Assignment for Business Intelligence Summer 2021 Internship

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Here are the customer retention charts for the monthly cohort for restaurants and retail stores:
How to interpret the percentage : 100 % means the total number of customers that used our services in the given time frame.
Null : The percentage of customers who used our services only for one time.

Customer Retention Restaurants

Year of Firs..	Quarter of ..	Month of Fi..	Product line	Months to repeat: Null	1	2	3	4	5	Grand Total
2020	Q2	May	Restaurant	10.65%	8.57%	1.81%	1.15%	1.07%	0.41%	23.67%
		June	Restaurant	7.43%	5.54%	1.55%	0.97%	0.32%		15.82%
	Q3	July	Restaurant	6.93%	4.27%	1.23%	0.38%			12.82%
		August	Restaurant	8.43%	4.82%	0.68%				13.93%
		September	Restaurant	16.23%	6.55%					22.78%
	Q4	October	Restaurant	10.98%						10.98%
Grand Total				60.65%	29.76%	5.28%	2.50%	1.40%	0.41%	100.00%

Customer Retention Retail Stores

Year of Firs..	Quarter of ..	Month of Fi..	Product line	Months to repeat: Null	1	2	3	4	5	Grand Total
2020	Q2	May	Retail store	13.13%	10.53%	1.88%	0.90%	1.11%	0.58%	28.13%
		June	Retail store	8.47%	5.86%	1.53%	1.13%	0.30%		17.29%
	Q3	July	Retail store	6.13%	4.38%	1.11%	0.30%			11.92%
		August	Retail store	8.17%	5.76%	0.46%				14.40%
		September	Retail store	14.63%	6.57%					21.20%
	Q4	October	Retail store	7.06%						7.06%
Grand Total				57.59%	33.10%	4.98%	2.34%	1.41%	0.58%	100.00%

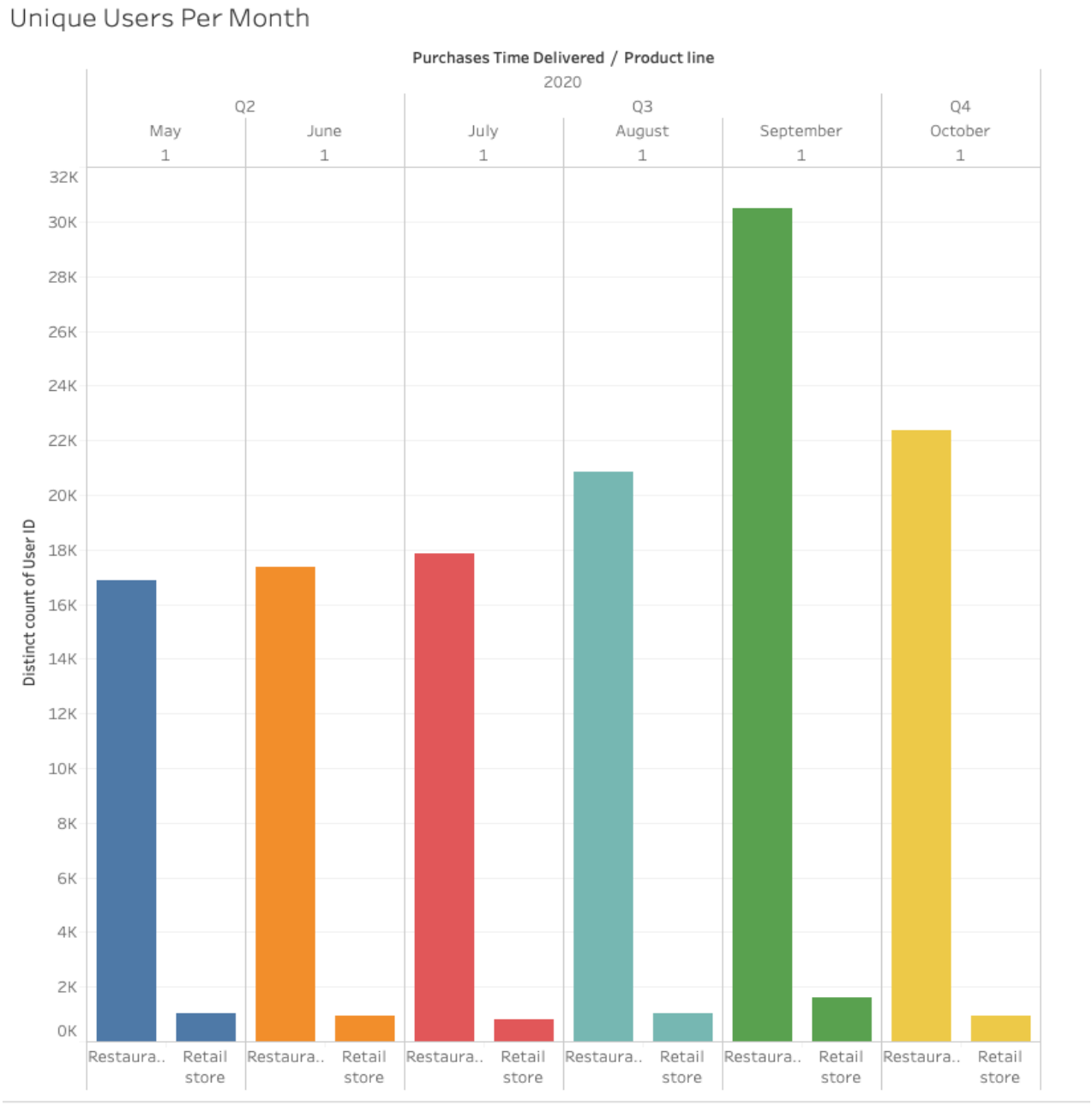
Analysis :

Tools Used : Tableau (cohort analysis) , Excel (Pivot table, cohort analysis)

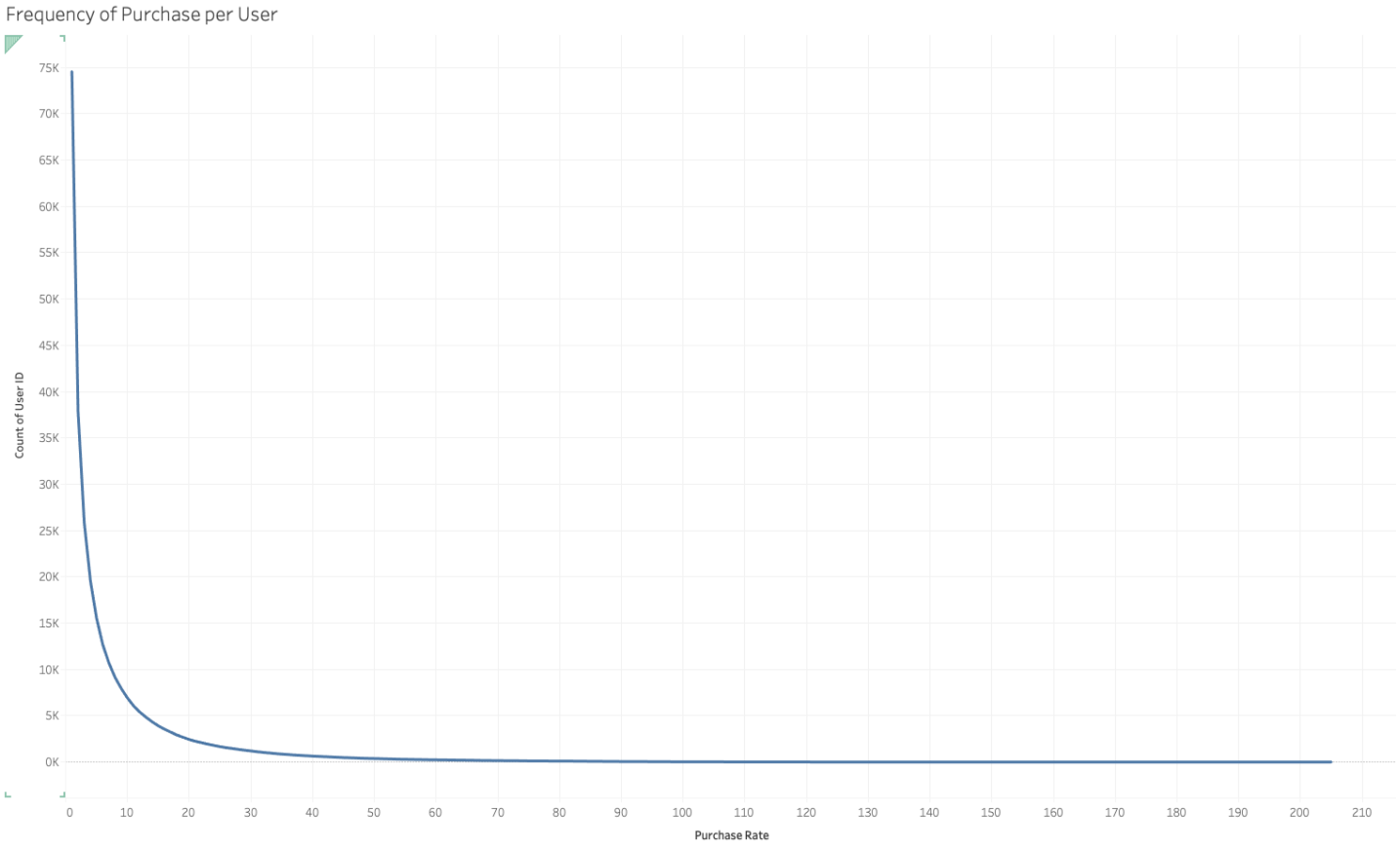
There are a lot of similarities/correlation in the customer retention data for both restaurants and retails stores.

There is a significant number of customers [50% (Restaurants, excluding October's data) and 50% (Retails, excluding October's data)] which we have not been able to retain in this time frame. They are one time customers.

After the second month's repeated purchase, the retention rate decreases **significantly** in both product lines.



As we can see from the above graph of unique users per month is both restaurant and retail stores, we have almost 50k new/unique customers in September and October in restaurants and 2.5k in retail stores and it is a great chance to retain them by providing discount offers.



The above chart shows the purchase rate of customers. The highest purchase rate of a customer is 205 orders within this time frame. We can reward these type of customers to motivate the other customers to order more over the time. Single time users are 75k, which means there's a great scope for improvement of retention.

1. What assumptions about the data have you made to produce the retention charts?

- Data source has the ability to do common table expressions.
- There are no returns and cancellations after ordered placed is accounted for. (a customer returning/cancelling an order is not retained)
- 1/5/2020 is the starting point of the data.

2. Was there anything problematic in the data?

- I was facing some difficulties with the format of data in excel, but when tried on tableau , it worked smoothly.
- For some users , the first purchases were before 1/5/2020 month, since while their user id was present in total purchases, but it was not present in the first purchases list.

3. What other measures than retention would you look at when analysing customers' satisfaction to a product/service?

- Ratings/Reviews on the app, net promoter score, customer satisfaction score, social media monitoring, Revenue per customer, customer acquisition cost.