

| Note: Doing means folds testing for 20 * 10-fold cross-validation in which the average accuracy for a single 10-fold cross validation acts as a sample | | | | | | | | | | | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------|------------------------|------------------------|-------------|-----------------------|--------------------|-------------|------------------------------|----------------------|------------------------|---------|--------------------------------------|--|
| Runs | Tuned Decision Trees | | Default Decision Trees | Difference in accuracy | Sample mean | Mean squared Distance | Degrees of Freedom | SQRT DF + 1 | Sum of mean squared Distance | Sample std deviation | Calculated Z-statistic | p-value | Z-value from Table (one tailed test) | |
| trial 1 | 95.9 | 89.2 | | 6.7 | 6.625 | 0.005625 | 19 | 4.472135955 | 16.9975 | 0.9458357485 | 31.32457274 | 0.05 | 1.645 | |
| trial 2 | 96.2 | 89 | | 7.2 | | 0.330625 | | | | | | | | |
| trial 3 | 95.1 | 88.1 | | 7 | | 0.140625 | | | | | | | | |
| trial 4 | 95.6 | 89.8 | | 5.8 | | 0.680625 | | | | | | | | |
| trial 5 | 95.6 | 88.4 | | 7.2 | | 0.330625 | | | | | | | | |
| trial 6 | 95.7 | 90.1 | | 5.6 | | 1.050625 | | | | | | | | |
| trial 7 | 95.6 | 88.1 | | 7.5 | | 0.765625 | | | | | | | | |
| trial 8 | 95 | 89.8 | | 5.2 | | 2.030625 | | | | | | | | |
| trial 9 | 95.5 | 90.7 | | 5.8 | | 0.680625 | | | | | | | | |
| trial 10 | 95 | 87.8 | | 7.2 | | 0.330625 | | | | | | | | |
| trial 11 | 96.2 | 87.5 | | 8.7 | | 4.305625 | | | | | | | | |
| trial 12 | 96.2 | 88.7 | | 7.5 | | 0.765625 | | | | | | | | |
| trial 13 | 96 | 88.7 | | 7.3 | | 0.455625 | | | | | | | | |
| trial 14 | 96.3 | 89.2 | | 7.1 | | 0.225625 | | | | | | | | |
| trial 15 | 96.2 | 89.9 | | 6.3 | | 0.105625 | | | | | | | | |
| trial 16 | 95.9 | 89.5 | | 6.4 | | 0.050625 | | | | | | | | |
| trial 17 | 95.6 | 90.1 | | 5.5 | | 1.265625 | | | | | | | | |
| trial 18 | 95.9 | 90.1 | | 5.8 | | 0.680625 | | | | | | | | |
| trial 19 | 96.2 | 88.7 | | 7.5 | | 0.765625 | | | | | | | | |
| trial 20 | 95.9 | 90.7 | | 5.2 | | 2.030625 | | | | | | | | |

Since, 31.32457274 > 1.645, we can reject the null hypotheses that the tuned decision tree model will not perform better than the default decision tree model at identifying news articles when using features extracted from CoreEx.