Heterogeneity in treatment effects of 'Call to action' using berry-2s method

Sandeep Gangarapu

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Altruistic group with number_referrals as target_variable

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## Loading required package: randomForest

## randomForest 4.6-12

## Type rfNews() to see new features/changes/bug fixes.

##
## Attaching package: 'randomForest'

## The following object is masked from 'package:ggplot2':
##
##     margin
```

	n	yval	p_value	path
135	12	0.5786869	0.0006468	lastday_purchase_all>=73.5,lastday_purchase_all< 110.5,money_spend_all< 46.96,num_purchase_all>=3.5
15	27	0.4301896	0.0000000	lastday_purchase_all< 15.5,num_purchase_all>=2.5,satisfied=1
143	15	0.3063540	0.0000000	lastday_purchase_all>=110.5,money_spend_all>=44.17,money_spend_all< 46.98,NPS< 4
14	30	0.1144509	0.0000003	lastday_purchase_all< 15.5,num_purchase_all< 2.5,satisfied=1
5	164	0.0896790	0.0000000	lastday_purchase_all>=15.5,money_spend_all>=591
142	50	0.0673709	0.0000000	lastday_purchase_all>=110.5,money_spend_all< 44.17,NPS< 4
6	116	0.0540847	0.0000000	lastday_purchase_all< 15.5,satisfied=0
70	88	0.0356597	0.0000000	lastday_purchase_all>=110.5,money_spend_all>=46.98,money_spend_all< 591,NPS< 4
9	6028	0.0176889	0.0000000	lastday_purchase_all>=15.5,lastday_purchase_all< 73.5,money_spend_all< 591
134	464	0.0135528	0.0000000	lastday_purchase_all>=73.5,lastday_purchase_all< 110.5,money_spend_all< 46.96,num_purchase_all>=1.5,num_purchase_all< 3.5
66	3692	0.0101742	0.0000000	lastday_purchase_all>=73.5,lastday_purchase_all< 110.5,money_spend_all>=46.96,money_spend_all< 591,num_purchase_all>=1.5
32	12650	0.0032370	0.0000000	lastday_purchase_all>=73.5,lastday_purchase_all< 110.5,money_spend_all< 591,num_purchase_all< 1.5
34	26	-0.0352640	0.0002010	lastday_purchase_all>=110.5,money_spend_all< 591,NPS>=4

Altruistic group with covertion_rate as target_variable

	n	yval	p_value	path
103	7	0.1272267	0.0302976	lastday_purchase_all< 103.5,money_spend_all>=253.9,money_spend_all< 255.6,num_purchase_all< 15.5
27	9	0.1196626	0.0092952	lastday_purchase_all< 36.5,money_spend_all>=583.9,num_purchase_all< 15.5
7	7	0.0911362	0.0323906	lastday_purchase_all< 103.5,num_purchase_all>=15.5
102	33	0.0081803	0.0007203	lastday_purchase_all< 103.5,money_spend_all>=250,money_spend_all< 253.9,num_purchase_all< 15.5
26	150	0.0081218	0.0000018	lastday_purchase_all>=36.5,lastday_purchase_all< 103.5,money_spend_all>=583.9,num_purchase_all< 15.5
50	758	0.0016738	0.0000000	lastday_purchase_all< 103.5,money_spend_all>=255.6,money_spend_all< 583.9,num_purchase_all< 15.5
11	1830	0.0000405	0.6650357	lastday_purchase_all>=103.5,NPS< 9.5,survey=0
24	20107	0.0000159	0.1205328	lastday_purchase_all< 103.5,money_spend_all< 250,num_purchase_all< 15.5
19	186	-0.0041558	0.0000000	lastday_purchase_all>=104.5,money_spend_all>=45.29,NPS>=9.5
21	96	-0.0082422	0.0000044	lastday_purchase_all>=104.5,NPS< 9.5,survey=1
41	13	-0.0292196	0.0000000	lastday_purchase_all>=103.5,lastday_purchase_all< 104.5,money_spend_all>=50,NPS< 9.5,survey=1
35	64	-0.0467495	0.0000000	lastday_purchase_all>=104.5,money_spend_all< 41.78,NPS>=9.5
18	49	-0.0580171	0.0000000	lastday_purchase_all>=103.5,lastday_purchase_all< 104.5,money_spend_all>=45.29,NPS>=9.5
40	10	-0.0955653	0.0000314	lastday_purchase_all>=103.5,lastday_purchase_all< 104.5,money_spend_all< 50,NPS< 9.5,survey=1
34	27	-0.1302758	0.0000000	lastday_purchase_all>=104.5,money_spend_all>=41.78,money_spend_all< 45.29,NPS>=9.5
16	16	-0.2180868	0.0000000	lastday_purchase_all>=103.5,lastday_purchase_all< 104.5,money_spend_all< 45.29,NPS>=9.5

Equitable group with number_referrals as target_variable

	n	yval	p_value	path
3	8	1.3502938	0.0024857	money_spend_all>=2211
287	11	0.5221587	0.0001732	lastday_purchase_all>=87.5,lastday_purchase_all< 90.5,money_spend_all>=29.46,money_spend_all< 29.98,NPS>=7.5
23	7	0.4732582	0.0601850	lastday_purchase_all< 56.5,money_spend_all>=260.9,money_spend_all< 265.9
1135	15	0.4342112	0.0004301	lastday_purchase_all>=9.5,lastday_purchase_all< 44.5,money_spend_all>=37.98,money_spend_all< 38.99,NPS>=7.5
21	11	0.2641946	0.0000379	lastday_purchase_all>=56.5,money_spend_all>=260.9,money_spend_all< 262.8
2269	53	0.1697203	0.0000000	lastday_purchase_all>=40.5,lastday_purchase_all< 44.5,money_spend_all>=1.865,money_spend_all< 37.98,NPS>=7.5
22	132	0.1353779	0.0000000	lastday_purchase_all< 56.5,money_spend_all>=265.9,money_spend_all< 2211
286	41	0.0836441	0.0000011	lastday_purchase_all>=87.5,lastday_purchase_all< 90.5,money_spend_all< 29.46,NPS>=7.5
9	79	0.0826085	0.0000052	lastday_purchase_all< 9.5,money_spend_all< 260.9
142	289	0.0438322	0.0000000	lastday_purchase_all>=87.5,lastday_purchase_all< 90.5,money_spend_all>=29.98,money_spend_all< 260.9,NPS>=7.5
2268	104	0.0355864	0.0000000	lastday_purchase_all>=9.5,lastday_purchase_all< 40.5,money_spend_all>=1.865,money_spend_all< 37.98,NPS>=7.5
566	407	0.0142505	0.0000000	lastday_purchase_all>=44.5,lastday_purchase_all< 87.5,money_spend_all>=1.865,money_spend_all< 38.99,NPS>=7.5
20	780	0.0138010	0.0000000	lastday_purchase_all>=56.5,money_spend_all>=262.8,money_spend_all< 2211
282	1329	0.0137495	0.0000000	lastday_purchase_all>=9.5,lastday_purchase_all< 87.5,money_spend_all>=38.99,money_spend_all< 260.9,NPS>=7.5
16	17831	0.0031665	0.0000000	lastday_purchase_all>=9.5,money_spend_all< 260.9,NPS< 7.5
34	2231	-0.0019472	0.0004099	lastday_purchase_all>=90.5,money_spend_all< 260.9,NPS>=7.5
140	34	-0.0733906	0.0000001	lastday_purchase_all>=9.5,lastday_purchase_all< 87.5,money_spend_all< 1.865,NPS>=7.5

Equitable group with covertion_rate as target_variable

	n	yval	p_value	path
11	1830	0.0000346	0.0010981	lastday_purchase_all>=103.5,NPS< 9.5,survey=0
3	21071	-0.0000590	0.0000000	lastday_purchase_all< 103.5
21	96	-0.0059501	0.0000187	lastday_purchase_all>=104.5,NPS< 9.5,survey=1
19	186	-0.0060465	0.0000000	lastday_purchase_all>=104.5,money_spend_all>=45.29,NPS>=9.5
41	13	-0.0264653	0.0000001	lastday_purchase_all>=103.5,lastday_purchase_all< 104.5,money_spend_all>=50,NPS< 9.5,survey=1
37	64	-0.0374326	0.0000000	lastday_purchase_all>=104.5,money_spend_all< 41.78,NPS>=9.5
17	49	-0.0694039	0.0000000	lastday_purchase_all>=103.5,lastday_purchase_all< 104.5,money_spend_all>=45.49,NPS>=9.5
40	10	-0.0851231	0.0000370	lastday_purchase_all>=103.5,lastday_purchase_all< 104.5,money_spend_all< 50,NPS< 9.5,survey=1
36	27	-0.1315647	0.0000000	lastday_purchase_all>=104.5,money_spend_all>=41.78,money_spend_all< 45.29,NPS>=9.5
16	16	-0.2356933	0.0000000	lastday_purchase_all>=103.5,lastday_purchase_all< 104.5,money_spend_all< 45.49,NPS>=9.5

Egoistic group with number_referrals as target_variable

	n	yval	p_value	path
359	12	0.1479160	0.1002175	lastday_purchase_all< 32,money_spend_all>=38.37,money_spend_all< 348.6,NPS>=8.5,NPS< 9.5
355	17	0.1085988	0.0209563	lastday_purchase_all< 32.5,money_spend_all>=38.37,money_spend_all< 47.77,NPS>=9.5
47	63	0.0482755	0.0000047	lastday_purchase_all< 80.5,money_spend_all>=348.6,satisfied=1
7	8580	0.0022170	0.0000000	lastday_purchase_all>=82.5,money_spend_all>=57.95
358	111	-0.0010459	0.5569338	lastday_purchase_all>=32,lastday_purchase_all< 80.5,money_spend_all>=38.37,money_spend_all< 348.6,NPS>=8.5,NPS< 9.5
45	2724	-0.0013030	0.0000008	lastday_purchase_all< 80.5,money_spend_all>=4.685,money_spend_all< 38.37
13	6135	-0.0014672	0.0000000	lastday_purchase_all>=82.5,money_spend_all< 57.95,NPS< 9.5
21	215	-0.0033594	0.0000000	lastday_purchase_all>=81.5,lastday_purchase_all< 82.5,money_spend_all>=4.685
178	3369	-0.0055734	0.0000000	lastday_purchase_all< 80.5,money_spend_all>=38.37,money_spend_all< 348.6,NPS< 8.5
25	781	-0.0070112	0.0000000	lastday_purchase_all>=82.5,lastday_purchase_all< 103.5,money_spend_all< 57.95,NPS>=9.5
46	85	-0.0084529	0.0305889	lastday_purchase_all< 80.5,money_spend_all>=348.6,satisfied=0
353	568	-0.0090480	0.0000000	lastday_purchase_all>=39.5,lastday_purchase_all< 80.5,money_spend_all>=38.37,money_spend_all< 348.6,NPS>=9.5
354	134	-0.0112755	0.0069562	lastday_purchase_all< 32.5,money_spend_all>=47.77,money_spend_all< 348.6,NPS>=9.5
9	63	-0.0169202	0.0000000	lastday_purchase_all< 82.5,money_spend_all< 4.685,NPS< 0.5
705	54	-0.0182804	0.0033715	lastday_purchase_all>=32.5,lastday_purchase_all< 39.5,money_spend_all>=38.37,money_spend_all< 69.5,NPS>=9.5

	n	yval	p_value	path
20	221	-0.0369137	0.0000000	lastday_purchase_all>=80.5,lastday_purchase_all< 81.5,money_spend_all>=4.685
49	121	-0.0391257	0.0000000	lastday_purchase_all>=104.5,money_spend_all< 57.95,NPS>=9.5
8	37	-0.0939577	0.0000000	lastday_purchase_all< 82.5,money_spend_all< 4.685,NPS>=0.5
704	45	-0.0971686	0.0000000	lastday_purchase_all>=32.5,lastday_purchase_all< 39.5,money_spend_all>=69.5,money_spend_all< 348.6,NPS>=9.5
48	27	-0.1294338	0.0000000	lastday_purchase_all>=103.5,lastday_purchase_all< 104.5,money_spend_all< 57.95,NPS>=9.5

Egoistic group with covertion_rate as target_variable