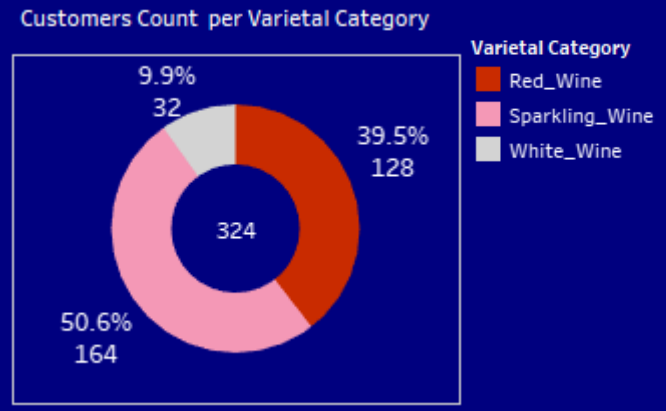

OPTIMIZING WHOLESALE WINE BUSINESS – UNSUPERVISED MACHINE LEARNING –
K-MEANS CLUSTERING
DASHBOARD - POWERED BY TABLEAU

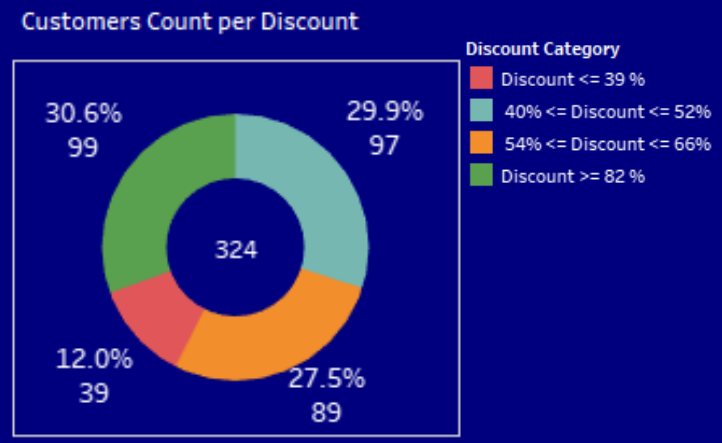
Customer Segmentation Using K-means Clustering Powered by Tableau

Unsupervised Machine Learning

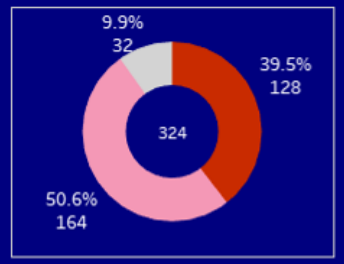
Customers Behavior - Wholesale Wine business :

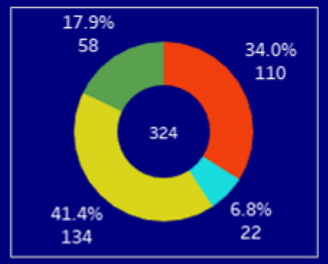
- 50.6% of the customers were only Sparkling Wine lovers:
  25% Champagne, 13.3% Prosecco and 12.3% Espumante
- 39.5% of the customers were only Red Wine lovers:
  13.6% Pinot Noir, 9.9% Cabernet Sauvignon , 9.99% Malbec and 6.2% Merlot
- 9.9% of the customers were only White Wine lovers:
  5.2% Pinot Grigio, and 4.6% Chardonnay
- Almost ~40% of the Wine is coming from France, next Australia 12% and Chile 11.4%
- Wine Discount were almost distributed evenly above 40%:

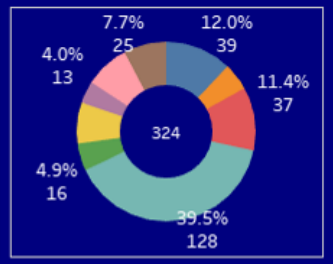


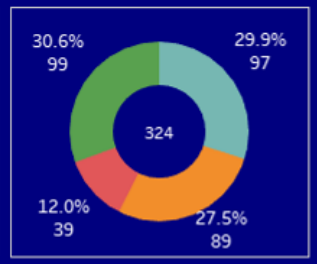


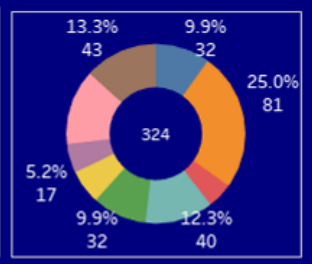
Customer Segmentation Overview

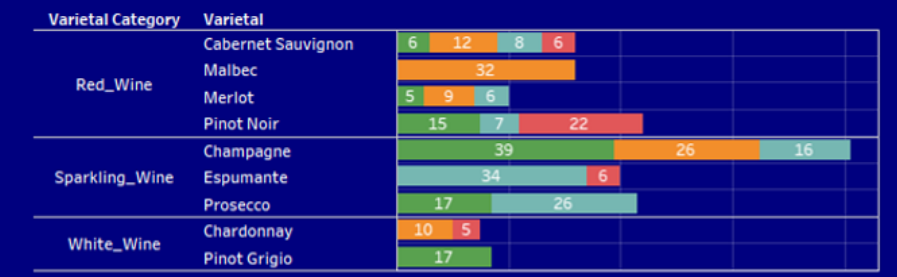


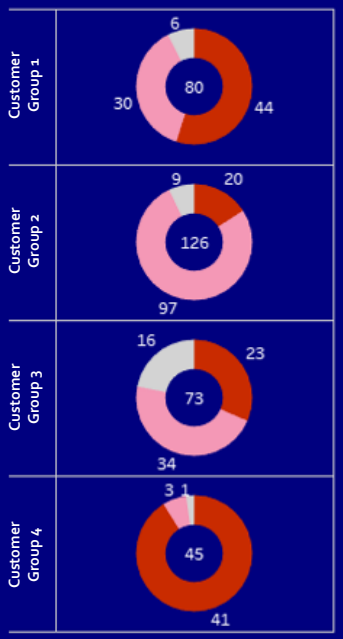


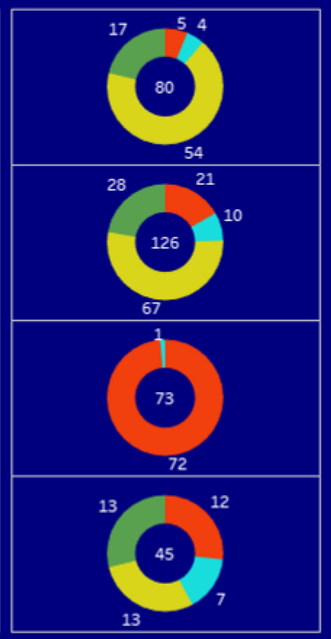


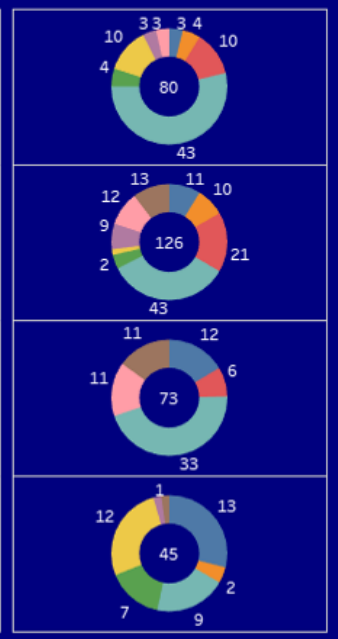


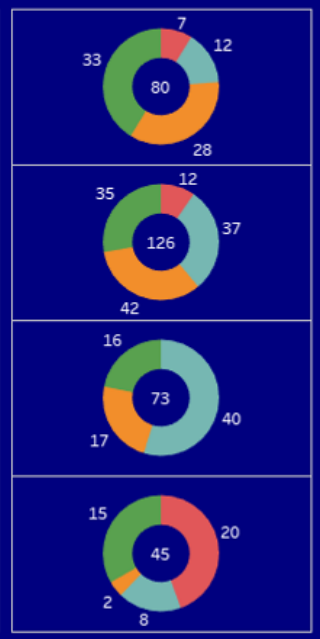


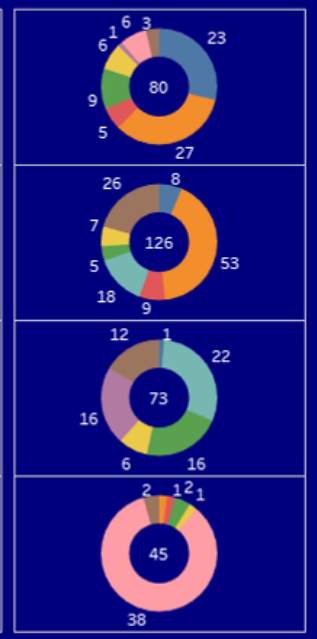


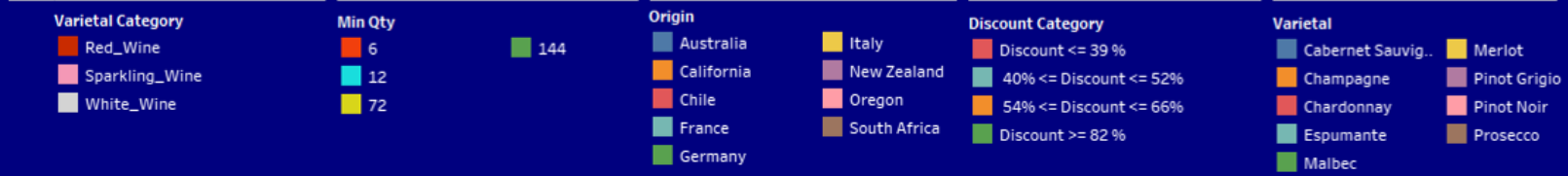












Customers Behavior – Unsupervised Machine Learning K-means Clustering (K=4)

"Customer Group 1"
Represents customers who loves and appreciates both French Red Wine and Sparkling Wine (89% consumes >= 72 Min Qty) specifically: ***Cabernet Sauvignon* & *Champagne*.**

"Customer Group 2"
Represents customers who loves Sparkling Wine (75% consumes >= 72 Min Qty) mainly ***Champagne*** but in general they enjoys French Sparkling Wine.

"Customers from both Group 1 & 2"
More than 75% of them who consumes >= 72 Min Qty, love ***Cabernet Sauvignon* & *Champagne*** specially if there's high Discounts since they're heavy drinkers.

"Customer Group 3"
Represents customers who are light Wine drinkers (Almost 100% of them, consumes = 6 Min Qty) but still they appreciates French Wine in general (sparkling, Red, and some white).

"Customer Group 4"
Represents customers who loves Red Wine specifically ***Pinot Noir***. These customer will buy ***Pinot Noir*** regardless if there's big Discount or not and they don't care about the origin either. They're just ***Pinot Noir*** lovers!.

High Yield Segments That's need our attention for their growth potential

"Customers from both Group 1 & 2"
Focus group of customers to increase sales by introducing more Discounts on ***Cabernet Sauvignon*** & ***Champagne***.

"Customer Group 3"
Focus group of customers to increase revenue by introducing more wine varieties because these customers are NOT wine specific who are not settled yet and they would try more or new varieties.

"Customer Group 4"
Focus group of customers to increase revenue by increasing ***Pinot Noir*** price!.