

Airline Passenger Satisfaction

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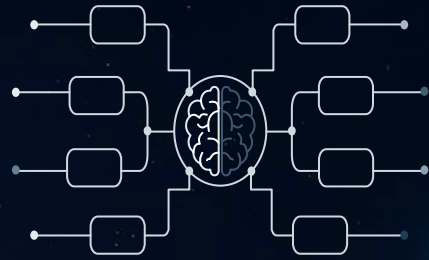
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interpret and
share the result



Business Understanding?

the business problem focuses on understanding and improving customer satisfaction across various flight experiences, helping the airline enhance customer retention

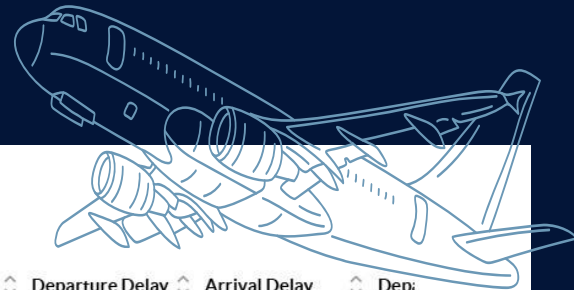
Dataset
kaggle



130,000 Record

With 24 Of Fields

Data Preview



Airline Passenger Satisfaction

ID	Gender	Age	Customer Type	Type of Travel	Class	Flight Distance	Departure Delay	Arrival Delay	Dep:
1	Male	48	First-time	Business	Business	821	2	5	3
2	Female	35	Returning	Business	Business	821	26	39	2
3	Male	41	Returning	Business	Business	853	0	0	4
4	Male	50	Returning	Business	Business	1905	0	0	2
5	Female	49	Returning	Business	Business	3470	0	1	3
6	Male	43	Returning	Business	Business	3788	0	0	4
7	Male	43	Returning	Business	Business	1963	0	0	3
8	Female	60	Returning	Business	Business	853	0	3	3
9	Male	50	Returning	Business	Business	2607	0	0	1
10	Female	38	Returning	Business	Business	2822	13	0	2

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Contents of Data



Gender	Gender of the passengers (Female, Male)
Customer Type	The customer type (Returning, First-time)
Age	The actual age of the passengers
Type of Travel	Purpose of the flight of the passengers (Personal Travel, Business Travel)
Class	Travel class in the plane of the passengers (Business, Eco, Eco Plus)
Flight distance	The flight distance of this journey
Inflight wi-fi service	Satisfaction level of the inflight wi-fi service (0:Not Applicable;1-5)



Contents of Data



Departure/Arrival time convenient	Satisfaction level of Departure/Arrival time convenient
Ease of Online booking	Satisfaction level of online booking
Gate location	Satisfaction level of Gate location
Food and drink	Satisfaction level of Food and drink
Seat comfort	Satisfaction level of Seat comfort
Inflight entertainment	Satisfaction level of inflight entertainment
On-board service	Satisfaction level of On-board service
Leg room service	Satisfaction level of Leg room service



Contents of Data




Baggage handling	Satisfaction level of baggage handling
Check-in service	Satisfaction level of Check-in service
Inflight service	Satisfaction level of inflight service
Cleanliness	Satisfaction level of Cleanliness
Departure Delay in Minutes	Minutes delayed when departure
Arrival Delay in Minutes	Minutes delayed when Arrival
Satisfaction	Airline satisfaction level(Satisfaction, neutral or dissatisfaction)



What is the average customer age by customer type (First-time vs. Returning)?



Average Age	
First-time	=IF(W2="First-time", AVERAGEIFS(C:C, D:D, "First-time"),
Returning	AVERAGEIFS(C:C, D:D, "Returning"))



How many trips for each type of travel (Business or Personal)?



31%

Personal


total flights are
designated as
Personal trips



69%

Business

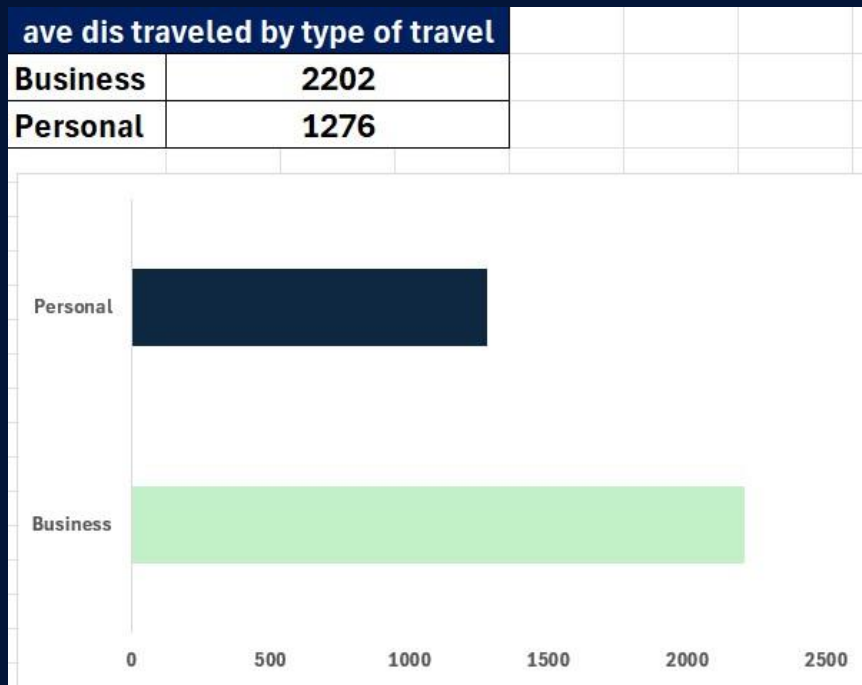
total flights are
designated as
business trips





What is the average flight distance for each type of travel (Business vs. Personal)?

Helps understand if Business or Personal travellers tend to have longer flights

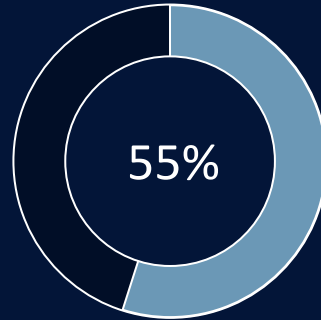


ave dis traveled by type of travel	
Business	=AVERAGEIFS(G:G, E:E, "Business")
Personal	AVERAGEIFS(average_range, criteria_range1, criteria1, [criteria_range2, criteria2], ...)



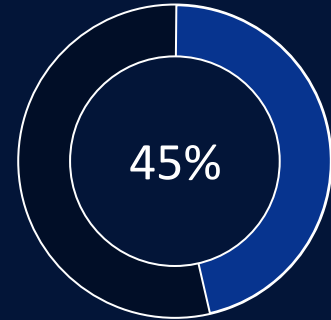


What percentage of customers choose economy class compared to business?



Bussiness

The Percentage of
Bussiness Class



Economy

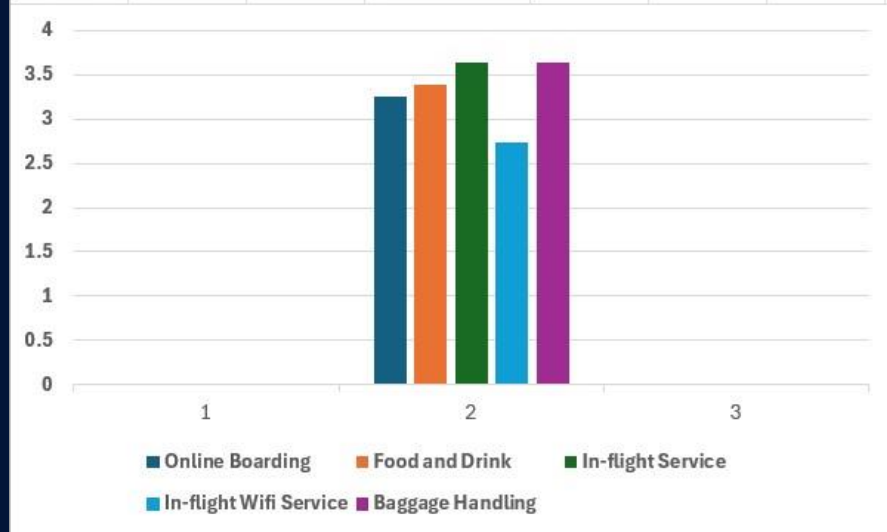
The Percentage of
Economy Class



What is the average rating for each service category?

to identify which services have higher or lower average ratings

average rating for each service category				
Online Boarding	3			
Food and Drink	3			
In-flight Service	4			
In-flight Wifi Service	3			
Baggage Handling	4			



Average rating for each service category	
Online Boarding	3
Food and Drink	3
In-flight Service	=AVERAGE(R:R)
In-flight Wifi Service	AVERAGE(number1, [number2
Baggage Handling	4



Average rating for ease of online booking by travel class?

Avg rating of online booking							
Business		3					
Economy		3					

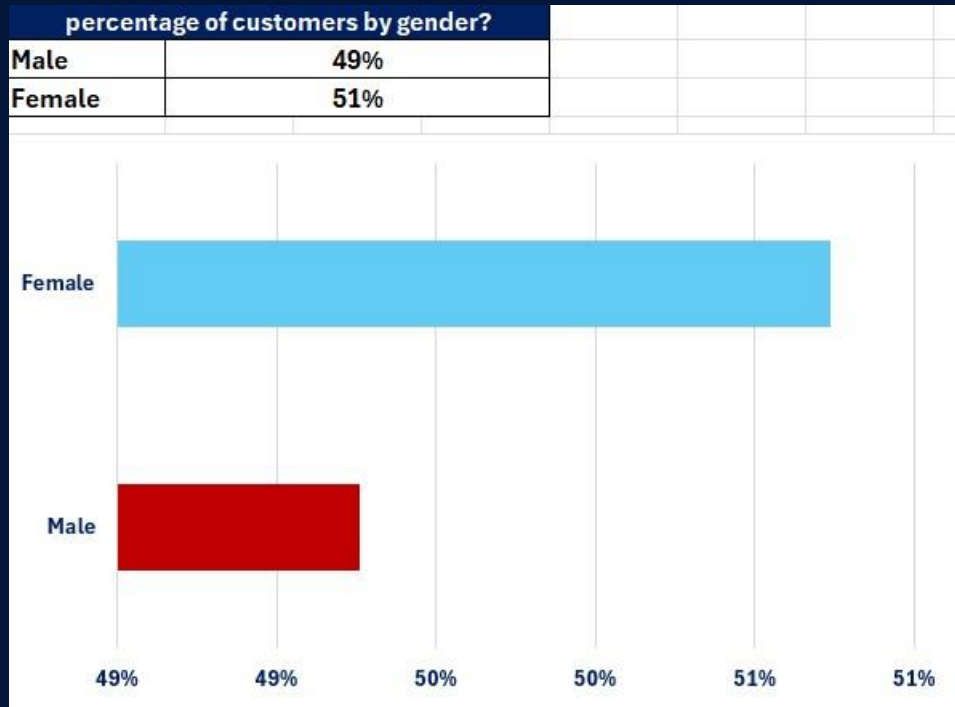
Average rating for ease of online booking by travel class?



Avg rating of online booking	
Business	3
Economy	=AVERAGEIFS(I:I, F:F, "Economy")



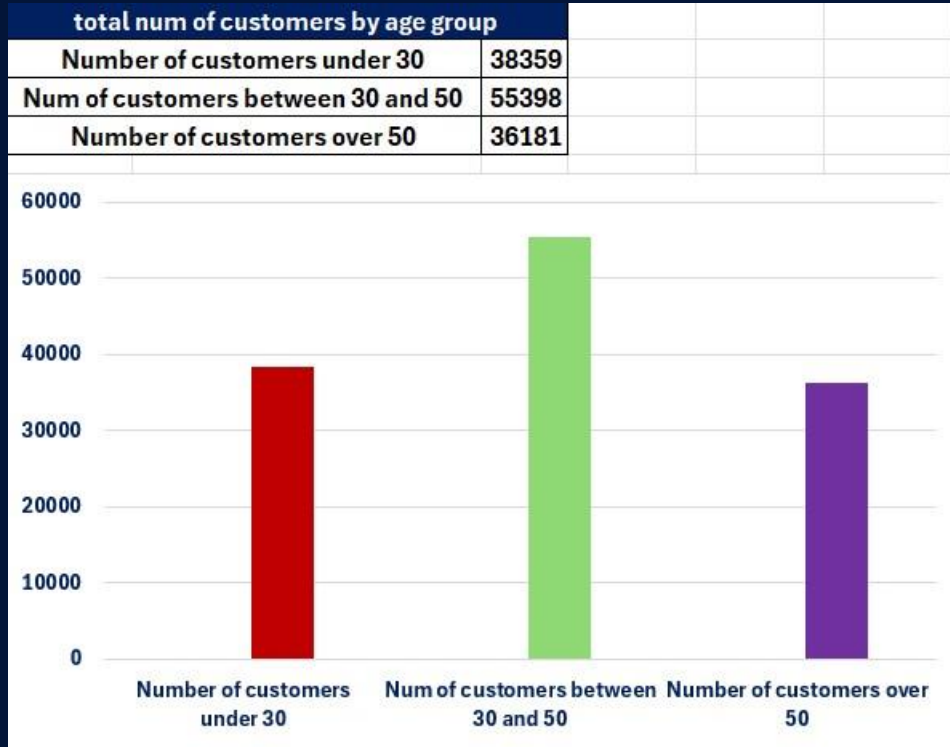
What is the percentage of customers by gender?



percentage of customers by gender			
Male	49%		
Female	=COUNTIF(B:B,"Female") / COUNTA(A:A)		



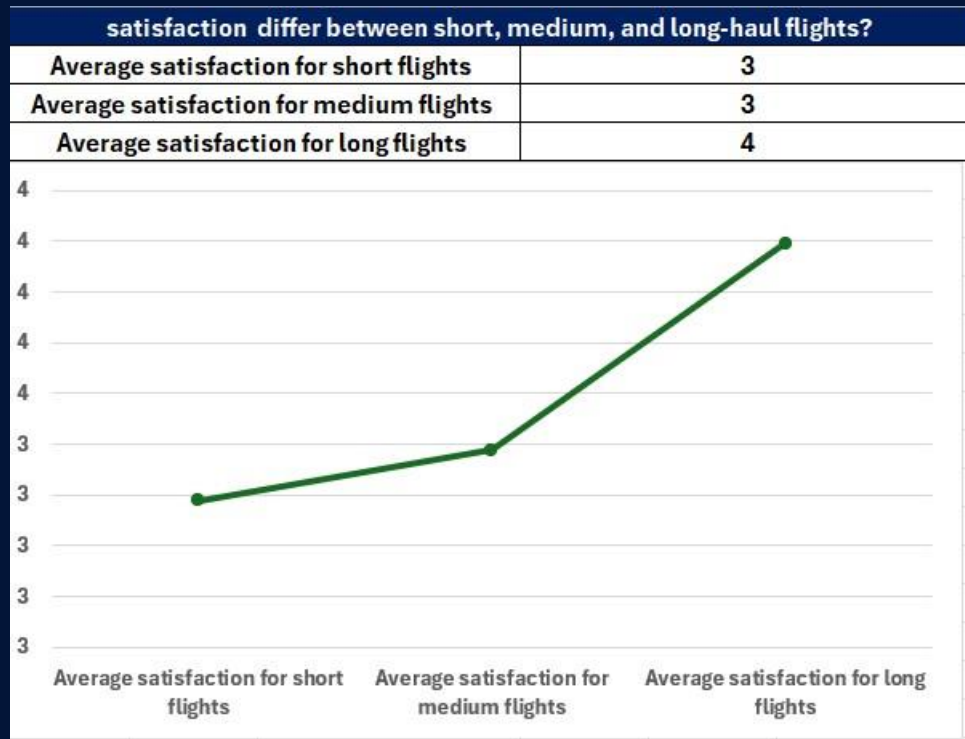
total number of customers by age group



total num of customers by age group			
Number of customers under 30	38359		
Num of customers between 30 and 50	=COUNTIFS(C:C,">30",C:C,"<=50")		
Number of customers	COUNTIFS(criteria_range1, criteria1, [criteria_range2, c		



satisfaction levels differ between short, medium, and long-haul flights?



satisfaction differ between short, medium, and long-haul flights?				
Average satisfaction for short flights		3		
Average satisfaction for medium flights	=AVERAGEIFS(N:N, G:G, ">=1000", G:G, "<=3000")			
Average satisfaction for long flights				
AVERAGEIFS(average_range, criteria_range1, criteria1, [criteria_range2, criteria2], [criteria_range3, criteria3], ...)				

Conclusion

This data offers a comprehensive view of airline passenger satisfaction. By understanding which factors influence satisfaction, the airline can focus on areas that need improvement, ultimately enhancing the customer experience and encouraging customer loyalty.



Thanks