

According to various factors like F1-score, precision, accuracy and recall, we can claim that “Support Vector Machine”, “Naïve Bayes”, “Logistic Regression” are the best models to predict defaulters in credit card data.

SR.NO	Model Name	F1-Score Train	Accuracy Train	F1-Score Test	Accuracy Test	(Smote) test F-1 score	(Smote) test accuracy	SMOTE suitable?	D.O.F	N.O.C
1	Trivial System	0.8	0.76	0.66	0.66	0.68	0.7	NO	23	27000
2	Nearest Means Classifier	0.89	0.89	0.80	0.81	0.8	0.81	YES	1	27547
3	Logistic Regression	0.9	0.9	0.80	0.81	0.8	0.81	YES	1	27547
4	Knn	0.89	0.9	0.78	0.81				1	22093
5	Radial Basis Network	0.89	0.9	0.74	0.81	0.36	0.37	NO	1	22093
6	Artificial Neural Network	0.73	0.74	0.78	0.81	0.78	0.79	NO	1	22093
7	Naïve Bayes	0.89	0.89	0.80	0.81	0.8	0.813	YES	1	31220
8	SVM	0.89	0.9	0.78	0.81	0.8	0.81	YES	1	22093
9	Random Forest	0.89	0.89	0.78	0.81	0.47	0.45	NO	1	22093