Customer scoring model to predict Cancellation Risk for Large ME Travel Agency

**BUSINESS REQUIREMENT**

- Travel Agency was facing difficulty in forecasting ticket cancellations (Both individual and group).
- To develop a robust response model which can identify customers likely to cancel the ticket, thereby proactively avoid revenue leakage.

**OUR SOLUTION**

- Identify high risk ticket cancellations.
- Accurate demand forecasting.
- Offer focused and targeted products for customer.
- Increase conversion (by refraining customers from cancelling tickets). Identified 60% of the cancellations in Top 3 Deciles.

**BUSINESS IMPACT**

- Increase conversion (by refraining customers from cancelling tickets). Identified 60% of the cancellations in Top 3 Deciles.

**Data Preparation**

- Variable Space Exploration (data dictionary)
- Investigate variable fill rate and overall quality check
- Sampling Strategy
  - 70:30 Modeling and Validation Master dataset creation

**Profiling**

- Independent Variable Exploration
- Variable Prioritization
  - Correlation
  - CART Variable Ranking
- Data Treatment
  - Missing Imputation
  - Outlier Treatment
  - Derived Variable Creation

**Modeling**

- Logistic Model: Multiple iteration based on Raw Variables, CART dummy variables
- Model Stability & Robustness Check
- Model Performance
  - Gains Curve
  - Lift Curve

**Validation**

- Quantified the performance of model in terms of lift, gains on Out-of-Sample Validation

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Outcome (Gains Chart)

Customers with high risk of Cancellation

Total Customer Base

About Us

Happiest Minds, the Mindful IT Company, applies agile methodologies to enable enterprises and technology providers by delivering seamless customer experience, business efficiency and actionable insights. We leverage a spectrum of disruptive technologies such as: Big Data Analytics, AI & Cognitive Computing, Internet of Things, Cloud, Security, SDN-NFV, RPA, Blockchain, etc. Positioned as "Born Digital, Born Agile", our capabilities spans across digital business solutions, consumer products, and security services. We deliver these services across industry sectors such as retail, consumer packaged goods, education, e-commerce, banking, insurance, hi-tech, engineering R&D, manufacturing, automotive and travel/transportation/hospitality.

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