

NOVA

IMS

Information
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Business Cases for Data Science

Business Case 1
Group G

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Business Understanding

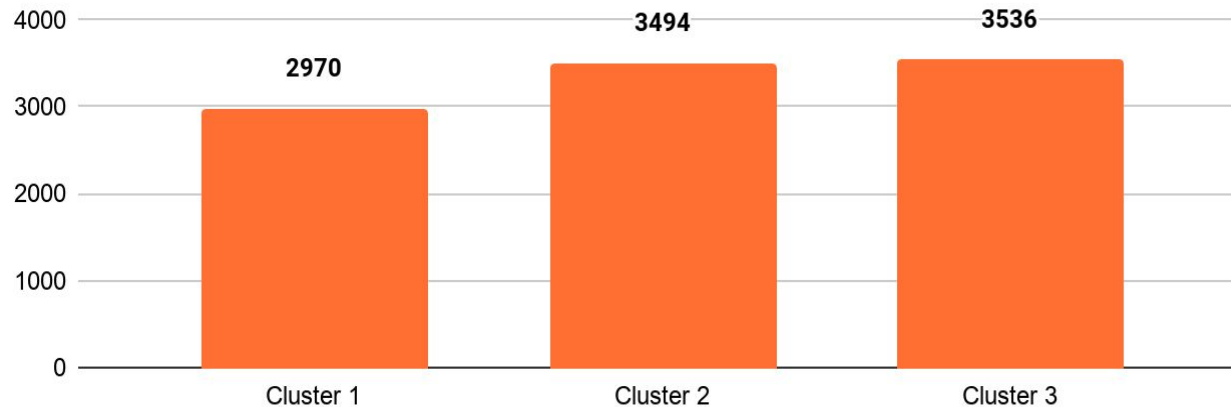
Client:

Wonderful Wines of the World

- **Business objectives:**
 - Generate intelligence about its current customer base to develop more targeted marketing programs
- **Situation Assessment:**
 - Dataset: 10,000 customers from its active database with 30 features
 - Selection: At least one purchase in the last 18 months
 - Includes data regarding: Socio-demographics, taste preferences, profitability and buying behaviour
- **Data Mining Objectives:**
 - Generate a clear distinction among the current consumers from socio-demographics, profitability, taste preferences and buying behaviour standpoint
 - Segmentation into meaningful subgroups

Segmentation Results

Subgroup Distribution



Investigated perspectives for segmentation:



Socio-Demographics



Taste Preferences



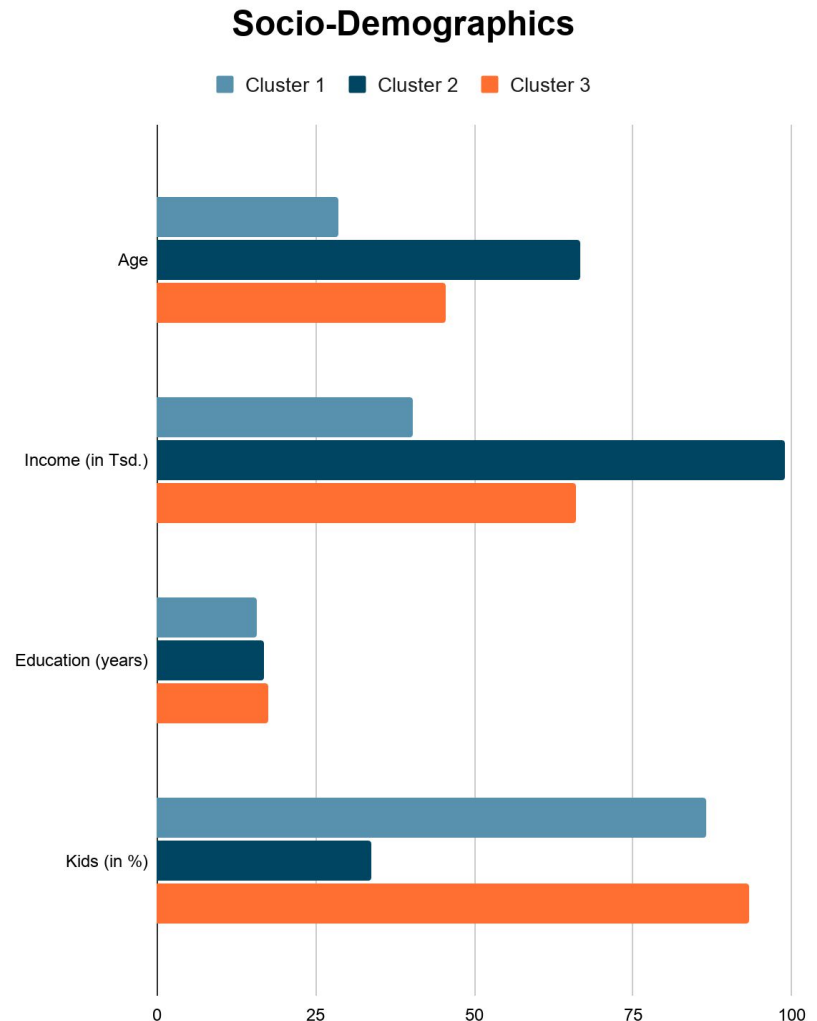
Profitability



Behaviour

Socio-Demographics

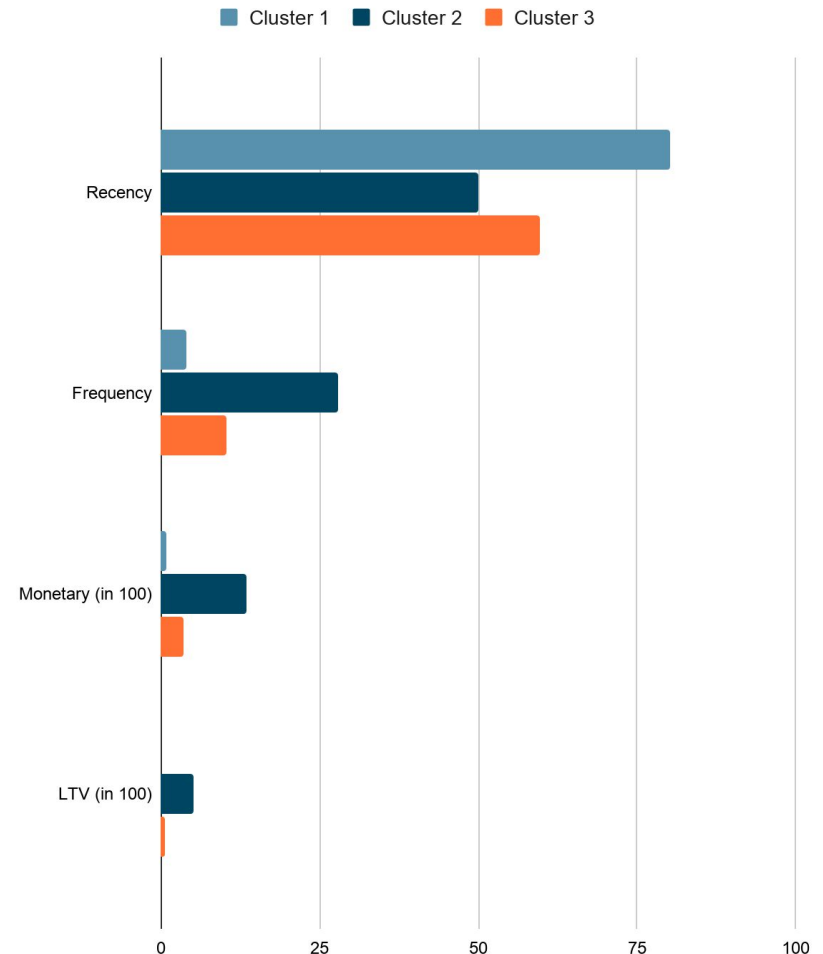
- **Cluster 1:**
 - Youthful
 - Low income
 - 15 years of education
 - 86% have at least 1 child at home
- **Cluster 2:**
 - Elderly
 - High income
 - 16.8 years of education
 - 33% have at least 1 child at home
- **Cluster 3:**
 - Middle age
 - Moderate income
 - 17.5 years of education
 - 93% have at least 1 child at home



Profitability

- **Cluster 1:**
 - Recent inactivity
 - Low in frequency
 - Spend less than other clusters
 - Lowest LTV
- **Cluster 2:**
 - Most active buyer
 - Frequent buyer
 - Spend high amount per purchase
 - Most valuable customers
- **Cluster 3:**
 - Active buyer
 - Moderate in frequency
 - Moderate to low amount spent per purchase
 - Moderate LTV

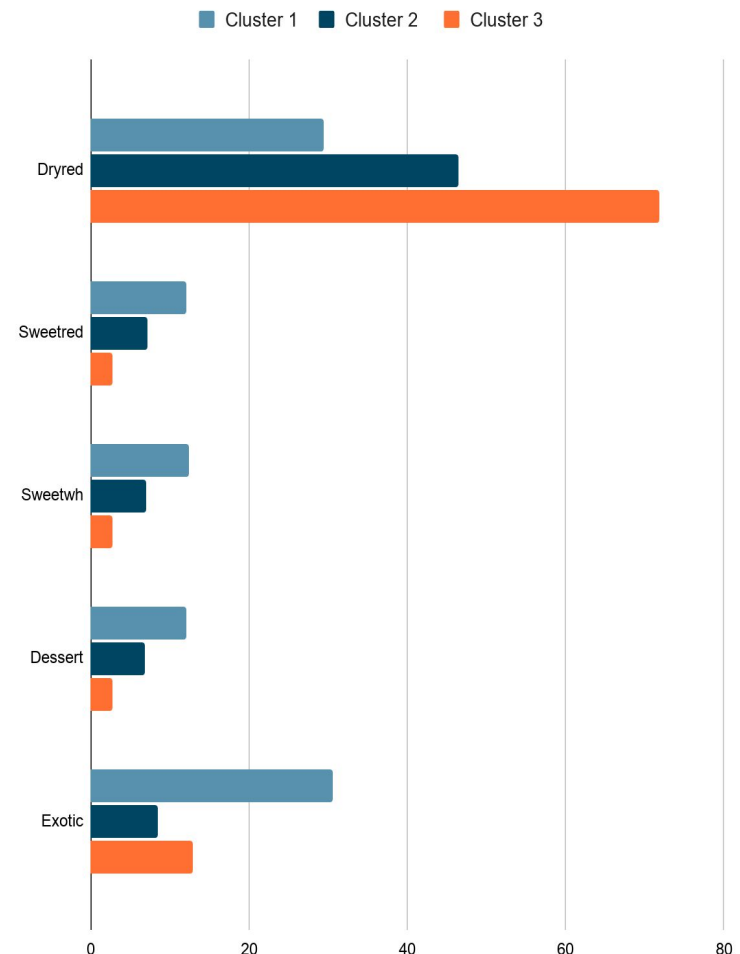
Profitability Measures



Taste Preferences

- **Cluster 1:**
 - Prefer Exotic wine next to Dryred
 - Least favourites: Sweetred, Sweetwh and Dessert
- **Cluster 2:**
 - Prefer Dryed wine with distinction
- **Cluster 3:**
 - Prefer Dryed wine with distinction
 - Yet slight preference for Exotic wine

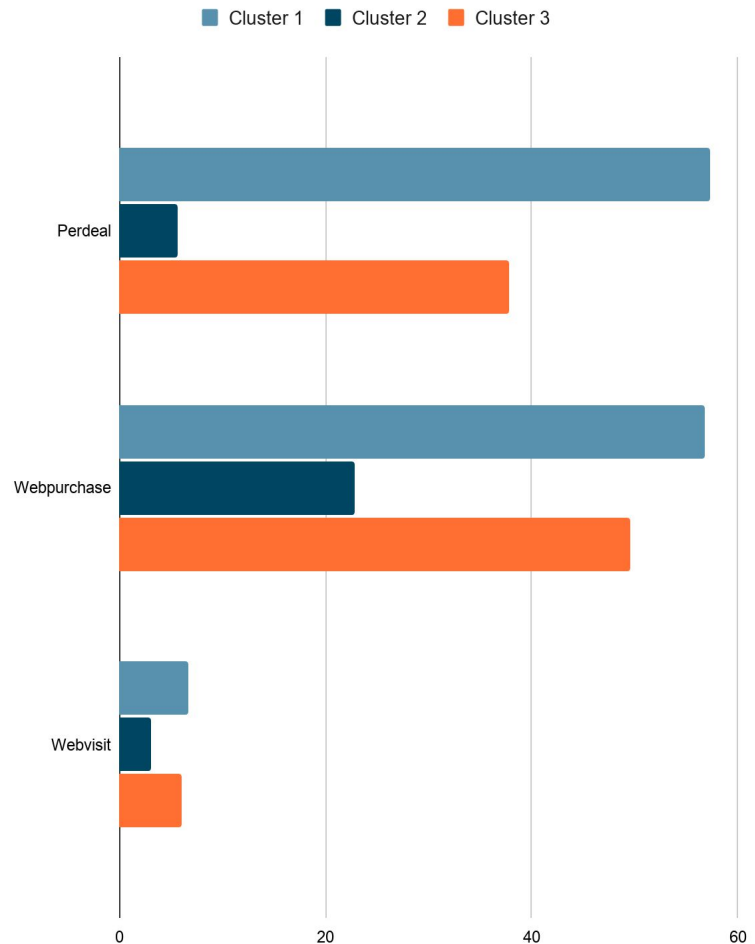
Taste preferences in %



Buying Behavior

- **Cluster 1:**
 - Love to buy on discount
 - Prefer to buy online
- **Cluster 2:**
 - Does not usually purchase wine online nor products on discount
- **Cluster 3:**
 - Similar to cluster 1 regarding discount purchases & online purchases

Buying Behaviors in %



Subgroups Overview

	<u>Cluster 1</u>	<u>Cluster 2</u>	<u>Cluster 3</u>
Socio-Demographic	Young, low income, 86% have 1 child at home	Elderly and high income	Middle age, moderate income and 1 child at home
Profitability	Lowest LTV and lowest RFM scores	Most valuable customers in RFM terms	Moderate LTV and RFM scores
Taste	Dryred wine is the favourite among all clusters		
	Faible for exotic wines	Wine enthusiasts	Dislike sweet and dessert wines
Buying Behavior	Buy online and on discount	Usually do not buy online nor on discount	Similar to Cluster 1

Marketing Strategies

- **Cluster 1:**
 - Price sensitive: Target with discounts on specific products
 - Usage of online marketing tools such as newsletters and online advertisement
- **Cluster 2:**
 - Sophisticated customer - Include and emphasize the quality of the wine offered by WWW
 - Host an exclusive wine tasting event (increase in sales but also raises the brand image)
- **Cluster 3:**
 - Mildly price sensitive: Reactivate their spending habits and offer them good deals on their preferred product.
 - Educated: Provide brochures and handbooks for specific wines of their taste to read about as well as goodies along their wine purchase.

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