ± 0.0033	Inflight wifi service
0.0776 ± 0.0034	Customer Type_disloyal Customer
0.0350 ± 0.0019	Baggage handling
0.0349 ± 0.0021	Online boarding
0.0328 ± 0.0026	Inflight service
0.0299 ± 0.0024	Seat comfort
0.0296 ± 0.0016	Checkin service
0.0221 ± 0.0012	Cleanliness
0.0074 ± 0.0009	On-board service
0.0047 ± 0.0009	Gate location
0.0045 ± 0.0009	Inflight entertainment
0.0041 ± 0.0014	Age
0.0029 ± 0.0011	Class_Eco
0.0021 ± 0.0009	Flight Distance
0.0019 ± 0.0008	Leg room service
0.0015 ± 0.0005	Departure/Arrival time convenient
0.0013 ± 0.0004	Arrival Delay in Minutes
0.0011 ± 0.0005	Ease of Online booking
0.0006 ± 0.0005	Food and drink
0.0005 ± 0.0004	Class_Eco Plus
0.0004 ± 0.0005	Departure Delay in Minutes
-0.0001 ± 0.0002	Gender_Male

satisfaction

satisfaction ● neutral or dissatisfied ● satisfied



Conclusiones sobre las características

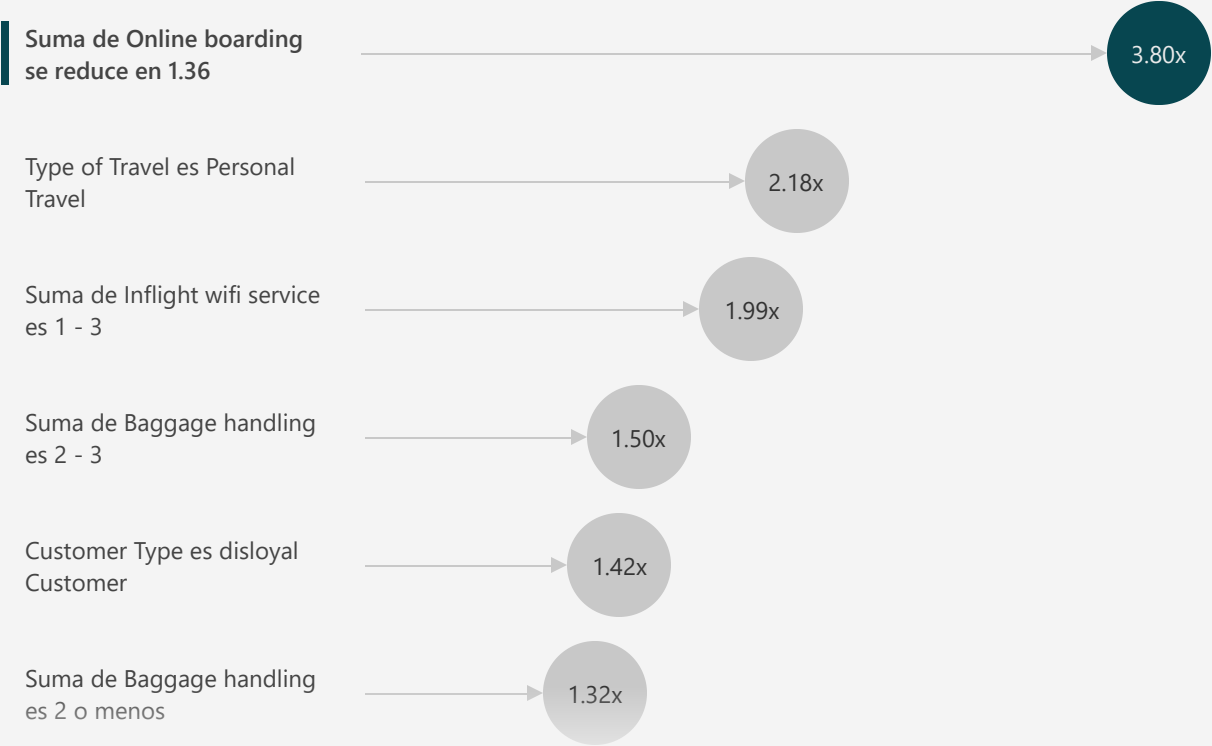
Elementos influyentes clave Segmentos principales

Qué influye en satisfaction para ser ?



Cuando...

...la probabilidad de que satisfaction sea neutral or dissatisfied se incrementa por



← De media, cuando Suma de Online boarding se reduce, la probabilidad de que satisfaction sea neutral or dissatisfied aumenta.



Informe de rendimiento del modelo

- **Modelo elegido:** LGBMClassifier

- **Métricas:**

- Accuracy: 0.96

-

- Precision: 0.97

-

- Recall: 0.94

- F1 Score: 0.96

- Curva ROC: 0.99

- Matriz de Confusión: [[46271 895][2161 33796]]

- **Mejor resultado ('binary_logloss'):** 0.9655354975603101

- **Mejores parámetros:**

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Parámetros: {'lambda_l1': 4.633128525514102,  
             'lambda_l2': 0.29043905214501337,  
             'learning_rate': 0.005783392827275526,  
             'num_leaves': 69,  
             'feature_fraction': 0.8359200076066935,  
             'bagging_fraction': 0.9119202060331211,  
             'bagging_freq': 1,  
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             'n_estimators': 10801,  
             'early_stopping_round': 200}
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