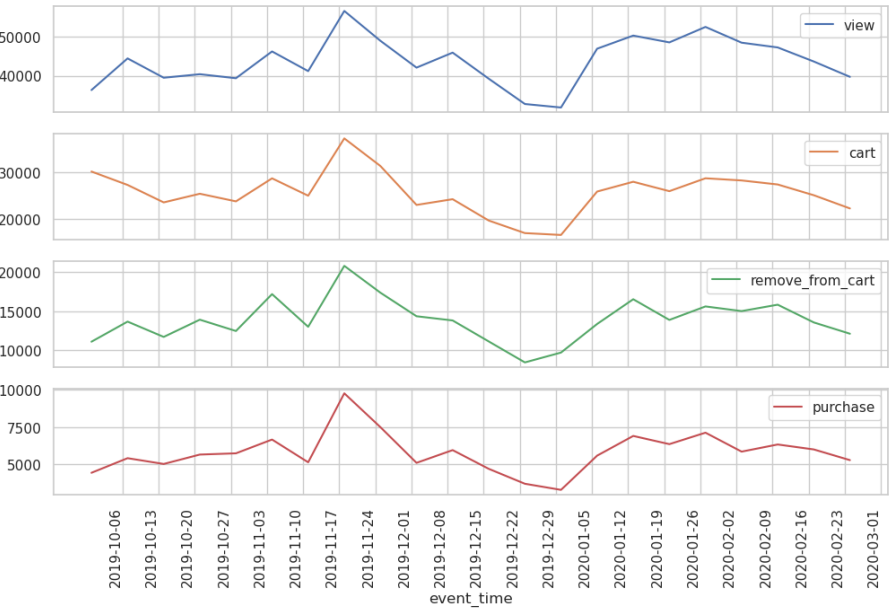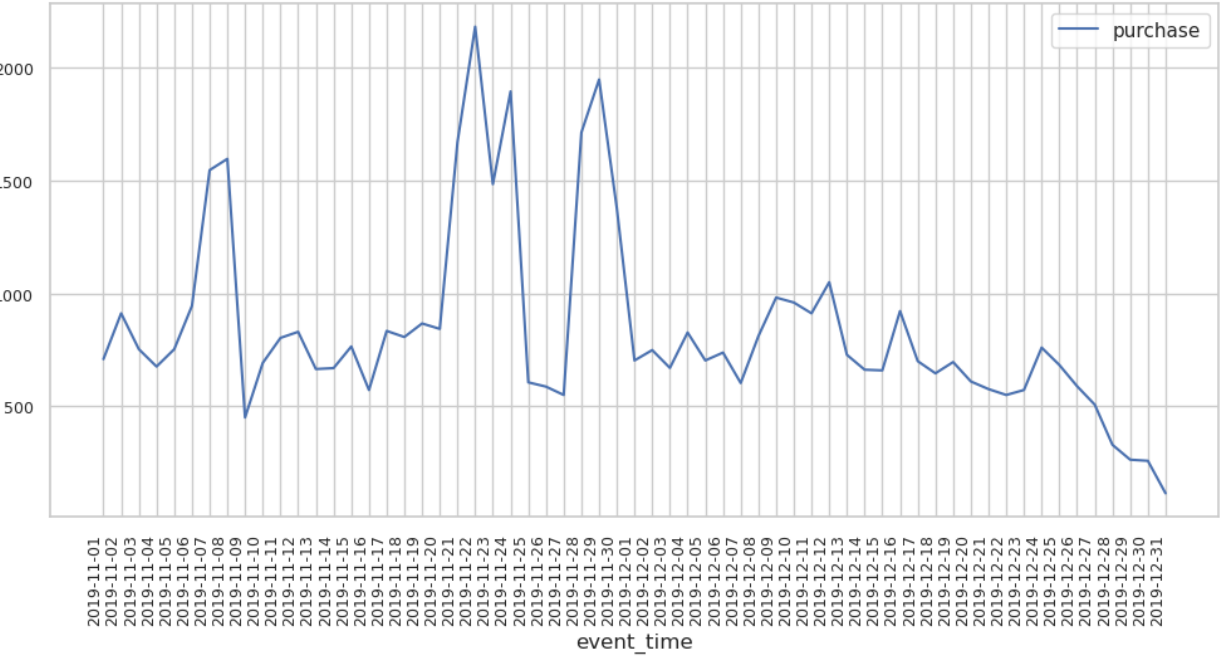# The majority of Christmas shopping is distributed during the week of Black Friday

Trend in recent months

The **trend is flat across all metrics**, confirming the need for CRO(Conversion Rate Optimization) actions.

Shopping in November and December

There is a **significant peak** in the week of November 18 to 24 due to the **beginning of Black Friday** week.
The **Christmas days** themselves **have a decreasing trend**, which means that consumers have clearly brought forward their purchases.

Concentrate the investment of the Christmas and post-Christmas period in the week of Black Friday

# The vast majority of customers only make one purchase

Distribution of customers in terms of number of purchases
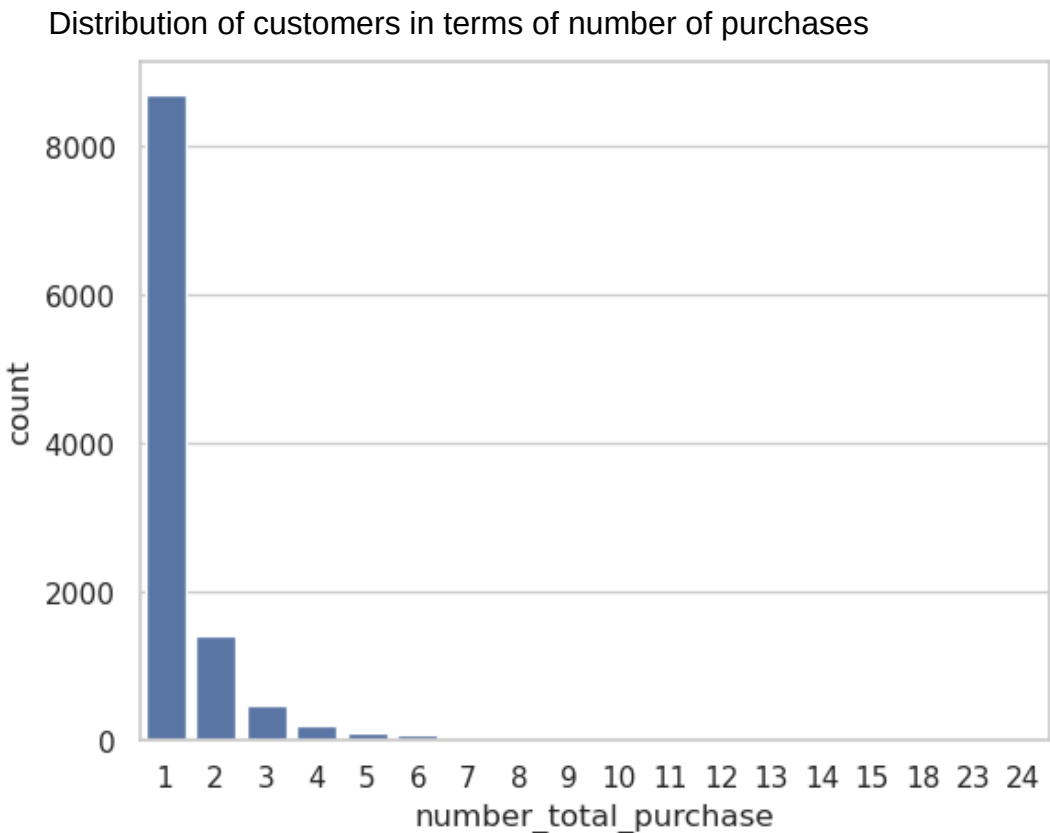
There is a long way to go to improve this ratio

Create a periodic newsletter with the new recommender to increase the frequency of visits.

90% of new customers do not buy again in the following months

Percentage of customers who have continued purchasing in the following months
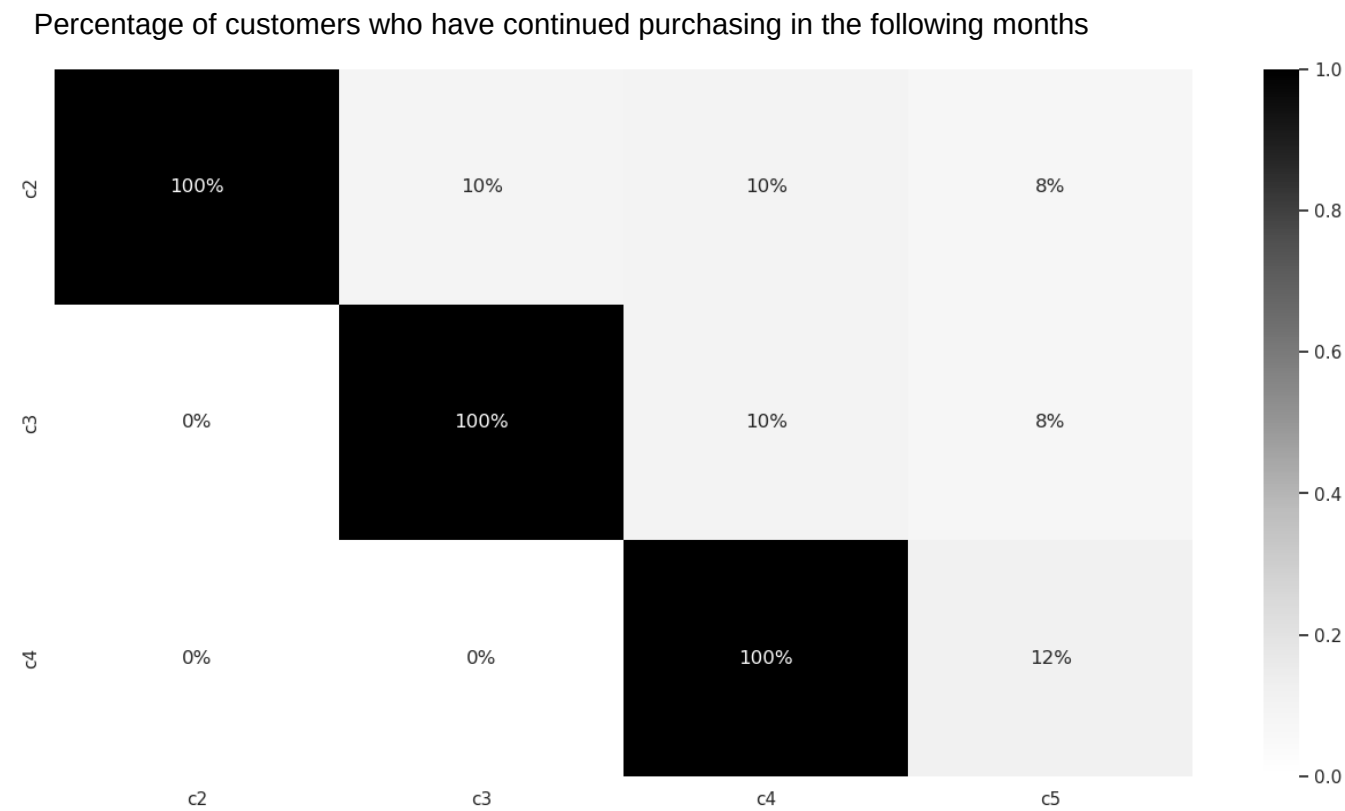
Promotional campaigns on the top segments of the RFM(Recency Frequency Monetary) segmentation.

There are clients with average spending dozens of times higher than the average

Clients that generate the highest income

User id	Number total products	Number total purchase	Average price product	Last purchase date	Total cost	Products per purchase
573823111	268	2	5.82	2020-02-21	**1,559.21**	134
539751397	236	13	6.16	2020-02-19	**1,453.37**	18.15
556579890	506	4	2.75	2020-02-27	**1,392.45**	126.5
442763940	195	8	6.37	2019-12-23	**1,241.53**	24.38
561592095	94	3	11.81	2019-10-31	**1,109.70**	31.33
527739278	244	13	4.39	2020-02-16	**1,071.00**	18.77
527806771	195	13	4.86	2020-02-20	**948.01**	15
430220205	190	6	4.99	2020-02-29	**947.30**	31.67
491009486	219	1	4.32	2020-02-12	**946.20**	219
520501669	64	11	14.27	2020-01-17	**913.01**	5.82

These customers should be invited to loyalty programs.

Distribution of clients in terms of spending
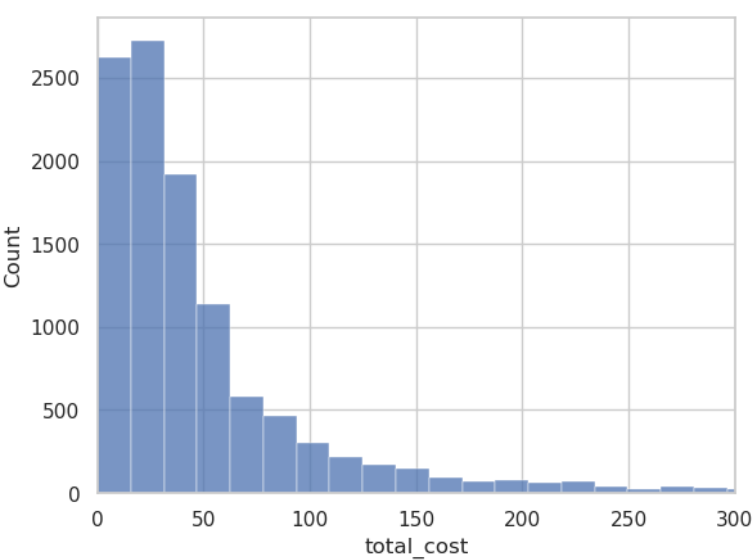
The vast majority of customers have **spent less than 50€** in the period.
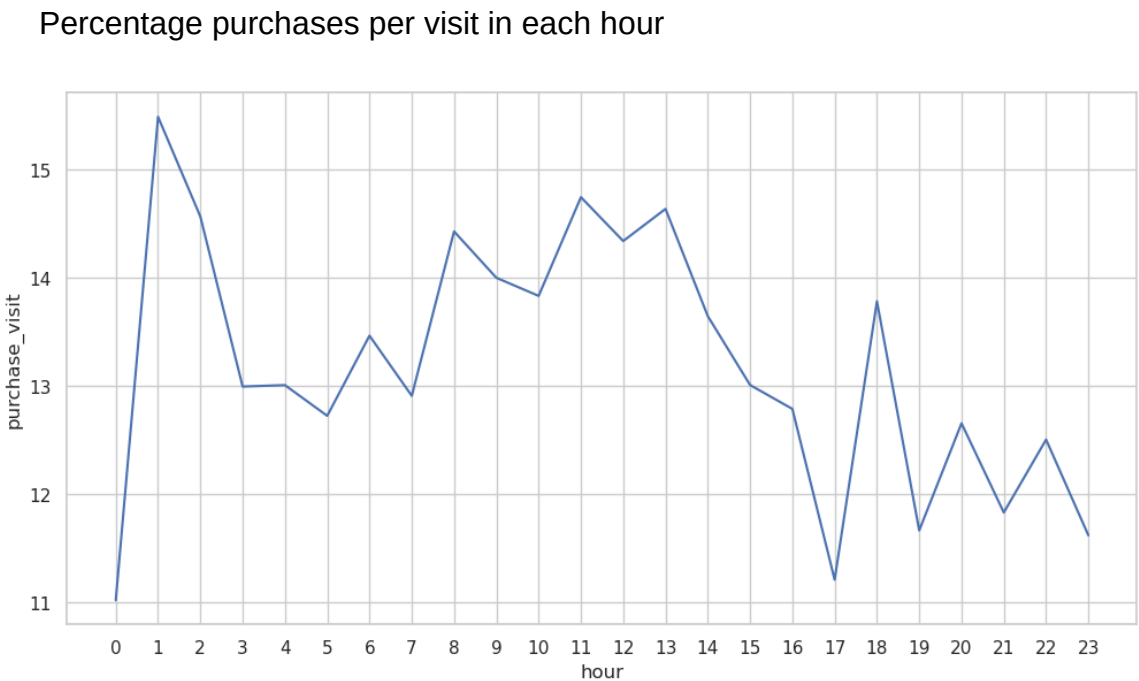
Create a loyalty program segmented by the new RFM(Recency Frequency Monetary) segmentation

All metrics are maximized in the ranges between 9 a.m. and 1 p.m. and between 6 p.m. and 8 p.m.

Heatmap of events per hour
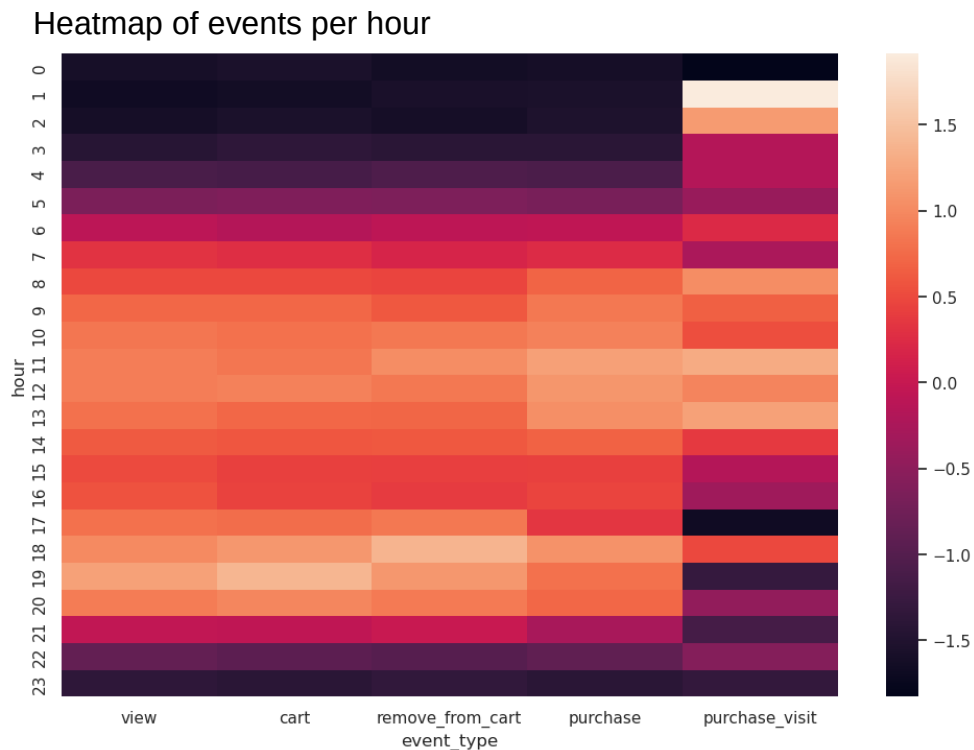
There are times most frequented (clearest) by clients for each type of event.

Percentage purchases per visit in each hour

The **hours** when people **buy the most** are 1, 8, 11 a.m. to 1 p.m., and 6 p.m.
The **hours** when people **do not shop** are midnight, 3 a.m. to 7 a.m., 2 p.m. to 5 p.m., and 7 p.m. to 11 p.m.

Review paid campaigns (generation and retargeting) to concentrate investment in time slots between 9 a.m. and 1 p.m. and between 6 p.m. and 8 p.m.

The average LTV(Life Time Value) is 42 euros

Customer total purchase statistics

Count	Mean	Std	Min	Q1:25%	Q2:50%	Q3:75%	Max
3,105.00	79.59	113.59	0.13	20.29	41.49	90.00	1,453.37

For each customer that is managed to attract, it generates an average of 42 euros in the 4 months

Applying CRO(Conversion Rate Optimization) actions will increase the LTV(Life Time Value) and therefore also the CAC(Customer Acquisition Cost), being a very important strategic advantage.

Almost half of the products have not had any sales in the 5 months of history

Least selling products

Product id	view	cart	Remove from cart	purchase	price
3752	10	0	0	0	15.71
3771	9	0	0	0	15.08
3790	10	0	0	0	7.92
3809	2	0	0	0	12.54
3812	1	0	0	0	12.54
...	...	...	...	...	...
5932537	1	1	0	0	1.43
5932538	1	0	0	0	1.43
5932540	2	1	0	0	1.43
5932578	1	0	0	0	6.02
5932585	2	0	0	0	6.33

21850 rows × 6 columns

A whole new analysis could be started on these products

They could be removed from the catalog, or at least from the store, newsletter, etc., so that they do not take up space of the products that are sold.