

# WineClubReviews.net

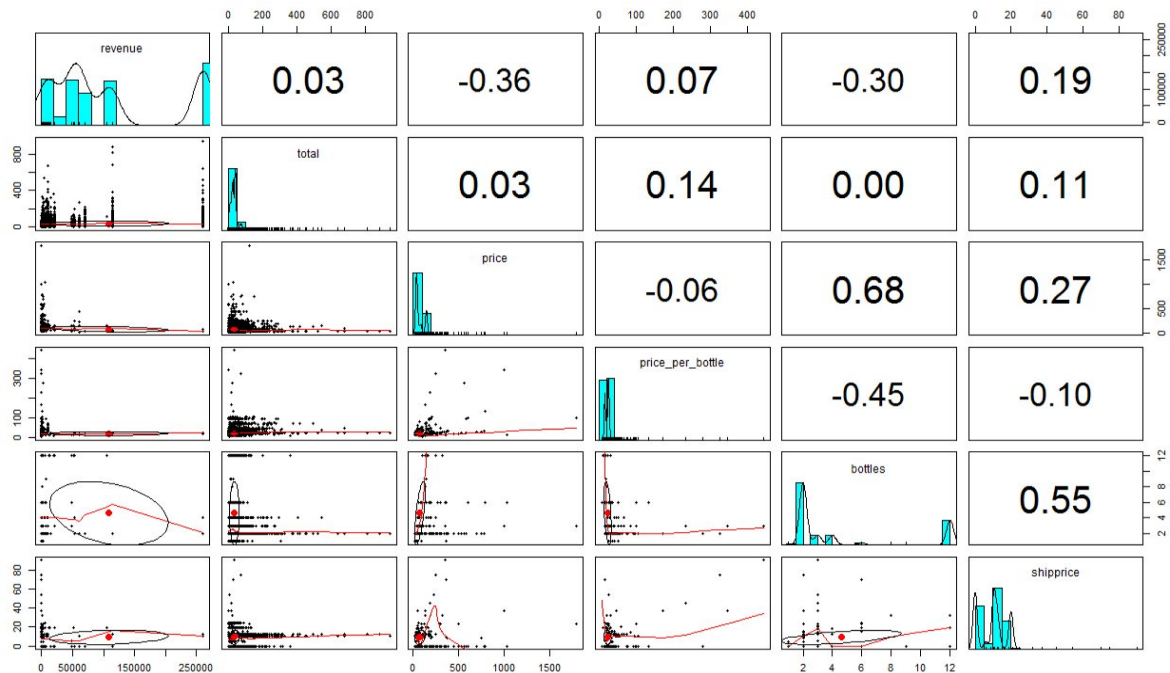
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Exploratory Data Analysis Project

# Summary of data

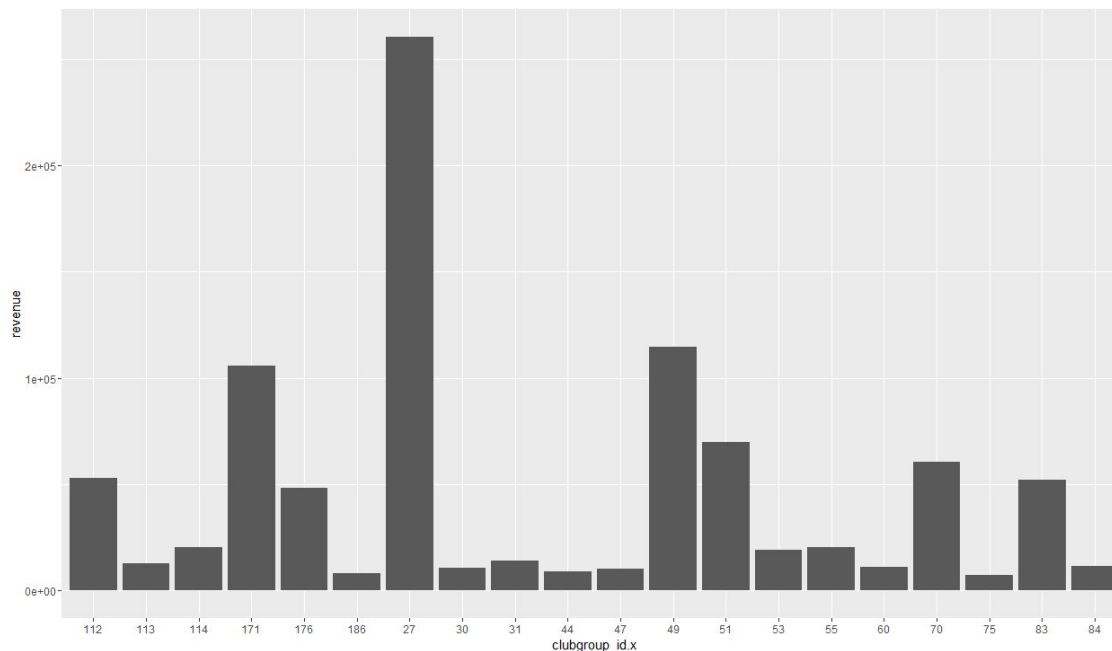
- 635,000 click data observations, including 77 variables
- 832 club observations, including 66 variables
- 27,704 sales
- Most of the data analysis is centered around the following variables:
  - Club group (clubgroup\_id.x)
  - Commission (total)
  - Revenue by club group (revenue)
  - Conversion date (cdate)
  - Club group offerings, including color selection and number of bottles (selcolor.name, bottles)
  - Average price per bottle (price\_per\_bottle) for within each club group

# Variable correlations

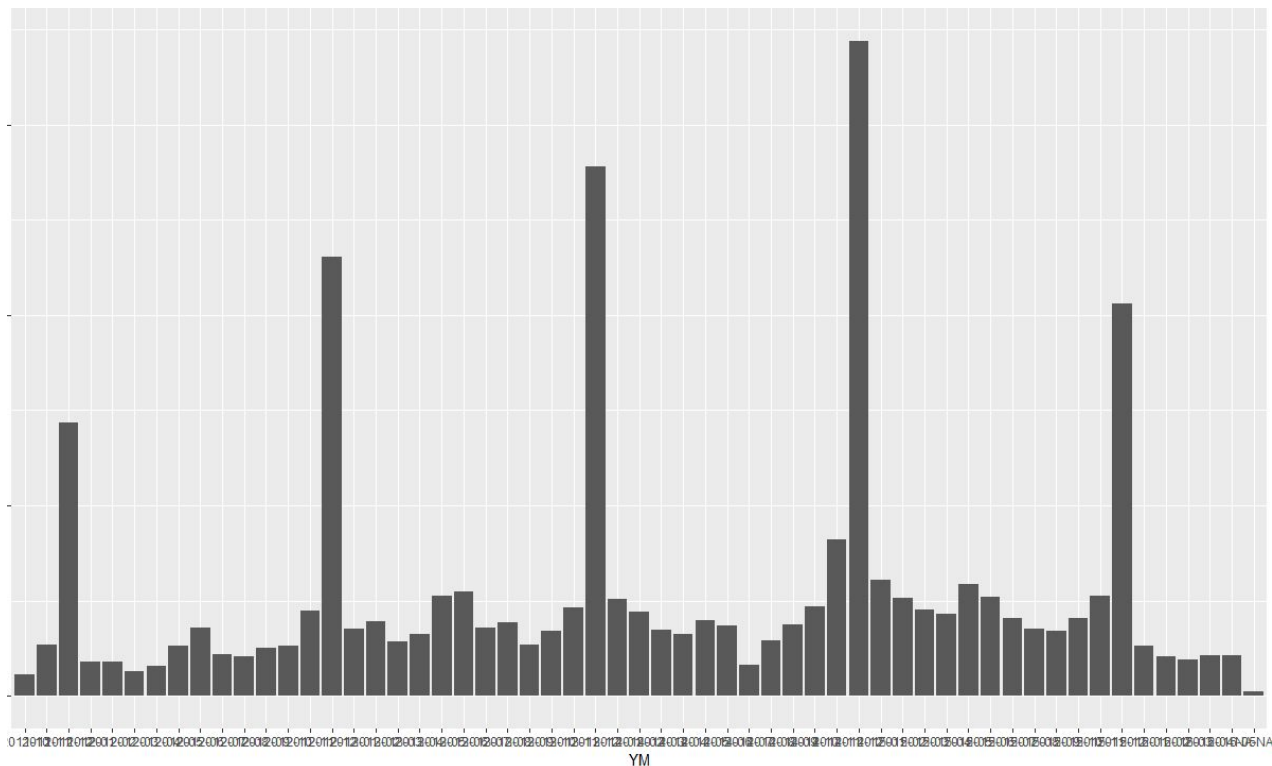


# Top 20 club groups by revenue

	clubgroup_id.x (fctr)	revenue (dbl)
1	27	260758.25
2	49	114583.12
3	171	105841.97
4	51	69787.10
5	70	60622.69
6	112	52746.90
7	83	52139.92
8	176	48140.35
9	114	20412.94
10	55	20261.47
11	53	18974.98
12	31	14132.65
13	113	12635.00
14	84	11545.00
15	60	10927.21
16	30	10654.86
17	47	9967.92
18	44	8913.17
19	186	7890.40
20	75	7108.34



# Total revenue by month



# Other revenue breakdowns

## Revenue by club wine color choices

	selcolor.name (chr)	revenue (dbl)
1	Red-only and white-only options	529085.14
2	Red and white Mix only	248538.49
3	Red-only option	117692.90
4	Red wine	66804.94
5	Mostly Reds	23996.31
6	white wine	10363.54
7	sparkling and Champagne	5537.56
8	Mostly Reds option	2698.55
9	no choice	798.45
10	white-only option	514.93
11	Rose	267.70
12	unknown	113.57
13	Red and sparkling	0.00

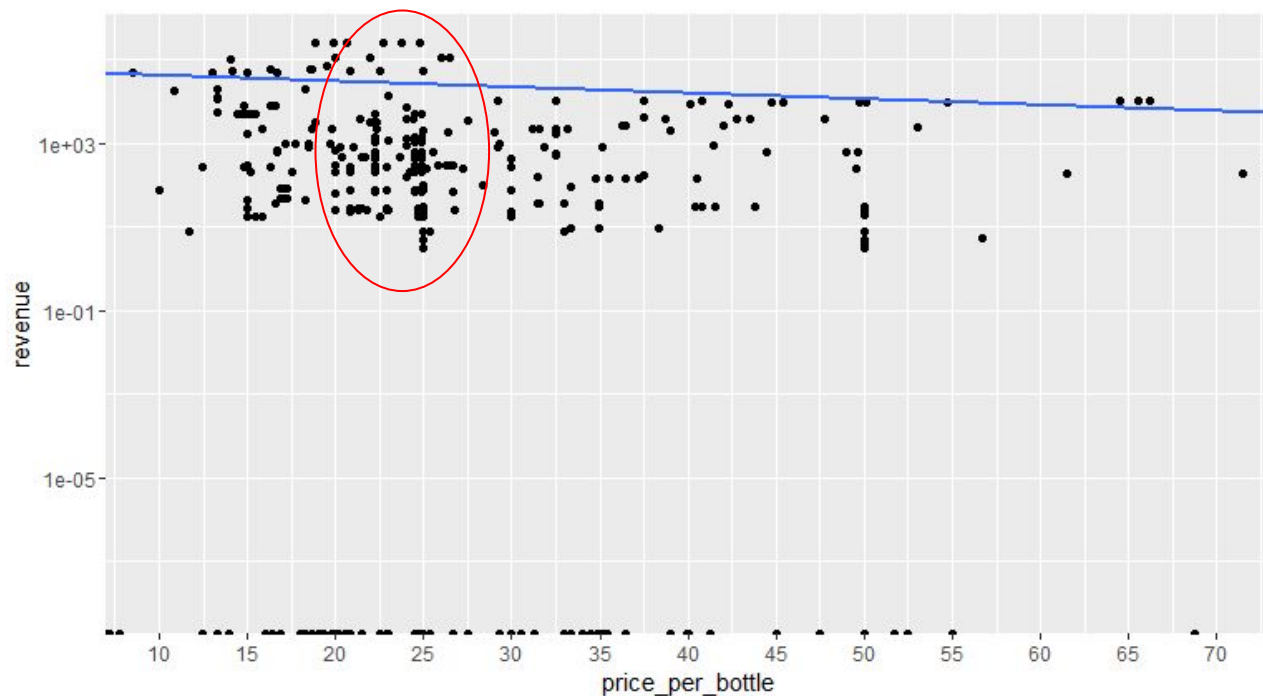
- Customers purchase clubs that offer choices including red wine by over 48:1

## Revenue by number of bottles per shipment

	bottles (dbl)	revenue (dbl)
1	2	602260.13
2	12	232679.30
3	3	84853.23
4	4	67076.88
5	6	14804.86
6	1	4553.67
7	9	109.00
8	8	75.00

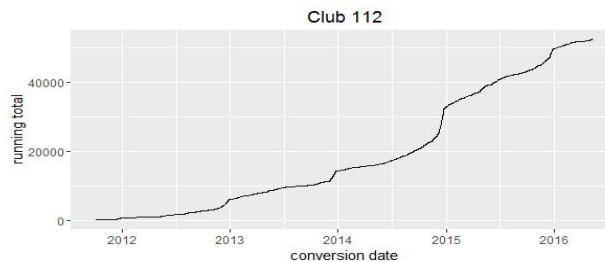
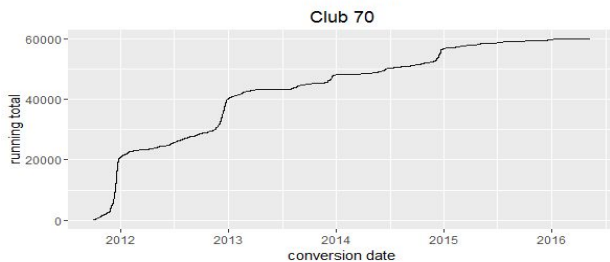
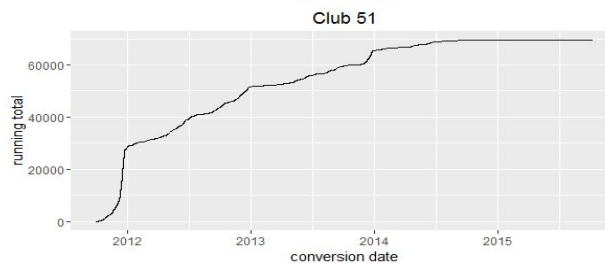
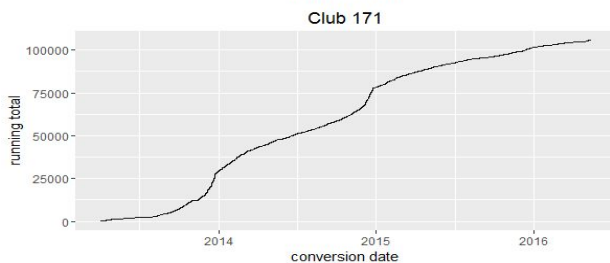
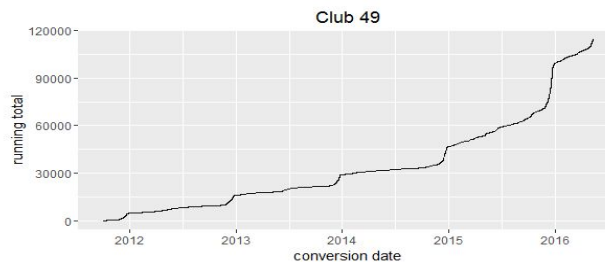
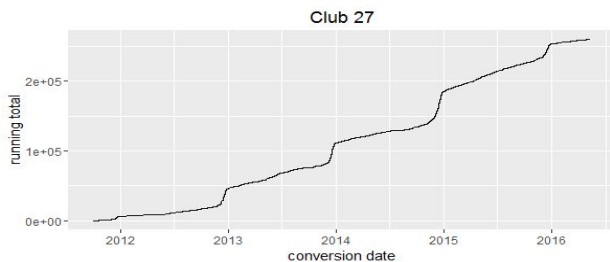
- 2 bottle shipments account for more than 2x the next highest shipment quantity, and 2 and 12 bottle shipments combined account for over 80% of revenue over the past 4.5 years

# Scatterplot of Revenue by Avg Price/Bottle



- Notice the cluster around \$22-25/bottle

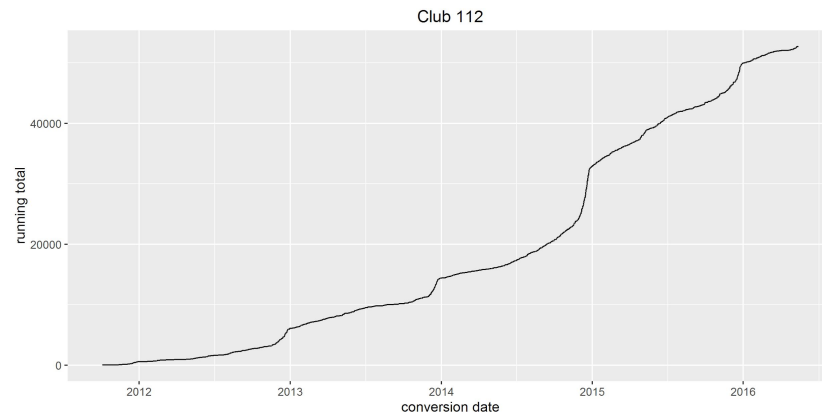
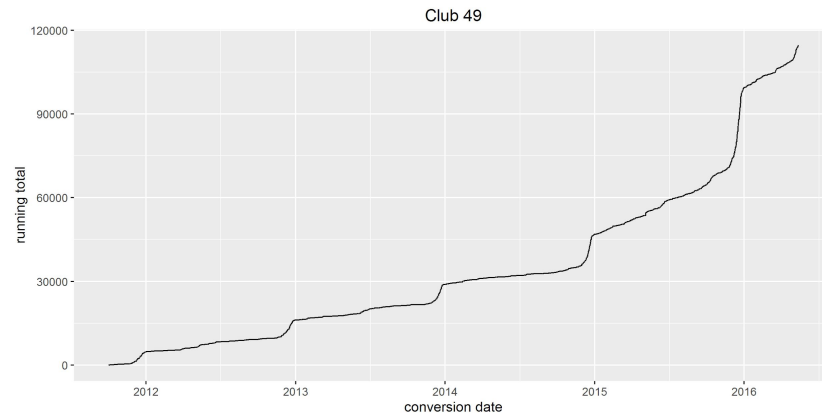
# Plots of cumulative revenue for top 6 clubs





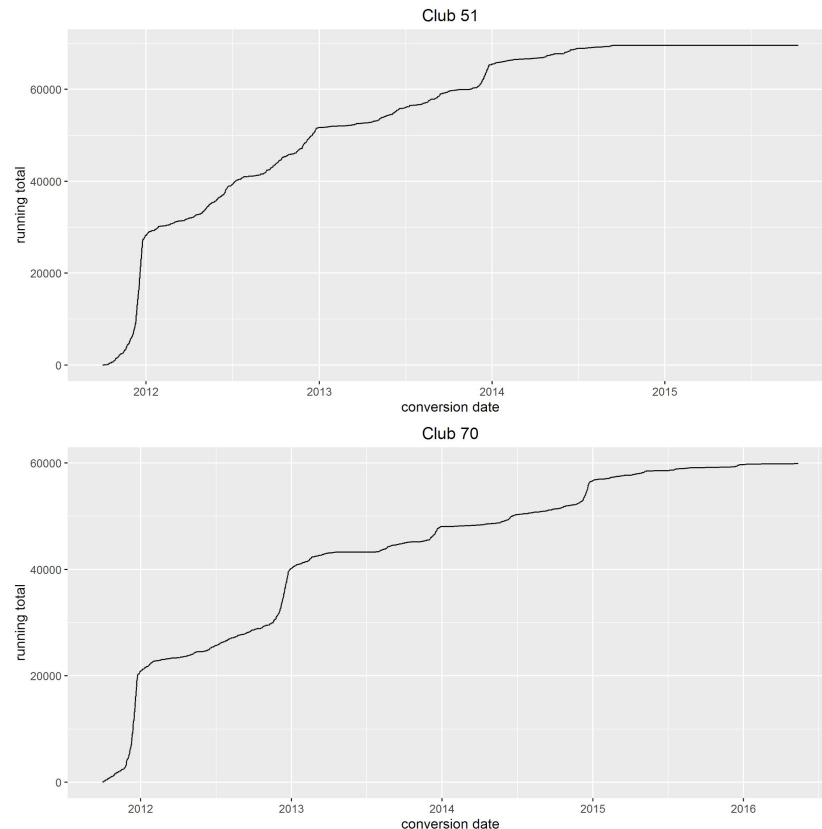
# Observations of revenue over time

- These two clubs can be seen having accelerated growth, including having their most successful periods at the end of 2014 (for club 112) and end of 2015 (for club 49).
- Many clubs had a significant spike in December 2014, including club 112, so it is interesting to see the largest spike for club 49 in December 2015.
- The slope of the line for club 49 in 2016 is still going up, which means this is tracking to be a successful year.



# Observations of revenue over time, continued

- Conversely, these two clubs have had their revenue curves basically flatten out, with little to no sales in the past two years.
- Club 51 has made \$203 since July 2014
- Club 70 made  $\frac{1}{3}$  of its total revenue in the first 2 months, and 95% of it before the end of 2014. There have been very few sales since the beginning of 2015, despite this being the 6th highest club group in revenue in the past 4.5 years.



# Recommendations

1. Try to understand why clubs 49 and 112 have had significant upticks in revenue since the beginning of 2015, and see if there is any way to influence the same factors for other clubs.
2. Focus marketing efforts on clubs that offer red wine in their offerings, as they outsell white only or even champagne or rosé clubs by 48:1.
3. Focus efforts on clubs that offer smaller shipment sizes, as these outsell even the next most common shipment size (albeit those are shipments with 12 bottles) by 2:1. Or more likely, recommend to the wine clubs themselves that 2 bottle and 12 bottle shipments are the most purchased, outselling all others by 5:1.
4. Focus efforts on clubs offering a price per bottle of around \$25, as there is a distinct grouping there.
5. Don't worry too much about shipping costs impacting sales, though shipping costs should stay around \$10-15 for clubs in the \$38-72 range. Above that point the data doesn't indicate what the preferred shipping price limit might be.