Logistic Regression Summary

The following table lists the variables provided by the **Summary** port.

Variable (Caption)	Description
Total samples	Total number of samples fed into the model
Total selected samples	Number of samples used in the model
Samples in the training set	Number of samples used to train the model
The root-mean-square error of the training set	The root-mean-square error indicates the model's accuracy on the training set.
Percentage of classification errors of the training set	Percentage of incorrectly assigned objects (observations or events) in a predefined class
The average cross-entropy of the training set	Cross-entropy provides a quantitative measure of the difference between two probability distributions.
Model training cutoff	Calculated value of the regression equation (ranging *from 0 to 1*)
-2 log-likelihood	A transformation of the likelihood function that indicates the prior probability of the regression model parameter values for a given value of the independent variable *x*.
Coefficient of determination	McFadden's coefficient of determination uses the log-likelihood to assess how well the regression model fits the actual data (ranges *from 0 to 1*).
Adjusted coefficient of determination	The adjusted form of McFadden's coefficient of determination is useful for comparing models with different numbers of factors (ranges *from 0 to 1*).
Chi-square	A chi-square statistic for the likelihood-ratio test.

Variable (Caption)	Description
Degrees of freedom for model	Number of independent model variables
Akaike information criterion	Use the Akaike information criterion to compare models with different numbers of parameters when you need to select the best set of explanatory variables.
Akaike information criterion corrected	Use this modified Akaike criterion for small samples, when the ratio of the number of samples to the number of model parameters falls *below 40*.
Bayesian information criterion	Another model selection criterion, based on the likelihood function and closely related to the Akaike information criterion
Hannan–Quinn information criterion	The Hannan–Quinn information criterion also uses the likelihood function and serves as an alternative to the Akaike and Bayesian criteria.
Model *P*-value	A statistic to assess the model's significance. The smaller the *p*-value, the less likely the null hypothesis that there is no statistically significant relationship between the dependent and independent variables. The system calculates it from the likelihood-ratio statistic.

Read on: Logistic Regression Coefficients