# Introduction

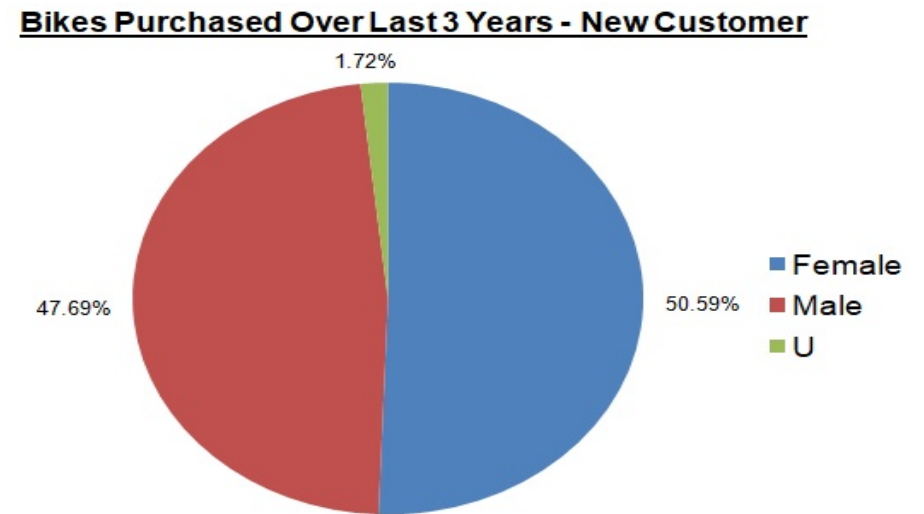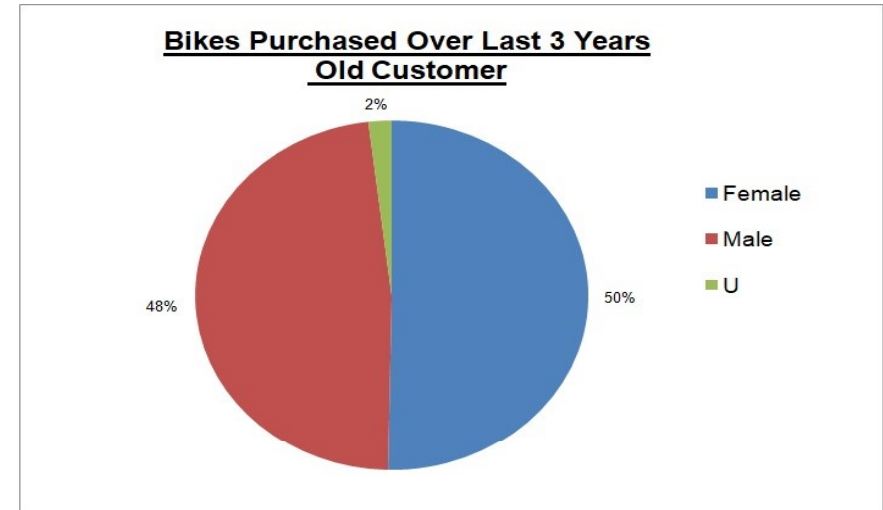## Targeting high value customers based on customer demographics and attributes.

•Sprocket Central Pty Ltd is a company that manufactures high-quality bikes and accessible cycling accessories to riders.

•Their marketing team is looking to boost business by analyzing their existing customer dataset to determine customer trends and behavior.

•Using the existing 3 datasets (Customer demographic, customer address and transactions), analyze and recommend which of these 1000 new customers should be targeted to drive the most value for the organization.
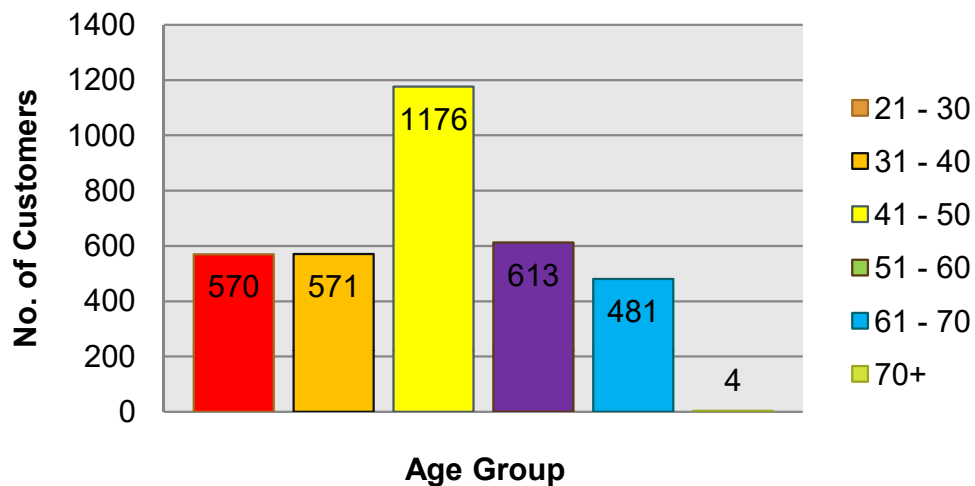
**SPROCKET CENTRAL**

# Data Exploration

- Over the past 3 years, the percentage of bike-related purchases made by females has been approximately 2% higher than the percentage made by males.

- Additionally, purchases made by individuals of unknown gender accounted for 2% of the total.
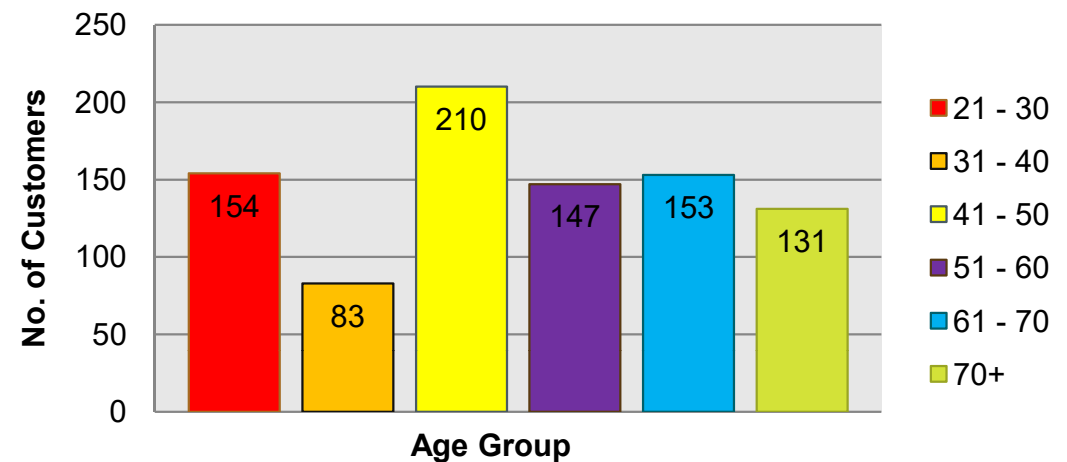
**Bikes Purchased Over Last 3 Years Old Customer**

2%

- Female
- Male
- U

48%  50%

**Bikes Purchased Over Last 3 Years - New Customer**

1.72%

- Female
- Male
- U

47.69%  50.59%

# Data Exploration

## Old Customer Age Distribution

No. of Customers vs Age Group

| Age Group | No. of Customers |
|-----------|------------------|
| 21 - 30 | 570 |
| 31 - 40 | 571 |
| 41 - 50 | 1176 |
| 51 - 60 | 613 |
| 61 - 70 | 481 |
| 70+ | 4 |

## New Customer Age Distribution

No. of Customers vs Age Group

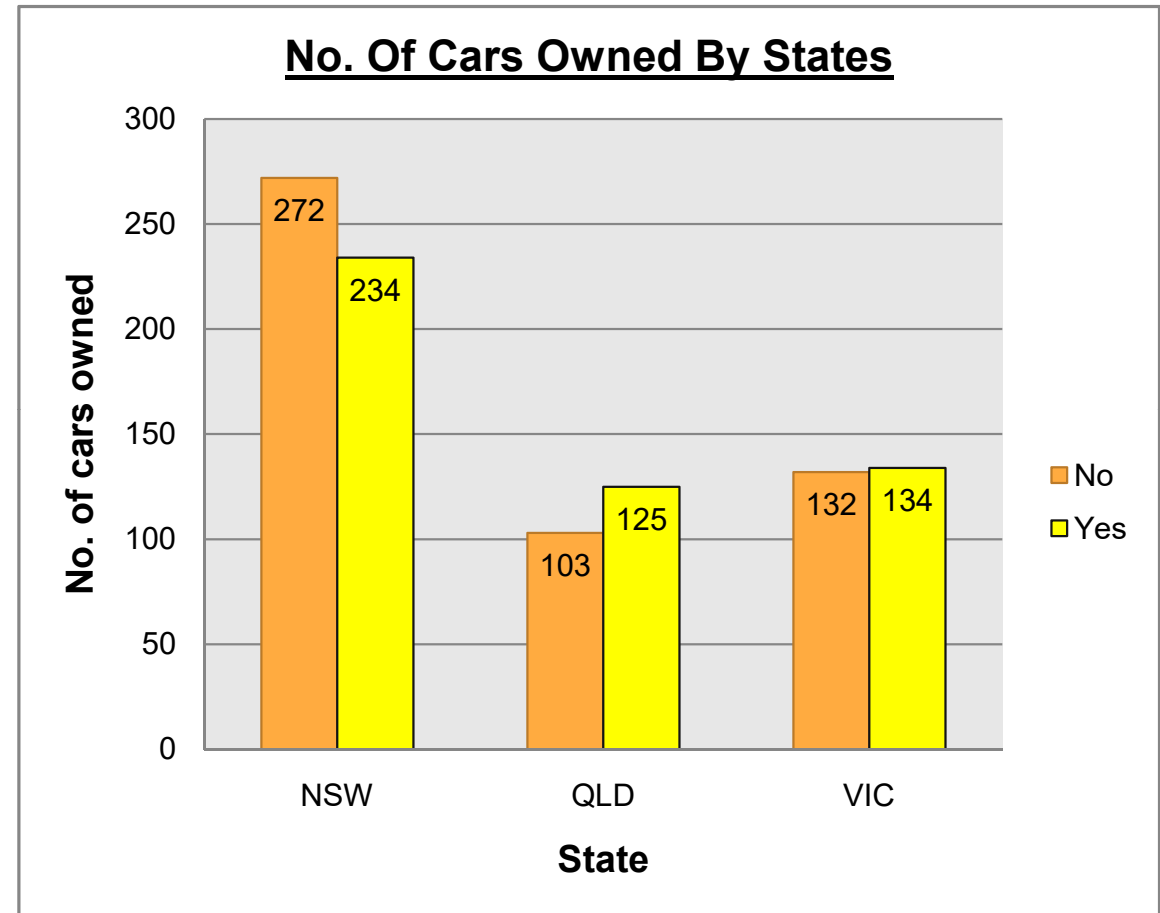| Age Group | No. of Customers |
|-----------|------------------|
| 21 - 30 | 154 |
| 31 - 40 | 83 |
| 41 - 50 | 210 |
| 51 - 60 | 147 |
| 61 - 70 | 153 |
| 70+ | 131 |

- Most customers are in 41-50 age groups in both old and new customer age.

- Lowest age groups are 70+ in old customer age and 31-40 in new customer age.

- There is a sudden drop of customers in 31-40 age group in new customer age and steep increase in 70+ age group.
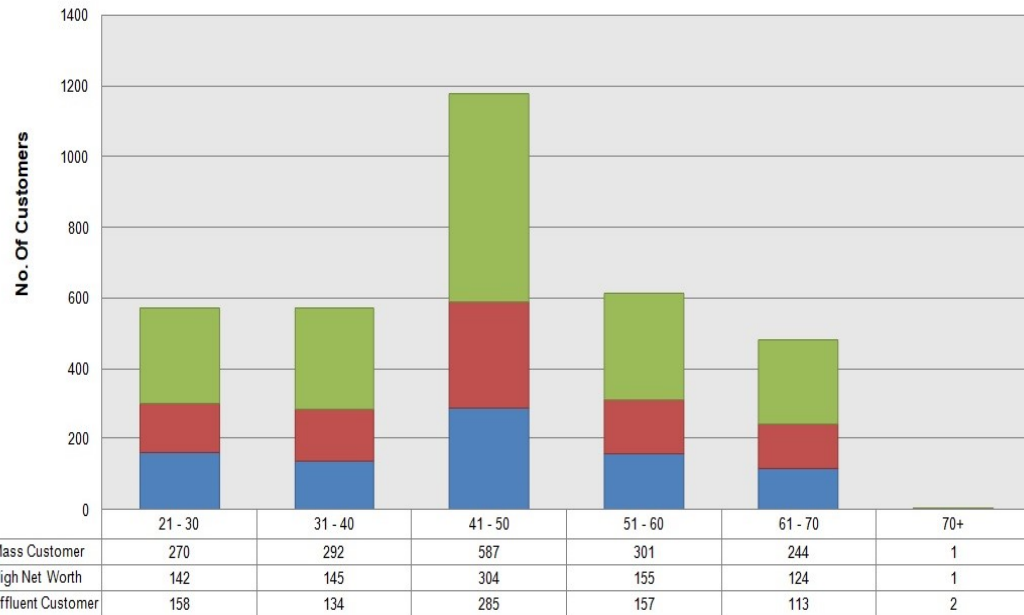
# Data Exploration

- NSW has the highest number of people who own a car, while QLD has the lowest.
- Both states have a relatively similar number of people who do not own a car,
- Indicating potential for reaching out to this customer segment.
- On the other hand, in VIC, split quite evenly among the population.
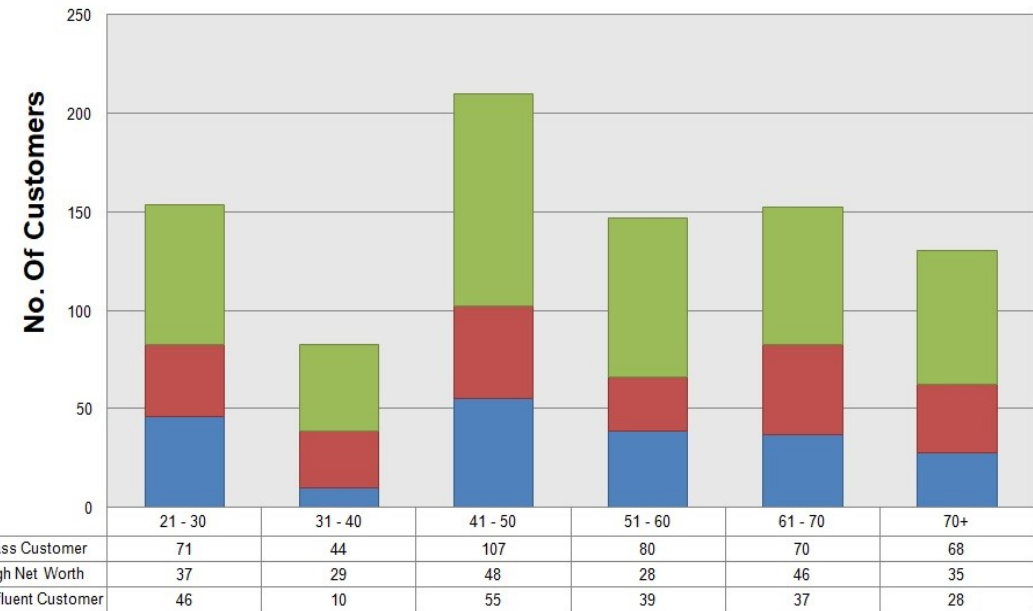
### No. Of Cars Owned By States

# Data Exploration

## WEALTH SEGMENTATION - OLD CUSTOMER

| | 21 - 30 | 31 - 40 | 41 - 50 | 51 - 60 | 61 - 70 | 70+ |
|---|---|---|---|---|---|---|
| Mass Customer | 270 | 292 | 587 | 301 | 244 | 1 |
| High Net Worth | 142 | 145 | 304 | 155 | 124 | 1 |
| Affluent Customer | 158 | 134 | 285 | 157 | 113 | 2 |

## WEALTH SEGMENTATION - NEW CUSTOMER

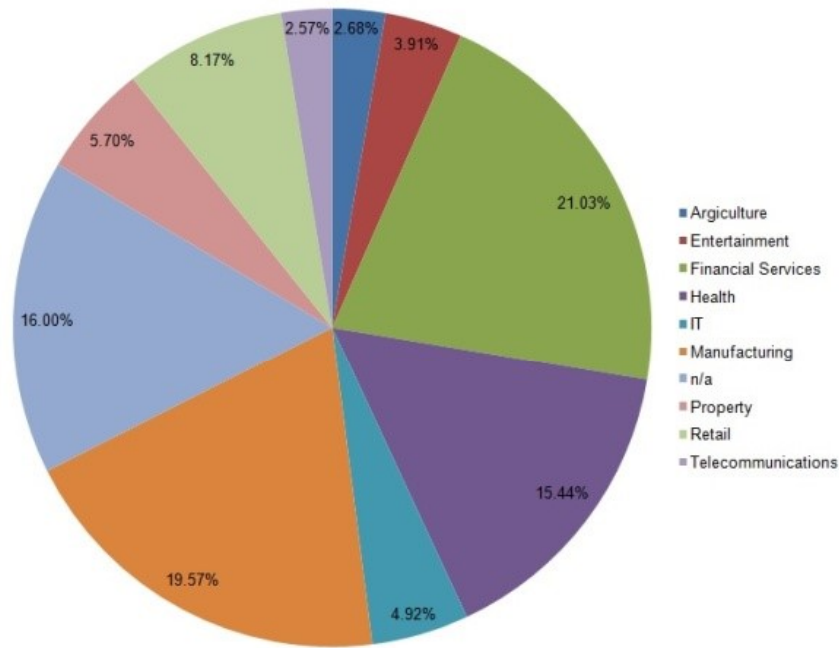| | 21 - 30 | 31 - 40 | 41 - 50 | 51 - 60 | 61 - 70 | 70+ |
|---|---|---|---|---|---|---|
| Mass Customer | 71 | 44 | 107 | 80 | 70 | 68 |
| High Net Worth | 37 | 29 | 48 | 28 | 46 | 35 |
| Affluent Customer | 46 | 10 | 55 | 39 | 37 | 28 |

•According to the data, the largest number of customers across all age groups were from the 'mass customer' segment, followed by the 'high net worth'.

•However, in some age groups, the 'affluent customer' segment outperformed the 'high net worth' segment.

•The data also shows that in the old customer segmentation approach, there was a significant drop in the buying trend after the 41-50 age group,

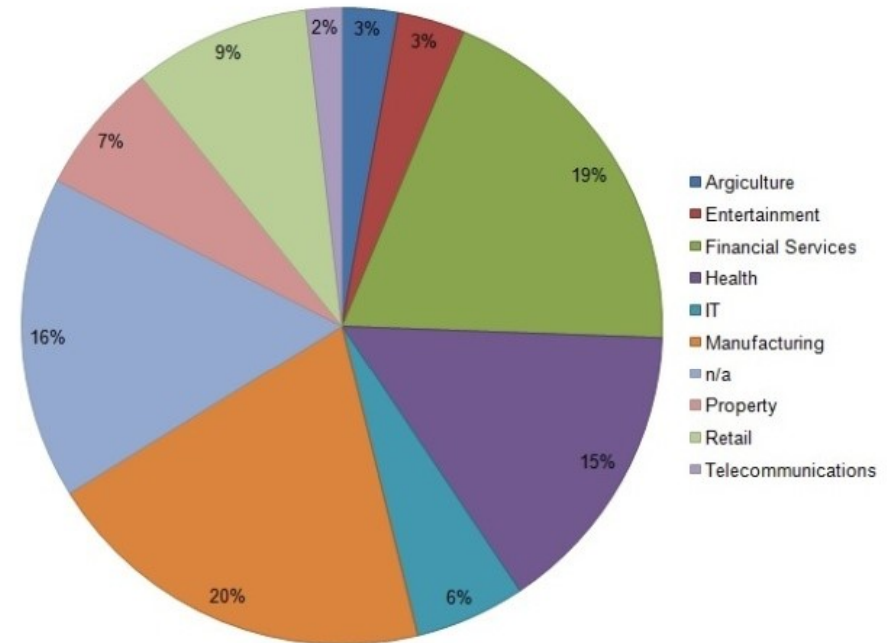•Whereas in the new customer segmentation approach, this steep decrease is not as prominent.

# Data Exploration

### Job Industry Distribution - New Customer



Legend:
- Argiculture
- Entertainment
- Financial Services
- Health
- IT
- Manufacturing
- n/a
- Property
- Retail
- Telecommunications

Values shown: 2.57%, 2.68%, 3.91%, 8.17%, 5.70%, 21.03%, 16.00%, 15.44%, 19.57%, 4.92%

### Job Industry Distribution - Old Customer



Legend:
- Argiculture
- Entertainment
- Financial Services
- Health
- IT
- Manufacturing
- n/a
- Property
- Retail
- Telecommunications
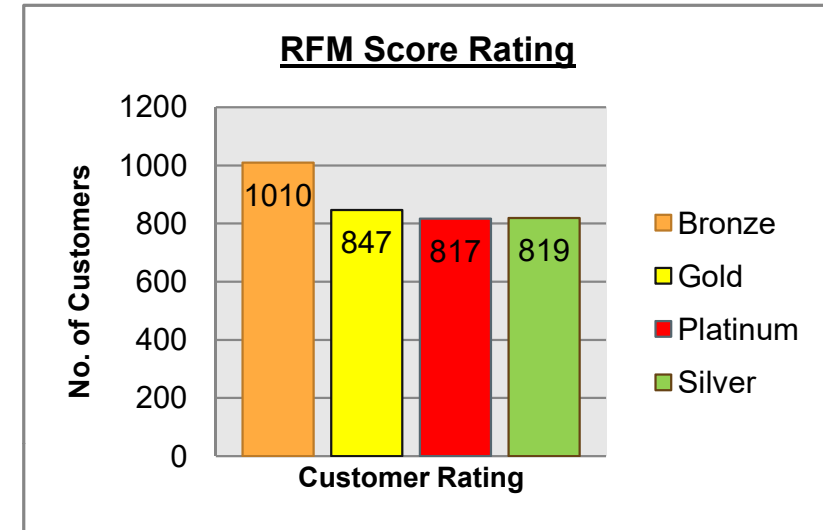
Values shown: 2%, 3%, 3%, 9%, 7%, 19%, 16%, 15%, 20%, 6%

• Based on the data, the top three industry sectors that have contributed to the major profits are financial services, manufacturing, and health, While agriculture, telecommunications, and entertainment are the least contributing sectors.

• The data also shows a difference in the job distribution of old and new customers. In the old customer job distribution, the manufacturing sector was the top industry sector, Whereas in the new customer job distribution, financial services is the leading industry sector.

# Model Development

• **RFM** analysis is a marketing technique that helps businesses identify and segment their customers based on their purchasing behavior. RFM stands for Recency, Frequency, and Monetary Value, which are the three key metrics used in this analysis.

• **Recency** refers to how recently a customer has made a purchase. Customers who have made a purchase more recently are generally more engaged and likely to make another purchase in the near future.

• **Frequency** refers to how often a customer makes purchases. Customers who make purchases more frequently are more loyal and valuable to a business.

• **Monetary** Value refers to the total amount of money a customer has spent with a business. Customers who have spent more money are generally more valuable and may warrant special attention or rewards.

**RFM Score Rating**

No. of Customers vs Customer Rating

- Bronze: 1010
- Gold: 847
- Platinum: 817
- Silver: 819

# Model Development

| Rank | Customer Title | Description | RFM Score |
|---|---|---|---|
| 1 | Platinum Customer | Most recent buy, buys often, most spent | 444 |
| 2 | Very Loyal | Most recent, buys often, spends large amount of money | 433 |
| 3 | Becoming Loyal | Relatively recent, bought more than once, spends large amount of money | 421 |
| 4 | Recent Customer | Bought recently, not very often, average money spent | 344 |
| 5 | Potential Customer | Bought recently, never bought before, spent small amount | 323 |
| 6 | Late bloomer | No purchases recently, but RFM value is larger than average | 311 |
| 7 | Losing Customer | Purchases was a while ago, below average RFM value | 224 |
| 8 | High Risk Customer | Purchase was long time ago, frequency is quite high, amount spent is high | 212 |
| 9 | Almost Lost Customer | Very low recency, low frequency, but high amount spent | 124 |
| 10 | Evasive Customer | Very low recency, Very low frequency, small amount spent | 112 |
| 11 | Lost Customer | Very Low RFM | 111 |

• By combining all three metrics, business can segment their customers into different groups based on their overall value to the business.

• For example, a customer who has made a large purchase recently and frequently would be considered a high-value customer and may warrant special marketing efforts to retain their loyalty.

• In contrast, a customer who has not made a purchase in a long time and has spent very little money would be considered a low-value customer and may not warrant as much attention.

# Model Development

## No. Of Customers By Title

# Model Development

## RFM Analysis
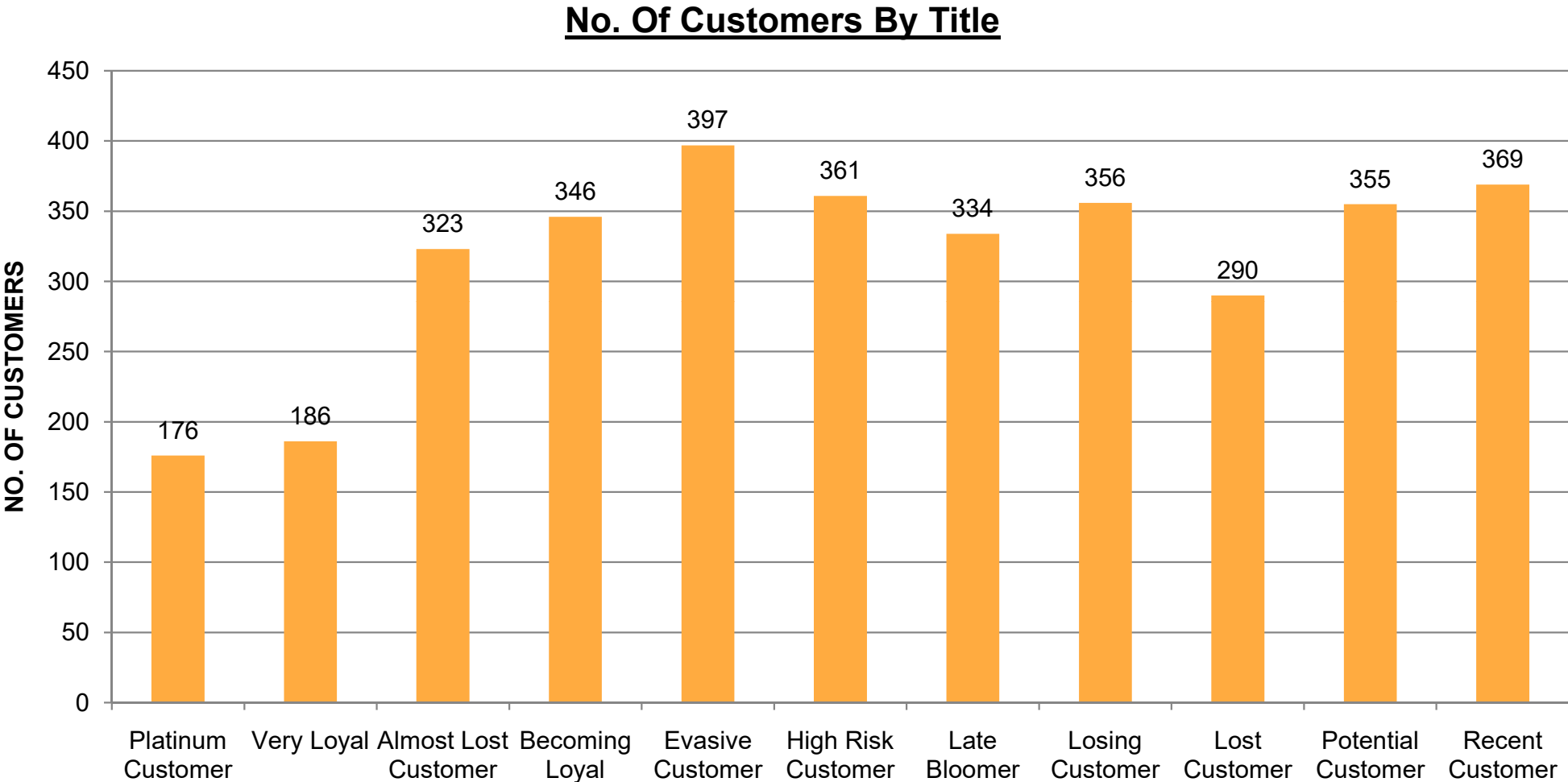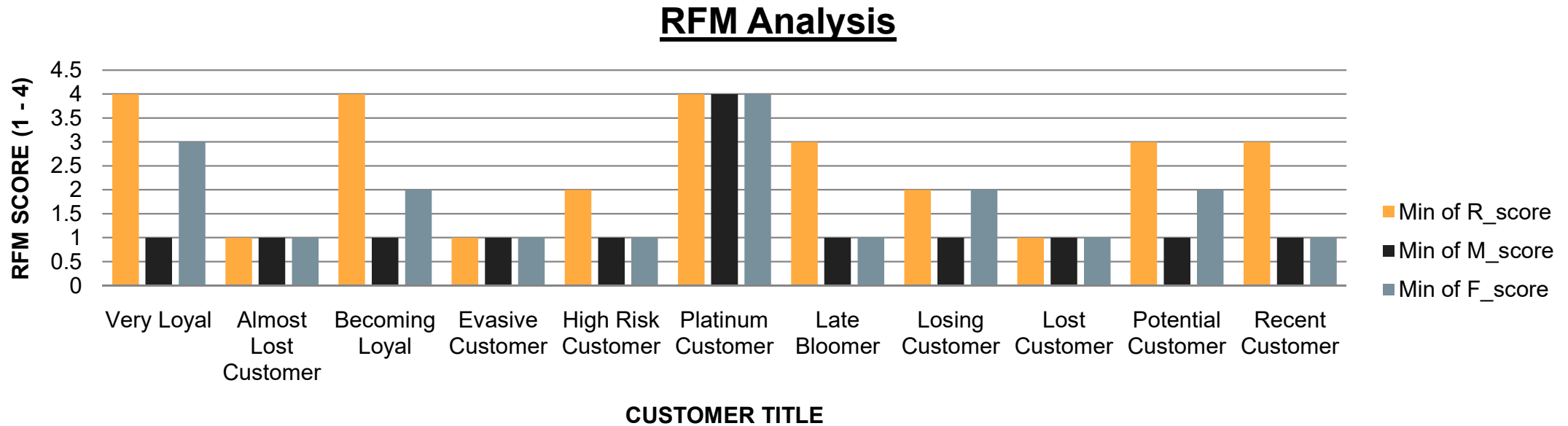


• The RFM model score provides a comprehensive assessment of a customer's level of engagement with a business across all three categories of Recency, Frequency, and Monetary Value, provide a holistic view of customers overall value to the business.

• RFM analysis can be used to inform marketing and customer engagement strategies, such as targeted promotions and personalized communications.

# Interpretation
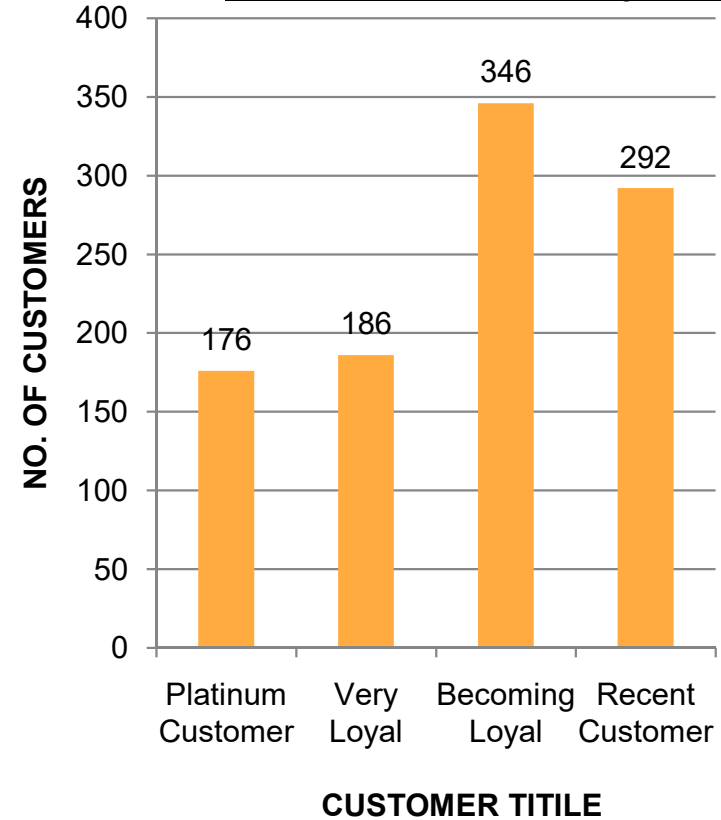
Sample list of top 1000 potential customers:

| Customer_id | RFM Value | First name | Last Name | gender | State | Postcode | Customer Title |
|---|---|---|---|---|---|---|---|
| 25 | 444 | Geoff | Assaf | Male | QLD | 4413 | Platinum Customer |
| 37 | 444 | Laurie | Dwerryhouse | Female | QLD | 4726 | Platinum Customer |
| 89 | 444 | Benedicto | Hoxey | Male | NSW | 2100 | Platinum Customer |
| 91 | 444 | Dylan | Meaker | Male | NSW | 2166 | Platinum Customer |
| 99 | 444 | Reggie | Mulliner | Male | NSW | 2160 | Platinum Customer |
| 109 | 444 | Cody | Blabey | Male | NSW | 2217 | Platinum Customer |
| 117 | 444 | Nance | Suttling | Female | QLD | 4226 | Platinum Customer |
| 144 | 444 | Jory | Barrabeale | U | NSW | 2315 | Platinum Customer |
| 151 | 444 | Donnie | Brimson | Male | NSW | 2759 | Platinum Customer |
| 165 | 444 | Aldon | Roelofs | Male | NSW | 2032 | Platinum Customer |
| 167 | 444 | Nathalie | Tideswell | Female | QLD | 4352 | Platinum Customer |
| 171 | 444 | Halli | Davidoff | Female | NSW | 2099 | Platinum Customer |
| 173 | 444 | Ebba | Hanselmann | Female | NSW | 2766 | Platinum Customer |
| 174 | 444 | Catie | Tosspell | Female | NSW | 2148 | Platinum Customer |
| 200 | 444 | Hube | Weald | Male | QLD | 4005 | Platinum Customer |
| 234 | 444 | Mead | Alpes | Female | NSW | 2036 | Platinum Customer |
| 235 | 444 | Leona | Phateplace | Female | NSW | 2018 | Platinum Customer |
| 239 | 444 | Wells | Pressman | Male | QLD | 4514 | Platinum Customer |
| 298 | 444 | Maurise | Lenglet | Male | VIC | 3029 | Platinum Customer |
| 320 | 444 | Aldous | Cubin | Male | QLD | 4701 | Platinum Customer |
| 322 | 444 | De | Denington | Female | QLD | 4350 | Platinum Customer |
| 344 | 444 | Carlene | Eyckelbeck | Female | NSW | 2147 | Platinum Customer |
| 346 | 444 | Timmie | Eisikowitz | Male | NSW | 2155 | Platinum Customer |
| 357 | 444 | Betta | Shrimpton | Female | VIC | 3199 | Platinum Customer |
| 377 | 444 | Levy | Bonavia | Male | NSW | 2265 | Platinum Customer |
| 381 | 444 | Leesa | Castleman | Female | NSW | 2062 | Platinum Customer |
| 404 | 444 | Sinclair | Sustins | Male | NSW | 2536 | Platinum Customer |
| 515 | 444 | Winna | Verny | Female | NSW | 2026 | Platinum Customer |
| 534 | 444 | Madel | Palffrey | Female | NSW | 2218 | Platinum Customer |

# Interpretation

## No. of Customers By States And Title



■ Platinum Customer  ■ Very Loyal  ■ Becoming Loyal  ■ Recent Customer
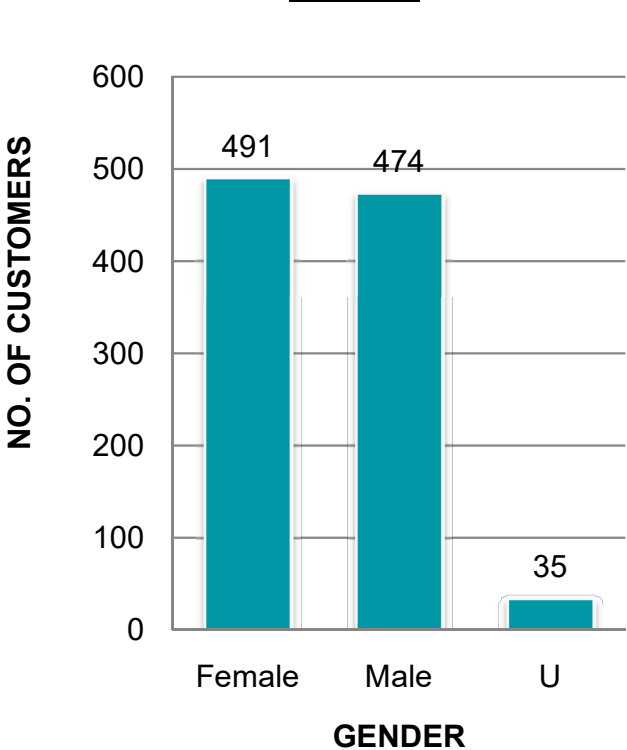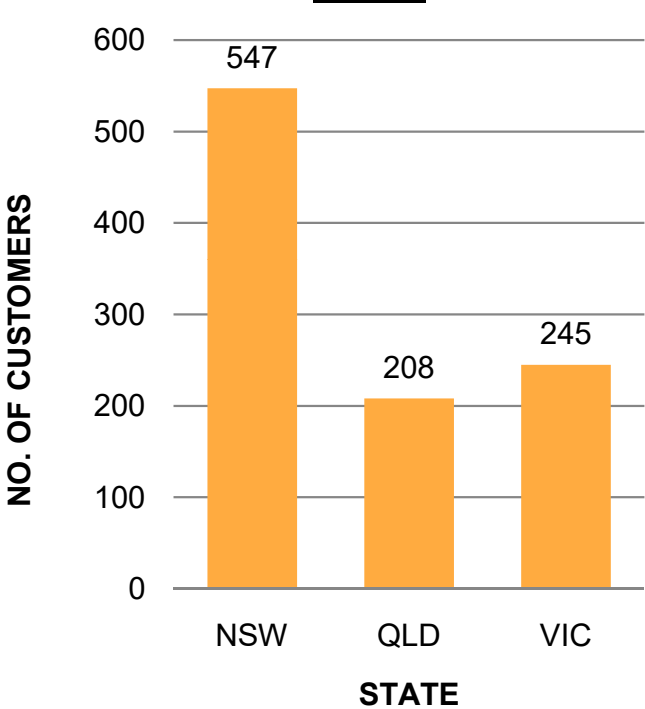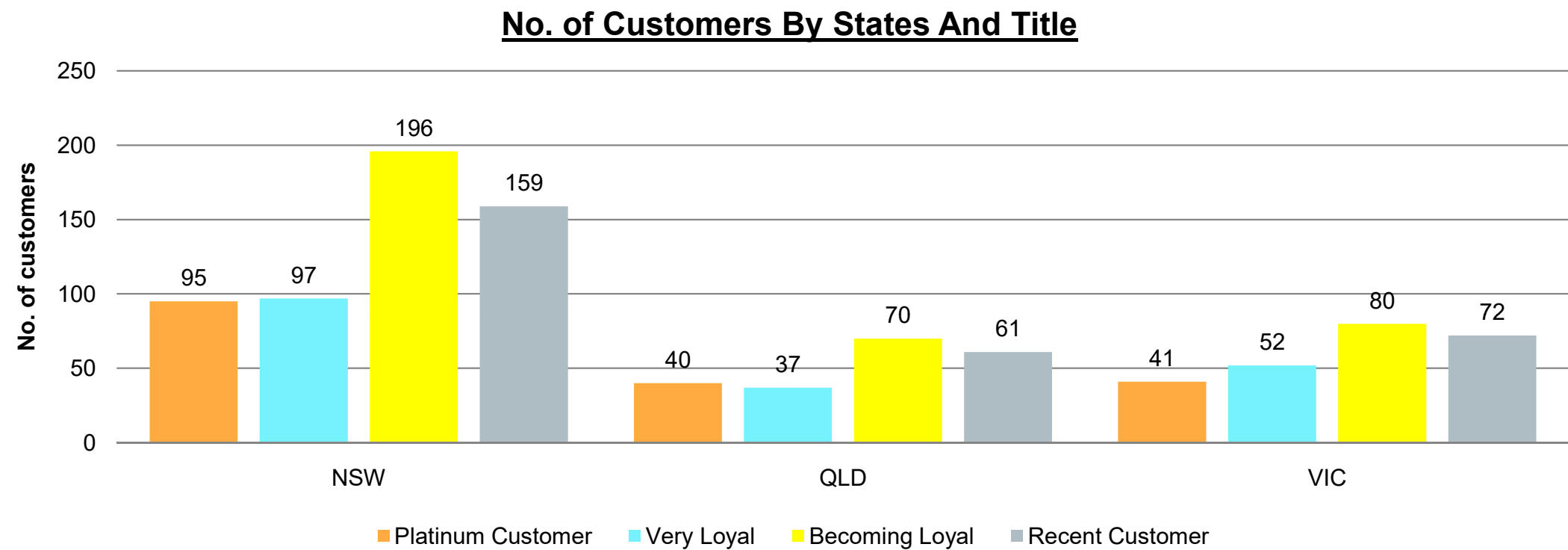
• Identified top 1000 high-value customers through RFM analysis can help businesses focus their resources on retaining their most valuable customers and drive long-term growth.