

ACCS

The Data Analytics Competition

Team Name: miscellaneous



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ASSUMPTIONS

We made an assumption and divided the states into following regions:

Region	
Central India	Chhattisgarh Madhya Pradesh
East India	Bihar Jharkhand Odisha West Bengal
North Eastern India	Assam Manipur Tripura
North India	Chandigarh Delhi Haryana Jammu and Kashmir Punjab Uttar Pradesh Uttarakhand
South India	Andhra Pradesh Karnataka Kerala Puducherry Tamil Nadu Telangana
West India	Gujarat Maharashtra Rajasthan

RFM ANALYSIS : Recency | Frequency | Monetary Analysis

	Recency	Frequency	Monetary	RecencyScore	FrequencyScore	MonetaryScore	RFM_SCORE	Segment
Customer Name								
Aaron Bergman	108	37	24644.63	3	5	5	355	Loyal Customers
Aaron Hawkins	104	34	20759.51	4	4	5	445	Loyal Customers
Aaron Smayling	115	31	14212.63	2	3	3	233	At Risk
Adam Bellavance	127	39	20186.78	2	5	5	255	Can't Loose
Adam Hart	94	40	21718.20	5	5	5	555	Champions
...
Xylona Preis	135	30	12198.95	1	3	2	132	At Risk
Yana Sorensen	96	31	20032.44	5	3	5	535	Potential Loyalists
Yoseph Carroll	96	30	20164.38	5	3	5	535	Potential Loyalists
Zuschuss Carroll	95	37	28479.99	5	5	5	555	Champions

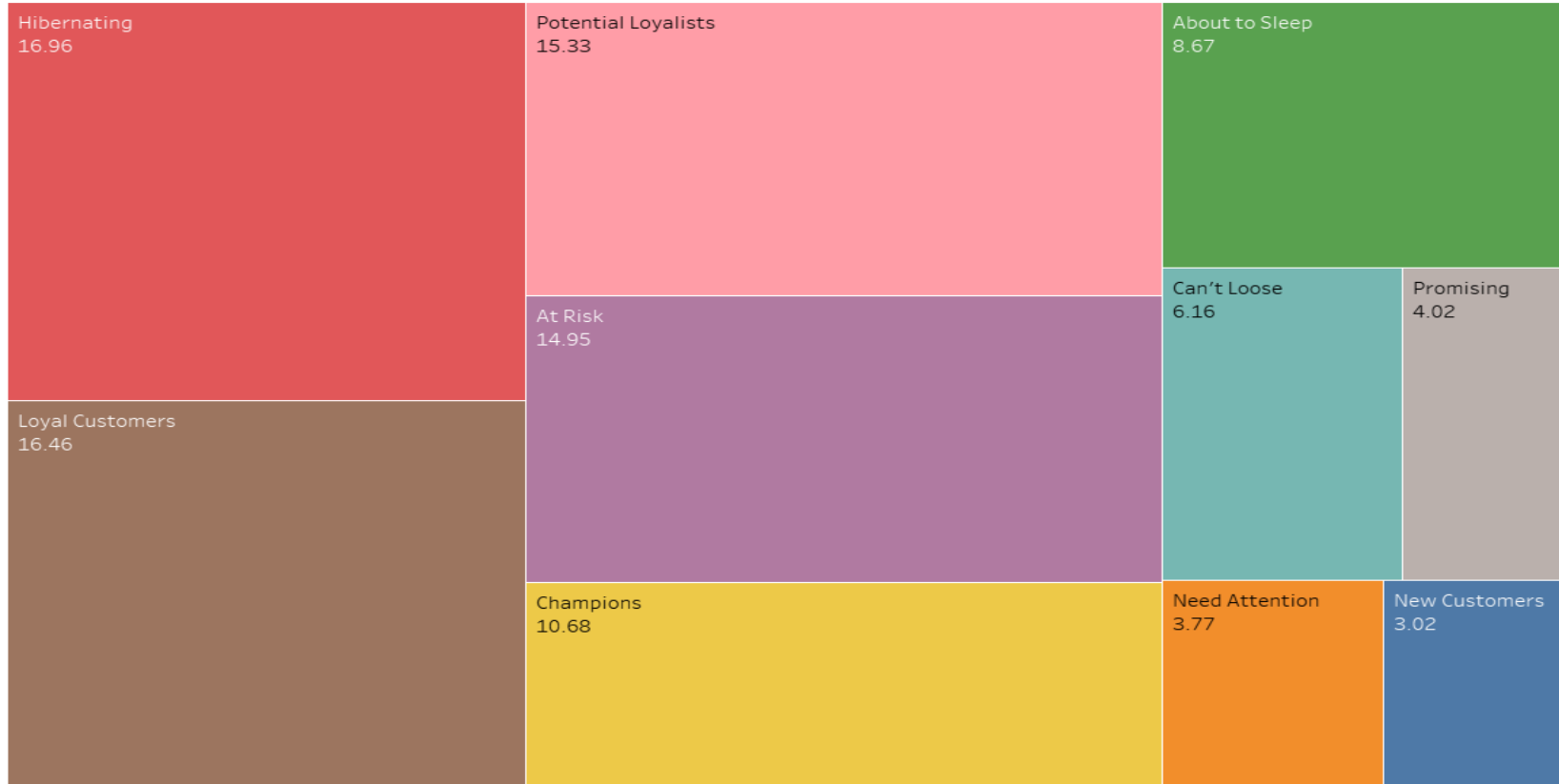
	Recency_mean	Recency_median	Recency_count	Recency_std	Frequency_mean	Frequency_median
Segment						
About to Sleep	109.26	110	69	3.19	26.62	27.00
At Risk	137.03	129	119	23.88	32.80	33.00
Can't Loose	130.53	126	49	14.07	39.08	39.00
Champions	94.15	94	85	1.75	37.14	37.00
Hibernating	146.47	132	135	62.23	26.41	27.00
Loyal Customers	105.17	105	131	5.00	36.66	36.00
Need Attention	110.10	111	30	3.13	31.50	32.00
New Customers	94.50	94	24	1.72	24.29	25.00
Potential Loyalists	96.80	97	122	3.58	30.10	30.00
Promising	100.66	100	32	2.03	24.75	25.50

- Recency, Frequency and Monetary Performance was evaluated in the range of 1-5 where more recent, more frequent and higher sales were awarded 5 each as the RFM Score.
- RFM score was calculated by concatenating individual digits of the Recency Score, Frequency Score and Monetary Score.
- The RFM score was categorised into the following 10 segments :

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	2-4	3-4	4-5
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	<2	<2
Promising	Recent shoppers but haven't spent much	3-4	<2	<2
Need Attention	Above average recency,frequency & monetary values	3-4	3-4	3-4
About to Sleep	Below average recency,frequency & monetary values	2-3	<3	<3
At Risk	Spent big money, purchased often but long time ago	<3	2-5	2-5
Can't lose them	Made big purchases and often, but long time ago	<2	4-5	4-5
Hibernating	Lowest recency,frequency and monetary scores	1-3	1-3	1-3

RFM ANALYSIS : Recency | Frequency | Monetary Analysis

Segment Division Percentage



CUSTOMER LOYALTY AND RETENTION

Number Of Unique Customers			
2012	2013	2014	2015
795	795	796	794

- After evaluating the data we can see that from 2012 to 2014 there is 100% customer retention.
- In the period of 2014 - 2015, there is a small dip in retention of customers resulting in.
- It is also evident that even though the company's customer retention capability is good, the company lack in customers acquisition as out of all the years in the given time frame, only one new customer comes in the year 2014.

CUSTOMER LOYALTY AND RETENTION

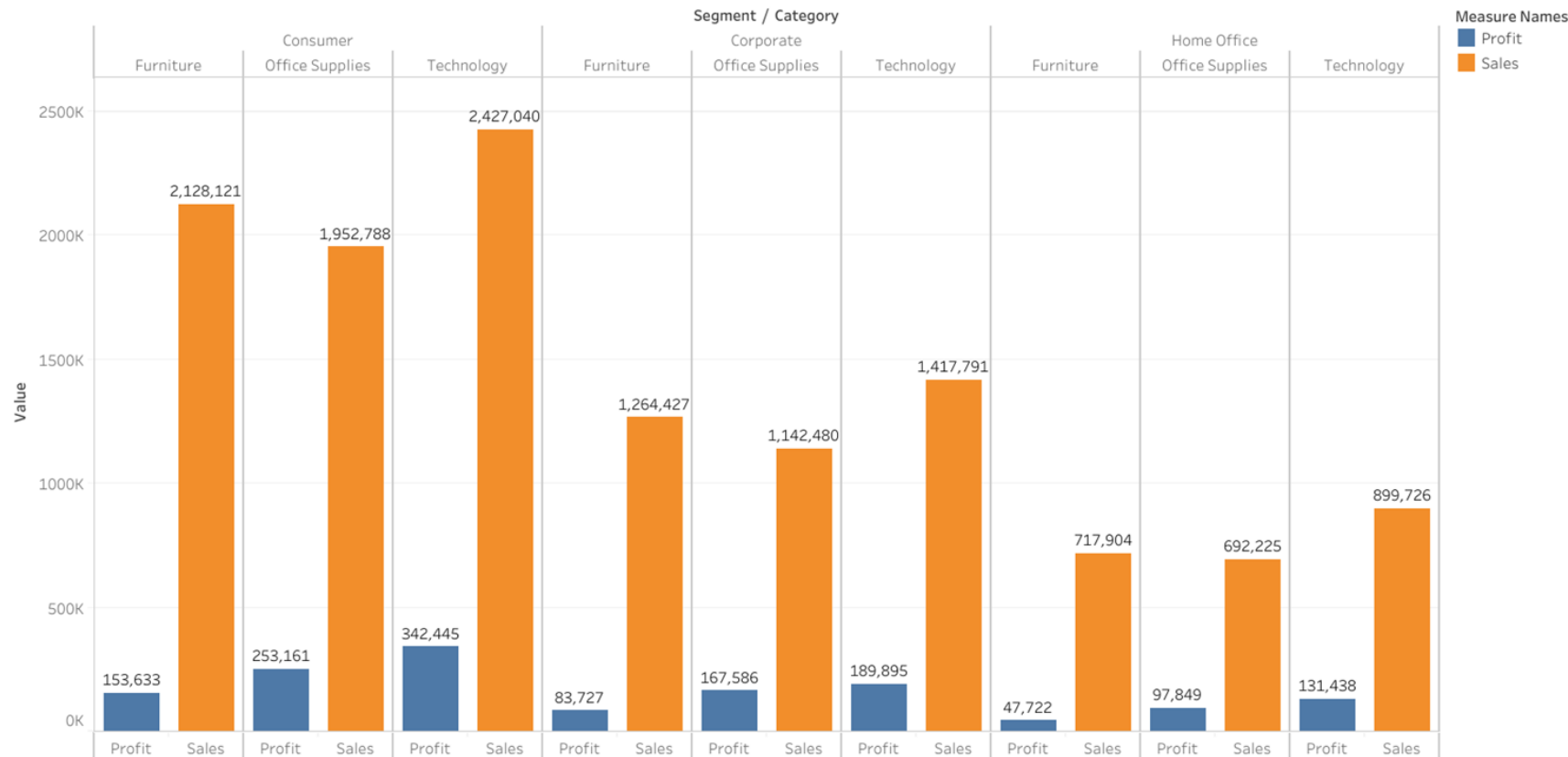
No.of Customers in each Region

Region	Order Date			
	2012	2013	2014	2015
Central India	52	52	52	51
East India	119	119	119	119
North Eastern India	104	104	105	104
North India	208	208	208	208
South India	213	213	213	213
West India	99	99	99	99

- The company needs to invest in new strategies for the acquisition of customers.
- To set a certain priority, we should first consider Central India region as it has always seen stagnant sales in this region, so the company should first invest to acquire more customers in this region using certain marketing strategies.
- Then we can move onto other market regions first such as West India, East, North East India, as these have lesser sales as compared to North and South regions.

SEGMENT ANALYSIS

Segment Analysis

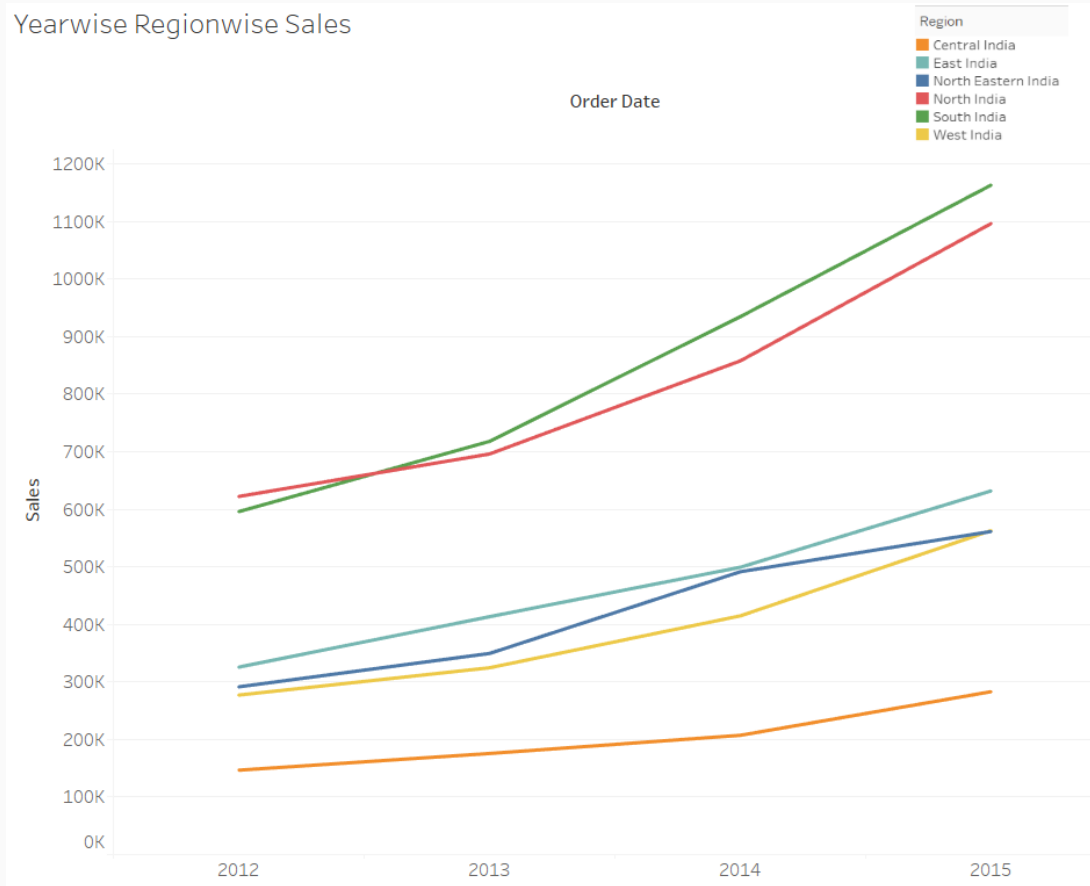


SEGMENT ANALYSIS

- There are mainly segments: Consumers, Corporate, and Home Office.
- Consumer segment is the main source of revenue for this company followed by Corporate and Home Office.
- In all the three segments, there is high sales of technology products followed by Furniture and then at the end office supplies.
- With this, we also observe a common trend which is very low profits made in all these types of products, under all the three segments, and this is something the company should focus on again.

MARKET PERFORMANCE

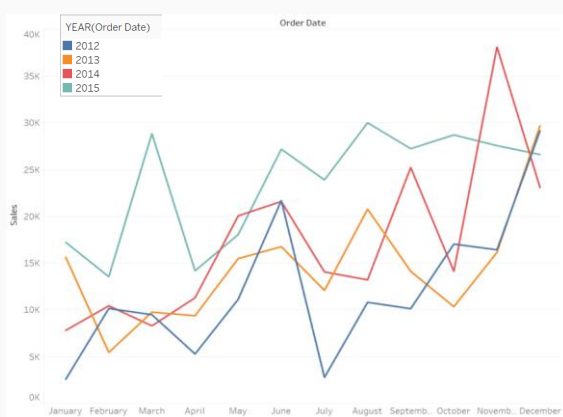
Yearwise Regionwise Sales



MARKET PERFORMANCE

- For the ease of understanding, we divided all the states of India into regions like Central India, East India, West India, North India, South India, and North East India.
- South India region has the highest total sales of approximately 3.4 Million from 2012 - 2015. Whereas, Central India region has the lowest total sales of just 812K from 2012 - 2015.
- All market regions have shown an overall increase in sales from 2012 to 2015.
- North India and South India market regions shows a constant rate of increase in sales from 2012 - 2013 and then a surge in sales post 2013.
- East India and West India market regions shows a constant rate of increase in sales from 2012 - 2014, and then shows a gradual rate of increase in sales post 2014.
- In case of North East India market region, we see a constant rate of increase in sales from 2012 - 2013, then a steep increase post 2013 till 2014, and then a decrease in rate of sales post 2014 till 2015.
- For Central India market region, there exist a small yet constant rate of increase of sales from 2012 - 2014, but post 2014, we see a gradual rate of increase till 2015.

SEASONALITY OF MARKETS



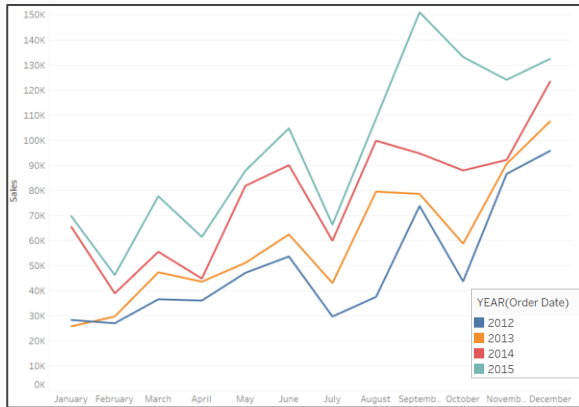
Central India: In this region, there has always been a sharp increase and decrease in sales from 2012 - 2014, like, majorly in period of April to July but this improved in the year 2015, where there was a gradual increase or decrease during these months.

North East : This region shows a significant increase in sales from April to June, and then a significant dip in July. Then we also notice that post July, there is a gradual increase in sales again with few fluctuations.



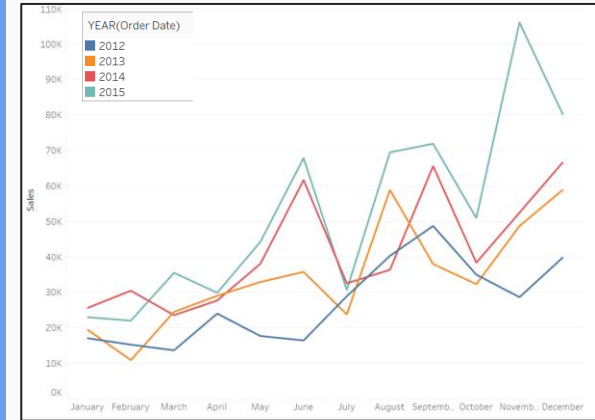
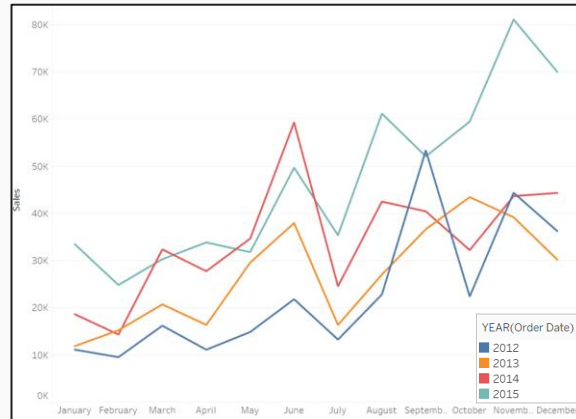
North: This region shows certain fluctuations in sales from Jan to May, and then a significant increase again till June. Then again we see a significant dip in sales in July, but then post July there is a significant increase in sales till August.

SEASONALITY OF MARKETS



South: In this region, the sales are full of significant highs and lows. Like, from Feb to March, and then a significant dip again till April, then again a increase till June and then again a dip in July, and then a significant increase again post July which continues with gradual increase over the months.

West : In this region, there is a significant increase in sales post April till June, then a significant dip in July. Then again the sales start taking a increase post July, but the sales go through certain fluctuations in the second half of the year.



East: In this region, the sales are again full of significant highs and lows. In year 2014 & 2015, the month of April to June sees a steep increase in sales and then a major dip till July, but the same doesn't take place in 2012 & 2013. After this, the second half of the year is full major fluctuations in sales full of highs and lows.

THANK YOU