Sample	4,776	2015 hunted with starter/basic/personal/other non-tab Ray plan				
dv = 1	392					
%	8.21%	(Only considering the Tab-upsells between 4th to 9th subscription month as dv=1)				
S.No.	**Variable**	**Description**	**Status**			
1	Rise_Dip_usage	Rise/Fall (%) in the Total Usage between Hunting & Upselling period (after dividing that period in 2 halves) max-hunting + 9 months	Pick	1	Pick	20
2	Avg. Calendar	Average Calendar Usage between Hunting & Upselling period.	Pick	1	Drop	26
6	Reco_S	Total recommendations till the Upselling period.	Pick	1		
7	Doc_Count	Total Doctor Count in a practice	Pick	1		
10	Invest_In_Practo	Total Investment in Practo for a practice before upsell	Pick	1		
11	Feature_Score	EMR/Billing above cutoff usage (4 per month) - Either used (1), Both used (2), Neither used (0).	Pick	1		
15	ABS_Appt	Average number of ABS Appointments between Hunting & Upselling period.	Pick	1		
16	VN	Average number of VN Calles between Hunting & Upselling period.	Pick	1		
21	Exp_mean	Average number of years for a practice taken by the doctor's individual experience	Pick	1		
26	DQS	Profile Quality Score of a practice	Pick	1		
27	Locality_Factor	Ratio of Average Consultation Fee of a locality to the Average Consultation Fee of that City	Pick	1		
28	City_Factor	Ratio of Average Consultation Fee of a City to the Average Consultation Fee of the Country	Pick	1		
37	Is_Dental	If the practice contains any doctor of Dental Speciality	Pick	1		
38	Is_AltMed	If the practice contains any doctor of AltMed (Ayurveda & Homeopath) Speciality	Pick	1		
39	Is_GP	If the practice contains any doctor of GP (General Physician, Family Prac., etc.) Speciality	Pick	1		
40	Is_Physio	If the practice contains any doctor of Physio (therapist, etc.) Speciality	Pick	1		
41	Is_Surgeon	If the practice contains any surgeon	Pick	1		
42	Is_Wellness	If the practice contains any doctor of Super Speciality (Cardio, Neuro, Opthal, etc.)	Pick	1	Wellness	
43	Discount_Given	Discount given to a practice for any Ray Hunting product it has bought	Pick	1		
44	Profile_Quality_Score	No. of profile attributes present in the profile of a practice (say Qualifications, Awards etc.) - 7 attributes	Pick	1		
47						
48						
49						
50						

Model Run Count	Model Type	Type of Balancing	Sample Size	dv = 0	dv = 1	dv = 1 (%)	dev / val	Over/Under Fitting	Mean Accuracy	AUC	(0,0)	(1,1)	(1,0)	(0,1)	False Negatives	False Positives	True Positive Rate	Variables Used							
#	Logit	Unbalanced	4566	4177	389	8.52%	70 : 30	val	72.48%	0.76	919	79	334	38	38	334	67.52%	Log_Avg_Calendar	Invest_In_Reach	Reco_S.x	Rise_Dip_Usage	Doc_Count	Avg_Billing	Feature_Score	CFee_Mean
#	Logit	ROSE	4566	2369	2197	48.12%	70 : 30	val	68.24%	0.71	483	428	228	231	231	228	64.95%	Log_Avg_Calendar	Invest_In_Reach	Reco_S.x	Rise_Dip_Usage	Doc_Count	Avg_Billing	Feature_Score	CFee_Mean
#	Logit	Over-Sampling	8354	4177	4177	50.00%	70 : 30	val	71.40%	0.77	933	834	320	419	419	320	66.56%	Log_Avg_Calendar	Invest_In_Reach	Reco_S.x	Rise_Dip_Usage	Doc_Count	Avg_Billing	Feature_Score	CFee_Mean
#	Logit	Under-Sampling	778	389	389	50.00%	70 : 30	val	72.69%	0.81	89	84	28	33	33	28	71.79%	Log_Avg_Calendar	Invest_In_Reach	Reco_S.x	Rise_Dip_Usage	Doc_Count	Avg_Billing	Feature_Score	CFee_Mean
#	Logit	Both	4566	2369	2197	48.12%	70 : 30	val	72.02%	0.77	543	428	168	231	231	168	64.95%	Log_Avg_Calendar	Invest_In_Reach	Reco_S.x	Rise_Dip_Usage	Doc_Count	Avg_Billing	Feature_Score	CFee_Mean
6	Logit	Unbalanced	4566	4177	389	8.52%	70 : 30	dev	72.07%	0.78	2120	193	804	79	79	804	70.96%	Log_Avg_Calendar	Invest_In_Reach	Reco_S.x	Rise_Dip_Usage	Doc_Count	Avg_Billing	Feature_Score	CFee_Mean
7	Logit	ROSE	4566	2369	2197	48.12%	70 : 30	dev	68.29%	0.73	1187	1012	471	526	526	471	65.80%	Log_Avg_Calendar	Invest_In_Reach	Reco_S.x	Rise_Dip_Usage	Doc_Count	Avg_Billing	Feature_Score	CFee_Mean
8	Logit	Over-Sampling	8354	4177	4177	50.00%	70 : 30	dev	71.23%	0.78	2203	1974	721	950	950	721	67.51%	Log_Avg_Calendar	Invest_In_Reach	Reco_S.x	Rise_Dip_Usage	Doc_Count	Avg_Billing	Feature_Score	CFee_Mean
9	Logit	Under-Sampling	778	389	389	50.00%	70 : 30	dev	73.21%	0.8	207	190	65	82	82	65	69.85%	Log_Avg_Calendar	Invest_In_Reach	Reco_S.x	Rise_Dip_Usage	Doc_Count	Avg_Billing	Feature_Score	CFee_Mean
10	Logit	Both	4566	2369	2197	48.12%	70 : 30	dev	72.12%	0.78	1274	1024	384	514	514	384	66.58%	Log_Avg_Calendar	Invest_In_Reach	Reco_S.x	Rise_Dip_Usage	Doc_Count	Avg_Billing	Feature_Score	CFee_Mean
6	Logit	Unbalanced	4566	4177	389	8.52%	65 : 35	val	71.94%	0.75	1073	88	389	48	48	389	64.71%	Log_Avg_Calendar	Invest_In_Reach	Reco_S.x	Rise_Dip_Usage	Doc_Count	Avg_Billing	Feature_Score	CFee_Mean
#	Logit	Unbalanced	4566	4177	389	8.52%	60 : 40	val	71.99%	0.75	1211	101	460	55	55	460	64.74%	Log_Avg_Calendar	Invest_In_Reach	Reco_S.x	Rise_Dip_Usage	Doc_Count	Avg_Billing	Feature_Score	CFee_Mean
8	Logit	Unbalanced	4566	4177	389	8.52%	55 : 45	val	72.18%	0.74	1346	112	534	63	63	534	64.00%	Log_Avg_Calendar	Invest_In_Reach	Reco_S.x	Rise_Dip_Usage	Doc_Count	Avg_Billing	Feature_Score	CFee_Mean
9	Logit	Unbalanced	4566	4177	389	8.52%	50 : 50	val	72.59%	0.76	1597	126	492	69	69	492	64.62%	Log_Avg_Calendar	Invest_In_Reach	Reco_S.x	Rise_Dip_Usage	Doc_Count	Avg_Billing	Feature_Score	CFee_Mean
10	Logit	Unbalanced	4566	4177	389	8.52%	75 : 25	val	71.50%	0.75	740	65	304	32	32	304	67.01%	Log_Avg_Calendar	Invest_In_Reach	Reco_S.x	Rise_Dip_Usage	Doc_Count	Avg_Billing	Feature_Score	CFee_Mean
#	Logit	Unbalanced	4566	4177	389	8.52%	80 : 20	val	71.22%	0.75	599	53	236	25	25	236	67.95%	Log_Avg_Calendar	Invest_In_Reach	Reco_S.x	Rise_Dip_Usage	Doc_Count	Avg_Billing	Feature_Score	CFee_Mean
12	Logit	Under-Sampling	778	389	389	50.00%	50 : 50	val	72.71%	0.79	149	132	46	63	63	46	67.69%	Log_Avg_Calendar	Invest_In_Reach	Reco_S.x	Rise_Dip_Usage	Doc_Count	Avg_Billing	Feature_Score	CFee_Mean
13	Logit	Over-Sampling	8354	4177	4177	50.00%	50 : 50	val	71.20%	0.78	1564	1478	525	611	611	525	70.75%	Log_Avg_Calendar	Invest_In_Reach	Reco_S.x	Rise_Dip_Usage	Doc_Count	Avg_Billing	Feature_Score	CFee_Mean
14	Logit	Both	4566	2369	2197	48.12%	50 : 50	val	72.09%	0.8	906	772	279	327	327	279	70.25%	Log_Avg_Calendar	Invest_In_Reach	Reco_S.x	Rise_Dip_Usage	Doc_Count	Avg_Billing	Feature_Score	CFee_Mean
15	Logit	Scaling - Normal	4566	4177	389	8.52%	50 : 50	val	72.64%	0.76	1530	134	559	61	61	559	68.72%	Log_Avg_Calendar	Invest_In_Reach	Reco_S.x	Rise_Dip_Usage	Doc_Count	Avg_Billing	Feature_Score	CFee_Mean
#	Logit	Scaling - Normal	4566	4177	389	8.52%	70 : 30	val	71.60%	0.79	873	87	380	30	30	380	74.36%	Log_Avg_Calendar	Invest_In_Reach	Reco_S.x	Rise_Dip_Usage	Doc_Count	Avg_Billing	Feature_Score	CFee_Mean
#	Logit	Scaling - Over-Sampling	8354	4177	4177	50.00%	70 : 30	val	71.57%	0.77	907	879	346	374	374	346	70.15%	Log_Avg_Calendar	Invest_In_Reach	Reco_S.x	Rise_Dip_Usage	Doc_Count	Avg_Billing	Feature_Score	CFee_Mean
#	Logit	Scaling - Under-Sampling	778	389	389	50.00%	70 : 30	val	72.13%	0.78	90	78	27	39	39	27	66.67%	Log_Avg_Calendar	Invest_In_Reach	Reco_S.x	Rise_Dip_Usage	Doc_Count	Avg_Billing	Feature_Score	CFee_Mean
#	Logit	Scaling - Both	4566	2369	2197	48.12%	70 : 30	val	70.79%	0.78	550	430	161	229	229	161	65.25%	Log_Avg_Calendar	Invest_In_Reach	Reco_S.x	Rise_Dip_Usage	Doc_Count	Avg_Billing	Feature_Score	CFee_Mean
25	Logit	k-fold CV	4566	4177	389	8.52%	70 : 30	val ; 10-fold	72.12%	-	949	86	286	49	49	286	63.70%	Log_Avg_Calendar	Invest_In_Reach	Reco_S.x	Rise_Dip_Usage	Doc_Count	Avg_Billing	Feature_Score	CFee_Mean
26	Logit	k-fold CV	4566	4177	389	8.52%	70 : 30	val ; 500-fold	71.53%	-	906	85	344	35	35	344	70.83%	Log_Avg_Calendar	Invest_In_Reach	Reco_S.x	Rise_Dip_Usage	Doc_Count	Avg_Billing	Feature_Score	CFee_Mean
27	Logit	k-fold CV	4566	4177	389	8.52%	50 : 50	val ; 500-fold	71.96%	0.77	1481	134	612	56	56	612	70.53%	Log_Avg_Calendar	Invest_In_Reach	Reco_S.x	Rise_Dip_Usage	Doc_Count	Avg_Billing	Feature_Score	CFee_Mean
28	Logit	k-fold CV	4566	4177	389	8.52%	95 : 5	val ; 500-fold	71.52%	-	152	13	57	7	7	57	65.00%	Log_Avg_Calendar	Invest_In_Reach	Reco_S.x	Rise_Dip_Usage	Doc_Count	Avg_Billing	Feature_Score	CFee_Mean
29	Logit	k-fold CV	4566	4177	389	8.52%	50 : 50	val ; 10-fold	72.19%	-	1599	131	465	88	88	465	59.82%	Log_Avg_Calendar	Invest_In_Reach	Reco_S.x	Rise_Dip_Usage	Doc_Count	Avg_Billing	Feature_Score	CFee_Mean
30	Logit	LOOCV	4566	4177	389	8.52%	-	val ; 4565-fold	71.52%	-	-	-	-	-	-	-		Log_Avg_Calendar	Invest_In_Reach	Reco_S.x	Rise_Dip_Usage	Doc_Count	Avg_Billing	Feature_Score	CFee_Mean
#	Logit	10-fold Over-Sampling	8354	4177	4177	50.00%	70 : 30	val	73.39%	0.79	936	904	311	356	356	311	71.75%	Log_Avg_Calendar	Invest_In_Reach	Reco_S.x	Rise_Dip_Usage	Doc_Count	Avg_Billing	Feature_Score	CFee_Mean
21	Logit	10-fold Over-Sampling	8354	4177	4177	50.00%	50 : 50	val	71.22%	-	1563	1412	507	695	695	507	67.01%	Log_Avg_Calendar	Invest_In_Reach	Reco_S.x	Rise_Dip_Usage	Doc_Count	Avg_Billing	Feature_Score	CFee_Mean
22	Logit	500-fold Over-Sampling	8354	4177	4177	50.00%	50 : 50	val	71.36%	-	1483	1498	605	591	591	605	71.71%	Log_Avg_Calendar	Invest_In_Reach	Reco_S.x	Rise_Dip_Usage	Doc_Count	Avg_Billing	Feature_Score	CFee_Mean
#	Logit	500-fold Over-Sampling	8354	4177	4177	50.00%	70 : 30	val	71.63%	-	954	842	296	415	415	296	66.98%	Log_Avg_Calendar	Invest_In_Reach	Reco_S.x	Rise_Dip_Usage	Doc_Count	Avg_Billing	Feature_Score	CFee_Mean
#	Logit	10-fold Under-Sampling	778	389	389	50.00%	70 : 30	val	73.07%	-	90	81	22	41	41	22	66.39%	Log_Avg_Calendar	Invest_In_Reach	Reco_S.x	Rise_Dip_Usage	Doc_Count	Avg_Billing	Feature_Score	CFee_Mean
25	Logit	10-fold Under-Sampling	778	389	389	50.00%	50 : 50	val	66.32%	-	141	117	52	79	79	52	59.69%	Log_Avg_Calendar	Invest_In_Reach	Reco_S.x	Rise_Dip_Usage	Doc_Count	Avg_Billing	Feature_Score	CFee_Mean
26	Logit	500-fold Under-Sampling	778	389	389	50.00%	50 : 50	val	71.97%	-	147	133	53	56	56	53	70.37%	Log_Avg_Calendar	Invest_In_Reach	Reco_S.x	Rise_Dip_Usage	Doc_Count	Avg_Billing	Feature_Score	CFee_Mean
#	Logit	500-fold Under-Sampling	778	389	389	50.00%	70 : 30	val	73.93%	0.81	95	78	27	34	34	27	69.64%	Log_Avg_Calendar	Invest_In_Reach	Reco_S.x	Rise_Dip_Usage	Doc_Count	Avg_Billing	Feature_Score	CFee_Mean
39	Logit	500-fold Under-Sampling	778	389	389	50.00%	75 : 25	val	69.23%	-	63	72	24	36	36	24	66.67%	Log_Avg_Calendar	Invest_In_Reach	Reco_S.x	Rise_Dip_Usage	Doc_Count	Avg_Billing	Feature_Score	CFee_Mean
#	Logit	10-fold Both	4566	2274	2292	50.20%	70 : 30	val	71.89%	-	520	465	183	202	202	183	69.72%	Log_Avg_Calendar	Invest_In_Reach	Reco_S.x	Rise_Dip_Usage	Doc_Count	Avg_Billing	Feature_Score	CFee_Mean
41	Logit	10-fold Both	4566	2271	2295	50.26%	50 : 50	val	72.27%	-	858	792	278	355	355	278	69.05%	Log_Avg_Calendar	Invest_In_Reach	Reco_S.x	Rise_Dip_Usage	Doc_Count	Avg_Billing	Feature_Score	CFee_Mean
42	Logit	500-fold Both	4566	2323	2243	49.12%	50 : 50	val	71.44%	-	883	748	277	375	375	277	66.61%	Log_Avg_Calendar	Invest_In_Reach	Reco_S.x	Rise_Dip_Usage	Doc_Count	Avg_Billing	Feature_Score	CFee_Mean
#	Logit	500-fold Both	4566	2279	2287	50.09%	70 : 30	val	73.50%	-	527	480	161	202	202	161	70.38%	Log_Avg_Calendar	Invest_In_Reach	Reco_S.x	Rise_Dip_Usage	Doc_Count	Avg_Billing	Feature_Score	CFee_Mean
#	Logit	500-fold ROSE	4566	2260	2306	50.50%	70 : 30	val	67.08%	-	456	463	200	251	251	200	64.85%	Log_Avg_Calendar	Invest_In_Reach	Reco_S.x	Rise_Dip_Usage	Doc_Count	Avg_Billing	Feature_Score	CFee_Mean
45							70 : 30	val	71.97%								63.12%								

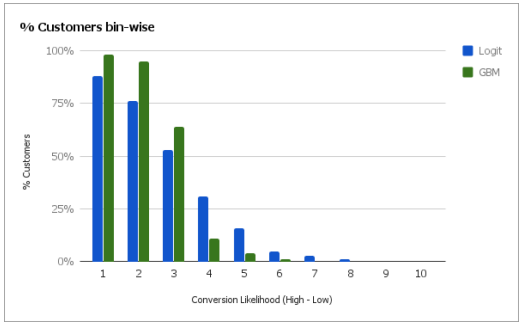
			All measurements on test set								
Model	**Type of Balancing**	**Train-test**	**Accuracy**	**AUC**	**(0,0)**	**(1,1)**	**(1,0)**	**(0,1)**	**False pos rate**	**False neg rate**	
Logistic	Unbalanced	70:30	66.6%	0.72	840	76	413	41	32.96%	35.04%	
Logistic	Unbalanced, Scaled IDVs	70:30	67.1%	0.73	839	73	414	44	33.04%	37.61%	
Logistic	Balanced w/ Under-sampling	70:30	67.9%	0.71	836	79	417	38	33.28%	32.48%	
Logistic	Balanced w/ Under-sampling, Scaled IDVs	70:30	67.3%	0.71	801	78	452	39	36.07%	33.33%	
Logistic	Balanced w/ Over-sampling	70:30	68.2%	0.72	860	80	393	37	31.36%	31.62%	
Logistic	Balanced w/ Over-sampling, Scaled IDVs	70:30	68.4%	0.72	854	75	399	42	31.84%	35.90%	
SVM	Unbalanced	70:30	75.0%	0.63	975	55	282	57	22.43%	50.89%	
Random Forest	Unbalanced	70:30	70.0%	0.73	884	86	385	27	30.34%	23.89%	
Boosting (GBM)	Unbalanced	70:30	78.0%	0.74	992	75	259	33	20.70%	30.56%	
Boosting (GBM)	Unbalanced (250 ntree)	70:30	85.0%	0.85	1183	101	133	62	10.11%	38.04%	Final Model
Boosting (GBM)	Unbalanced (400 ntree)	70:30	87.5%	0.85	1256	98	115	77	8.39%	44.00%	
Boosting (GBM)	Over-sampling (400 ntree)	70:30	89.0%	0.86	1226	72	56	105	4.37%	59.32%	
Boosting (GBM)	Over-sampling (250 ntree)	70:30	90.0%	0.87	1207	82	76	64	5.92%	43.84%	
Logistic	Unbalanced	70:30	66.0%	0.74	870	109	405	60	31.76%	35.50%	
Logistic	Over-sampling	70:30	73.0%	0.75	950	102	335	54	26.07%	34.62%	
Notes											
Accuracy figures: Train sample average upselling rate = 8%. All observations with >8% probability classified as 1											
(x,y) = (predicted, actual). for example, (0,1) means 0 predicted but 1 actual											

			All measurements on val set							
Model	**Type of Balancing**	**Train-test**	**Accuracy**	**AUC**	**(0,0)**	**(1,1)**	**(1,0)**	**(0,1)**	**False pos rate**	**False neg rate**
Logistic	Unbalanced	70:30	83.2%	0.92	1940	769	439	107	18.45%	12.21%
GBM	Unbalanced (ntree = 250)	70:30	88.7%	0.95	2136	801	284	91	11.74%	10.20%

3312

7674

bin	size	Logit	GBM
1	1099	88%	98%
2	1099	76%	95%
3	1099	53%	64%
4	1099	31%	11%
5	1099	16%	4%
6	1099	5%	1%
			0%
			0%
			0%
			0%

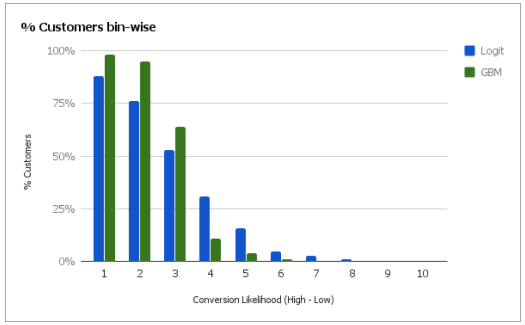


Logit Model (Low - High)	GBM Model (High - Low)									
	1	2	3	4	5	6	7	8	9	10
1	586	326	128	53	5	1	0	0	0	0
2	349	375	227	109	30	6	0	0	2	1
3	129	227	299	265	122	37	11	4	2	3
4	26	115	240	275	233	148	45	13	3	1
5	9	45	130	168	260	227	165	75	13	7
6	0	8	44	116	205	247	210	149	82	38
7	0	3	19	61	136	197	234	196	170	82
8	0	0	8	23	67	132	190	267	241	170
9	0	0	1	19	30	59	145	217	328	299
10	0	0	3	10	11	45	98	177	257	497

Logit Model (Low - High)	GBM Model (High - Low)									
	1	2	3	4	5	6	7	8	9	10
1	99%	97%	58%	4%	0%	0%	0%	0%	0%	0%
2	98%	94%	59%	11%	0%	0%	0%	0%	0%	0%
3	97%	96%	69%	11%	4%	0%	0%	0%	0%	0%
4	100%	95%	65%	13%	5%	3%	0%	0%	0%	0%
5	89%	98%	71%	10%	5%	0%	2%	0%	0%	0%
6	0%	63%	57%	13%	4%	0%	0%	0%	0%	0%
7	0%	100%	63%	16%	1%	1%	0%	0%	0%	0%
8	0%	0%	88%	4%	1%	1%	0%	0%	0%	0%
9	0%	0%	100%	5%	0%	0%	0%	0%	0%	0%
10	0%	0%	33%	0%	0%	0%	0%	0%	0%	0%

Logit Model (Low - High)	GBM Model (High - Low)									
	1	2	3	4	5	6	7	8	9	10
1	99%	97%	58%	4%	0%	0%	0%	0%	0%	0%
2	98%	94%	59%	11%	0%	0%	0%	0%	0%	0%
3	97%	96%	69%	11%	4%	0%	0%	0%	0%	0%
4	100%	95%	65%	13%	5%	3%	0%	0%	0%	0%
5	89%	98%	71%	10%	5%	0%	2%	0%	0%	0%
6	0%	63%	57%	13%	4%	0%	0%	0%	0%	0%
7	0%	100%	63%	16%	1%	1%	0%	0%	0%	0%
8	0%	0%	88%	4%	1%	1%	0%	0%	0%	0%
9	0%	0%	100%	5%	0%	0%	0%	0%	0%	0%
10	0%	0%	33%	0%	0%	0%	0%	0%	0%	0%

			All measurements on val set							
Model	Type of Balancing	Train-test	Accuracy	AUC	(0,0)	(1,1)	(1,0)	(0,1)	False pos rate	False neg rate
GBM	Unbalanced (ntree = 250)	70:30	80.1%	0.87	618	436	132	103	17.60%	19.11%
GBM	Unbalanced (ntree = 250)	60:40	89.0%	0.94	896	659	88	75	8.94%	10.22%
Logit	Unbalanced	70:30	81.4%	0.89	634	443	164	81	20.55%	15.46%



bin	size	Logit	GBM
1	1099	88%	98%
2	1099	76%	95%
3	1099	53%	64%
4	1099	31%	11%
5	1099	16%	4%
6	1099	5%	1%
7	1098	3%	0%
8	1098	1%	0%
9	1098	0%	0%
10	1098	0%	0%

Logit Model (Low - High)	GBM Model (High - Low)									
	1	2	3	4	5	6	7	8	9	10
1	586	326	128	53	5	1	0	0	0	0
2	349	375	227	109	30	6	0	0	2	1
3	129	227	299	265	122	37	11	4	2	3
4	26	115	240	275	233	148	45	13	3	1
5	9	45	130	168	260	227	165	75	13	7
6	0	8	44	116	205	247	210	149	82	38
7	0	3	19	61	136	197	234	196	170	82
8	0	0	8	23	67	132	190	267	241	170
9	0	0	1	19	30	59	145	217	328	299
10	0	0	3	10	11	45	98	177	257	497

Logit Model (Low - High)	GBM Model (High - Low)									
	1	2	3	4	5	6	7	8	9	10
1	99%	97%	58%	4%	0%	0%	0%	0%	0%	0%
2	98%	94%	59%	11%	0%	0%	0%	0%	0%	0%
3	97%	96%	69%	11%	4%	0%	0%	0%	0%	0%
4	100%	95%	65%	13%	5%	3%	0%	0%	0%	0%
5	89%	98%	71%	10%	5%	0%	2%	0%	0%	0%
6	0%	63%	57%	13%	4%	0%	0%	0%	0%	0%
7	0%	100%	63%	16%	1%	1%	0%	0%	0%	0%
8	0%	0%	88%	4%	1%	1%	0%	0%	0%	0%
9	0%	0%	100%	5%	0%	0%	0%	0%	0%	0%
10	0%	0%	33%	0%	0%	0%	0%	0%	0%	0%

Logit Model (Low - High)	GBM Model (High - Low)									
	1	2	3	4	5	6	7	8	9	10
1	99%	97%	58%	4%	0%	0%	0%	0%	0%	0%
2	98%	94%	59%	11%	0%	0%	0%	0%	0%	0%
3	97%	96%	69%	11%	4%	0%	0%	0%	0%	0%
4	100%	95%	65%	13%	5%	3%	0%	0%	0%	0%
5	89%	98%	71%	10%	5%	0%	2%	0%	0%	0%
6	0%	63%	57%	13%	4%	0%	0%	0%	0%	0%
7	0%	100%	63%	16%	1%	1%	0%	0%	0%	0%
8	0%	0%	88%	4%	1%	1%	0%	0%	0%	0%
9	0%	0%	100%	5%	0%	0%	0%	0%	0%	0%
10	0%	0%	33%	0%	0%	0%	0%	0%	0%	0%

						All measurements on unbalanced test set								
Run	Model	Type of Balancing	interaction.depth	n.trees	Train-test	Accuracy	AUC	(0,0)	(1,1)	(1,0)	(0,1)	False pos rate	False neg rate	True pos rate
1	GBM	Unbalanced	5	100	70:30	81.4%	0.76	1076	61	177	56	14.13%	47.86%	52.14%
2	GBM	Unbalanced	5	200	70:30	79.9%	0.74	1109	54	144	63	11.49%	53.85%	46.15%
3	GBM	Unbalanced	5	300	70:30	79.4%	0.76	1044	67	209	50	16.68%	42.74%	57.26%
4	GBM	Unbalanced	5	400	70:30	80.8%	0.76	1046	61	207	56	16.52%	47.86%	52.14%
5	GBM	Unbalanced	5	500	70:30	80.5%	0.75	1076	65	177	52	14.13%	44.44%	55.56%
6	GBM	OverSampling	5	100	70:30	74.1%	0.79	911	80	342	37	27.29%	31.62%	68.38%
7	GBM	OverSampling	5	400	70:30	75.5%	0.78	927	72	326	45	26.02%	38.46%	61.54%
8	GBM	UnderSampling	5	100	70:30	73.4%	0.79	951	76	302	41	24.10%	35.04%	64.96%
9	GBM	UnderSampling	5	400	70:30	75.9%	0.79	933	82	320	35	25.54%	29.91%	70.09%
10	GBM	Unbalanced	10	400	70:30	79.1%	0.78	1040	64	213	53	17.00%	45.30%	54.70%
11	GBM	Unbalanced	15	400	70:30	78.9%	0.77	1005	69	248	48	19.79%	41.03%	58.97%
12	GBM	OverSampling	10	400	70:30	77.3%	0.8	979	84	274	33	21.87%	28.21%	71.79%
13	GBM	OverSampling	15	400	70:30	77.4%	0.79	961	84	292	33	23.30%	28.21%	71.79%
14	GBM	UnderSampling	10	400	70:30	75.1%	0.79	946	82	307	35	24.50%	29.91%	70.09%
15	GBM	UnderSampling	15	400	70:30	75.5%	0.79	952	82	301	35	24.02%	29.91%	70.09%

bin_gbm	rank min	rank max	count	dv=1	dv=0	%dv	cum. dv=1	cum. dv=0	cum. % dv=1	cum. % dv=0	ks
1	1	457	456	157	299	34%	157	299	40%	7%	33.2
2	457	913	456	111	345	24%	268	644	69%	15%	53.47
3	913	1369	456	46	410	10%	314	1054	81%	25%	55.48
4	1369	1825	456	30	426	7%	344	1480	88%	35%	52.99
5	1825	2281	456	16	440	4%	360	1920	93%	46%	46.57
6	2281	2737	456	10	446	2%	370	2366	95%	57%	38.46
7	2737	3193	456	6	450	1%	376	2816	97%	67%	29.23
8	3193	3649	456	6	450	1%	382	3266	98%	78%	19.99
9	3649	4105	456	4	452	1%	386	3718	99%	89%	10.2
10	4105	4566	461	3	458	1%	389	4176	100%	100%	0

bin_gbm	rank min	rank max	count	dv=1	dv=0	%dv	cum. dv=1	cum. dv=0	cum. % dv=1	cum. % dv=0	ks
1	1	228	227	110	117	48%	110	117	28%	3%	25.48
2	228	455	227	46	181	20%	156	298	40%	7%	32.97
3	455	682	227	61	166	27%	217	464	56%	11%	44.67
4	682	909	227	50	177	22%	267	641	69%	15%	53.29
5	909	1136	227	29	198	13%	296	839	76%	20%	56
6	1136	1363	227	18	209	8%	314	1048	81%	25%	55.62
7	1363	1590	227	18	209	8%	332	1257	85%	30%	55.25
8	1590	1817	227	12	215	5%	344	1472	88%	35%	53.18
9	1817	2044	227	11	216	5%	355	1688	91%	40%	50.84
10	2044	2271	227	5	222	2%	360	1910	93%	46%	46.81
11	2271	2498	227	7	220	3%	367	2130	94%	51%	43.34
12	2498	2725	227	3	224	1%	370	2354	95%	56%	38.75
13	2725	2952	227	4	223	2%	374	2577	96%	62%	34.43
14	2952	3179	227	2	225	1%	376	2802	97%	67%	29.56
15	3179	3406	227	3	224	1%	379	3026	97%	72%	24.97
16	3406	3633	227	2	225	1%	381	3251	98%	78%	20.09
17	3633	3860	227	5	222	2%	386	3473	99%	83%	16.06
18	3860	4087	227	0	227	0%	386	3700	99%	89%	10.63
19	4087	4314	227	3	224	1%	389	3924	100%	94%	6.03
20	4314	4566	252	0	252	0%	389	4176	100%	100%	0