**Observations**:

1. The default case holds multiple credit card or loan accounts.
2. If the customer’s high\_credit\_limit is higher that his credit limit then it is more likely that he may default.
3. Large Number of DPD’s in payment history also indicates that the customer may default.
4. If the customer is an active user of credit card i.e he uses all his credit limit quite often, strongly suggests that he will default.

**Derived** **Features**:

|  |  |
| --- | --- |
| Name | Description |
| 1. diff\_highcr\_creditlim\_sum | Sum of the amount difference between high credit amount and credit limit |
| 1. diff\_highcr\_creditlim\_mean | mean of the amount difference between high credit amount and credit limit |
| 1. diff\_highcr\_currbal\_sum | Sum of the amount difference between high credit amount and current balance |
| 1. diff\_highcr\_currbal\_mean | mean of the amount difference between high credit amount and credit limit |
| 1. high\_credit\_amt\_mean | Mean high credit amount of a user |
| 1. credit\_mean | Mean of credit limit of a user |
| 1. curr\_balance\_amt\_mean | Mean current balance amount of a user |
| 1. Ratio\_totalhighcr\_totalcrlim | Ratio of the total high credit amount and total credit limit |
| 1. Ratio\_totalCurrbal\_totalcrlim | Ratio of the total current balance and total credit limit |
| 1. utilisationTreand | (total\_current balance/ total\_credit\_limit)  /mean\_credit\_limit |
| 1. Sum\_diff\_opened\_lastPaymt\_dt | Totals days between last payment date and opened date |
| 1. Avg\_creditcount | Average number of credit accounts hold by the customer |
| 1. Avg\_loancount | Average number of loan account hold by the customer |
| 1. Avg\_payhislength | Average payment history length |
| 1. meanCurBal\_by\_meanCreditLim | Ratio of the mean curr balance amount and mean credit limit |
| 1. meanHighCrAmt\_by\_meanCreditLim | Ratio of the mean high credit amount and mean credit limit |
| 1. meanHighCrAmt\_by\_meanCurrBal | Ratio of the mean high credit amount and mean current balance |
| 1. latestDPD | Sum of latest DPD of the customer |
| 1. latestDPD\_mean | Mean of latest DPD of the customer |
| 1. dayspastDPD\_sum | Sum of number of days between each dpd |
| 1. dayspastDPD\_mean | Mean of number of days between each dpd |
| 1. totalDPDDays\_sum | Sum of all dpd |
| 1. totalDPDDays\_mean | Mean of all dpd |
| 1. expected\_highCr\_creditLim | Expected high credit amount over credit limit |
| 1. expected\_zeroCurrBal | Expected number of accounts with zero balance |
| 1. Expected\_highCr\_creditLim | Expected high credit amount over credit limit. |
| 1. Num\_enquiry\_in\_past\_N\_days | Number of enquires done is the past N days. |
| 1. Total\_enquiry\_amount | Total amount enquired about. |
| 1. Mean\_enquiry\_amount | Mean of the amount enquired |
| 1. Avg\_days\_gap\_between\_enquiry | Average of the number of days gap between the enquiry performed |
| 1. most\_freq\_enq\_purpose | Most frequent enquiry purpose |
| 1. most\_recent\_enq\_purpose | Most Recent enquiry purpose |
| 1. Max\_enquiry\_amount\_in\_past\_N\_days | Maximum amount enquiry performed in the last N days. |
| 1. Enquiry\_amount\_above\_mean\_in\_past\_N\_days | The enquiry amount above the mean enquiry amount of a customer in the past N days |

**Top 10 Features according to Gain :**

|  |  |
| --- | --- |
| Feature Name | Gain Score |
| 1. Raw\_Data\_Feature\_7 | 0.052 |
| 1. Raw\_Data\_Feature\_67 | 0.039 |
| 1. Raw\_Data\_Feature\_3 | 0.034 |
| 1. Raw\_Data\_Feature\_52 | 0.031 |
| 1. Raw\_Data\_Feature\_46 | 0.021 |
| 1. Raw\_Data\_Feature\_58 | 0.021 |
| 1. Most\_Frequent\_enquiry\_purpose\_90\_days | 0.018 |
| 1. Enquiry\_amount\_above\_mean\_in\_past\_900\_days | 0.018 |
| 1. diff\_highcr\_creditlim\_sum | 0.018 |
| 1. Avg\_days\_gap\_between\_enquiry | 0.017 |

Gini index: 20.6

**Rank Ordering**

|  |  |
| --- | --- |
| Decile Rank | Feature Ensemble |
| 1 | 0.128342797515 |
| 2 | 0.0834155719494 |
| 3 | 0.111299181389 |
| 4 | 0.131475279881 |
| 5 | 0.0197837798486 |
| 6 | 0.0374596895964 |
| 7 | 0.0985501736448 |
| 8 | 0.114921725016 |
| 9 | 0.148944244915 |
| 10 | 0.156254044522 |