WINERY DATA

World of Wine

Data Overview

- $20B winery industry

- Customer-level purchase data for a winery over 2 years (July 2008— Jun 2010)

- Customer ID, Order ID, Customer Segment, Date, Zip code, State, Sales 2008-2010, Sales Amount, Year Acquired, Sales from Tasting Room/Email/Newsletter/Winemaker Call

- Already established four customer segments:

Casual Visitor

Luxury Estate

High Roller

Wine Enthusiast

Casual Visitor

Typically, tourists on afternoon outings to relax and socialize, often as part of a tour group

Luxury Estate

"Bluebloods" who prefer to be low-key, but appreciate the finer things in life

Wine Enthusiast

A diverse group who loves wine, but are also willing to take the time to wait and collect at a good price
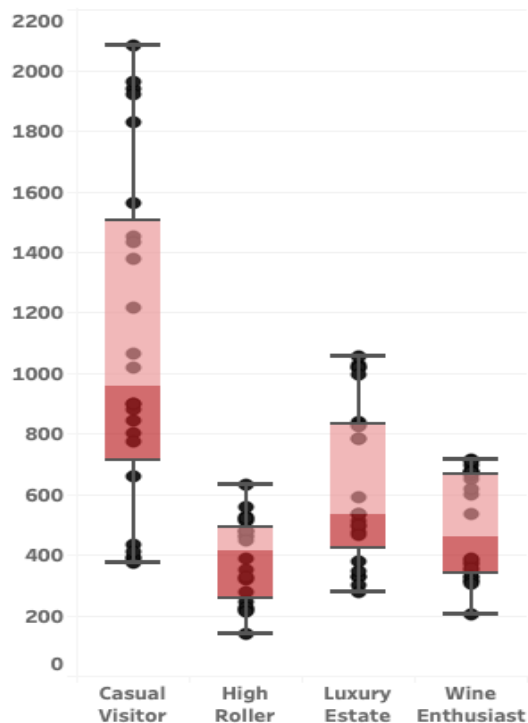
High Roller

Higher income professionals who like to "see and be seen" and enjoy being treated as a "special guest"
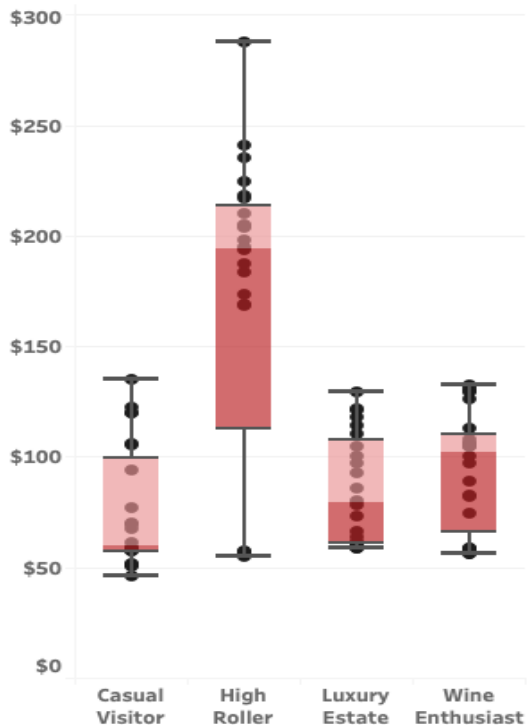
WINE SEGMENTS

Customer Segment Insights

No . of Customers



Monthly Average sales

Average spending of High Rollers each month is far greater than any of the other three segments.

On an individual basis, the typical High Roller is predicted to be the winery's most valuable customer.

Casual Visitor represents most of the customers, but they only have the third highest sales. This is the segment that has the largest potential sales to the winery.

Most Popular Sales Channel – Segment Wise

Overall Average Spending $ 88.5

Customer Segment	Type of Sale

Casual Visitor — Average $62.73
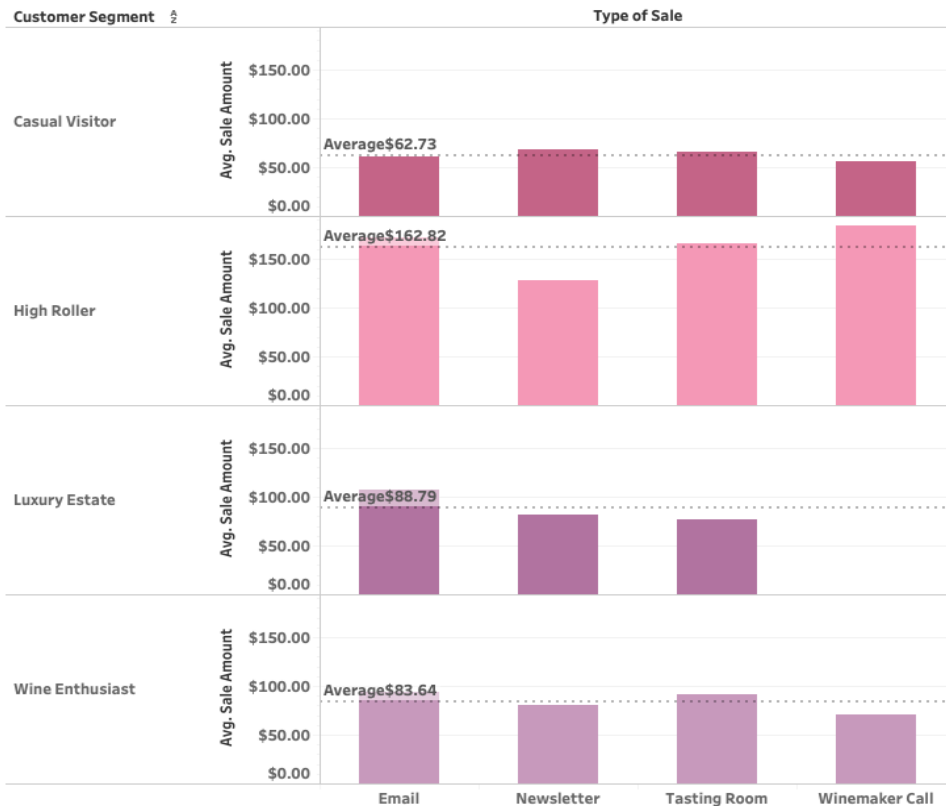
Lowest Average Spending
Most Active in the Tasting Room

High Roller — Average $162.82

Highest Overall Average Spending
Biggest Spender in the Tasting Room
Responsive to Winemaker Calls

Luxury Estate — Average $88.79

Second Highest Average Spending
Responsive to Email
Not Responsive to Winemaker Calls

Wine Enthusiast — Average $83.64

Similar buying behavior across
channels, Loyal Wine lovers

Email   Newsletter   Tasting Room   Winemaker Call
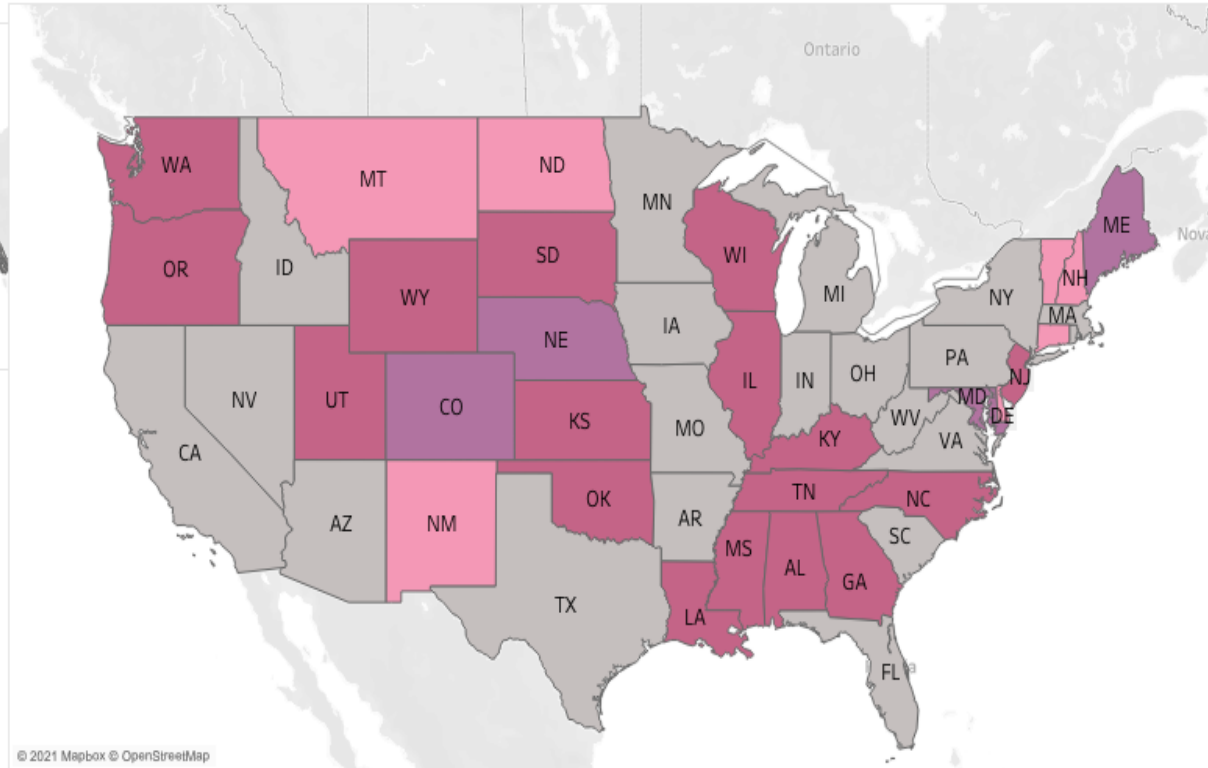
Avg. Sale Amount: $0.00, $50.00, $100.00, $150.00

Most Popular Sales Channel Across US

Channel highlighted with the highest average sales in that state

Sales Channel
- Email
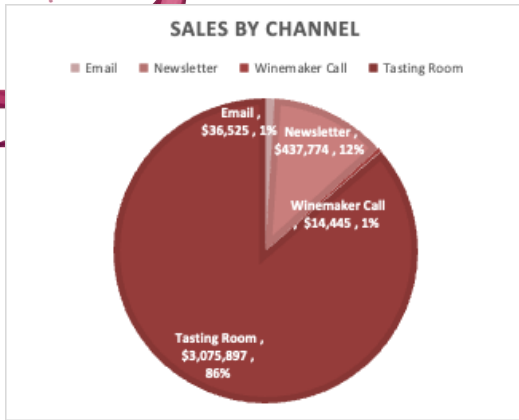- Newsletter
- Tasting Room
- Winemaker Call

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Question

How do you target each segment from their behaviors?

Casual Visitor – 30% of total sales

SALES BY CHANNEL

- Email
- Newsletter
- Winemaker Call
- Tasting Room

Email, $36,525, 1%
Newsletter, $437,774, 12%
Winemaker Call, $14,445, 1%
Tasting Room, $3,075,897, 86%

Email subscribes	Email Subscribe Rate	Email Sales Rate for Subscribes	Email Purchase Rate for Unsubscribes
95	1%	60%	2%
Newsletter subscribes	Newsletter Subscribe Rate	Newsletter Sales Rate for Subscribes	Newsletter Purchase Rate for Unsubscribes
69	1%	100%	21%
Winemaker Call	Winemaker Call Rate	Winemaker Call Sales Rate for Subscribes	Winemaker Call Rate for Unsubscribes
59	1%	5%	1%

- 86% of the sales for this segment are from the Tasting Room
- Low subscription rate for all channels
- Purchase rate of email subscribers and newsletter subscribers are much higher than non – subscribers
- All newsletter subscribers in this segment end up with a newsletter sales.

High Roller– 28% of total sales
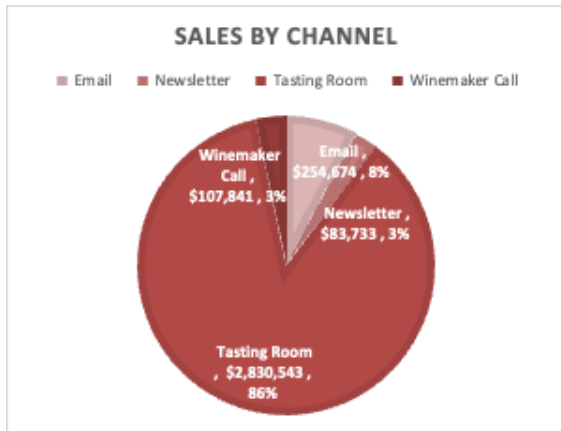
SALES BY CHANNEL

- Email
- Newsletter
- Tasting Room
- Winemaker Call

Winemaker Call, $107,841, 3%
Email, $254,674, 8%
Newsletter, $83,733, 3%
Tasting Room, $2,830,543, 86%

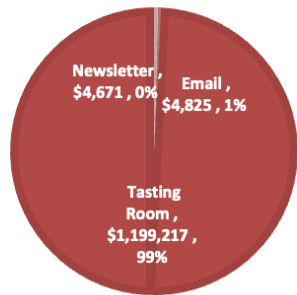| Email subscribes	Email Subscribe Rate	Email Sales Rate for Subscribes	Email Purchase Rate for Unsubscribes
1710	69%	55%	1%
Newsletter subscribes	Newsletter Subscribe Rate	Newsletter Sales Rate for Subscribes	Newsletter Purchase Rate for Unsubscribes
1298	52%	19%	4%
Winemaker Call	Winemaker Call Rate	Winemaker Call Sales Rate for Subscribes	Winemaker Call Rate for Unsubscribes
1080	43%	15%	9%

- 86% of the sales for this segment are from the Tasting Room
- Good subscription rate for all channels
- Purchase rate of email subscribers are much higher than non – subscribers
- Winemaker Call is not effective as other segments

Luxury Estate– 21% of total sales

SALES BY CHANNEL
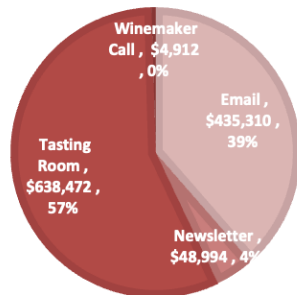
- Email
- Newsletter
- Tasting Room
- Winemaker Call

Newsletter, $4,671, 0%
Email, $4,825, 1%
Tasting Room, $1,199,217, 99%

Email subscribes	Email Subscribe Rate	Email Sales Rate for Subscribes	Email Purchase Rate for Unsubscribes
788	14%	6%	0%

Newsletter subscribes	Newsletter Subscribe Rate	Newsletter Sales Rate for Subscribes	Newsletter Purchase Rate for Unsubscribes
603	11%	49%	1%

Winemaker Call	Winemaker Call Rate	Winemaker Call Sales Rate for Subscribes	Winemaker Call Rate for Unsubscribes
242	4%	0%	0%

- 99% of sales for this segment are from Tasting Room
- Low subscription rate to emails, newsletters
- Newsletter subscribers have a good response rate
- Zero response rate for wine maker calls

Wine Enthusiast– 20% of total sales

SALES BY CHANNEL

- Email
- Newsletter
- Tasting Room
- Winemaker Call

Winemaker Call, $4,912, 0%
Email, $435,310, 39%
Tasting Room, $638,472, 57%
Newsletter, $48,994, 4%

Email subscribes	Accounting Number Format Subscribe Rate	Email Sales Rate for Subscribes	Email Purchase Rate for Unsubscribes
3082	81%	65%	0%

Newsletter subscribes	Newsletter Subscribe Rate	Newsletter Sales Rate for Subscribes	Newsletter Purchase Rate for Unsubscribes
2089	55%	20%	10%

Winemaker Call	Winemaker Call Rate	Winemaker Call Sales Rate for Subscribes	Winemaker Call Rate for Unsubscribes
342	9%	2%	0%

- 57% of the sales for this segment are from the Tasting Room, 39% from Emails
- 69% of casual visitors subscribed to Emails
- Very high subscription rate for emails
- Good subscription rate for newsletters but response rate is only 20%
- Winemaker calls do not work for this segment

Question

Is there a better way to segment the customers to get more insights?

RFM Analysis

Reasons for taking the RFM Approach

- RFM scores are easy to calculate
- It is based on customer behavior and not demographics
- This data-set contains all the data we need to run an RFM analysis

Methodology

Data was transformed into a new set of data that displayed each customer's most recent wine purchase (Recency); total transactions over the years (Frequency); and total sales amount per customer (Monetary value).

customer_id	revenue	Orders	Months Since last visit
1	44457	16	1
2	42202	9	1
3	28393	7	2

RFM Analysis

ID	Recency	Frequency	Monetary	R_Score	F_Score	M_Score	Total_Score
1	1	16	44457.03325	5	5	5	555
2	1	9	42201.67534	5	5	5	555
3	2	7	28393.49196	5	5	5	555
4	1	7	23571.13342	5	5	5	555
5	2	6	20630.24493	5	5	5	555
6	5	8	21269.68554	4	5	5	455
7	7	7	19392.97711	4	5	5	455
8	3	5	12951.58804	5	5	5	555
9	2	3	21084.91836	5	4	5	545
10	2	11	17739.81016	5	5	5	555

Customers were scored by quintiles with a rank of "5" being "the best" and "1" being the worst.

The table on the left shows the RFM scores for the first 10 customers

After calculating the score for each customers, customers with the same total score are part of the same segment. Now the winery can choose a sample of these customers and recommend a product to see how each segment responds to that product to calculate a response rate.

RFM Analysis

Since we can't recommend anything to these customers, we decided to use these RFM scores to see how these segments react to the different sales channels through which wine is sold.

Our dataset contains data from 4 channels:
1. Tasting Room (No subscription Required)
2. Email Sales (Subscription Required)
3. Newsletter Sales (Subscription Required)
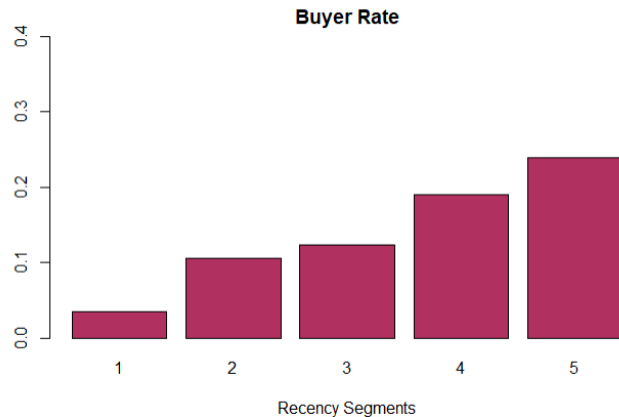4. Winemaker Calls (Subscription Required)

We decided to focus our analysis on the channels that require a subscription only.

Why?

RFM: Email Subscribers Recency

R Segment	Subscriber Rate	Buyer Rate	Buyer:Subs Ratio
1	18.4%	3.4%	18.6%
2	27.7%	10.6%	38.1%
3	34.4%	14.5%	42.1%
4	37.4%	19.0%	50.7%
5	43.4%	23.9%	55.0%

Subscriber rate

Recency Segments

Buyer Rate

Recency Segments

RFM: Email Subscribers Frequency

F Segment	Subscriber Rate	Buyer Rate	Buyer:Subs Ration
1	40.6%	13.3%	32.8%
3	23.3%	6.5%	28.0%
4	36.2%	19.7%	54.3%
5	44.8%	29.5%	65.8%

Subscriber rate
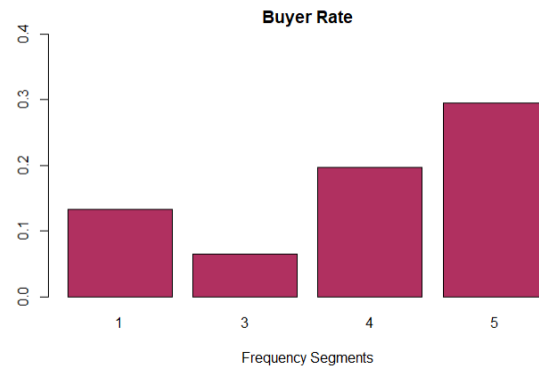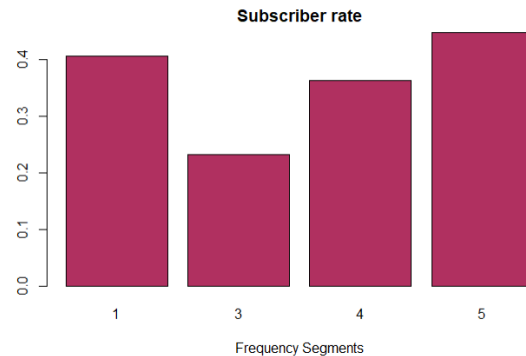
Buyer Rate

RFM: Email Subscribers Monetary

M Segment	Subscriber Rate	Buyer Rate	Buyer:Subs Ration
1	21.3%	6.1%	28.7%
2	23.9%	7.7%	32.2%
3	27.8%	11.1%	39.9%
4	42.6%	24.8%	58.2%
5	46.3%	24.3%	52.4%

Subscriber rate

Monetary Segments

Buyer Rate

Monetary Segments
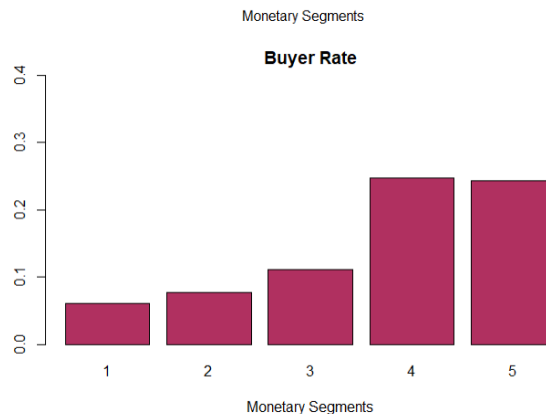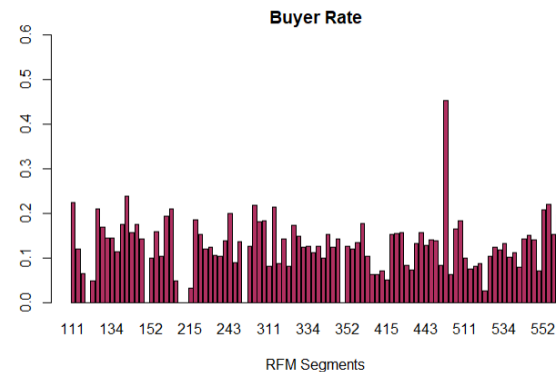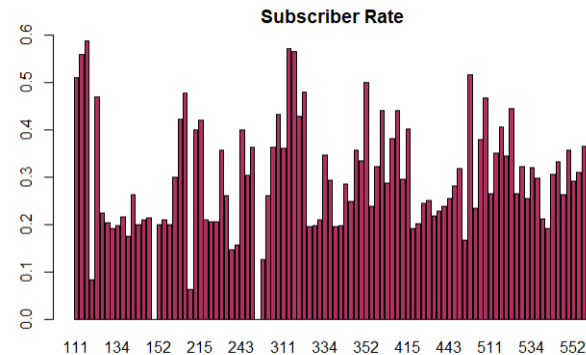
RFM: Email Subscribers
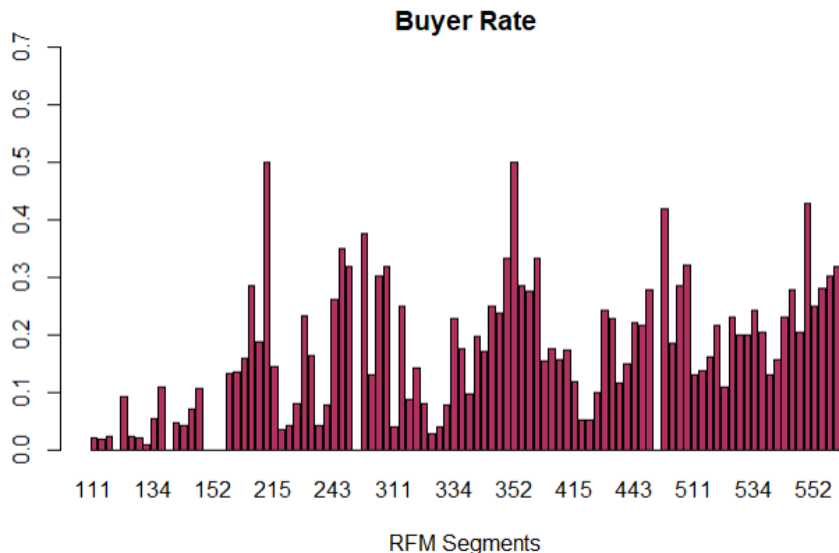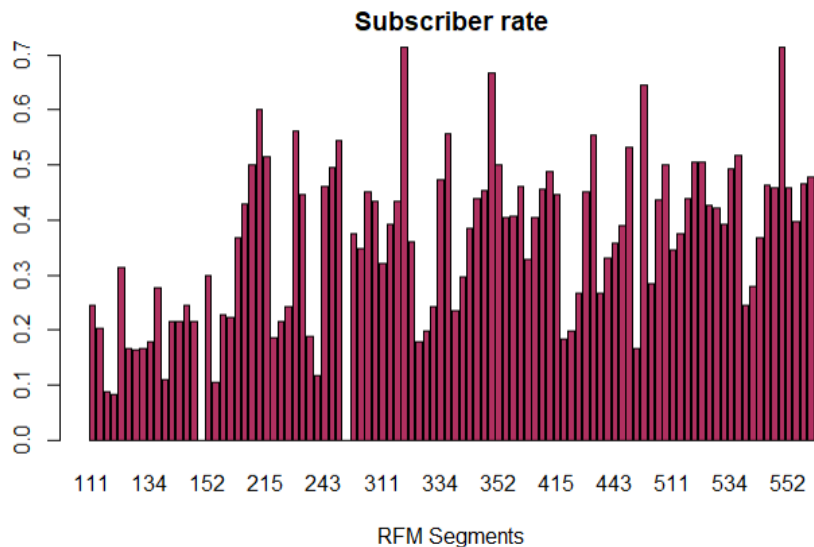
RFM: Email Subscribers

| RFM Segment	# customers in RFM Segment	# email subs in RFM Segment	# email buyers in RFM Segment	Subscriber rate	Buyer Rate	% of Subs that buy
111	49	12	1	24.49%	2.04%	8.33%
112	59	12	1	20.34%	1.69%	8.33%
113	46	4	1	8.70%	2.17%	25.00%
114	12	1	0	8.33%	0.00%	0.00%
115	207	65	19	31.40%	9.18%	29.23%
131	1017	168	23	16.52%	2.26%	13.69%
...	...	...	...	...	...	...
543	387	142	89	36.69%	23.00%	62.68%
544	588	273	164	46.43%	27.89%	60.07%
545	172	79	35	45.93%	20.35%	44.30%
551	14	10	6	71.43%	42.86%	60.00%
552	24	11	6	45.83%	25.00%	54.55%
553	68	27	19	39.71%	27.94%	70.37%
554	544	254	164	46.69%	30.15%	64.57%
555	1194	570	380	47.74%	31.83%	66.67%

RFM: Newsletter Subscribers

RFM Segment	# customers in RFM Segment	# Newsletter subs in RFM	# Newsletter buyers in RFM	Subscriber rate	Buyer Rate	% of subs that buy
111	49	25	11	51.02%	22.45%	44.00%
112	59	33	7	55.93%	11.86%	21.21%
113	46	27	3	58.70%	6.52%	11.11%
114	12	1	0	8.33%	0.00%	0.00%
115	207	97	10	46.86%	4.83%	10.31%
131	1017	227	213	22.32%	20.94%	93.83%
...	...	...	...	...	...	...
543	387	118	55	30.49%	14.21%	46.61%
544	588	195	88	33.16%	14.97%	45.13%
545	172	45	24	26.16%	13.95%	53.33%
551	14	5	1	35.71%	7.14%	20.00%
552	24	7	5	29.17%	20.83%	71.43%
553	68	21	15	30.88%	22.06%	71.43%
554	544	198	83	36.40%	15.26%	41.92%
555	1194	568	234	47.57%	19.60%	41.20%

Subscriber Rate
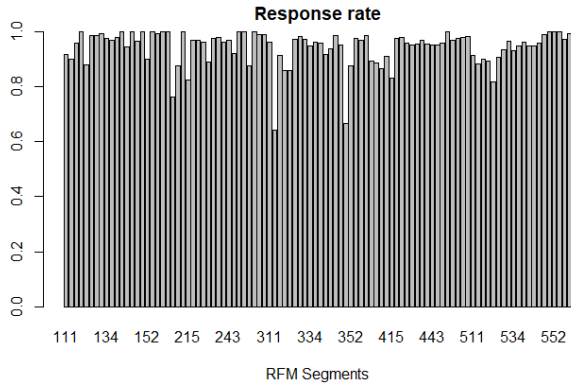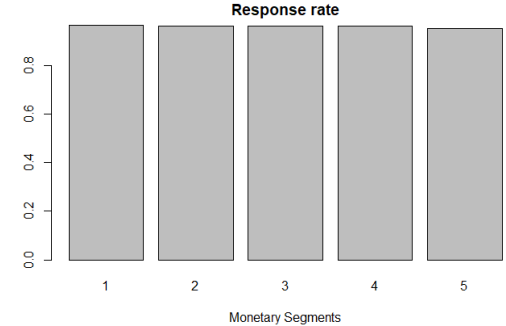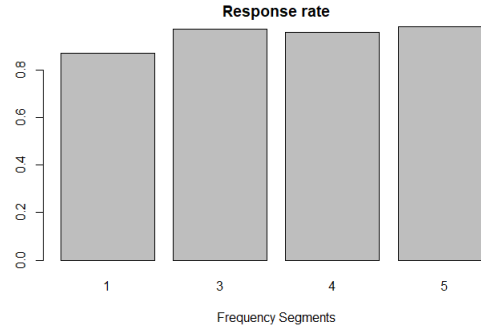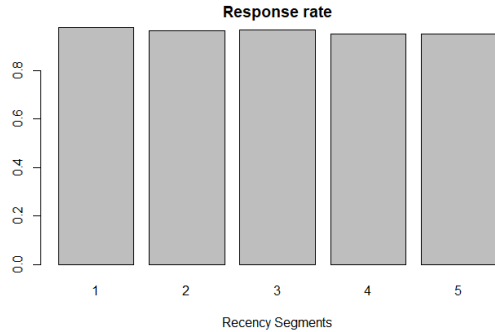
RFM Segments

Buyer Rate

RFM Segments

RFM: Winemaker Call Subscribers

RFM Segment	# customers in RFM Segment	# Call subs in RFM Segment	# Call buyers in RFM Segment	Subscriber rate	Buyer Rate	% of subs that buy
111	49	2	0	4.08%	0.00%	0.00%
112	59	6	0	10.17%	0.00%	0.00%
113	46	2	0	4.35%	0.00%	0.00%
114	12	0	0	0.00%	0.00%	0.00%
115	207	22	0	10.63%	0.00%	0.00%
131	1017	10	0	0.98%	0.00%	0.00%
...	...	...	...	...	...	...
543	387	32	19	8.27%	4.91%	59.38%
544	588	61	30	10.37%	5.10%	49.18%
545	172	18	12	10.47%	6.98%	66.67%
551	14	0	0	0.00%	0.00%	0.00%
552	24	6	4	25.00%	16.67%	66.67%
553	68	10	3	14.71%	4.41%	30.00%
554	544	148	37	27.21%	6.80%	25.00%
555	1194	596	128	49.92%	10.72%	21.48%
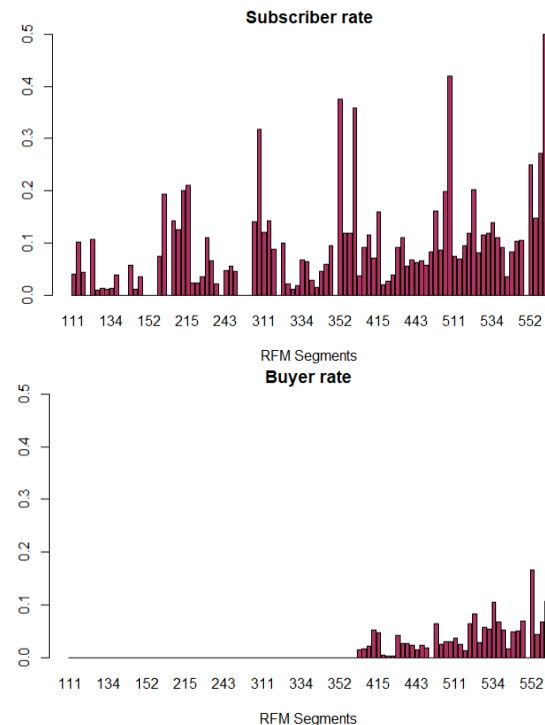
Response Rate for Tasting Rooms

Upon doing the RFM analysis, we discovered that Recency, Frequency, and Monetary segmentation produces approximately the same results across all identified segments.

Thus, looking at email/newsletter/winemaker subscriptions is the next viable option.

RFM Future Projects

Breakeven analysis on different wine products or direct marketing efforts

- Making an offer to a random sample of customers and calculating the Response Rate per RFM segment.

- Calculating a break-even response rate based on costs associated with the product/marketing effort

- Select all segments above the break-even response rate and make them the offer.

Segment Description

Segment	Description	R	F	M
Champions	Bought recently, buy often and spend the most	4 - 5	4 - 5	4 - 5
Loyal Customers	Spend good money. Responsive to promotions	2 - 5	3 - 5	3 - 5
Potential Loyalist	Recent customers, spent good amount, bought more than once	3 - 5	1 - 3	1 - 3
New Customers	Bought more recently, but not often	4 - 5	<= 1	<= 1
Promising	Recent shoppers, but haven't spent much	3 - 4	<= 1	<= 1
Need Attention	Above average recency, frequency & monetary values	2 - 3	2 - 3	2 - 3
About To Sleep	Below average recency, frequency & monetary values	2 - 3	<= 2	<= 2
At Risk	Spent big money, purchased often but long time ago	<= 2	2 - 5	2 - 5
Can't Lose Them	Made big purchases and often, but long time ago	<= 1	4 - 5	4 - 5
Hibernating	Low spenders, low frequency, purchased long time ago	1 - 2	1 - 2	1 - 2
Lost	Lowest recency, frequency & monetary scores	<= 2	<= 2	<= 2
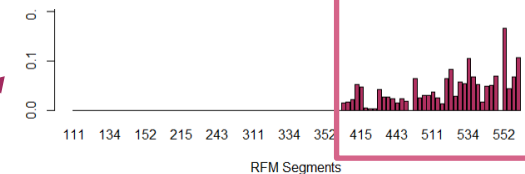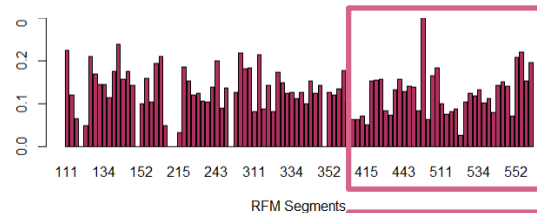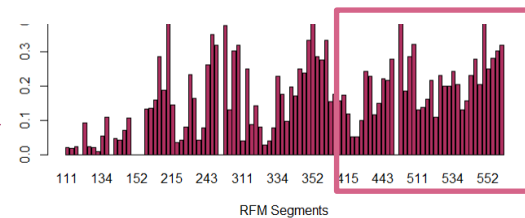
RECOMMENDATIONS

Target Segments Differently

For the segments provided in the data, target them based on purchase rate of each channel and allocate the resources wisely.

Loyalty Program

With the more granular segmentation, focus on segments 415-555 (the winemaker call subscribers most likely to increase purchases as a result)

Future Customer Analysis

Include costs of engaging customers in the data in order to calculate LTV for different customer groups

FUTURE PROJECTS

Project 1

01

How much does it cost to keep a customer engaged via subscription?

Project 2

02

How can we retain customers over time?

Project 3

03

Advertising Spending for each marketing strategy vs sales

Project 4

04

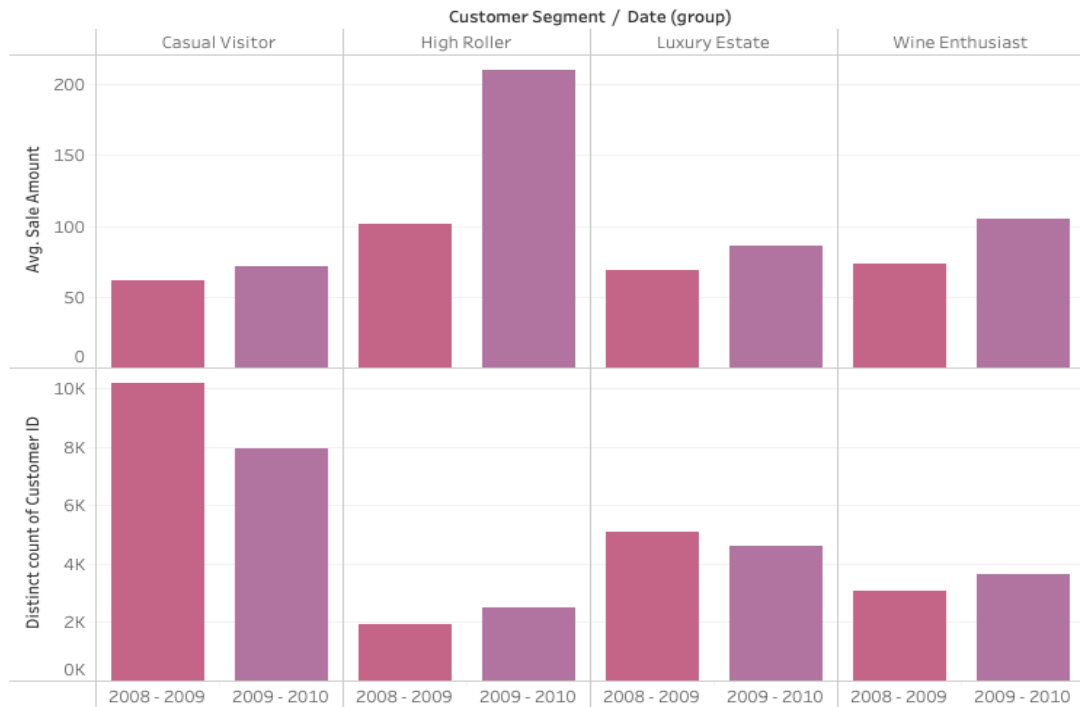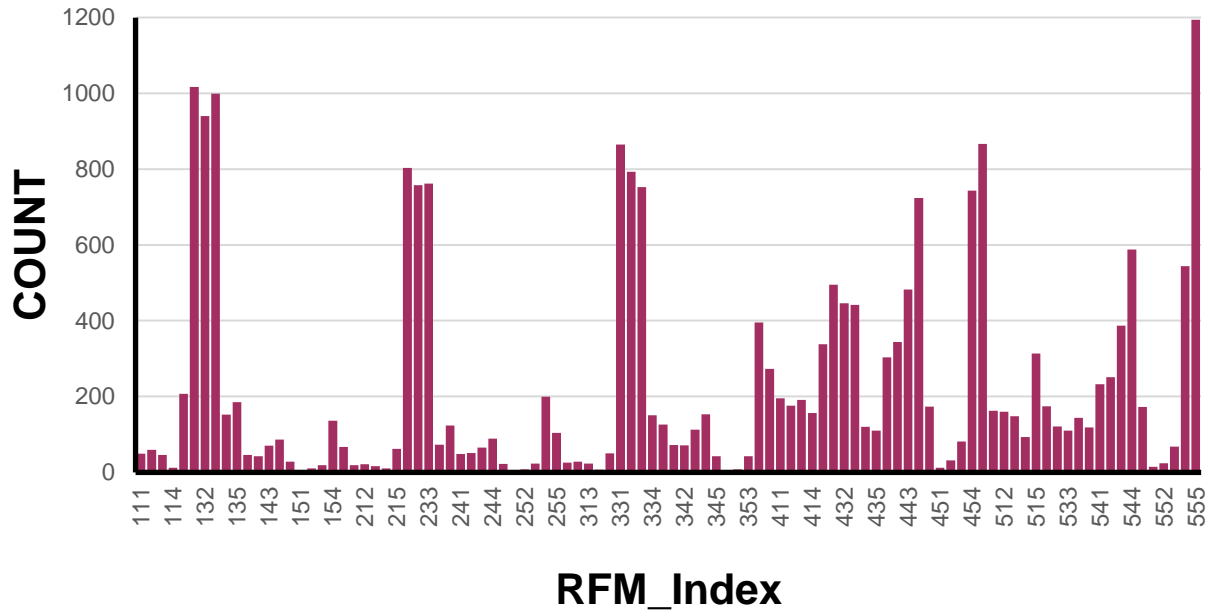What increases Customer Lifetime Value (CLV)?

THANKS

APPENDIX

Segment Buying Behavior

RFM Analysis
Total

Number of customers in each segment