

# CUSTOMER RETENTION

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1-PROBLEM STATEMENT

2-EDA

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# 1- PROBLAM STATEMENT

To Analysis Customer Retention, It Is Important to Know That What Customer Retention is?

Customer retention means that the customer you already have should not be separated from you because whenever a new customer is acquired, it takes more money and time to acquire new customers, that is why customer retention is very important for any retailer.

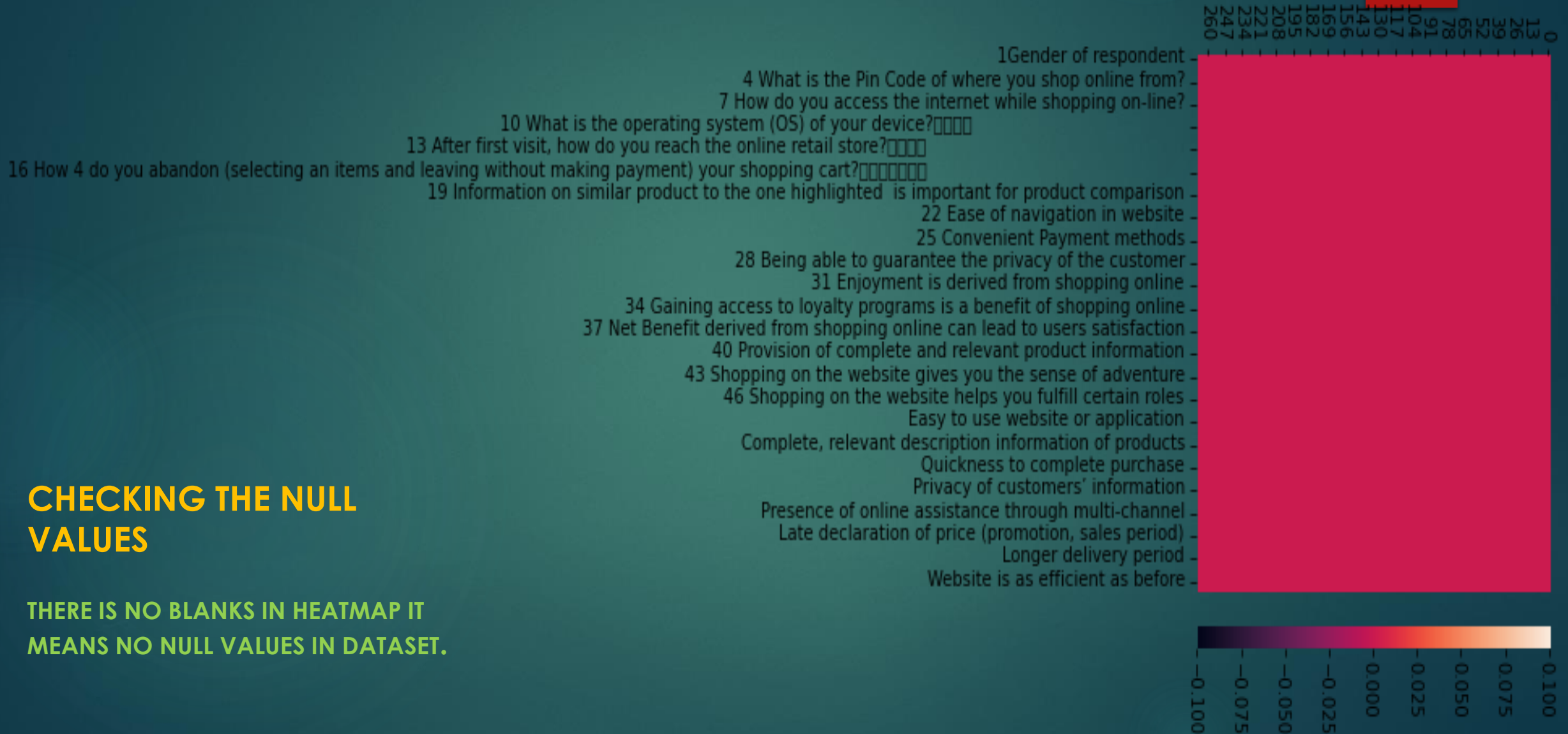
That is why we analysis customer data to maintain customer retention. In this dataset there are many columns such as gender, age, city, since how long customers are shopping online, what is the preferred payment option, and lots of columns to check the rating of online retailers. In this customer retention dataset, we have to analysis that which of the Indian online retailers would you recommended to your friend or anyone. Means we have to predict that which Indian online retailer is keeps the customer and in an easy way we can say that which online retailer keeps the customer happy so that the customer is not retained.



# 2-EDA

## CHECKING THE NULL VALUES

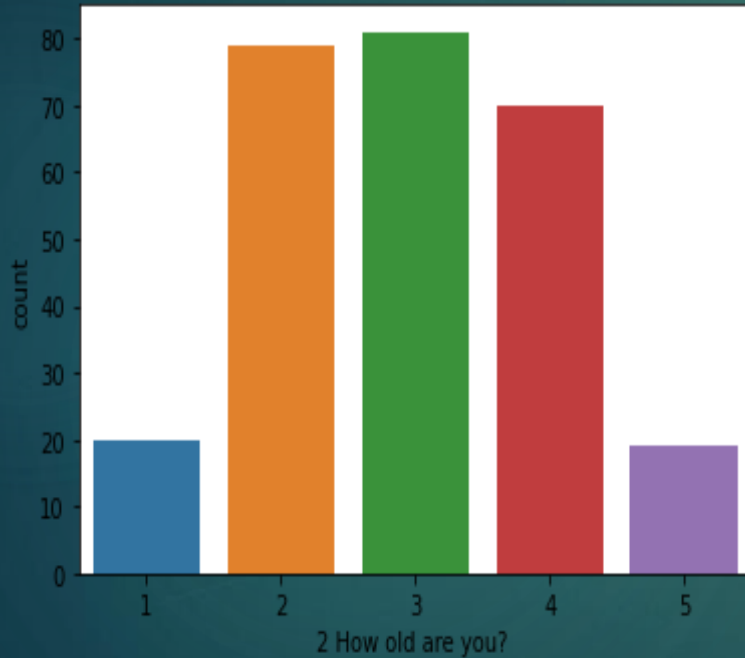
THERE IS NO BLANKS IN HEATMAP IT MEANS NO NULL VALUES IN DATASET.



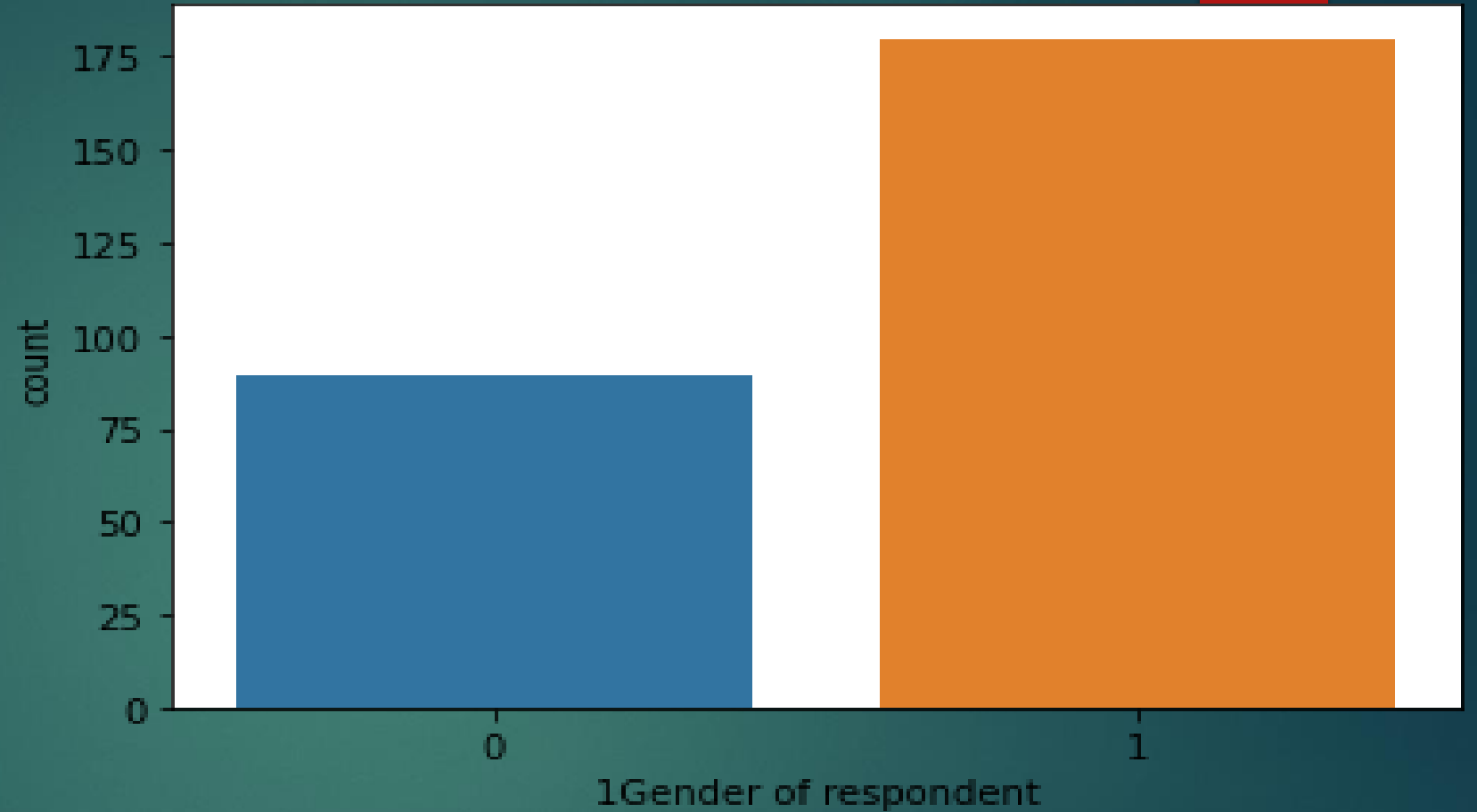
# CHECKING THE CORRELATION

Statement of respondents	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1 How many times you have made an online purchase in the past 1 year?	1	0.057	0.014	0.0051	0.024	0.29	0.23	0.13	-0.15	-0.047	-0.13	0.14	-0.03	0.1	-0.095	-0.13	-0.044	0.037	-0.0058	-0.12	-0.095	-0.2	-0.16	-0.21	-0.22	-0.24	-0.11	-0.24	-0.2	-0.063	0.015	0.095	0.032	-0.03	-0.14	-0.095	0.036	0.083	-0.056	0.036	-0.003	-0.18	-0.2	-0.12	0.003																																																							
2 How long have you been using the website?	0.057	1	0.003	-0.021	0.13	-0.1	-0.19	0.078	0.064	0.083	0.14	-0.011	-0.03	0.21	-0.19	-0.046	0.16	-0.045	-0.16	-0.18	0.026	-0.11	0.0093	-0.083	-0.16	-0.24	0.16	0.063	0.085	0.24	0.17	-0.089	0.099	0.12	0.076	-0.072	0.074	0.068	0.16	0.16	0.026	-0.24	0.019	-0.14	0.13																																																							
3 How many times you have made an online purchase in the past 1 year?	0.014	0.003	1	0.29	0.081	0.31	0.12	-0.14	-0.24	-0.11	0.051	0.02	-0.056	0.066	0.046	0.037	-0.015	-0.24	0.086	0.024	-0.086	-0.14	-0.17	-0.051	-0.025	0.018	-0.093	-0.26	-0.2	0.022	0.06	0.042	0.055	0.19	-0.031	0.064	0.0063	0.16	-0.032	-0.015	0.11	-0.027	-0.047	0.17	0.18																																																							
4 How many times you have made an online purchase in the past 1 year?	0.0051	-0.021	0.29	1	0.14	0.058	-0.13	0.041	-0.15	0.038	-0.3	0.044	0.17	0.19	0.18	-0.0028	-0.004	-0.045	0.026	-0.074	-0.023	-0.057	-0.07	0.029	0.016	-0.058	0.16	-0.017	0.074	0.2	0.11	0.19	0.2	0.24	-0.14	0.025	0.2	0.19	0.12	0.047	0.18	-0.049	-0.098	0.057	0.2																																																							
5 How do you access the internet while shopping on-line?	0.2	0.078	0.13	0.081	0.14	1	0.003	0.036	-0.0088	0.029	-0.058	0.073	-0.062	0.046	0.057	0.0027	-0.1	0.08	-0.081	0.084	-0.14	-0.15	-0.14	-0.12	-0.05	0.057	0.046	-0.11	-0.11	-0.14	-0.1	0.017	-0.13	0.037	-0.14	-0.054	0.018	-0.045	-0.074	-0.052	0.005	-0.05	0.015	-0.027	-0.023																																																							
6 Which device do you use to access the online shopping?	0.24	0.29	-0.1	0.31	0.058	0.063	1	0.6	0.56	-0.33	0.14	-0.28	0.12	-0.17	0.08	-0.084	-0.47	-0.29	-0.38	-0.3	0.37	-0.45	-0.6	-0.69	-0.49	-0.44	-0.48	-0.17	-0.63	-0.57	-0.19	-0.0048	0.16	-0.0054	0.03	-0.095	-0.33	-0.16	-0.16	-0.31	0.0036	-0.032	-0.33	-0.3	-0.2	-0.039																																																						
7 What is the screen size of your mobile device?	-0.059	0.23	-0.19	0.12	-0.13	0.036	0.6	1	0.78	-0.29	-0.22	-0.42	-0.14	0.035	-0.31	-0.33	-0.25	0.051	-0.19	-0.094	-0.079	-0.27	-0.3	-0.42	-0.18	-0.24	-0.091	-0.3	-0.54	-0.52	-0.24	-0.027	0.11	0.014	-0.11	-0.15	-0.24	-0.23	0.0024	-0.36	0.13	0.041	0.11	-0.45	-0.026	-0.3																																																						
8 What is the operating system (OS) of your device?	-0.038	-0.13	0.078	-0.14	0.041	-0.0094	-0.56	-0.78	1	0.41	0.25	0.17	-0.0066	-0.06	0.037	0.27	0.23	-0.039	-0.13	-0.16	0.16	0.25	0.38	0.52	-0.079	0.31	0.12	0.22	0.53	-0.42	-0.0081	-0.12	-0.17	-0.2	-0.13	-0.16	0.24	0.26	-0.14	-0.47	-0.068	0.032	0.14	-0.43	-0.0038	0.19																																																						
9 What browser do you use on your device to access the website?	-0.12	-0.15	0.064	-0.24	-0.15	0.029	-0.33	0.29	-0.41	1	0.61	0.32	0.047	0.13	-0.42	-0.22	-0.074	-0.22	-0.17	-0.15	-0.088	-0.019	0.0042	0.078	-0.17	0.03	-0.16	-0.081	0.034	0.052	-0.33	-0.53	-0.44	-0.51	-0.68	-0.41	-0.046	-0.076	-0.53	-0.16	-0.23	-0.33	0.13	0.09	-0.13	-0.28																																																						
10 Which channel did you follow to arrive at your favorite online store for the first time?	-0.17	-0.047	0.083	-0.11	-0.038	-0.056	0.14	-0.22	0.25	0.61	1	0.02	0.29	-0.16	-0.028	0.1	-0.028	-0.12	-0.19	0.034	-0.065	-0.025	-0.15	-0.058	-0.38	-0.029	0.085	0.12	-0.078	-0.21	-0.21	-0.27	-0.48	-0.14	-0.088	-0.071	0.41	-0.18	-0.15	-0.38	-0.2	0.16	-0.11	-0.13																																																								
11 After first visit, how do you reach the online retail store?	0.1	-0.13	0.14	0.051	0.3	-0.073	-0.28	-0.42	0.17	-0.32	0.02	1	0.051	0.18	0.38	0.35	0.34	0.13	0.5	0.22	0.075	0.34	0.29	0.33	0.45	0.18	-0.3	0.43	0.46	0.63	0.63	0.51	0.38	0.53	0.57	0.51	0.23	0.36	0.43	0.32	0.24	0.18	-0.012	0.29	0.16	0.27																																																						
12 How much time do you explore the e-retail store before making a purchase decision?	0.14	0.14	-0.011	0.02	0.044	-0.062	0.12	-0.14	-0.0066	0.047	0.29	0.051	1	-0.021	0.4	0.22	0.31	0.4	0.074	0.39	0.32	0.42	0.3	0.19	0.15	0.24	-0.026	0.013	0.066	0.16	0.12	0.23	0.02	0.15	-0.14	0.15	0.26	0.052	0.16	0.048	-0.3	-0.54	0.26	0.045	-0.2	0.22																																																						
13 What is your preferred payment system?	0.05	-0.03	-0.03	-0.056	0.17	0.046	-0.17	0.035	-0.08	-0.13	-0.16	0.18	-0.091	1	0.081	0.34	0.16	0.015	0.24	0.048	0.012	-0.23	-0.015	-0.049	0.059	0.25	0.18	0.26	0.34	0.23	-0.063	-0.29	0.34	0.072	0.17	0.23	0.15	0.17	-0.058	-0.075	0.12	-0.38	0.27	0.036	0.22	0.16																																																						
14 How do you abandon (selecting an item and leaving without making payment) your shopping cart?	0.09	0.1	0.21	0.066	0.19	-0.057	0.09	-0.31	0.037	-0.42	-0.028	0.38	0.4	0.081	1	0.17	0.26	0.064	0.17	0.22	-0.048	0.2	0.035	0.04	0.052	0.089	-0.1	0.21	0.13	0.2	0.5	0.34	0.13	0.54	0.44	0.41	0.26	0.23	0.28	0.14	-0.21	-0.17	-0.61	-0.044	-0.096	0.35																																																						
15 Why did you abandon the "Buy"/"Shopping Cart"?	-0.024	-0.095	-0.19	0.046	0.18	0.0027	-0.084	-0.33	0.27	-0.22	0.1	0.35	0.22	0.34	0.17	1	0.32	0.27	0.35	0.22	0.21	0.12	0.3	0.27	0.35	0.28	0.25	0.55	0.49	0.15	0.04	0.44	0.19	0.15	0.38	0.29	0.34	-0.023	0.15	0.13	0.0054	0.26	0.33	0.4	0.11																																																							
16 The content on the website must be easy to read and understand	0.17	-0.13	-0.046	-0.037	-0.0028	-0.1	-0.47	-0.25	0.23	-0.074	0.028	0.34	0.31	0.16	0.26	0.32	1	0.64	0.49	0.9	0.77	0.67	0.82	0.76	0.67	0.83	0.6	-0.11	0.63	0.56	0.15	0.092	-0.21	0.093	0.088	0.25	0.89	-0.031	0.13	-0.047	-0.39	-0.39	0.24	0.44	0.4	0.15																																																						
17 Information on similar product to the one highlighted is important for product comparison	0.26	-0.044	-0.16	-0.015	-0.064	-0.14	-0.29	0.051	-0.039	-0.22	-0.24	0.13	0.4	0.015	0.064	0.27	0.64	1	0.49	0.72	0.86	0.66	0.75	0.62	0.71	0.62	0.63	-0.14	-0.49	0.46	0.14	0.28	0.27	0.3	0.026	0.46	0.52	0.065	0.38	0.14	-0.058	-0.27	0.44	0.31	0.51	0.24																																																						
18 Complete information on listed seller and product being offered is important for purchase decision	0.08	-0.037	-0.045	-0.24	-0.045	-0.08	-0.38	-0.19	0.13	-0.17	-0.068	0.5	0.074	0.24	0.17	0.35	0.45	0.49	1	0.42	0.39	0.38	0.46	0.42	0.52	0.34	0.41	-0.4	0.6	0.58	0.14	0.11	0.34	0.19	0.022	0.25	0.37	0.14	0.064	-0.025	-0.065	-0.063	0.14	0.36	0.44	-0.13																																																						
19 An relevant information on listed products must be stated clearly	0.14	-0.059	-0.16	0.088	0.026	-0.081	-0.3	-0.084	0.16	-0.15	-0.12	0.22	0.39	0.048	0.22	0.22	0.9	0.72	0.42	1	0.85	0.88	0.76	0.63	0.6	0.8	0.64	-0.19	0.39	0.39	0.0016	0.062	-0.15	0.034	0.02	0.14	0.89	-0.034	-0.2	-0.099	-0.39	-0.31	0.27	0.38	0.43	0.26																																																						
20 Ease of navigation in website	0.17	-0.12	-0.18	0.024	-0.074	-0.084	-0.37	-0.078	0.16	-0.088	-0.19	0.075	0.32	0.012	-0.048	0.51	0.77	0.86	0.59	0.85	1	0.86	0.83	0.68	0.68	0.82	0.71	-0.19	-0.52	0.45	-0.17	0.071	-0.08	-0.089	-0.057	0.21	0.75	-0.14	0.17	-0.0047	-0.22	-0.23	-0.52	0.55	0.48	0.48																																																						
21 Looking and processing speed	0.23	-0.095	0.026	-0.086	-0.023	-0.14	-0.45	-0.27	0.25	-0.019	0.034	0.34	0.42	-0.23	0.2	0.12	0.67	0.66	0.38	0.68	0.66	1</																																																																														

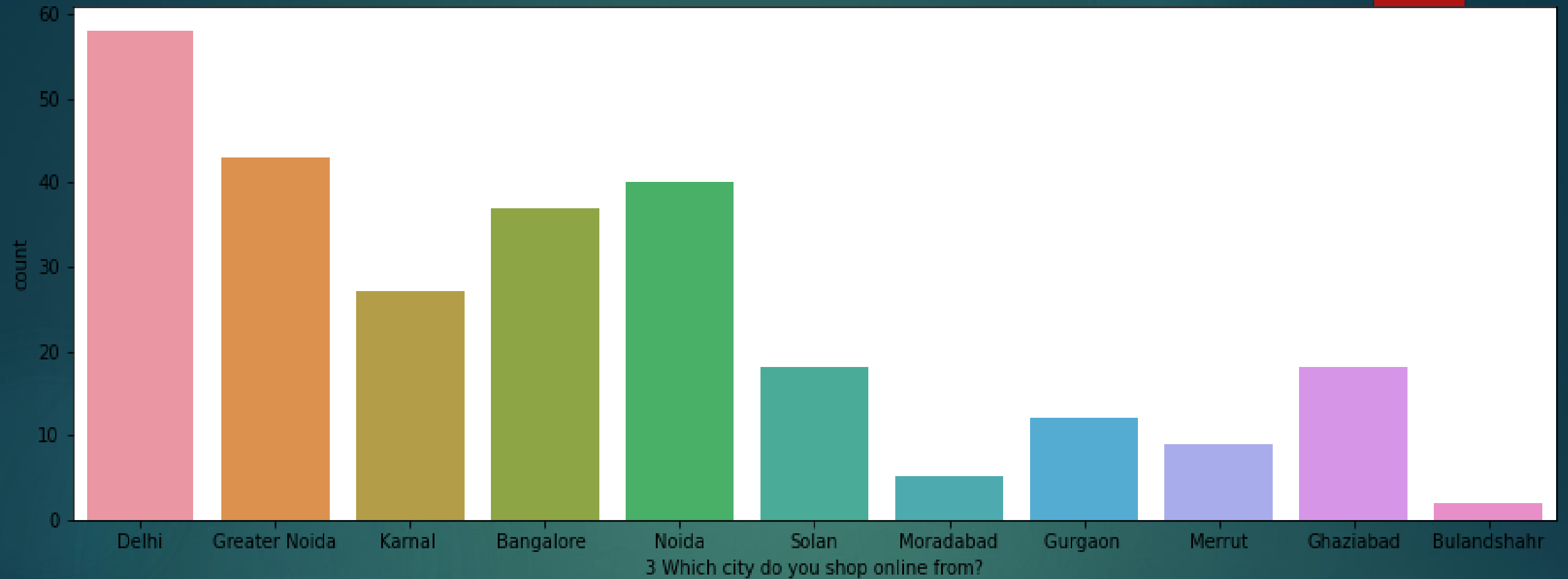
# 3- DATA VISUALIZATION



TYPE 2 TO 4 CUSTOMERS HAVE THE MOST.

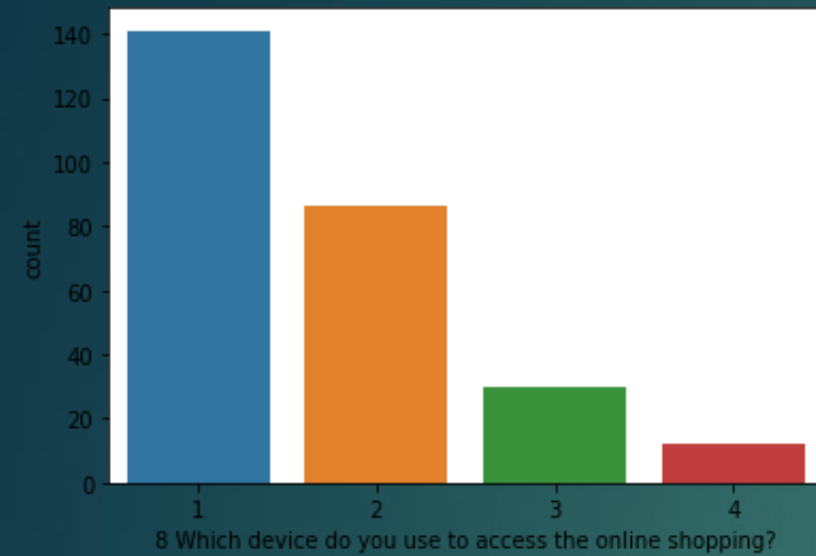


*FEMALE CUSTOMERS ARE HIGHER THAN MALES CUSTOMERS.*

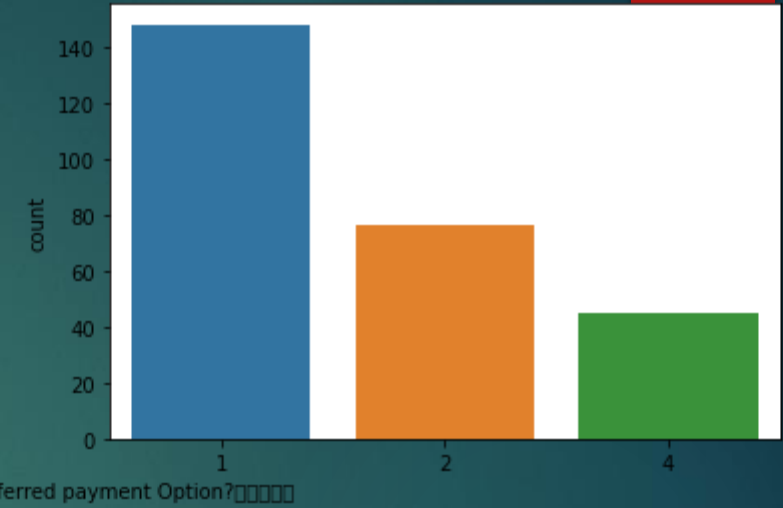


**DELHI ,GREATER NOIDA, NOIDA AND BANGALORE ARE THE HIGHEST CITY FOR THE ONLINE SHOPPING.**

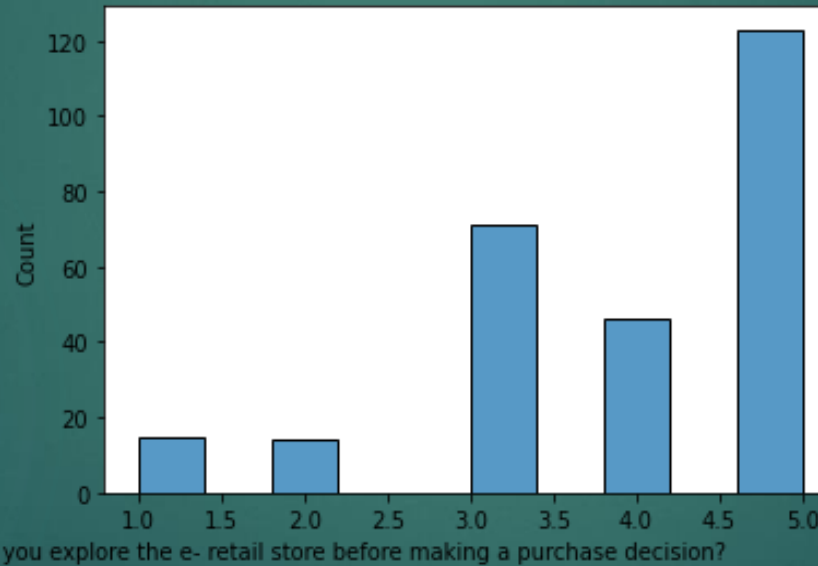




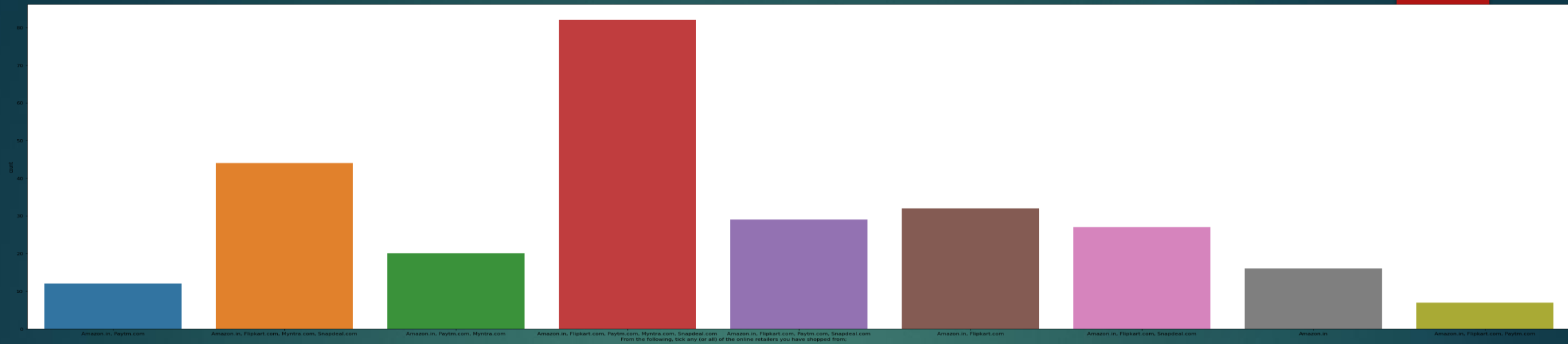
1 TYPE  
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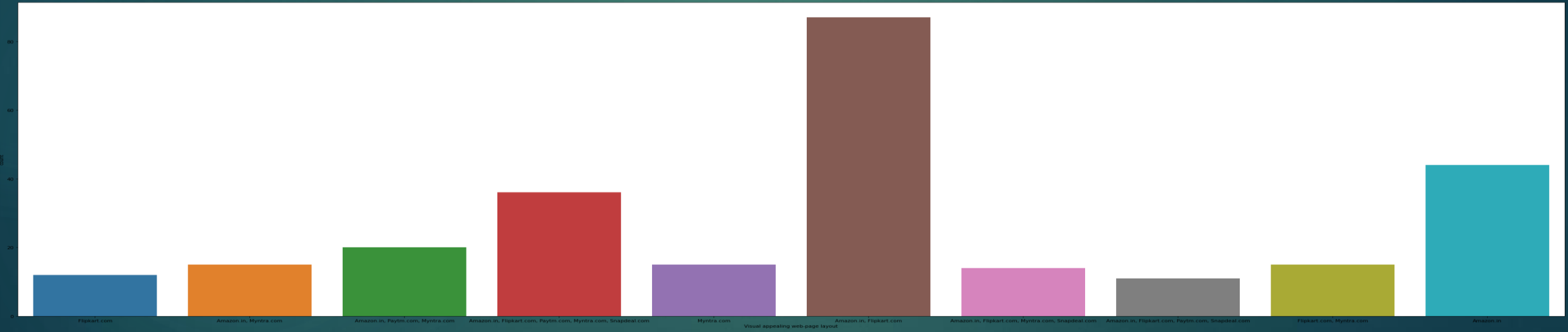
1 Type of payment option is  
maximum.



5 Types of time are the most to  
explore the e-retail store before  
making a purchase decision.

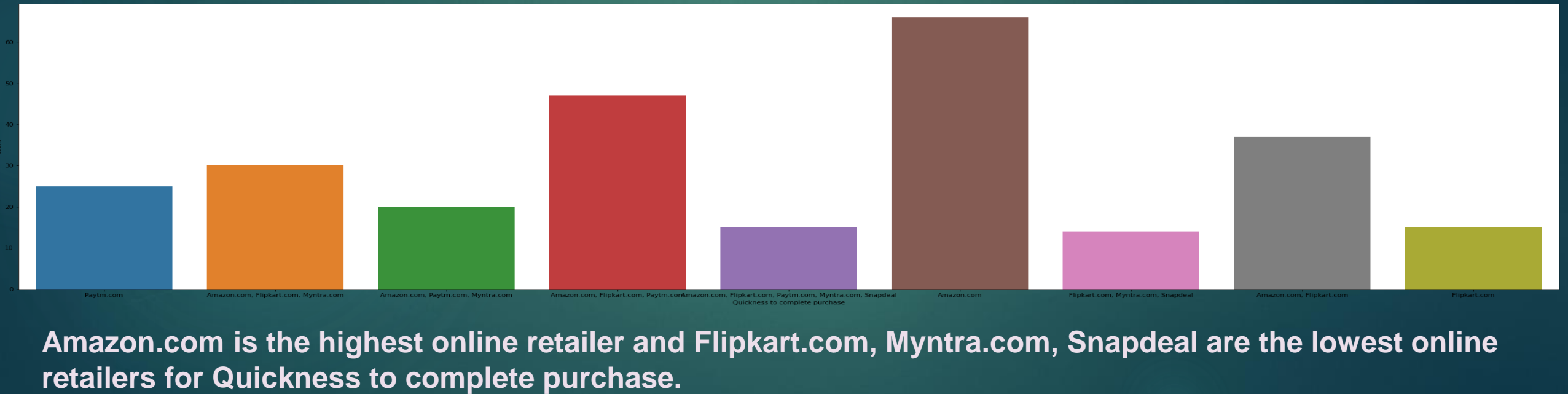
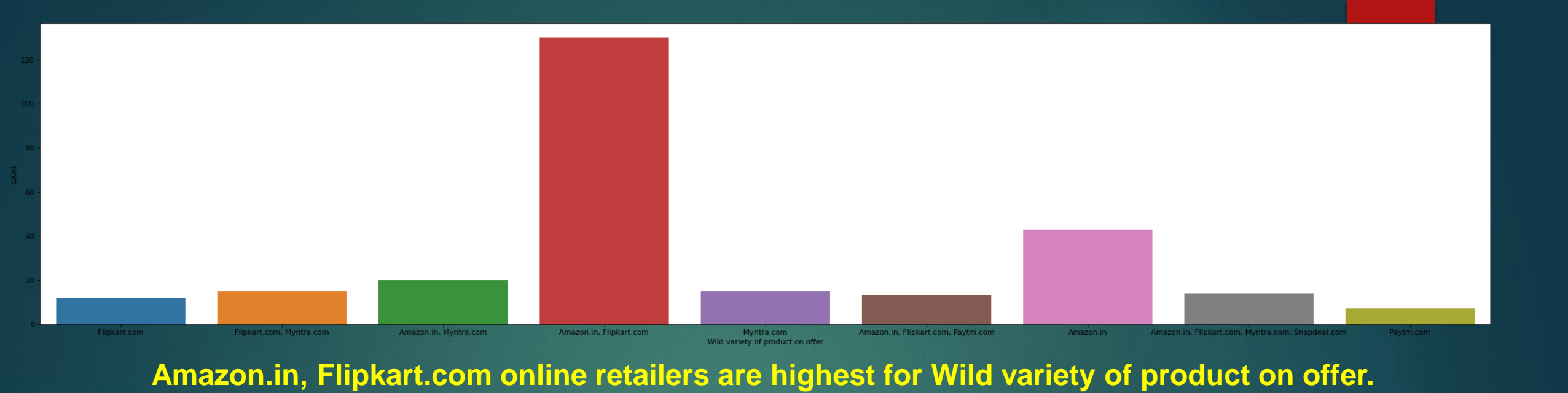


Amazon.in, Flipkart.com, Paytm.com, Myntra.com, Snapdeal.com are the highest online retailers.



Amazon.in, Flipkart.com online retailers are highest for Visual appealing web-page layout.





# 4-CONCLUSION

After analysis the dataset of customer retention we can say that Amazon.in and Flipcart.com both online retailers are highest for customer retention.

That is why customers of Amazon.in and Flipcart.com are happy.  
And they always choose only Amazon and Flip cart for online shopping.

