**REPORT**

# Analysis of Airline Ticket Pricing

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|  |  |
| --- | --- |
| **PriceRelative** | **(PricePremium - PriceEconomy) / PriceEconomy** |

|  |  |
| --- | --- |
| **PercentPremiumSeats** | **(SeatsPremium / SeatsTotal) \* 100** |

|  |  |
| --- | --- |
| **PitchDifference** | **PitchPremium - PitchEconomy** |

|  |  |
| --- | --- |
| **WidthDifference** | **WidthPremium - WidthEconomy** |

**Articulate a Hypothesis (or two) that you could test using a Regression Model**

* Relative Price of Premium Seats has an inverse relation with Percentage of premium seats
* Relative Price of Premium Seats Increases with increase in PitchDifference and WidthDifference

Observations from correlations test :

* PriceEconomy and PricePremium are positively correlated with Flight Duration
* PriceRelative is negatively correlated with PercentPremiumSeats
* PriceRelative is positively correlated with PitchDifference and WidthDifference

Based on P-values

* There is a strong relation between price relative and width difference (i.e with increase in price in premium economy the width increases) as the p value is less than 0.05 (p-value < 2.2e-16)
* p-value is less than 0.05 so we can generate the regression model

INFERENCE from linear regression model :

* An increase of 1% in PercentPremiumSeats , there is a decrease of 0.15 in PriceRelative
* An increase of 1 in WidthDifference and PitchDifference , there is increase of 0.072 in PriceRelative