Results

Descriptive Statistics

Descriptive Statistics

	Tenure in Months	CLTV	Age	Customer Satisfaction	Churn Category	Churn Value
Valid	7043	7043	7043	1834	1869	7043
Missing	0	0	0	5209	5174	0
Mean	32.387	4400.296	46.510	3.005		0.265
Std. Deviation	24.542	1183.057	16.750	1.257		0.442
Minimum	1.000	2003.000	19.000	1.000		0.000
Maximum	72.000	6500.000	80.000	5.000		1.000

Frequency Tables

Frequencies for Tenure in Months

Tenure in Months	Frequency	Percent	Valid Percent	Cumulative Percent
1	613	8.704	8.704	8.704
2	238	3.379	3.379	12.083
3	200	2.840	2.840	14.923
4	176	2.499	2.499	17.422
5	133	1.888	1.888	19.310
6	110	1.562	1.562	20.872
7	131	1.860	1.860	22.732
8	123	1.746	1.746	24.478
9	119	1.690	1.690	26.168
10	127	1.803	1.803	27.971
11	99	1.406	1.406	29.377
12	117	1.661	1.661	31.038
13	109	1.548	1.548	32.586
14	76	1.079	1.079	33.665
15	99	1.406	1.406	35.070
16	80	1.136	1.136	36.206
17	87	1.235	1.235	37.441
18	97	1.377	1.377	38.819
19	73	1.036	1.036	39.855
20	71	1.008	1.008	40.863
21	63	0.895	0.895	41.758
22	90	1.278	1.278	43.036
23	85	1.207	1.207	44.243
24	94	1.335	1.335	45.577
25	79	1.122	1.122	46.699
26	79	1.122	1.122	47.821
27	72	1.022	1.022	48.843
28	57	0.809	0.809	49.652
29	72	1.022	1.022	50.674
30	72	1.022	1.022	51.697
31	65	0.923	0.923	52.620
32	69	0.980	0.980	53.599
33	64	0.909	0.909	54.508
34	65	0.923	0.923	55.431
35	88	1.249	1.249	56.680
36	50	0.710	0.710	57.390
37	65	0.923	0.923	58.313
38	59	0.838	0.838	59.151
39	56	0.795	0.795	59.946
40	64	0.909	0.909	60.855
41	70	0.994	0.994	61.849
42	65	0.923	0.923	62.772
43	65	0.923	0.923	63.694
44	51	0.724	0.724	64.419
45	61	0.866	0.866	65.285
46	74	1.051	1.051	66.335
47	68	0.965	0.965	67.301
48	64	0.909	0.909	68.210
49	66	0.937	0.937	69.147
50	68	0.965	0.965	70.112
51	68	0.965	0.965	71.078
52	80	1.136	1.136	72.214
53	70	0.994	0.994	73.207
54	68	0.965	0.965	74.173
55	64	0.909	0.909	75.082
56	80	1.136	1.136	76.218
57	65	0.923	0.923	77.140
58	67	0.951	0.951	78.092
59	60	0.852	0.852	78.944
60	76	1.079	1.079	80.023
61	76	1.079	1.079	81.102
62	70	0.994	0.994	82.096
63	72	1.022	1.022	83.118
64	80	1.136	1.136	84.254
65	76	1.079	1.079	85.333
66	89	1.264	1.264	86.597
67	98	1.391	1.391	87.988
68	100	1.420	1.420	89.408
69	95	1.349	1.349	90.757
70	119	1.690	1.690	92.446
71	170	2.414	2.414	94.860
72	362	5.140	5.140	100.000
Missing	0	0.000		
Total	7043	100.000		

Note. CLTV has more than 200 distinct values and is omitted.

Frequencies for Age

Age	Frequency	Percent	Valid Percent	Cumulative Percent
19	127	1.803	1.803	1.803
20	127	1.803	1.803	3.606
21	140	1.988	1.988	5.594
22	130	1.846	1.846	7.440
23	146	2.073	2.073	9.513
24	109	1.548	1.548	11.061
25	138	1.959	1.959	13.020
26	115	1.633	1.633	14.653
27	132	1.874	1.874	16.527
28	119	1.690	1.690	18.217
29	118	1.675	1.675	19.892
30	128	1.817	1.817	21.709
31	119	1.690	1.690	23.399
32	122	1.732	1.732	25.131
33	139	1.974	1.974	27.105
34	118	1.675	1.675	28.780
35	142	2.016	2.016	30.797
36	104	1.477	1.477	32.273
37	129	1.832	1.832	34.105
38	131	1.860	1.860	35.965
39	134	1.903	1.903	37.867
40	150	2.130	2.130	39.997
41	110	1.562	1.562	41.559
42	156	2.215	2.215	43.774
43	113	1.604	1.604	45.378
44	148	2.101	2.101	47.480
45	128	1.817	1.817	49.297
46	119	1.690	1.690	50.987
47	153	2.172	2.172	53.159
48	135	1.917	1.917	55.076
49	130	1.846	1.846	56.922
50	120	1.704	1.704	58.626
51	128	1.817	1.817	60.443
52	113	1.604	1.604	62.047
53	134	1.903	1.903	63.950
54	126	1.789	1.789	65.739
55	124	1.761	1.761	67.500
56	144	2.045	2.045	69.544
57	124	1.761	1.761	71.305
58	117	1.661	1.661	72.966
59	122	1.732	1.732	74.698
60	120	1.704	1.704	76.402
61	138	1.959	1.959	78.361
62	143	2.030	2.030	80.392
63	120	1.704	1.704	82.096
64	119	1.690	1.690	83.785
65	79	1.122	1.122	84.907
66	63	0.895	0.895	85.802
67	61	0.866	0.866	86.668
68	82	1.164	1.164	87.832
69	79	1.122	1.122	88.954
70	71	1.008	1.008	89.962
71	68	0.965	0.965	90.927
72	58	0.824	0.824	91.751
73	85	1.207	1.207	92.958
74	76	1.079	1.079	94.037
75	74	1.051	1.051	95.087
76	69	0.980	0.980	96.067
77	72	1.022	1.022	97.089
78	63	0.895	0.895	97.984
79	76	1.079	1.079	99.063
80	66	0.937	0.937	100.000
Missing	0	0.000		
Total	7043	100.000		

Frequencies for Customer Satisfaction

Customer Satisfaction	Frequency	Percent	Valid Percent	Cumulative Percent
1	332	4.714	18.103	18.103
2	200	2.840	10.905	29.008
3	675	9.584	36.805	65.812
4	380	5.395	20.720	86.532
5	247	3.507	13.468	100.000
Missing	5209	73.960		
Total	7043	100.000		

Frequencies for Churn Category

Churn Category	Frequency	Percent	Valid Percent	Cumulative Percent
Attitude	314	4.458	16.800	16.800
Competitor	841	11.941	44.997	61.798
Dissatisfaction	303	4.302	16.212	78.010
Other	200	2.840	10.701	88.711
Price	211	2.996	11.289	100.000
Missing	5174	73.463		
Total	7043	100.000		

Churn Value	Frequency	Percent	Valid Percent	Cumulative Percent
remain	5174	73.463	73.463	73.463
left	1869	26.537	26.537	100.000
Missing	0	0.000		
Total	7043	100.000		

Contingency Tables

Contingency Tables

Senior Citizen		Churn Value		Total
		remain	left	
No	Count	4508.000	1393.000	5901.000
	% within row	76.394 %	23.606 %	100.000 %
Yes	Count	666.000	476.000	1142.000
	% within row	58.319 %	41.681 %	100.000 %
Total	Count	5174.000	1869.000	7043.000
	% within row	73.463 %	26.537 %	100.000 %

Chi-Squared Tests

	Value	df	p
X²	160.352	1	< .001
N	7043		

Contingency Tables

Contingency Tables

Under 30		Churn Value		Total
		remain	left	
No	Count	4077.000	1565.000	5642.000
	% within row	72.262 %	27.738 %	100.000 %
Yes	Count	1097.000	304.000	1401.000
	% within row	78.301 %	21.699 %	100.000 %
Total	Count	5174.000	1869.000	7043.000
	% within row	73.463 %	26.537 %	100.000 %

Chi-Squared Tests

	Value	df	p
X²	21.000	1	< .001
N	7043		

Contingency Tables

Contingency Tables

		Churn Value		Total
Unlimited Data		remain	left	
Yes	Count	2205.000	499.000	2704.000
	% within row	81.546 %	18.454 %	100.000 %
No	Count	2969.000	1370.000	4339.000
	% within row	68.426 %	31.574 %	100.000 %
Total	Count	5174.000	1869.000	7043.000
	% within row	73.463 %	26.537 %	100.000 %

Chi-Squared Tests

	Value	df	p
X²	147.090	1	< .001
N	7043		

Contingency Tables

Contingency Tables

		Churn Value		Total
Referred a Friend		remain	left	
No	Count	2576.000	1245.000	3821.000
	% within row	67.417 %	32.583 %	100.000 %
Yes	Count	2598.000	624.000	3222.000
	% within row	80.633 %	19.367 %	100.000 %
Total	Count	5174.000	1869.000	7043.000
	% within row	73.463 %	26.537 %	100.000 %

Chi-Squared Tests

	Value	df	p
X²	156.618	1	< .001
N	7043		

ANOVA

ANOVA - Tenure in Months

Cases	Sum of Squares	df	Mean Square	F	p
Customer Satisfaction	149974.411	4	37493.603	72.108	< .001
Residuals	951018.584	1829	519.966		

Note. Type III Sum of Squares

Descriptives

Descriptives - Tenure in Months

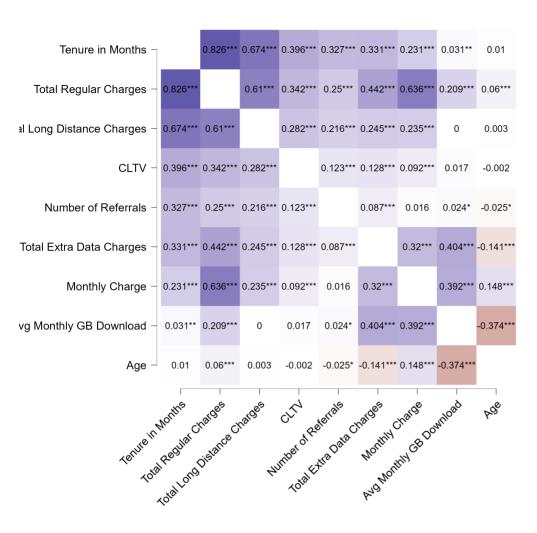| Customer Satisfaction	N	Mean	SD	SE	Coefficient of variation
1	332	16.392	18.620	1.022	1.136
2	200	18.665	19.562	1.383	1.048
3	675	35.433	24.761	0.953	0.699
4	380	40.303	23.999	1.231	0.595
5	247	34.211	22.863	1.455	0.668

Correlation

Pearson's Correlations

Variable		Tenure in Months	Total Regular Charges	Total Long Distance Charges	CLTV	Number of Referrals	Total Extra Data Charges	Monthly Charge	Avg Monthly GB
1. Tenure in Months	Pearson's r	—							
	p-value	—							
2. Total Regular Charges	Pearson's r	0.826***	—						
	p-value	< .001	—						
3. Total Long Distance Charges	Pearson's r	0.674***	0.610***	—					
	p-value	< .001	< .001	—					
4. CLTV	Pearson's r	0.396***	0.342***	0.282***	—				
	p-value	< .001	< .001	< .001	—				
5. Number of Referrals	Pearson's r	0.327***	0.250***	0.216***	0.123***	—			
	p-value	< .001	< .001	< .001	< .001	—			
6. Total Extra Data Charges	Pearson's r	0.331***	0.442***	0.245***	0.128***	0.087***	—		
	p-value	< .001	< .001	< .001	< .001	< .001	—		
7. Monthly Charge	Pearson's r	0.231***	0.636***	0.235***	0.092***	0.016	0.320***	—	
	p-value	< .001	< .001	< .001	< .001	0.179	< .001	—	
8. Avg Monthly GB Download	Pearson's r	0.031**	0.209***	3.721×10^{-4}	0.017	0.024*	0.404***	0.392***	
	p-value	0.008	< .001	0.975	0.164	0.043	< .001	< .001	
9. Age	Pearson's r	0.010	0.060***	0.003	−0.002	−0.025*	−0.141***	0.148***	−0.3
	p-value	0.405	< .001	0.797	0.878	0.035	< .001	< .001	< .0

$* p < .05, ** p < .01, *** p < .001$

Pearson's r heatmap

	Tenure in Months	Total Regular Charges	Total Long Distance Charges	CLTV	Number of Referrals	Total Extra Data Charges	Monthly Charge	Avg Monthly GB Download	Age
Tenure in Months		0.826***	0.674***	0.396***	0.327***	0.331***	0.231***	0.031**	0.01
Total Regular Charges	0.826***		0.61***	0.342***	0.25***	0.442***	0.636***	0.209***	0.06***
Total Long Distance Charges	0.674***	0.61***		0.282***	0.216***	0.245***	0.235***	0	0.003
CLTV	0.396***	0.342***	0.282***		0.123***	0.128***	0.092***	0.017	-0.002
Number of Referrals	0.327***	0.25***	0.216***	0.123***		0.087***	0.016	0.024*	-0.025*
Total Extra Data Charges	0.331***	0.442***	0.245***	0.128***	0.087***		0.32***	0.404***	-0.141***
Monthly Charge	0.231***	0.636***	0.235***	0.092***	0.016	0.32***		0.392***	0.148***
Avg Monthly GB Download	0.031**	0.209***	0	0.017	0.024*	0.404***	0.392***		-0.374***
Age	0.01	0.06***	0.003	-0.002	-0.025*	-0.141***	0.148***	-0.374***	

Linear Regression

Model Summary - Tenure in Months

Model	R	R^2	Adjusted R^2	RMSE
M_0	0.000	0.000	0.000	24.542
M_1	0.826	0.682	0.682	13.832
M_2	0.910	0.828	0.827	10.193
M_3	0.918	0.843	0.843	9.733
M_4	0.920	0.846	0.846	9.638
M_5	0.921	0.848	0.848	9.563
M_6	0.921	0.849	0.849	9.540
M_7	0.922	0.849	0.849	9.533
M_8	0.922	0.849	0.849	9.528
M_9	0.922	0.850	0.849	9.525

ANOVA

Model		Sum of Squares	df	Mean Square	F	p
M_1	Regression	$2.894 \times 10^{+6}$	1	$2.894 \times 10^{+6}$	15128.217	< .001
	Residual	$1.347 \times 10^{+6}$	7041	191.323		
	Total	$4.241 \times 10^{+6}$	7042			
M_2	Regression	$3.510 \times 10^{+6}$	2	$1.755 \times 10^{+6}$	16890.418	< .001
	Residual	731490.781	7040	103.905		
	Total	$4.241 \times 10^{+6}$	7042			
M_3	Regression	$3.575 \times 10^{+6}$	3	$1.192 \times 10^{+6}$	12578.328	< .001
	Residual	666811.837	7039	94.731		
	Total	$4.241 \times 10^{+6}$	7042			
M_4	Regression	$3.588 \times 10^{+6}$	4	896920.241	9655.050	< .001
	Residual	653805.481	7038	92.896		
	Total	$4.241 \times 10^{+6}$	7042			
M_5	Regression	$3.598 \times 10^{+6}$	5	719590.186	7868.651	< .001
	Residual	643535.514	7037	91.450		
	Total	$4.241 \times 10^{+6}$	7042			
M_6	Regression	$3.601 \times 10^{+6}$	6	600194.714	6595.112	< .001
	Residual	640318.160	7036	91.006		
	Total	$4.241 \times 10^{+6}$	7042			
M_7	Regression	$3.602 \times 10^{+6}$	7	514600.591	5662.937	< .001
	Residual	639282.311	7035	90.872		
	Total	$4.241 \times 10^{+6}$	7042			
M_8	Regression	$3.603 \times 10^{+6}$	8	450371.039	4961.347	< .001
	Residual	638518.133	7034	90.776		
	Total	$4.241 \times 10^{+6}$	7042			
M_9	Regression	$3.603 \times 10^{+6}$	9	400376.870	4412.904	< .001
	Residual	638094.617	7033	90.729		
	Total	$4.241 \times 10^{+6}$	7042			

Note. The intercept model is omitted, as no meaningful information can be shown.

Coefficients

Model		Unstandardized	Standard Error	Standardized[a]	t	p
M_0	(Intercept)	32.387	0.292		110.748	< .001
M_1	(Intercept)	11.987	0.234		51.263	< .001
	Total Regular Charges	0.009	7.273×10^{-5}	0.826	122.997	< .001
M_2	(Intercept)	30.177	0.292		103.178	< .001
	Total Regular Charges	0.012	6.946×10^{-5}	1.140	177.751	< .001
	Monthly Charge	−0.396	0.005	−0.494	−76.973	< .001
M_3	(Intercept)	27.587	0.296		93.095	< .001
	Total Regular Charges	0.011	8.402×10^{-5}	1.016	130.904	< .001
	Monthly Charge	−0.363	0.005	−0.452	−71.537	< .001
	Total Long Distance Charges	0.005	1.786×10^{-4}	0.161	26.130	< .001
M_4	(Intercept)	26.379	0.311		84.899	< .001
	Total Regular Charges	0.011	8.552×10^{-5}	0.994	125.868	< .001
	Monthly Charge	−0.355	0.005	−0.443	−70.151	< .001
	Total Long Distance Charges	0.005	1.771×10^{-4}	0.157	25.728	< .001
	Referred a Friend (Yes)	2.898	0.245		11.833	< .001
M_5	(Intercept)	21.610	0.546		39.615	< .001
	Total Regular Charges	0.011	8.792×10^{-5}	0.971	119.657	< .001
	Monthly Charge	−0.347	0.005	−0.433	−68.246	< .001
	Total Long Distance Charges	0.004	1.760×10^{-4}	0.153	25.267	< .001
	Referred a Friend (Yes)	2.909	0.243		11.971	< .001
	CLTV	0.001	1.043×10^{-4}	0.053	10.597	< .001
M_6	(Intercept)	21.490	0.545		39.463	< .001
	Total Regular Charges	0.011	8.771×10^{-5}	0.971	119.892	< .001
	Monthly Charge	−0.347	0.005	−0.433	−68.486	< .001
	Total Long Distance Charges	0.004	1.756×10^{-4}	0.153	25.291	< .001
	Referred a Friend (Yes)	2.867	0.242		11.824	< .001
	CLTV	0.001	1.040×10^{-4}	0.053	10.651	< .001
	Total Refunds	0.086	0.014	0.028	5.946	< .001
M_7	(Intercept)	20.543	0.612		33.561	< .001
	Total Regular Charges	0.011	8.768×10^{-5}	0.972	120.028	< .001
	Monthly Charge	−0.350	0.005	−0.436	−68.370	< .001
	Total Long Distance Charges	0.004	1.754×10^{-4}	0.153	25.332	< .001
	Referred a Friend (Yes)	2.870	0.242		11.846	< .001
	CLTV	0.001	1.039×10^{-4}	0.053	10.654	< .001
	Total Refunds	0.085	0.014	0.027	5.878	< .001
	Age	0.023	0.007	0.016	3.376	< .001
M_8	(Intercept)	20.471	0.612		33.432	< .001
	Total Regular Charges	0.011	8.801×10^{-5}	0.970	119.314	< .001
	Monthly Charge	−0.348	0.005	−0.434	−67.582	< .001
	Total Long Distance Charges	0.004	1.753×10^{-4}	0.153	25.344	< .001
	Referred a Friend (Yes)	2.225	0.329		6.763	< .001
	CLTV	0.001	1.039×10^{-4}	0.053	10.624	< .001
	Total Refunds	0.085	0.014	0.027	5.889	< .001
	Age	0.024	0.007	0.016	3.425	< .001

[a] Standardized coefficients can only be computed for continuous predictors.

Model		Unstandardized	Standard Error	Standardized[a]	t	p
	Number of Referrals	0.157	0.054	0.019	2.901	0.004
M₉	(Intercept)	20.577	0.614		33.506	< .001
	Total Regular Charges	0.011	$9.120×10^{-5}$	0.974	115.708	< .001
	Monthly Charge	−0.347	0.005	−0.433	−67.288	< .001
	Total Long Distance Charges	0.004	$1.753×10^{-4}$	0.153	25.296	< .001
	Referred a Friend (Yes)	2.237	0.329		6.801	< .001
	CLTV	0.001	$1.039×10^{-4}$	0.053	10.589	< .001
	Total Refunds	0.085	0.014	0.027	5.915	< .001
	Age	0.021	0.007	0.014	2.931	0.003
	Number of Referrals	0.154	0.054	0.019	2.845	0.004
	Total Extra Data Charges	$−4.079×10^{-4}$	$1.888×10^{-4}$	−0.011	−2.161	0.031

[a] Standardized coefficients can only be computed for continuous predictors.

Logistic Regression

Model Summary - Churn Value

Model	Deviance	AIC	BIC	df	ΔX²	p	McFadden R²	Nagelkerke R²	Tjur R²	Cox & Snell R²
M₀	8150.146	8152.146	8159.006	7042			0.000		0.000	
M₁	4378.668	4424.668	4582.443	7020	3771.478	< .001	0.463	0.605	0.498	0.415

Note. M₁ includes Number of Referrals, Avg Monthly GB Download, Streaming Movies, Streaming Music, Tenure in Months, Online Security, Device Protection Plan, Premium Tech Support, Contract, Monthly Charge, Total Extra Data Charges, Senior Citizen, Phone Service, Online Backup, Unlimited Data, Paperless Billing, Dependents, Payment Method, Under 30, Referred a Friend

Coefficients

Model		Estimate	Standard Error	Odds Ratio	z	Wald Test Wald Statistic	df	p
M_0	(Intercept)	−1.018	0.027	0.361	−37.730	1423.578	1	< .001
M_1	(Intercept)	−9.311	0.399	$9.038×10^{-5}$	−23.350	545.224	1	< .001
	Number of Referrals	−0.596	0.039	0.551	−15.125	228.754	1	< .001
	Avg Monthly GB Download	0.008	0.003	1.008	2.652	7.035	1	0.008
	Streaming Movies (No)	0.583	0.163	1.792	3.569	12.737	1	< .001
	Streaming Music (Yes)	0.409	0.160	1.505	2.549	6.496	1	0.011
	Tenure in Months	−0.031	0.003	0.969	−11.146	124.227	1	< .001
	Online Security (No)	0.450	0.099	1.568	4.554	20.738	1	< .001
	Device Protection Plan (No)	0.189	0.096	1.208	1.972	3.890	1	0.049
	Premium Tech Support (No)	0.504	0.099	1.656	5.082	25.827	1	< .001
	Contract (One Year)	1.090	0.188	2.973	5.799	33.632	1	< .001
	Contract (Month-to-Month)	2.445	0.181	11.535	13.479	181.696	1	< .001
	Monthly Charge	0.043	0.003	1.044	16.516	272.783	1	< .001
	Total Extra Data Charges	0.000	0.000	1.000	2.326	5.411	1	0.020
	Senior Citizen (Yes)	0.746	0.120	2.108	6.207	38.521	1	< .001
	Phone Service (No)	1.445	0.156	4.243	9.276	86.043	1	< .001
	Online Backup (No)	0.329	0.093	1.389	3.555	12.641	1	< .001
	Unlimited Data (No)	1.256	0.091	3.513	13.822	191.059	1	< .001
	Paperless Billing (Yes)	0.197	0.086	1.217	2.281	5.205	1	0.023
	Dependents (No)	1.534	0.137	4.634	11.183	125.053	1	< .001
	Payment Method (Credit Card)	−0.314	0.089	0.731	−3.534	12.486	1	< .001
	Payment Method (Mailed Check)	0.784	0.158	2.191	4.978	24.781	1	< .001
	Under 30 (Yes)	−0.499	0.138	0.607	−3.602	12.976	1	< .001
	Referred a Friend (Yes)	1.908	0.128	6.738	14.933	223.004	1	< .001

Note. Churn Value level 'left' coded as class 1.

Neighborhood-Based Clustering

Model Summary: K-Means Clustering

Clusters	N	R²	AIC	BIC	Silhouette
3	7043	0.712	4074.710	4115.870	0.470

Cluster Information

Cluster	1	2	3
Size	3084	1567	2392
Explained proportion within-cluster heterogeneity	0.344	0.355	0.301
Within sum of squares	1397.136	1442.260	1223.316

	Total Long Distance Charges	CLTV
Cluster 1	0.596	−0.460
Cluster 2	0.608	1.590
Cluster 3	−1.166	−0.449

Contingency Tables

Contingency Tables

	Churn Value		
Phone Service	remain	left	Total
Yes	4662	1699	6361
No	512	170	682
Total	5174	1869	7043

Note. Each cell displays the observed counts

Chi-Squared Tests

	Value	df	p
X²	1.004	1	0.316
N	7043		

Contingency Tables

Contingency Tables

Dependents		Churn Value		Total
		remain	left	
Yes	Count	1521.000	106.000	1627.000
	% within row	93.485 %	6.515 %	100.000 %
No	Count	3653.000	1763.000	5416.000
	% within row	67.448 %	32.552 %	100.000 %
Total	Count	5174.000	1869.000	7043.000
	% within row	73.463 %	26.537 %	100.000 %

Chi-Squared Tests

	Value	df	p
X²	435.069	1	< .001
N	7043		

Contingency Tables

Payment Method		Churn Value		
---	---	remain	left	Total
Bank Withdrawal	Count	2580.000	1329.000	3909.000
	% within row	66.002 %	33.998 %	100.000 %
Credit Card	Count	2351.000	398.000	2749.000
	% within row	85.522 %	14.478 %	100.000 %
Mailed Check	Count	243.000	142.000	385.000
	% within row	63.117 %	36.883 %	100.000 %
Total	Count	5174.000	1869.000	7043.000
	% within row	73.463 %	26.537 %	100.000 %

Chi-Squared Tests

	Value	df	p
X²	337.831	2	< .001
N	7043		

Note. Continuity correction is available only for 2x2 tables.

Contingency Tables

Streaming Movies		Churn Value		
---	---	remain	left	Total
Yes	Count	1914.000	818.000	2732.000
	% within row	70.059 %	29.941 %	100.000 %
No	Count	3260.000	1051.000	4311.000
	% within row	75.621 %	24.379 %	100.000 %
Total	Count	5174.000	1869.000	7043.000
	% within row	73.463 %	26.537 %	100.000 %

Chi-Squared Tests

	Value	df	p
X²	26.536	1	< .001
N	7043		

Contingency Tables

Streaming Music		Churn Value		
---	---	remain	left	Total
No	Count	3414.000	1141.000	4555.000
	% within row	74.951 %	25.049 %	100.000 %
Yes	Count	1760.000	728.000	2488.000
	% within row	70.740 %	29.260 %	100.000 %
Total	Count	5174.000	1869.000	7043.000
	% within row	73.463 %	26.537 %	100.000 %

	Value	df	p
X²	14.637	1	< .001
N	7043		

Contingency Tables

Contingency Tables

			Churn Value		
Premium Tech Support			remain	left	Total
Yes	Count		1734.000	310.000	2044.000
	% within row		84.834 %	15.166 %	100.000 %
No	Count		3440.000	1559.000	4999.000
	% within row		68.814 %	31.186 %	100.000 %
Total	Count		5174.000	1869.000	7043.000
	% within row		73.463 %	26.537 %	100.000 %

Chi-Squared Tests

	Value	df	p
X²	190.988	1	< .001
N	7043		

Contingency Tables

Contingency Tables

			Churn Value		
Online Backup			remain	left	Total
Yes	Count		1906.000	523.000	2429.000
	% within row		78.469 %	21.531 %	100.000 %
No	Count		3268.000	1346.000	4614.000
	% within row		70.828 %	29.172 %	100.000 %
Total	Count		5174.000	1869.000	7043.000
	% within row		73.463 %	26.537 %	100.000 %

Chi-Squared Tests

	Value	df	p
X²	47.652	1	< .001
N	7043		

Contingency Tables

Contingency Tables

Online Security		Churn Value		Total
		remain	left	
Yes	Count	1724.000	295.000	2019.000
	% within row	85.389 %	14.611 %	100.000 %
No	Count	3450.000	1574.000	5024.000
	% within row	68.670 %	31.330 %	100.000 %
Total	Count	5174.000	1869.000	7043.000
	% within row	73.463 %	26.537 %	100.000 %

Chi-Squared Tests

	Value	df	p
X²	206.490	1	< .001
N	7043		