Empirical problem set
BUS456 Fall 2022

Group 12
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Question 1

Table 1 shows the frequency of the claimcolour: Green claim is 5674, Red is 1492, Yellow is 13190. Table 2 presents the the insurance type, where auto is 7562, life is 2305, other is 35, property is 5865, travel is 4589.

Table 1: Frequency of the claim colour

Green	Red	Yellow
5677	1492	13191

Table 2: Frequency of the insurance type

	auto	life	other	property	travel
2	7563	2305	35	5865	4590

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## [1] "Insurance claim with empty insurance type: 17857"
## [2] "Insurance claim with empty insurance type: 18515"
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Comment on question 1

Question 2

Table 3: Percentage of claim color

green	yellow	red
0.2787602	0.6479517	0.0732881

Table 4: Percentage of claim color by insurance type

insurancetype	green	yellow	red
auto	0.3411345	0.6402221	0.0186434
life	0.2125813	0.7422993	0.0451193
other	0.8857143	0.0857143	0.0285714
property	0.3636829	0.5459506	0.0903666
travel	0.0960784	0.7479303	0.1559913

Question 3

Table 5: Title

treatmentgroup	0	1	2	3	4
green	0.2816386	0.2753448	0.2696765	0.2925290	0.2751244
yellow	0.6452085	0.6503750	0.6569290	0.6317516	0.6549751

Table 5: Title

red	0.07315289	0.07428018	0.07339450	0.07571933	0.06990050
auto	0.3733236	0.3684975	0.3679382	0.3702675	0.3776119
life	0.1128993	0.1200097	0.1103332	0.1128218	0.1099502
property	0.2845647	0.2884104	0.2940608	0.2895003	0.2838308
travel	0.2275055	0.2213888	0.2262192	0.2253912	0.2268657
other	0.001706901	0.001693685	0.001448576	0.002019182	0.001741294
privatefinanced	0.8351622	0.8400677	0.8401738	0.8200404	0.8504975

Question 4

Question 5

Question 6

Question 7

Table 6:

	Dependent variable:	
	accept_automatic	
	(1)	(2)
simplification	0.007	0.008
	(0.007)	(0.007)
personalization	0.004	0.006
	(0.007)	(0.007)
social.norm	0.015**	0.014*
	(0.007)	(0.007)
combined	0.026***	0.028***
	(0.007)	(0.007)
insurancetypelife		0.078***
		(0.008)
insurancetypeother		−0.023
		(0.055)
insurancetypeproperty		−0.058***
		(0.006)
insurancetypetravel		0.011*
		(0.007)
red		0.004
		(0.009)
green		0.052***
		(0.005)
privatefinanced1		−0.059***
		(0.007)
Constant	0.867***	0.907***
	(0.005)	(0.009)
Observations	20,358	20,358
R^2	0.001	0.020
Adjusted R^2	0.001	0.020
Residual Std. Error	0.328 (df = 20353)	0.324 (df = 20346)
F Statistic	4.090*** (df = 4; 20353)	38.036*** (df = 11; 20346)
Note:		*p<0.1; **p<0.05; ***p<0.01

Table 7:

	Dependent variable:		
	accept_automatic		
	Green	Yellow	Red
	(1)	(2)	(3)
combined	0.013	0.036***	−0.005
	(0.013)	(0.009)	(0.028)
Constant	0.894***	0.854***	0.873***
	(0.009)	(0.006)	(0.019)
Observations	2,261	5,279	581
R^2	0.001	0.003	0.0001
Adjusted R^2	0.0001	0.003	−0.002
Residual Std. Error	0.299 (df = 2259)	0.333 (df = 5277)	0.336 (df = 579)
F Statistic	1.137 (df = 1; 2259)	15.175*** (df = 1; 5277)	0.032 (df = 1; 579)
Note:			*p<0.1; **p<0.05; ***p<0.01

Table 8:

	Dependent variable:
	accept_automatic
claimcolourRed	-0.452^{***}
	(0.091)
claimcolourYellow	-0.496^{***}
	(0.053)
treatmentgroup1	0.068
	(0.066)
treatmentgroup2	0.055
	(0.066)
treatmentgroup3	0.132^{*}
	(0.068)
treatmentgroup4	0.271^{***}
	(0.069)
insurancetypelife	0.993^{***}
	(0.100)
insurancetypeother	-0.235
	(0.534)
insurancetypeproperty	-0.478^{***}
	(0.052)
insurancetypetravel	0.127^{**}
	(0.065)
privatefinanced1	-0.568^{***}
	(0.069)
Constant	2.775^{***}
	(0.095)
Observations	20,358
Log Likelihood	$-7{,}349.621$
Akaike Inf. Crit.	14,723.240
Note:	*p<0.1; **p<0.05; ***p<0.01