**A USA Airline Business Traveler Loyalty Model: Cost-Effective Approaches to Enhance Customer Retention**

**Luyun Zhang1a, Muxi Chen1b\*, Yibin Li2a, Mingze Gao2b, Yanfu Zhang2c, Changbin Feng2d**

1aUniversity of Edinburgh Business School, The University of Edinburgh, Edinburgh, EH89JS, UK, **s2163495@ed.ac.uk**

1b\*Questrom School of Business, Boston University, Boston, 02215, USA, **chenmuxi@bu.edu**

2aRutgers Business School, Rutgers University-NB, Piscataway,08854, United States, **yl1857@rutgers.edu**

2bCollege of Art&Science, University of Virginia, Charlottesville, 22903, United States, **mg9aam@virginia.edu**

2cSchool of Economics and Management, Xidian University, Xi 'an, 710126, China, **22061300036@stu.xidian.edu.cn**

2dDepartment of Economic and Management,North China Electric Power University, Baoding, 071000,China, **1493056395@qq.com**

\*Corresponding author email: **chenmuxi@bu.edu**

**Abstract –** The airline industry remains highly competitive, making customer loyalty a crucial factor for maintaining profitability and ensuring long-term success. This research aims to uncover how airlines can strategically optimize their services to convert more customers, especially the business travelers that represent a significant revenue stream into loyal participants while minimizing costs. We are focusing on exploring the importance of class preferences and specific service features such as in-flight service quality that shape loyalty. The sample source for this study is derived from the U.S. Airline Passenger Satisfaction Survey. We employ a Decision Tree algorithm to construct a predictive model that assesses the loyalty of business-traveler customers to the airline. We found that airlines can enhance loyalty among business travelers by improving the ease of online booking and boarding service, and customizing services based on ages and flight distance tiers.

**Keywords –** Machine Learning; Decision Tree Model; Prediction; Airline Loyalty; Business Travelers; Service Qualities

**1. Introduction**

As the airline industry continues to recover from COVID-19, it remains highly competitive, and customer loyalty has still been a vital component in bringing about long-term success and ensuring profitability in the business world, particularly for the airline industry that values changing customer expectations a lot[[1]](#footnote-1). Loyalty programs, referring to institutionalized incentive systems that attempt to enhance customers’ perceived values, emotional engagement, brand loyalty, and willingness to pay[[2]](#footnote-2), are widely utilized by airlines to retain frequent business travelers, but not all participate, and the processes for how to conduct this are not well-examined[[3]](#footnote-3). While existing research highlights the benefits of loyalty programs and their impact on customer retention, areas of improvement in understanding why some business travelers choose or choose not to engage have yet been presented[[4]](#footnote-4). In addition, the insights into how airlines can optimize service quality across cabin classes to enhance loyalty while maintaining cost efficiency are limited[[5]](#footnote-5). Business travelers and leisure travelers are driven by different factors, thus it is reasonable to segment customer groups based on the type of travel in this paper. As previous research stated the airline loyalty of business is not only shaped by service quality and perceived value but also by rewards and personalized experiences, this paper seeks to uncover the key factors that impacting business travelers' loyalty and their engagement with loyalty programs through decision tree modeling, enabling airlines to draw up strategies to enhance profitability and retain customer base in a competitive market.

**2. Literature Review**

Service quality has consistently been identified as a primary driver of customer satisfaction in the airline industry. The relationship between service quality and loyalty is well-documented, with numerous studies emphasizing that enhanced service quality leads to higher levels of satisfaction[[6]](#footnote-6), and consequently, stronger loyalty[[7]](#footnote-7). For instance, in-flight service quality, including factors such as comfort, staff behavior, and on-board amenities, has been shown to significantly influence customer satisfaction and loyalty, especially among business travelers[[8]](#footnote-8).

Loyalty programs, which are designed to bring about a sense of loyalty by rewarding repeat customers by offering points, upgrades, and other benefits5, have been view as an essential and effective tool by airlines to retain customers, especially among those business travelers who fly frequently[[9]](#footnote-9). Research reveals the secret behind, loyalty tactics are effective among business travelers as they value both the utilitarian and symbolic benefits these programs offered[[10]](#footnote-10). And the success of these programs often depends on how customers perceive the value and the rewards, which varies significantly based on their level of engagement and how frequent they travel[[11]](#footnote-11).

Moreover, the effectiveness of loyalty programs depends on the level of customer involvement and the perceived value of the rewards offered. Higher levels of loyalty among customers who actively participate in loyalty programs tend to link to their satisfaction with the benefits provided5. However, the challenge for airlines lies in tailoring these programs to meet the specific needs and preferences of business travelers, who may have different expectations than leisure travelers4. Particularly, many business travelers often seek programs that offer not only rewards, but also convenience, flexibility, and recognition of their frequent travel that accents the importance of personalized service delivery[[12]](#footnote-12).

However, the relationship between satisfaction of service quality and loyalty is not straightforward. As Dolnicar et al.[[13]](#footnote-13) argue, satisfaction alone may not always be a direct predictor of loyalty, particularly in a market where customers have numerous alternatives offering tailored services to specific demand. This complexity is illustrated by the evolving expectations of modern travelers, who have increasingly valued personalized experiences and the seamless integration of digital services throughout their travel journey[[14]](#footnote-14). Therefore, while service quality is necessary for ensuring customer satisfaction, it may not be sufficient for securing customer loyalty, particularly among business travelers who may prioritize other factors such as convenience and flight-frequency rewards.

In order to fully make use of the loyalty program, it is very crucial for airlines to understand whether and how these programs incorporate into a broader strategy of customer segmentation and service differentiation. The segmentation of customers based on their travel purpose is another important consideration for airlines aiming to enhance loyalty. Compared to leisure travelers, business travelers as a distinct segment often have different expectations and requirements, especially those concerning class preferences and in-flight service features4. Chonsalasin et al.7 in their research highlights that business travelers place a higher emphasis on convenience, comfort, and personalized services, and these features are often associated with premium classes. Furthermore, to satisfy these demands, the integration of digital tools such as mobile apps which are created for the seamless booking and personalized airline travel experiences has become more and more important as well[[15]](#footnote-15).

Additionally, the incremental significance of sustainability and corporate social responsibility (CSR) plays a notable role in affecting customer loyalty1. Recent studies suggest that travelers, including business travelers, are becoming more aware of the environmental impact of their travel choices, and airlines that actively engage in sustainable practices may enhance their loyalty base[[16]](#footnote-16). And this trend indicates a potential shift in the factors influencing loyalty, where ethical considerations might begin to play a larger role alongside traditional service quality and rewards.

In summary, though service quality may remain a cornerstone of customer satisfaction, its direct impact on loyalty is nuanced and often influenced by a myriad of factors, including personalization, digital engagement, and sustainability. Airlines aiming to enhance loyalty among business travelers must, therefore, it is essential for them to adopt a holistic approach that not only maintains high service standards but also innovates in areas such as loyalty programs, digital services, and sustainability practices.

Therefore, we decided to outline the significant features that influence travelers’ airline loyalty the most via the decision tree model, thereby airline companies will understand which dimensions they should prioritize and invest the most to improve customer loyalty cost-efficiently.

**3. Methods**

***3.1. Data Sampling***

The dataset we utilized is derived from the U.S. Airline Passenger Satisfaction Survey, which provides true portrayal of traveler experiences and preferences across various airlines. The initial version of this dataset comprised 129,487 cases, with 50.7% female travelers and 49.3% male travelers. The majority of passengers’ age is between 20 and 60, with a median age of around 39. The medium flight distance is around 800 miles and more travelers take short or medium-haul flights[[17]](#footnote-17). After undergoing a rigorous process of data cleansing and balancing, we got a final dataset which included 34,046 samples of business travelers and 294 samples of personal travelers. We then conducted a balancing process for loyal and disloyal customers to ensure equitability within each segment, which was particularly important in alleviating potential biases in the model.

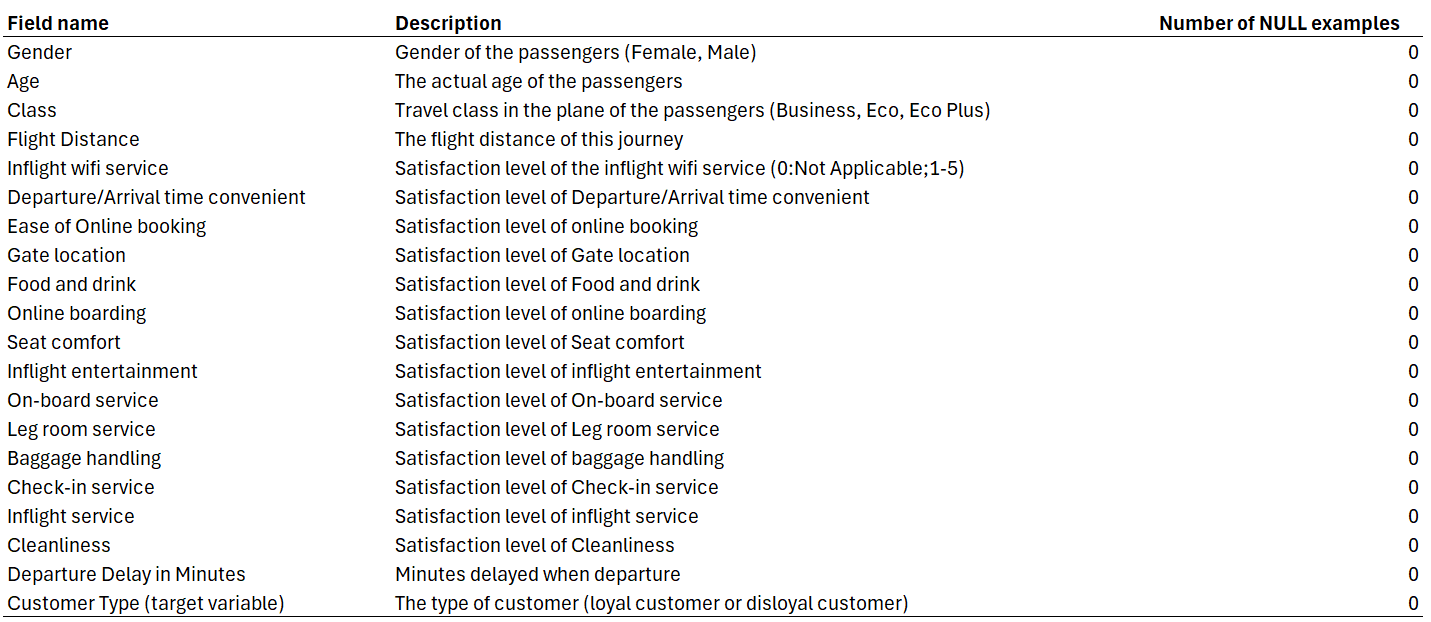


Table 1. Variables of the Decision Tree Model

After employing the above segmentation approach to build separate decision tree models for business travelers and personal travelers, we split the dataset randomly into training and testing samples for each segment . More specifically, about 70% of the cases were allocated for model training, while the remaining 30% were reserved for testing the prediction model's performance. And after that, we developed a predictive model using the Decision Tree algorithm in order to accurately forecast the likelihood of travelers engaging in an airline loyalty program. And by analyzing this model, we are going to quest customers’ various attributes, including different crucial elements and customer satisfaction level.

***3.2 Decision Tree Model Construction***

The target variable for the decision tree model is the customer type, which classifies customers as either loyal or disloyal. The predictors, selected based on their potential influence on customer loyalty, present in table 1.

Our initial decision tree model was built using the DecisionTreeClassifier with the criterion set to "gini." However, to address potential overfitting, we employed a series of model improvement techniques. First, pre-pruning was applied by setting hyperparameters, including a maximum depth of 12, a maximum of 40 leaf nodes, and a varying number of minimum samples per leaf (ranging from 1 to 10). And the performance of this model was evaluated using accuracy, recall, precision, and F1 scores.

Despite these improvements, further refinement was deemed necessary, leading to the application of post-pruning techniques. Before implementing post-pruning, a cost-complexity analysis was conducted to determine the optimal value of ccp\_alpha. The final model was constructed using the DecisionTreeClassifier with ccp\_alpha set to 5.231962572327599e-05 and class weights assigned as {0: 0.15, 1: 0.85} to account for the class imbalance. The model's performance was then rigorously evaluated using the aforementioned metrics to ensure robust predictive accuracy and generalizability.

***3.3 Model Evaluation***

*3.3.1 Evaluation of Business Traveler Segment Model*

For the business traveler segment, the performance of the decision tree models was evaluated via the following key metrics: accuracy, recall, precision, and F1 score on both the training and testing datasets. The initial version of the decision tree model, trained with default parameters, performed perfect scores across all metrics on the training dataset, but this indicates significant overfitting. Although the model on the test dataset has an accuracy of 0.944 and an F1 score of 0.945, which performed reasonably well , the disparity between training and test results suggested that it might not generalize well to unseen data.

To tackle the overfitting problem, we decided to apply pre-pruning techniques through limiting the depth of the tree and controlling minimum samples per leaf and the number of leaf nodes. This pre-pruned model provided a more balanced performance between training and testing datasets, the generalization improved but at the same time there was a slight drop occurred in accuracy and recall. This new model’s test accuracy is 0.906 and F1 score is 0.905.

Then we further refined the model by post-pruning, utilizing cost-complexity pruning to optimize model performance while controlling for complexity. We got a substantial improvement, on the test dataset the post-pruned model achieved an accuracy of 0.939 and an F1 score of 0.941. Therefore, this model has become a reliable tool to predict business travelers’ willingness to become members of loyalty programs, as it offered the best balance among accuracy, recall, and precision.

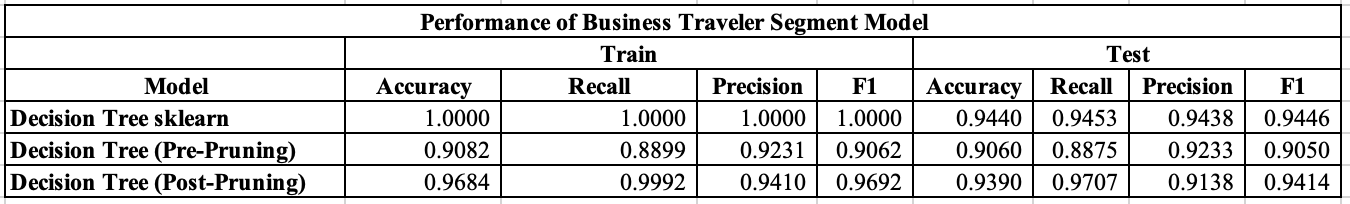


Table 2. Performance of business traveler segment decision tree models

*3.3.2 Evaluation of Personal Traveler Segment Model*

In contrast, the performance on the decision tree models for the personal traveler segment presented significant challenges. Regarding the initial model, the perfect scores on the training data set reflect severe overfitting. However, the test dataset performance was notably poor, with an accuracy of 0.4719 and an F1 score of 0.4835. These metrics revealed high false negatives and false positives, indicating the model’s poor ability to correctly identify potential loyal customers.

The application of pre-pruning techniques resulted in a slight improvement in overfitting and prediction accuracy. Yet, the model still struggled with generalization as a testing accuracy of 0.5169 and F1 score of 0.6055.

Post-pruning was applied to further refine the model, but the results remained suboptimal. The post-pruned model achieved an accuracy of 0.4719 and an F1 score of 0.6412 on the test dataset. Although the F1 score was improved, the overall performance revealed an inadequate capacity in capturing loyal leisure customers accurately.

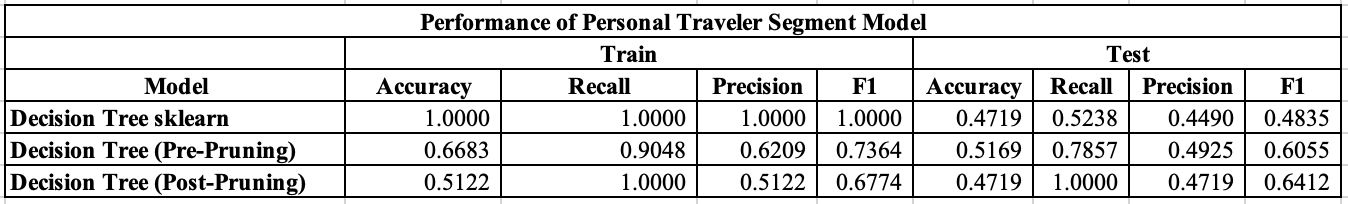


Table 3. Performance of personal traveler (leisure) segment decision tree models

And considering the accuracy and F1 scores in the personal traveler segment are persistently low, it is evident that the high false negative and false positive rates make the model unsuitable for practical application, particularly in detecting potential loyal customers. The challenges observed in the personal traveler segment likely stem from insufficient or imbalanced data, which hinders the model's ability to learn meaningful patterns. As a result, we have decided to abandon the personal traveler segment model and focus on the business traveler segment.

**4. Results**

By employing the post-pruning decision tree, we have been able to define several significant attributes that influence customer loyalty among the business-traveler segment. The algorithm's analysis revealed that *Age* and *Flight Distance* are the most powerful predictors in determining the likelihood of a business traveler becoming a loyal customer, with an importance score of 0.214602.

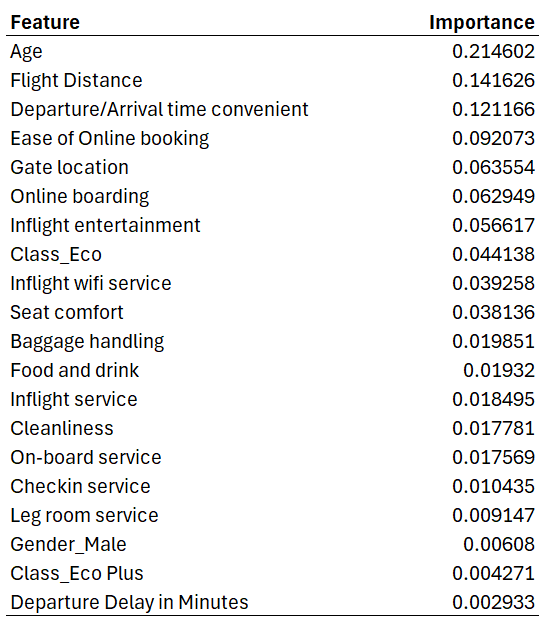
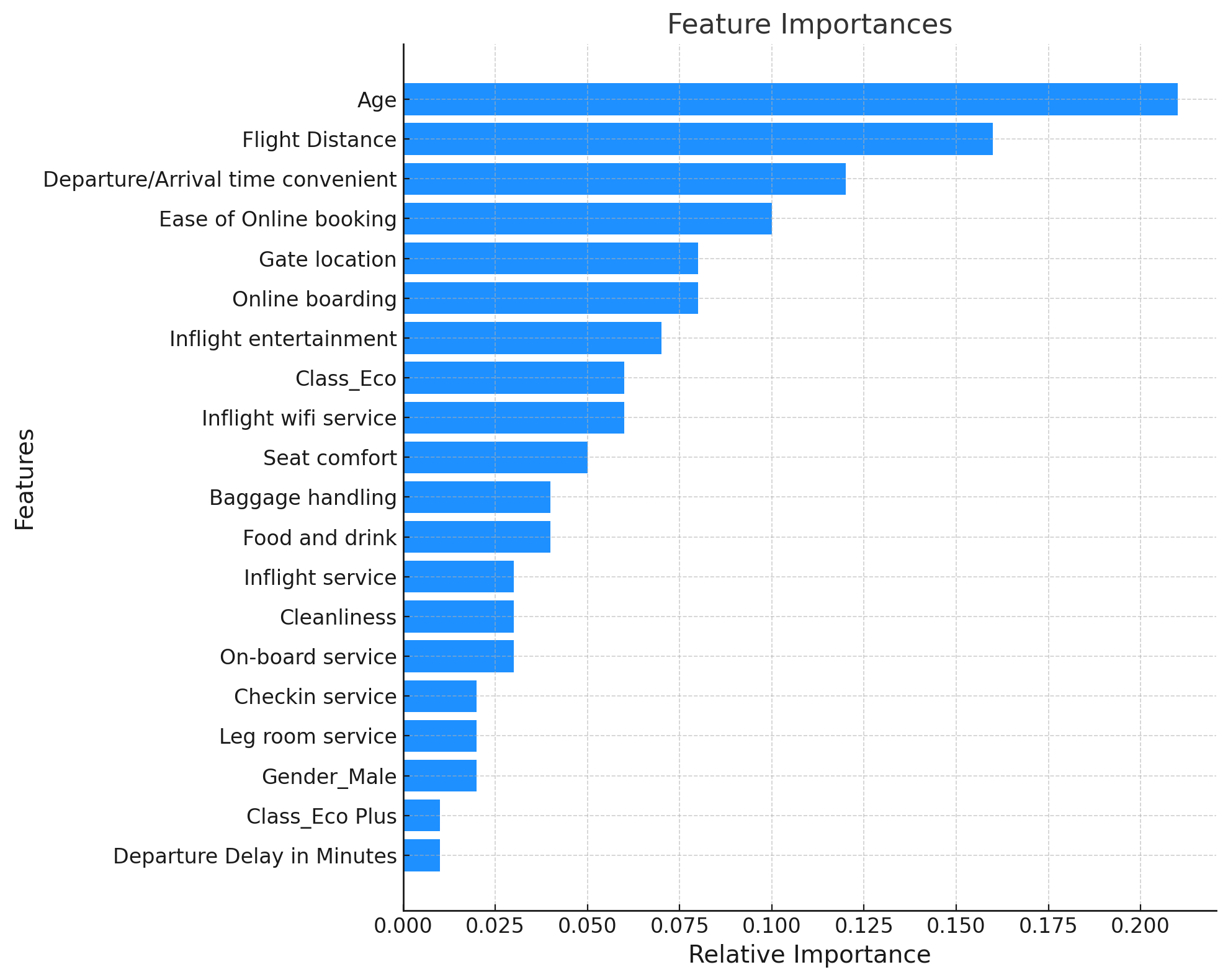


Table 4. The importance of features

This suggests that the propensity for loyalty varies across different age demographics. For instance, younger business travelers may prioritize technological conveniences and modern amenities[[18]](#footnote-18), whereas older travelers might place greater emphasis on comfort, reliability, and the availability of premium services, all of which contribute to their loyalty decisions[[19]](#footnote-19). Flight distance emerged as an significant predictor of loyalty as well, its importance score is 0.1416. Business travelers who frequently undertake long-haul flights are likely to find substantial value in loyalty programs that offer benefits such as upgrades, access to lounges, and other premium services that enhance the overall travel experience[[20]](#footnote-20) .

In addition, other attributes also play vital roles, such as *Departure/Arrival Time Convenience* and *Ease of Online Booking*. These factors collectively shape how business travelers, who often have tight schedules, make decisions when they are considering whether to participate in an airline's loyalty program. For instance, the importance score of Departure/Arrival Time Convenience is 0.1212. For them, the ability to choose flights that align with their professional commitments can significantly enhance the travel experience. Also, ease of Online Booking contains the importance of 0.0921), which indicates that a streamlined, user-friendly online booking process not only saves time but also enhances the overall customer experience, making it more likely that a traveler will continue to choose the same airline.

Figure 1. Feature importance of each predictors in the decision tree model.



**5. Discussion**

***5.1 Contribution***

This study contributes to the previous research on customer loyalty in the airline industry by providing a data-driven analysis of the factors that influence business travelers' decisions to engage with loyalty programs. The construction of a post-pruning decision tree model offers a transparent and interpretable approach[[21]](#footnote-21) to understanding these dynamics[[22]](#footnote-22). The identification of key attributes that drive loyalty adds to the body of knowledge by highlighting the specific areas where airlines can focus their efforts on enhancing customer satisfaction and retention.

***5.2 Implications***

The insights derived from the decision tree model have several practical implications for airline companies seeking to optimize their loyalty programs and customer retention strategies. Airlines should consider segmenting their loyalty programs to cater specifically to different age groups and frequent long-haul travelers. Regarding age segmentation, the airline may include differentiated services according to age range. i.e. offer discounts to young adults on flights; offer professionals occasional access to lounges; and include wellness options in seniors’ travel packages, such as spa treatments or health-related workshops[[23]](#footnote-23). For flight distance segmentation, airlines may implement a tiered points system within frequent flyer programmes that rewards travelers more for long-haul flights, potentially offering double or triple points[[24]](#footnote-24).

Besides, the research highlights the need for airlines to invest in improving customer experience by ensuring that business travelers have access to convenient flight schedules and efficient online booking platforms, which thereby increasing the likelihood of loyalty. And when promoting loyalty programmes, airlines should strategically underscore their advantages in these selling points.

***5.3 Limitation and Outlook***

The generalizability of our findings is constrained by the regional specificity of the dataset. The data used in this study were derived from U.S. airline passenger satisfaction surveys, which may reflect the preferences and behaviors of travelers within the United States. As a result, it may be challenging to apply these results universally across different regions where cultural, economic, and operational differences could lead to varying factors influencing customer loyalty[[25]](#footnote-25). Thus, we should pay extra attention when we extend these findings to other geographical contexts.

Moreover, decision trees are known as they cannot generalize to variations not seen in the training set[[26]](#footnote-26). Therefore, future research should consider using ensemble methods or other advanced machine learning techniques to improve the reliability of the findings.

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Luyun Zhang and Muxi Chen contributed equally to this work and should be considered co-first authors.

Yibin Li, Mingze Gao, Yanfu Zhang, Changbin Feng contributed equally to this work and should be considered co-second authors.

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**Appendix**

**Appendix A. Dataset Source**

Our dataset is found on Kaggle, and the website is: [https://www.kaggle.com/datasets/teejmahal20/airline-passenger-satisfaction](https://www.kaggle.com/datasets/teejmahal20/airline-passenger-satisfaction?resource=download)

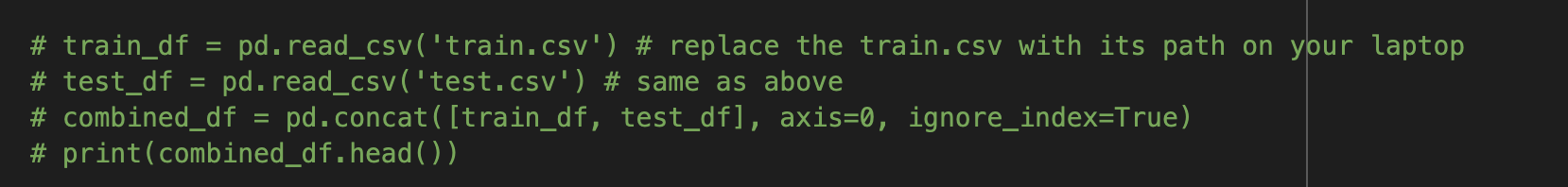
Originally, it has been separated into training and testing dataset, we combined those through the following python codes:

train\_df = pd.read\_csv(‘train.csv’) # replace the csv with the path on yr laptop

test\_df = pd.read\_csv(‘test.csv’) # same step as above

combined\_df = pd.concat([train\_df, test\_df], axis = 0, ignore\_index = True)

print(combined\_df.head()) # see the first few rows of the combined dataset



**Appendix B. Post-Pruning Decision Tree Model Framework**

|--- Age <= 27.50

| |--- Flight Distance <= 1501.50

| | |--- Class\_Eco <= 0.50

| | | |--- Departure/Arrival time convenient <= 0.50

| | | | |--- On-board service <= 2.50

| | | | | |--- Ease of Online booking <= 0.50

| | | | | | |--- Inflight wifi service <= 0.50

| | | | | | | |--- weights: [0.90, 0.00] class: False

| | | | | | |--- Inflight wifi service > 0.50

| | | | | | | |--- weights: [0.15, 2.55] class: True

| | | | | |--- Ease of Online booking > 0.50

| | | | | | |--- weights: [4.20, 0.00] class: False

| | | | |--- On-board service > 2.50

| | | | | |--- Departure Delay in Minutes <= 28.00

| | | | | | |--- Flight Distance <= 270.50

| | | | | | | |--- Flight Distance <= 269.00

| | | | | | | | |--- weights: [18.75, 0.00] class: False

| | | | | | | |--- Flight Distance > 269.00

| | | | | | | | |--- weights: [0.00, 0.85] class: True

| | | | | | |--- Flight Distance > 270.50

| | | | | | | |--- weights: [101.10, 0.00] class: False

| | | | | |--- Departure Delay in Minutes > 28.00

| | | | | | |--- Food and drink <= 4.00

| | | | | | | |--- weights: [0.60, 0.00] class: False

| | | | | | |--- Food and drink > 4.00

| | | | | | | |--- weights: [0.00, 0.85] class: True

| | | |--- Departure/Arrival time convenient > 0.50

| | | | |--- Baggage handling <= 3.50

| | | | | |--- Online boarding <= 3.50

| | | | | | |--- Inflight entertainment <= 3.50

| | | | | | | |--- Ease of Online booking <= 3.50

| | | | | | | | |--- Age <= 25.50

| | | | | | | | | |--- Gate location <= 3.50

| | | | | | | | | | |--- Flight Distance <= 154.00

| | | | | | | | | | | |--- weights: [0.45, 0.00] class: False

| | | | | | | | | | |--- Flight Distance > 154.00

| | | | | | | | | | | |--- truncated branch of depth 5

| | | | | | | | | |--- Gate location > 3.50

| | | | | | | | | | |--- Departure/Arrival time convenient <= 2.50

| | | | | | | | | | | |--- weights: [1.35, 0.00] class: False

| | | | | | | | | | |--- Departure/Arrival time convenient > 2.50

| | | | | | | | | | | |--- truncated branch of depth 2

| | | | | | | | |--- Age > 25.50

| | | | | | | | | |--- Age <= 26.50

| | | | | | | | | | |--- weights: [1.65, 0.00] class: False

| | | | | | | | | |--- Age > 26.50

| | | | | | | | | | |--- Inflight service <= 2.50

| | | | | | | | | | | |--- weights: [0.75, 0.00] class: False

| | | | | | | | | | |--- Inflight service > 2.50

| | | | | | | | | | | |--- truncated branch of depth 2

| | | | | | | |--- Ease of Online booking > 3.50

| | | | | | | | |--- weights: [0.15, 32.30] class: True

| | | | | | |--- Inflight entertainment > 3.50

| | | | | | | |--- Inflight wifi service <= 3.50

| | | | | | | | |--- weights: [11.85, 0.00] class: False

| | | | | | | |--- Inflight wifi service > 3.50

| | | | | | | | |--- weights: [0.00, 2.55] class: True

| | | | | |--- Online boarding > 3.50

| | | | | | |--- Cleanliness <= 2.50

| | | | | | | |--- weights: [3.00, 0.00] class: False

| | | | | | |--- Cleanliness > 2.50

| | | | | | | |--- Ease of Online booking <= 3.50

| | | | | | | | |--- weights: [0.00, 56.10] class: True

| | | | | | | |--- Ease of Online booking > 3.50

| | | | | | | | |--- Food and drink <= 3.50

| | | | | | | | | |--- weights: [1.95, 0.00] class: False

| | | | | | | | |--- Food and drink > 3.50

| | | | | | | | | |--- Gate location <= 3.50

| | | | | | | | | | |--- Flight Distance <= 967.50

| | | | | | | | | | | |--- weights: [1.95, 0.00] class: False

| | | | | | | | | | |--- Flight Distance > 967.50

| | | | | | | | | | | |--- weights: [0.30, 2.55] class: True

| | | | | | | | | |--- Gate location > 3.50

| | | | | | | | | | |--- weights: [1.80, 23.80] class: True

| | | | |--- Baggage handling > 3.50

| | | | | |--- Seat comfort <= 3.50

| | | | | | |--- On-board service <= 2.50

| | | | | | | |--- Leg room service <= 1.50

| | | | | | | | |--- Ease of Online booking <= 2.50

| | | | | | | | | |--- weights: [1.35, 0.00] class: False

| | | | | | | | |--- Ease of Online booking > 2.50

| | | | | | | | | |--- Inflight wifi service <= 3.50

| | | | | | | | | | |--- Age <= 26.50

| | | | | | | | | | | |--- weights: [0.00, 2.55] class: True

| | | | | | | | | | |--- Age > 26.50

| | | | | | | | | | | |--- weights: [0.45, 0.00] class: False

| | | | | | | | | |--- Inflight wifi service > 3.50

| | | | | | | | | | |--- weights: [0.60, 0.00] class: False

| | | | | | | |--- Leg room service > 1.50

| | | | | | | | |--- Inflight wifi service <= 3.50

| | | | | | | | | |--- Flight Distance <= 236.50

| | | | | | | | | | |--- Flight Distance <= 181.00

| | | | | | | | | | | |--- weights: [0.30, 2.55] class: True

| | | | | | | | | | |--- Flight Distance > 181.00

| | | | | | | | | | | |--- weights: [1.05, 0.00] class: False

| | | | | | | | | |--- Flight Distance > 236.50

| | | | | | | | | | |--- weights: [1.35, 20.40] class: True

| | | | | | | | |--- Inflight wifi service > 3.50

| | | | | | | | | |--- Inflight entertainment <= 3.50

| | | | | | | | | | |--- weights: [1.20, 0.00] class: False

| | | | | | | | | |--- Inflight entertainment > 3.50

| | | | | | | | | | |--- weights: [0.15, 1.70] class: True

| | | | | | |--- On-board service > 2.50

| | | | | | | |--- Inflight service <= 3.50

| | | | | | | | |--- Cleanliness <= 1.50

| | | | | | | | | |--- weights: [0.45, 0.00] class: False

| | | | | | | | |--- Cleanliness > 1.50

| | | | | | | | | |--- weights: [1.05, 10.20] class: True

| | | | | | | |--- Inflight service > 3.50

| | | | | | | | |--- Departure/Arrival time convenient <= 1.50

| | | | | | | | | |--- Gate location <= 1.50

| | | | | | | | | | |--- Seat comfort <= 1.50

| | | | | | | | | | | |--- weights: [0.60, 0.00] class: False

| | | | | | | | | | |--- Seat comfort > 1.50

| | | | | | | | | | | |--- weights: [0.60, 10.20] class: True

| | | | | | | | | |--- Gate location > 1.50

| | | | | | | | | | |--- weights: [6.75, 0.00] class: False

| | | | | | | | |--- Departure/Arrival time convenient > 1.50

| | | | | | | | | |--- Online boarding <= 3.50

| | | | | | | | | | |--- Ease of Online booking <= 3.50

| | | | | | | | | | | |--- truncated branch of depth 5

| | | | | | | | | | |--- Ease of Online booking > 3.50

| | | | | | | | | | | |--- weights: [0.45, 9.35] class: True

| | | | | | | | | |--- Online boarding > 3.50

| | | | | | | | | | |--- Class\_Eco Plus <= 0.50

| | | | | | | | | | | |--- truncated branch of depth 3

| | | | | | | | | | |--- Class\_Eco Plus > 0.50

| | | | | | | | | | | |--- weights: [0.00, 0.85] class: True

| | | | | |--- Seat comfort > 3.50

| | | | | | |--- Online boarding <= 3.50

| | | | | | | |--- Age <= 24.50

| | | | | | | | |--- Food and drink <= 3.50

| | | | | | | | | |--- weights: [0.30, 4.25] class: True

| | | | | | | | |--- Food and drink > 3.50

| | | | | | | | | |--- Gender\_Male <= 0.50

| | | | | | | | | | |--- weights: [3.45, 0.00] class: False

| | | | | | | | | |--- Gender\_Male > 0.50

| | | | | | | | | | |--- Age <= 20.50

| | | | | | | | | | | |--- weights: [1.50, 0.00] class: False

| | | | | | | | | | |--- Age > 20.50

| | | | | | | | | | | |--- truncated branch of depth 2

| | | | | | | |--- Age > 24.50

| | | | | | | | |--- Cleanliness <= 0.50

| | | | | | | | | |--- weights: [0.00, 0.85] class: True

| | | | | | | | |--- Cleanliness > 0.50

| | | | | | | | | |--- weights: [26.10, 0.00] class: False

| | | | | | |--- Online boarding > 3.50

| | | | | | | |--- Ease of Online booking <= 3.50

| | | | | | | | |--- weights: [0.45, 96.05] class: True

| | | | | | | |--- Ease of Online booking > 3.50

| | | | | | | | |--- Gate location <= 3.50

| | | | | | | | | |--- Inflight wifi service <= 3.50

| | | | | | | | | | |--- Departure/Arrival time convenient <= 3.50

| | | | | | | | | | | |--- weights: [0.00, 9.35] class: True

| | | | | | | | | | |--- Departure/Arrival time convenient > 3.50

| | | | | | | | | | | |--- weights: [0.45, 0.00] class: False

| | | | | | | | | |--- Inflight wifi service > 3.50

| | | | | | | | | | |--- Inflight service <= 2.50

| | | | | | | | | | | |--- weights: [0.30, 1.70] class: True

| | | | | | | | | | |--- Inflight service > 2.50

| | | | | | | | | | | |--- weights: [19.65, 0.00] class: False

| | | | | | | | |--- Gate location > 3.50

| | | | | | | | | |--- Inflight entertainment <= 3.50

| | | | | | | | | | |--- weights: [1.35, 0.00] class: False

| | | | | | | | | |--- Inflight entertainment > 3.50

| | | | | | | | | | |--- Departure/Arrival time convenient <= 1.50

| | | | | | | | | | | |--- weights: [0.45, 0.00] class: False

| | | | | | | | | | |--- Departure/Arrival time convenient > 1.50

| | | | | | | | | | | |--- truncated branch of depth 5

| | |--- Class\_Eco > 0.50

| | | |--- Departure/Arrival time convenient <= 0.50

| | | | |--- Flight Distance <= 762.50

| | | | | |--- weights: [121.50, 0.00] class: False

| | | | |--- Flight Distance > 762.50

| | | | | |--- Age <= 26.50

| | | | | | |--- weights: [5.25, 0.00] class: False

| | | | | |--- Age > 26.50

| | | | | | |--- weights: [0.00, 1.70] class: True

| | | |--- Departure/Arrival time convenient > 0.50

| | | | |--- Gate location <= 4.50

| | | | | |--- Age <= 24.50

| | | | | | |--- Flight Distance <= 793.50

| | | | | | | |--- Inflight wifi service <= 4.50

| | | | | | | | |--- Cleanliness <= 4.50

| | | | | | | | | |--- Age <= 17.50

| | | | | | | | | | |--- On-board service <= 2.50

| | | | | | | | | | | |--- truncated branch of depth 6

| | | | | | | | | | |--- On-board service > 2.50

| | | | | | | | | | | |--- truncated branch of depth 5

| | | | | | | | | |--- Age > 17.50

| | | | | | | | | | |--- Baggage handling <= 3.50

| | | | | | | | | | | |--- truncated branch of depth 7

| | | | | | | | | | |--- Baggage handling > 3.50

| | | | | | | | | | | |--- truncated branch of depth 6

| | | | | | | | |--- Cleanliness > 4.50

| | | | | | | | | |--- weights: [33.90, 0.00] class: False

| | | | | | | |--- Inflight wifi service > 4.50

| | | | | | | | |--- Ease of Online booking <= 4.50

| | | | | | | | | |--- weights: [0.30, 11.05] class: True

| | | | | | | | |--- Ease of Online booking > 4.50

| | | | | | | | | |--- weights: [13.95, 0.00] class: False

| | | | | | |--- Flight Distance > 793.50

| | | | | | | |--- Ease of Online booking <= 0.50

| | | | | | | | |--- weights: [0.00, 1.70] class: True

| | | | | | | |--- Ease of Online booking > 0.50

| | | | | | | | |--- Checkin service <= 2.50

| | | | | | | | | |--- Gate location <= 2.50

| | | | | | | | | | |--- Departure/Arrival time convenient <= 2.50

| | | | | | | | | | | |--- truncated branch of depth 2

| | | | | | | | | | |--- Departure/Arrival time convenient > 2.50

| | | | | | | | | | | |--- weights: [4.05, 0.00] class: False

| | | | | | | | | |--- Gate location > 2.50

| | | | | | | | | | |--- Inflight wifi service <= 4.50

| | | | | | | | | | | |--- truncated branch of depth 3

| | | | | | | | | | |--- Inflight wifi service > 4.50

| | | | | | | | | | | |--- truncated branch of depth 2

| | | | | | | | |--- Checkin service > 2.50

| | | | | | | | | |--- Leg room service <= 1.50

| | | | | | | | | | |--- Departure/Arrival time convenient <= 3.50

| | | | | | | | | | | |--- truncated branch of depth 2

| | | | | | | | | | |--- Departure/Arrival time convenient > 3.50

| | | | | | | | | | | |--- truncated branch of depth 3

| | | | | | | | | |--- Leg room service > 1.50

| | | | | | | | | | |--- Inflight service <= 3.50

| | | | | | | | | | | |--- truncated branch of depth 4

| | | | | | | | | | |--- Inflight service > 3.50

| | | | | | | | | | | |--- weights: [88.20, 1.70] class: False

| | | | | |--- Age > 24.50

| | | | | | |--- Inflight wifi service <= 3.50

| | | | | | | |--- Inflight wifi service <= 0.50

| | | | | | | | |--- Flight Distance <= 406.00

| | | | | | | | | |--- weights: [0.45, 0.00] class: False

| | | | | | | | |--- Flight Distance > 406.00

| | | | | | | | | |--- weights: [0.15, 4.25] class: True

| | | | | | | |--- Inflight wifi service > 0.50

| | | | | | | | |--- Ease of Online booking <= 3.50

| | | | | | | | | |--- Online boarding <= 3.50

| | | | | | | | | | |--- Inflight entertainment <= 3.50

| | | | | | | | | | | |--- truncated branch of depth 8

| | | | | | | | | | |--- Inflight entertainment > 3.50

| | | | | | | | | | | |--- weights: [32.85, 0.00] class: False

| | | | | | | | | |--- Online boarding > 3.50

| | | | | | | | | | |--- Age <= 25.50

| | | | | | | | | | | |--- weights: [0.60, 0.00] class: False

| | | | | | | | | | |--- Age > 25.50

| | | | | | | | | | | |--- weights: [0.30, 2.55] class: True

| | | | | | | | |--- Ease of Online booking > 3.50

| | | | | | | | | |--- Online boarding <= 3.50

| | | | | | | | | | |--- weights: [0.30, 5.10] class: True

| | | | | | | | | |--- Online boarding > 3.50

| | | | | | | | | | |--- weights: [3.00, 0.00] class: False

| | | | | | |--- Inflight wifi service > 3.50

| | | | | | | |--- Ease of Online booking <= 3.50

| | | | | | | | |--- Online boarding <= 3.50

| | | | | | | | | |--- Ease of Online booking <= 2.00

| | | | | | | | | | |--- weights: [0.00, 0.85] class: True

| | | | | | | | | |--- Ease of Online booking > 2.00

| | | | | | | | | | |--- weights: [1.35, 0.00] class: False

| | | | | | | | |--- Online boarding > 3.50

| | | | | | | | | |--- weights: [0.15, 20.40] class: True

| | | | | | | |--- Ease of Online booking > 3.50

| | | | | | | | |--- Gate location <= 3.50

| | | | | | | | | |--- weights: [13.20, 0.00] class: False

| | | | | | | | |--- Gate location > 3.50

| | | | | | | | | |--- Cleanliness <= 3.50

| | | | | | | | | | |--- weights: [4.35, 0.00] class: False

| | | | | | | | | |--- Cleanliness > 3.50

| | | | | | | | | | |--- Inflight service <= 3.50

| | | | | | | | | | | |--- weights: [1.65, 5.95] class: True

| | | | | | | | | | |--- Inflight service > 3.50

| | | | | | | | | | | |--- weights: [1.20, 0.00] class: False

| | | | |--- Gate location > 4.50

| | | | | |--- Ease of Online booking <= 4.50

| | | | | | |--- Inflight wifi service <= 0.50

| | | | | | | |--- weights: [0.15, 3.40] class: True

| | | | | | |--- Inflight wifi service > 0.50

| | | | | | | |--- Inflight wifi service <= 4.50

| | | | | | | | |--- Departure/Arrival time convenient <= 4.50

| | | | | | | | | |--- weights: [17.55, 0.00] class: False

| | | | | | | | |--- Departure/Arrival time convenient > 4.50

| | | | | | | | | |--- Flight Distance <= 525.50

| | | | | | | | | | |--- weights: [3.15, 0.00] class: False

| | | | | | | | | |--- Flight Distance > 525.50

| | | | | | | | | | |--- Ease of Online booking <= 2.50

| | | | | | | | | | | |--- weights: [0.15, 1.70] class: True

| | | | | | | | | | |--- Ease of Online booking > 2.50

| | | | | | | | | | | |--- weights: [0.90, 0.00] class: False

| | | | | | | |--- Inflight wifi service > 4.50

| | | | | | | | |--- weights: [0.00, 0.85] class: True

| | | | | |--- Ease of Online booking > 4.50

| | | | | | |--- Inflight wifi service <= 4.50

| | | | | | | |--- weights: [0.30, 18.70] class: True

| | | | | | |--- Inflight wifi service > 4.50

| | | | | | | |--- Cleanliness <= 4.50

| | | | | | | | |--- weights: [2.10, 0.00] class: False

| | | | | | | |--- Cleanliness > 4.50

| | | | | | | | |--- Flight Distance <= 828.00

| | | | | | | | | |--- weights: [0.30, 1.70] class: True

| | | | | | | | |--- Flight Distance > 828.00

| | | | | | | | | |--- weights: [0.60, 0.00] class: False

| |--- Flight Distance > 1501.50

| | |--- Class\_Eco <= 0.50

| | | |--- Departure/Arrival time convenient <= 0.50

| | | | |--- Flight Distance <= 2281.00

| | | | | |--- weights: [6.45, 0.00] class: False

| | | | |--- Flight Distance > 2281.00

| | | | | |--- Ease of Online booking <= 0.50

| | | | | | |--- weights: [0.30, 4.25] class: True

| | | | | |--- Ease of Online booking > 0.50

| | | | | | |--- weights: [1.50, 0.00] class: False

| | | |--- Departure/Arrival time convenient > 0.50

| | | | |--- Age <= 25.50

| | | | | |--- Ease of Online booking <= 0.50

| | | | | | |--- On-board service <= 4.50

| | | | | | | |--- weights: [0.60, 4.25] class: True

| | | | | | |--- On-board service > 4.50

| | | | | | | |--- weights: [0.60, 0.00] class: False

| | | | | |--- Ease of Online booking > 0.50

| | | | | | |--- Flight Distance <= 2706.00

| | | | | | | |--- Inflight wifi service <= 3.50

| | | | | | | | |--- weights: [2.85, 180.20] class: True

| | | | | | | |--- Inflight wifi service > 3.50

| | | | | | | | |--- Gate location <= 3.50

| | | | | | | | | |--- Departure/Arrival time convenient <= 3.50

| | | | | | | | | | |--- Seat comfort <= 3.50

| | | | | | | | | | | |--- weights: [0.60, 0.00] class: False

| | | | | | | | | | |--- Seat comfort > 3.50

| | | | | | | | | | | |--- weights: [0.00, 8.50] class: True

| | | | | | | | | |--- Departure/Arrival time convenient > 3.50

| | | | | | | | | | |--- weights: [1.80, 0.00] class: False

| | | | | | | | |--- Gate location > 3.50

| | | | | | | | | |--- weights: [1.50, 78.20] class: True

| | | | | | |--- Flight Distance > 2706.00

| | | | | | | |--- weights: [0.00, 145.35] class: True

| | | | |--- Age > 25.50

| | | | | |--- Online boarding <= 3.50

| | | | | | |--- Seat comfort <= 3.50

| | | | | | | |--- Food and drink <= 3.50

| | | | | | | | |--- Inflight wifi service <= 4.00

| | | | | | | | | |--- Inflight service <= 1.50

| | | | | | | | | | |--- weights: [0.15, 0.00] class: False

| | | | | | | | | |--- Inflight service > 1.50

| | | | | | | | | | |--- Ease of Online booking <= 3.50

| | | | | | | | | | | |--- truncated branch of depth 3

| | | | | | | | | | |--- Ease of Online booking > 3.50

| | | | | | | | | | | |--- weights: [0.00, 12.75] class: True

| | | | | | | | |--- Inflight wifi service > 4.00

| | | | | | | | | |--- weights: [0.15, 0.00] class: False

| | | | | | | |--- Food and drink > 3.50

| | | | | | | | |--- weights: [0.90, 0.00] class: False

| | | | | | |--- Seat comfort > 3.50

| | | | | | | |--- weights: [2.55, 0.00] class: False

| | | | | |--- Online boarding > 3.50

| | | | | | |--- Cleanliness <= 2.50

| | | | | | | |--- weights: [1.20, 0.00] class: False

| | | | | | |--- Cleanliness > 2.50

| | | | | | | |--- weights: [1.50, 79.90] class: True

| | |--- Class\_Eco > 0.50

| | | |--- Age <= 25.50

| | | | |--- On-board service <= 3.50

| | | | | |--- Flight Distance <= 2563.50

| | | | | | |--- Flight Distance <= 2377.00

| | | | | | | |--- Flight Distance <= 1735.00

| | | | | | | | |--- On-board service <= 2.50

| | | | | | | | | |--- weights: [0.45, 5.95] class: True

| | | | | | | | |--- On-board service > 2.50

| | | | | | | | | |--- Checkin service <= 2.50

| | | | | | | | | | |--- weights: [0.15, 0.85] class: True

| | | | | | | | | |--- Checkin service > 2.50

| | | | | | | | | | |--- weights: [1.50, 0.00] class: False

| | | | | | | |--- Flight Distance > 1735.00

| | | | | | | | |--- Departure/Arrival time convenient <= 3.50

| | | | | | | | | |--- weights: [4.05, 0.00] class: False

| | | | | | | | |--- Departure/Arrival time convenient > 3.50

| | | | | | | | | |--- Flight Distance <= 2177.00

| | | | | | | | | | |--- weights: [1.05, 0.00] class: False

| | | | | | | | | |--- Flight Distance > 2177.00

| | | | | | | | | | |--- Flight Distance <= 2253.00

| | | | | | | | | | | |--- weights: [0.00, 1.70] class: True

| | | | | | | | | | |--- Flight Distance > 2253.00

| | | | | | | | | | | |--- weights: [0.45, 0.00] class: False

| | | | | | |--- Flight Distance > 2377.00

| | | | | | | |--- On-board service <= 1.50

| | | | | | | | |--- weights: [0.60, 0.00] class: False

| | | | | | | |--- On-board service > 1.50

| | | | | | | | |--- weights: [0.90, 5.95] class: True

| | | | | |--- Flight Distance > 2563.50

| | | | | | |--- weights: [1.65, 0.00] class: False

| | | | |--- On-board service > 3.50

| | | | | |--- Baggage handling <= 2.50

| | | | | | |--- weights: [0.15, 0.85] class: True

| | | | | |--- Baggage handling > 2.50

| | | | | | |--- weights: [7.05, 0.00] class: False

| | | |--- Age > 25.50

| | | | |--- Flight Distance <= 1672.50

| | | | | |--- Inflight entertainment <= 1.50

| | | | | | |--- weights: [0.00, 0.85] class: True

| | | | | |--- Inflight entertainment > 1.50

| | | | | | |--- weights: [1.50, 0.00] class: False

| | | | |--- Flight Distance > 1672.50

| | | | | |--- Flight Distance <= 2541.00

| | | | | | |--- weights: [1.80, 11.90] class: True

| | | | | |--- Flight Distance > 2541.00

| | | | | | |--- weights: [0.45, 0.00] class: False

|--- Age > 27.50

| |--- Online boarding <= 3.50

| | |--- Ease of Online booking <= 3.50

| | | |--- Gate location <= 3.50

| | | | |--- Flight Distance <= 1501.50

| | | | | |--- Age <= 40.50

| | | | | | |--- Cleanliness <= 3.50

| | | | | | | |--- Checkin service <= 4.50

| | | | | | | | |--- Food and drink <= 3.50

| | | | | | | | | |--- Baggage handling <= 4.50

| | | | | | | | | | |--- Gate location <= 2.50

| | | | | | | | | | | |--- truncated branch of depth 11

| | | | | | | | | | |--- Gate location > 2.50

| | | | | | | | | | | |--- truncated branch of depth 11

| | | | | | | | | |--- Baggage handling > 4.50

| | | | | | | | | | |--- Inflight entertainment <= 3.50

| | | | | | | | | | | |--- truncated branch of depth 7

| | | | | | | | | | |--- Inflight entertainment > 3.50

| | | | | | | | | | | |--- weights: [0.00, 8.50] class: True

| | | | | | | | |--- Food and drink > 3.50

| | | | | | | | | |--- weights: [0.00, 24.65] class: True

| | | | | | | |--- Checkin service > 4.50

| | | | | | | | |--- Baggage handling <= 3.50

| | | | | | | | | |--- Baggage handling <= 1.50

| | | | | | | | | | |--- weights: [1.95, 0.00] class: False

| | | | | | | | | |--- Baggage handling > 1.50

| | | | | | | | | | |--- Seat comfort <= 1.50

| | | | | | | | | | | |--- weights: [1.05, 0.00] class: False

| | | | | | | | | | |--- Seat comfort > 1.50

| | | | | | | | | | | |--- truncated branch of depth 3

| | | | | | | | |--- Baggage handling > 3.50

| | | | | | | | | |--- Food and drink <= 4.00

| | | | | | | | | | |--- Class\_Eco Plus <= 0.50

| | | | | | | | | | | |--- truncated branch of depth 4

| | | | | | | | | | |--- Class\_Eco Plus > 0.50

| | | | | | | | | | | |--- weights: [0.45, 0.85] class: True

| | | | | | | | | |--- Food and drink > 4.00

| | | | | | | | | | |--- weights: [0.00, 0.85] class: True

| | | | | | |--- Cleanliness > 3.50

| | | | | | | |--- Food and drink <= 3.50

| | | | | | | | |--- weights: [0.15, 16.15] class: True

| | | | | | | |--- Food and drink > 3.50

| | | | | | | | |--- Ease of Online booking <= 0.50

| | | | | | | | | |--- Age <= 33.50

| | | | | | | | | | |--- Flight Distance <= 957.50

| | | | | | | | | | | |--- weights: [0.90, 11.90] class: True

| | | | | | | | | | |--- Flight Distance > 957.50

| | | | | | | | | | | |--- weights: [0.75, 0.00] class: False

| | | | | | | | | |--- Age > 33.50

| | | | | | | | | | |--- weights: [1.50, 0.00] class: False

| | | | | | | | |--- Ease of Online booking > 0.50

| | | | | | | | | |--- Inflight wifi service <= 3.50

| | | | | | | | | | |--- Seat comfort <= 3.50

| | | | | | | | | | | |--- truncated branch of depth 6

| | | | | | | | | | |--- Seat comfort > 3.50

| | | | | | | | | | | |--- truncated branch of depth 3

| | | | | | | | | |--- Inflight wifi service > 3.50

| | | | | | | | | | |--- Inflight service <= 3.50

| | | | | | | | | | | |--- weights: [0.30, 6.80] class: True

| | | | | | | | | | |--- Inflight service > 3.50

| | | | | | | | | | | |--- truncated branch of depth 2

| | | | | |--- Age > 40.50

| | | | | | |--- Cleanliness <= 4.50

| | | | | | | |--- Departure/Arrival time convenient <= 0.50

| | | | | | | | |--- Ease of Online booking <= 0.50

| | | | | | | | | |--- Online boarding <= 1.50

| | | | | | | | | | |--- Baggage handling <= 3.50

| | | | | | | | | | | |--- truncated branch of depth 2

| | | | | | | | | | |--- Baggage handling > 3.50

| | | | | | | | | | | |--- weights: [1.50, 0.00] class: False

| | | | | | | | | |--- Online boarding > 1.50

| | | | | | | | | | |--- weights: [0.00, 8.50] class: True

| | | | | | | | |--- Ease of Online booking > 0.50

| | | | | | | | | |--- weights: [8.40, 0.00] class: False

| | | | | | | |--- Departure/Arrival time convenient > 0.50

| | | | | | | | |--- Inflight wifi service <= 3.50

| | | | | | | | | |--- Baggage handling <= 3.50

| | | | | | | | | | |--- Inflight entertainment <= 3.50

| | | | | | | | | | | |--- truncated branch of depth 7

| | | | | | | | | | |--- Inflight entertainment > 3.50

| | | | | | | | | | | |--- truncated branch of depth 4

| | | | | | | | | |--- Baggage handling > 3.50

| | | | | | | | | | |--- Gender\_Male <= 0.50

| | | | | | | | | | | |--- truncated branch of depth 4

| | | | | | | | | | |--- Gender\_Male > 0.50

| | | | | | | | | | | |--- truncated branch of depth 10

| | | | | | | | |--- Inflight wifi service > 3.50

| | | | | | | | | |--- weights: [0.60, 95.20] class: True

| | | | | | |--- Cleanliness > 4.50

| | | | | | | |--- Food and drink <= 4.50

| | | | | | | | |--- weights: [0.00, 20.40] class: True

| | | | | | | |--- Food and drink > 4.50

| | | | | | | | |--- Seat comfort <= 3.50

| | | | | | | | | |--- Inflight wifi service <= 3.50

| | | | | | | | | | |--- Checkin service <= 4.50

| | | | | | | | | | | |--- weights: [2.55, 0.85] class: False

| | | | | | | | | | |--- Checkin service > 4.50

| | | | | | | | | | | |--- weights: [0.15, 1.70] class: True

| | | | | | | | | |--- Inflight wifi service > 3.50

| | | | | | | | | | |--- weights: [0.00, 5.10] class: True

| | | | | | | | |--- Seat comfort > 3.50

| | | | | | | | | |--- Inflight entertainment <= 4.00

| | | | | | | | | | |--- weights: [0.00, 1.70] class: True

| | | | | | | | | |--- Inflight entertainment > 4.00

| | | | | | | | | | |--- weights: [20.40, 0.00] class: False

| | | | |--- Flight Distance > 1501.50

| | | | | |--- Age <= 39.50

| | | | | | |--- Flight Distance <= 2587.00

| | | | | | | |--- Inflight service <= 4.50

| | | | | | | | |--- Inflight entertainment <= 4.50

| | | | | | | | | |--- Inflight service <= 3.50

| | | | | | | | | | |--- Class\_Eco <= 0.50

| | | | | | | | | | | |--- weights: [0.90, 50.15] class: True

| | | | | | | | | | |--- Class\_Eco > 0.50

| | | | | | | | | | | |--- truncated branch of depth 2

| | | | | | | | | |--- Inflight service > 3.50

| | | | | | | | | | |--- Leg room service <= 3.50

| | | | | | | | | | | |--- truncated branch of depth 7

| | | | | | | | | | |--- Leg room service > 3.50

| | | | | | | | | | | |--- truncated branch of depth 4

| | | | | | | | |--- Inflight entertainment > 4.50

| | | | | | | | | |--- weights: [2.10, 0.00] class: False

| | | | | | | |--- Inflight service > 4.50

| | | | | | | | |--- Inflight entertainment <= 4.50

| | | | | | | | | |--- Age <= 32.00

| | | | | | | | | | |--- Online boarding <= 1.50

| | | | | | | | | | | |--- weights: [1.35, 0.00] class: False

| | | | | | | | | | |--- Online boarding > 1.50

| | | | | | | | | | | |--- truncated branch of depth 3

| | | | | | | | | |--- Age > 32.00

| | | | | | | | | | |--- weights: [4.80, 0.00] class: False

| | | | | | | | |--- Inflight entertainment > 4.50

| | | | | | | | | |--- Food and drink <= 4.50

| | | | | | | | | | |--- weights: [0.00, 12.75] class: True

| | | | | | | | | |--- Food and drink > 4.50

| | | | | | | | | | |--- Cleanliness <= 4.50

| | | | | | | | | | | |--- weights: [0.00, 0.85] class: True

| | | | | | | | | | |--- Cleanliness > 4.50

| | | | | | | | | | | |--- weights: [1.50, 0.00] class: False

| | | | | | |--- Flight Distance > 2587.00

| | | | | | | |--- weights: [1.05, 75.65] class: True

| | | | | |--- Age > 39.50

| | | | | | |--- Flight Distance <= 2521.50

| | | | | | | |--- Age <= 44.50

| | | | | | | | |--- Inflight service <= 3.50

| | | | | | | | | |--- weights: [0.75, 30.60] class: True

| | | | | | | | |--- Inflight service > 3.50

| | | | | | | | | |--- Leg room service <= 3.50

| | | | | | | | | | |--- On-board service <= 1.50

| | | | | | | | | | | |--- weights: [0.00, 0.85] class: True

| | | | | | | | | | |--- On-board service > 1.50

| | | | | | | | | | | |--- weights: [3.30, 0.00] class: False

| | | | | | | | | |--- Leg room service > 3.50

| | | | | | | | | | |--- On-board service <= 3.50

| | | | | | | | | | | |--- weights: [1.05, 0.00] class: False

| | | | | | | | | | |--- On-board service > 3.50

| | | | | | | | | | | |--- weights: [0.75, 29.75] class: True

| | | | | | | |--- Age > 44.50

| | | | | | | | |--- weights: [5.10, 182.75] class: True

| | | | | | |--- Flight Distance > 2521.50

| | | | | | | |--- weights: [0.75, 149.60] class: True

| | | |--- Gate location > 3.50

| | | | |--- Departure/Arrival time convenient <= 3.50

| | | | | |--- Ease of Online booking <= 0.50

| | | | | | |--- Flight Distance <= 1574.00

| | | | | | | |--- Flight Distance <= 476.00

| | | | | | | | |--- Inflight wifi service <= 0.50

| | | | | | | | | |--- weights: [0.30, 7.65] class: True

| | | | | | | | |--- Inflight wifi service > 0.50

| | | | | | | | | |--- Flight Distance <= 241.50

| | | | | | | | | | |--- weights: [0.90, 0.00] class: False

| | | | | | | | | |--- Flight Distance > 241.50

| | | | | | | | | | |--- Checkin service <= 4.50

| | | | | | | | | | | |--- weights: [0.00, 2.55] class: True

| | | | | | | | | | |--- Checkin service > 4.50

| | | | | | | | | | | |--- weights: [0.45, 0.00] class: False

| | | | | | | |--- Flight Distance > 476.00

| | | | | | | | |--- On-board service <= 2.00

| | | | | | | | | |--- weights: [0.15, 0.85] class: True

| | | | | | | | |--- On-board service > 2.00

| | | | | | | | | |--- weights: [2.25, 0.00] class: False

| | | | | | |--- Flight Distance > 1574.00

| | | | | | | |--- weights: [0.00, 9.35] class: True

| | | | | |--- Ease of Online booking > 0.50

| | | | | | |--- weights: [187.20, 0.00] class: False

| | | | |--- Departure/Arrival time convenient > 3.50

| | | | | |--- Class\_Eco <= 0.50

| | | | | | |--- weights: [0.00, 61.20] class: True

| | | | | |--- Class\_Eco > 0.50

| | | | | | |--- Flight Distance <= 669.50

| | | | | | | |--- Gate location <= 4.50

| | | | | | | | |--- Flight Distance <= 360.50

| | | | | | | | | |--- Inflight wifi service <= 1.50

| | | | | | | | | | |--- Flight Distance <= 241.50

| | | | | | | | | | | |--- weights: [0.60, 0.00] class: False

| | | | | | | | | | |--- Flight Distance > 241.50

| | | | | | | | | | | |--- weights: [0.00, 1.70] class: True

| | | | | | | | | |--- Inflight wifi service > 1.50

| | | | | | | | | | |--- Age <= 49.50

| | | | | | | | | | | |--- weights: [4.20, 0.00] class: False

| | | | | | | | | | |--- Age > 49.50

| | | | | | | | | | | |--- truncated branch of depth 2

| | | | | | | | |--- Flight Distance > 360.50

| | | | | | | | | |--- weights: [5.55, 0.00] class: False

| | | | | | | |--- Gate location > 4.50

| | | | | | | | |--- Departure/Arrival time convenient <= 4.50

| | | | | | | | | |--- weights: [1.20, 0.00] class: False

| | | | | | | | |--- Departure/Arrival time convenient > 4.50

| | | | | | | | | |--- weights: [0.90, 9.35] class: True

| | | | | | |--- Flight Distance > 669.50

| | | | | | | |--- weights: [0.00, 8.50] class: True

| | |--- Ease of Online booking > 3.50

| | | |--- Online boarding <= 0.50

| | | | |--- weights: [0.15, 0.00] class: False

| | | |--- Online boarding > 0.50

| | | | |--- Gate location <= 3.50

| | | | | |--- Departure/Arrival time convenient <= 3.50

| | | | | | |--- weights: [0.00, 96.90] class: True

| | | | | |--- Departure/Arrival time convenient > 3.50

| | | | | | |--- weights: [3.00, 0.00] class: False

| | | | |--- Gate location > 3.50

| | | | | |--- weights: [1.80, 820.25] class: True

| |--- Online boarding > 3.50

| | |--- Seat comfort <= 2.50

| | | |--- Inflight entertainment <= 2.50

| | | | |--- Inflight wifi service <= 2.50

| | | | | |--- weights: [0.45, 11.90] class: True

| | | | |--- Inflight wifi service > 2.50

| | | | | |--- Flight Distance <= 2429.50

| | | | | | |--- Food and drink <= 2.50

| | | | | | | |--- weights: [73.95, 0.00] class: False

| | | | | | |--- Food and drink > 2.50

| | | | | | | |--- weights: [0.00, 0.85] class: True

| | | | | |--- Flight Distance > 2429.50

| | | | | | |--- Departure/Arrival time convenient <= 3.50

| | | | | | | |--- weights: [0.00, 1.70] class: True

| | | | | | |--- Departure/Arrival time convenient > 3.50

| | | | | | | |--- weights: [0.60, 0.00] class: False

| | | |--- Inflight entertainment > 2.50

| | | | |--- Age <= 30.50

| | | | | |--- weights: [2.10, 0.00] class: False

| | | | |--- Age > 30.50

| | | | | |--- Leg room service <= 2.50

| | | | | | |--- Ease of Online booking <= 2.00

| | | | | | | |--- weights: [0.00, 0.85] class: True

| | | | | | |--- Ease of Online booking > 2.00

| | | | | | | |--- weights: [1.95, 0.00] class: False

| | | | | |--- Leg room service > 2.50

| | | | | | |--- On-board service <= 2.50

| | | | | | | |--- Inflight wifi service <= 1.00

| | | | | | | | |--- weights: [0.00, 0.85] class: True

| | | | | | | |--- Inflight wifi service > 1.00

| | | | | | | | |--- weights: [1.20, 0.00] class: False

| | | | | | |--- On-board service > 2.50

| | | | | | | |--- Inflight service <= 2.50

| | | | | | | | |--- weights: [0.30, 0.00] class: False

| | | | | | | |--- Inflight service > 2.50

| | | | | | | | |--- Departure/Arrival time convenient <= 3.50

| | | | | | | | | |--- weights: [0.00, 93.50] class: True

| | | | | | | | |--- Departure/Arrival time convenient > 3.50

| | | | | | | | | |--- Gate location <= 3.50

| | | | | | | | | | |--- Ease of Online booking <= 3.50

| | | | | | | | | | | |--- weights: [0.00, 4.25] class: True

| | | | | | | | | | |--- Ease of Online booking > 3.50

| | | | | | | | | | | |--- weights: [4.20, 0.00] class: False

| | | | | | | | | |--- Gate location > 3.50

| | | | | | | | | | |--- weights: [1.35, 69.70] class: True

| | |--- Seat comfort > 2.50

| | | |--- Seat comfort <= 3.50

| | | | |--- Inflight wifi service <= 3.50

| | | | | |--- Age <= 30.50

| | | | | | |--- Ease of Online booking <= 3.50

| | | | | | | |--- weights: [0.45, 8.50] class: True

| | | | | | |--- Ease of Online booking > 3.50

| | | | | | | |--- weights: [1.05, 0.00] class: False

| | | | | |--- Age > 30.50

| | | | | | |--- weights: [1.65, 268.60] class: True

| | | | |--- Inflight wifi service > 3.50

| | | | | |--- Inflight entertainment <= 3.50

| | | | | | |--- Inflight service <= 3.50

| | | | | | | |--- Ease of Online booking <= 3.50

| | | | | | | | |--- weights: [0.30, 12.75] class: True

| | | | | | | |--- Ease of Online booking > 3.50

| | | | | | | | |--- Gate location <= 3.50

| | | | | | | | | |--- Baggage handling <= 4.50

| | | | | | | | | | |--- weights: [3.75, 0.00] class: False

| | | | | | | | | |--- Baggage handling > 4.50

| | | | | | | | | | |--- weights: [0.15, 0.85] class: True

| | | | | | | | |--- Gate location > 3.50

| | | | | | | | | |--- Departure/Arrival time convenient <= 1.50

| | | | | | | | | | |--- weights: [0.90, 0.00] class: False

| | | | | | | | | |--- Departure/Arrival time convenient > 1.50

| | | | | | | | | | |--- On-board service <= 1.50

| | | | | | | | | | | |--- weights: [0.60, 0.00] class: False

| | | | | | | | | | |--- On-board service > 1.50

| | | | | | | | | | | |--- weights: [1.35, 11.05] class: True

| | | | | | |--- Inflight service > 3.50

| | | | | | | |--- Flight Distance <= 1759.00

| | | | | | | | |--- Class\_Eco Plus <= 0.50

| | | | | | | | | |--- Baggage handling <= 2.50

| | | | | | | | | | |--- Flight Distance <= 846.00

| | | | | | | | | | | |--- weights: [0.60, 0.00] class: False

| | | | | | | | | | |--- Flight Distance > 846.00

| | | | | | | | | | | |--- weights: [0.15, 1.70] class: True

| | | | | | | | | |--- Baggage handling > 2.50

| | | | | | | | | | |--- weights: [28.05, 0.85] class: False

| | | | | | | | |--- Class\_Eco Plus > 0.50

| | | | | | | | | |--- Leg room service <= 2.50

| | | | | | | | | | |--- weights: [0.00, 2.55] class: True

| | | | | | | | | |--- Leg room service > 2.50

| | | | | | | | | | |--- weights: [0.45, 0.00] class: False

| | | | | | | |--- Flight Distance > 1759.00

| | | | | | | | |--- Inflight service <= 4.50

| | | | | | | | | |--- weights: [0.75, 0.00] class: False

| | | | | | | | |--- Inflight service > 4.50

| | | | | | | | | |--- weights: [0.00, 4.25] class: True

| | | | | |--- Inflight entertainment > 3.50

| | | | | | |--- Leg room service <= 2.50

| | | | | | | |--- Flight Distance <= 104.00

| | | | | | | | |--- weights: [0.00, 0.85] class: True

| | | | | | | |--- Flight Distance > 104.00

| | | | | | | | |--- weights: [1.35, 0.00] class: False

| | | | | | |--- Leg room service > 2.50

| | | | | | | |--- On-board service <= 3.50

| | | | | | | | |--- Flight Distance <= 1689.00

| | | | | | | | | |--- weights: [1.05, 0.00] class: False

| | | | | | | | |--- Flight Distance > 1689.00

| | | | | | | | | |--- weights: [0.00, 0.85] class: True

| | | | | | | |--- On-board service > 3.50

| | | | | | | | |--- weights: [1.35, 64.60] class: True

| | | |--- Seat comfort > 3.50

| | | | |--- Ease of Online booking <= 3.50

| | | | | |--- Age <= 76.00

| | | | | | |--- Inflight entertainment <= 1.50

| | | | | | | |--- weights: [0.90, 56.10] class: True

| | | | | | |--- Inflight entertainment > 1.50

| | | | | | | |--- Gate location <= 3.50

| | | | | | | | |--- Food and drink <= 1.50

| | | | | | | | | |--- weights: [0.45, 38.25] class: True

| | | | | | | | |--- Food and drink > 1.50

| | | | | | | | | |--- Ease of Online booking <= 2.50

| | | | | | | | | | |--- weights: [0.45, 2197.25] class: True

| | | | | | | | | |--- Ease of Online booking > 2.50

| | | | | | | | | | |--- Gate location <= 2.50

| | | | | | | | | | | |--- truncated branch of depth 2

| | | | | | | | | | |--- Gate location > 2.50

| | | | | | | | | | | |--- weights: [1.20, 972.40] class: True

| | | | | | | |--- Gate location > 3.50

| | | | | | | | |--- Departure/Arrival time convenient <= 3.50

| | | | | | | | | |--- Inflight wifi service <= 1.50

| | | | | | | | | | |--- weights: [0.15, 34.85] class: True

| | | | | | | | | |--- Inflight wifi service > 1.50

| | | | | | | | | | |--- weights: [1.50, 0.00] class: False

| | | | | | | | |--- Departure/Arrival time convenient > 3.50

| | | | | | | | | |--- weights: [0.00, 215.90] class: True

| | | | | |--- Age > 76.00

| | | | | | |--- weights: [0.45, 5.95] class: True

| | | | |--- Ease of Online booking > 3.50

| | | | | |--- Gate location <= 3.50

| | | | | | |--- Departure/Arrival time convenient <= 3.50

| | | | | | | |--- Departure/Arrival time convenient <= 0.50

| | | | | | | | |--- Gate location <= 0.50

| | | | | | | | | |--- weights: [0.00, 0.85] class: True

| | | | | | | | |--- Gate location > 0.50

| | | | | | | | | |--- weights: [2.70, 0.00] class: False

| | | | | | | |--- Departure/Arrival time convenient > 0.50

| | | | | | | | |--- Class\_Eco <= 0.50

| | | | | | | | | |--- weights: [0.00, 211.65] class: True

| | | | | | | | |--- Class\_Eco > 0.50

| | | | | | | | | |--- Cleanliness <= 3.50

| | | | | | | | | | |--- weights: [0.60, 0.00] class: False

| | | | | | | | | |--- Cleanliness > 3.50

| | | | | | | | | | |--- Ease of Online booking <= 4.50

| | | | | | | | | | | |--- truncated branch of depth 4

| | | | | | | | | | |--- Ease of Online booking > 4.50

| | | | | | | | | | | |--- weights: [0.30, 21.25] class: True

| | | | | | |--- Departure/Arrival time convenient > 3.50

| | | | | | | |--- weights: [42.90, 0.00] class: False

| | | | | |--- Gate location > 3.50

| | | | | | |--- Departure/Arrival time convenient <= 0.50

| | | | | | | |--- weights: [1.95, 0.00] class: False

| | | | | | |--- Departure/Arrival time convenient > 0.50

| | | | | | | |--- Age <= 29.50

| | | | | | | | |--- Inflight entertainment <= 3.50

| | | | | | | | | |--- weights: [0.60, 0.00] class: False

| | | | | | | | |--- Inflight entertainment > 3.50

| | | | | | | | | |--- Flight Distance <= 139.50

| | | | | | | | | | |--- weights: [0.45, 0.00] class: False

| | | | | | | | | |--- Flight Distance > 139.50

| | | | | | | | | | |--- Flight Distance <= 1494.00

| | | | | | | | | | | |--- truncated branch of depth 8

| | | | | | | | | | |--- Flight Distance > 1494.00

| | | | | | | | | | | |--- weights: [0.75, 37.40] class: True

| | | | | | | |--- Age > 29.50

| | | | | | | | |--- Flight Distance <= 1389.50

| | | | | | | | | |--- Food and drink <= 3.50

| | | | | | | | | | |--- weights: [1.20, 364.65] class: True

| | | | | | | | | |--- Food and drink > 3.50

| | | | | | | | | | |--- Cleanliness <= 3.50

| | | | | | | | | | | |--- weights: [0.00, 119.00] class: True

| | | | | | | | | | |--- Cleanliness > 3.50

| | | | | | | | | | | |--- truncated branch of depth 7

| | | | | | | | |--- Flight Distance > 1389.50

| | | | | | | | | |--- weights: [2.25, 1157.70] class: True

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