

ACCS:Nationwide Analytics Case Study Competition

Take a leap

Analytics Case Proposal

Team Members :

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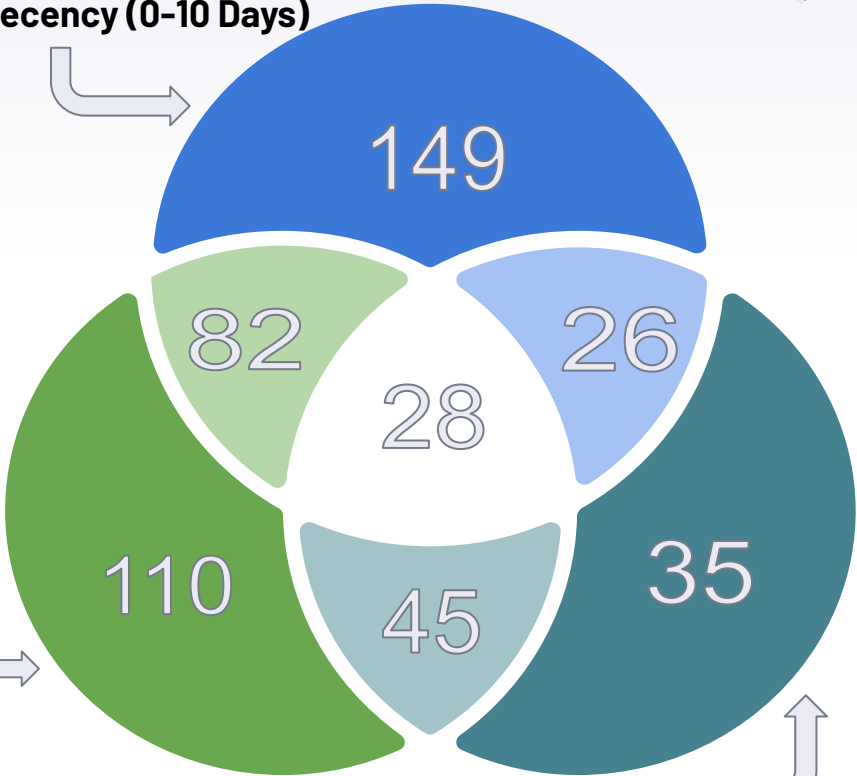
National Institute of Technology, Tiruchirappalli



RFM Analysis



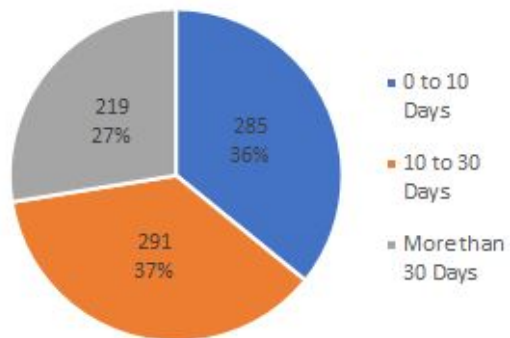
Recency (0-10 Days)



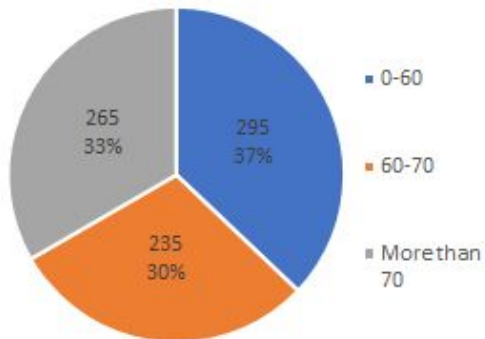
Recency (In Days)	Frequency	Monetary		
		<1500	1500-3000	>3000
0 to 10	0-60	46	35	11
	60-70	31	37	15
	>70	36	46	28
10 to 30	0-60	49	50	9
	60-70	40	37	11
	>70	26	39	30
more than 30	0-60	49	37	9
	60-70	25	33	6
	>70	17	28	15

Worst 1 2 3 4 5 6 7 Best

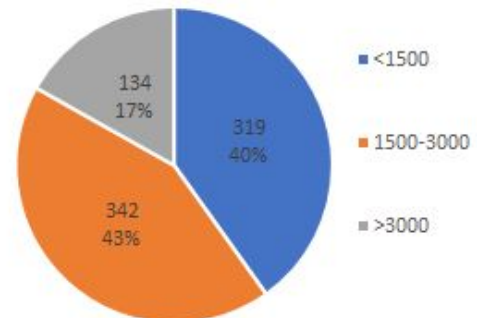
RECENCY



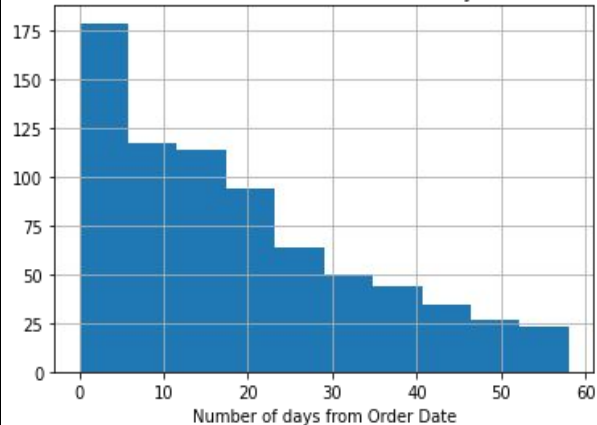
FREQUENCY



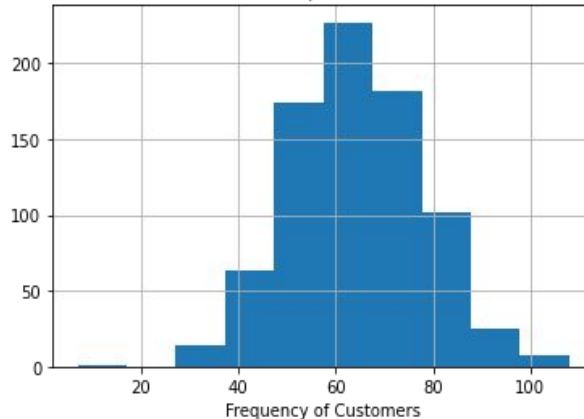
MONETARY



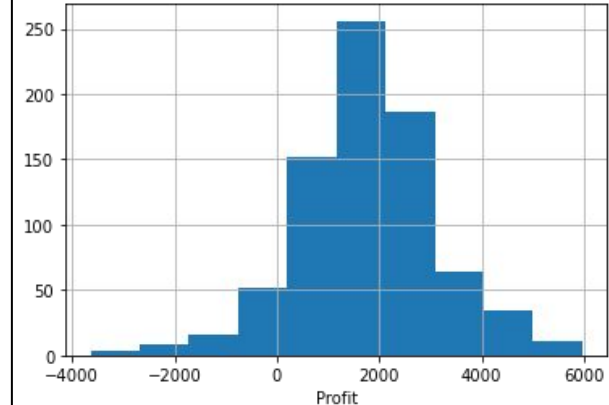
HISTOGRAM OF RECENCY (In Days)



HISTOGRAM OF FREQUENCY OF CUSTOMERS



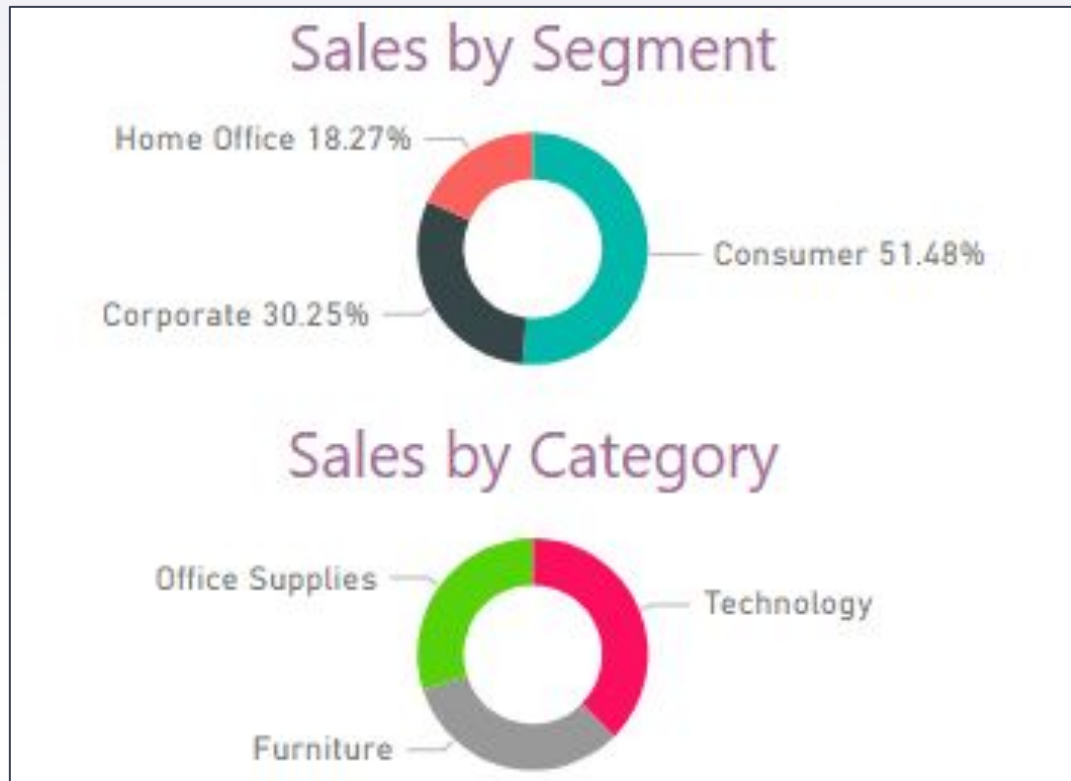
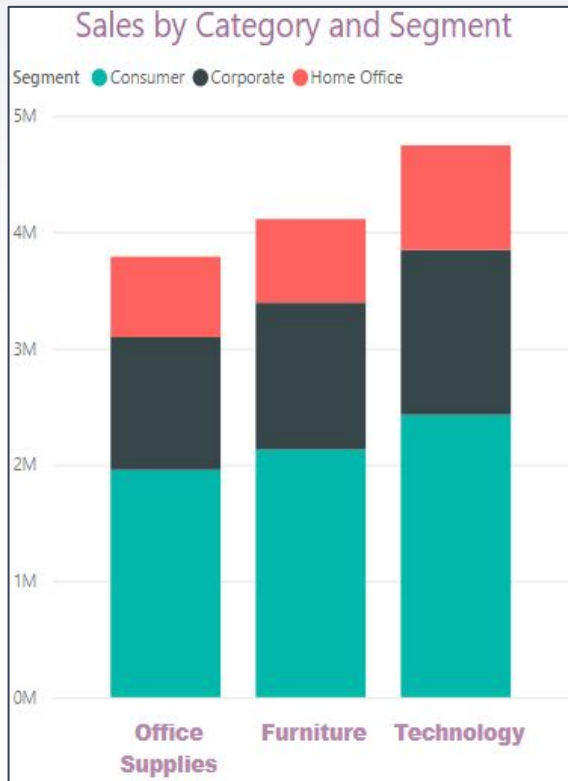
HISTOGRAM OF PROFIT



Customer Loyalty and Retention

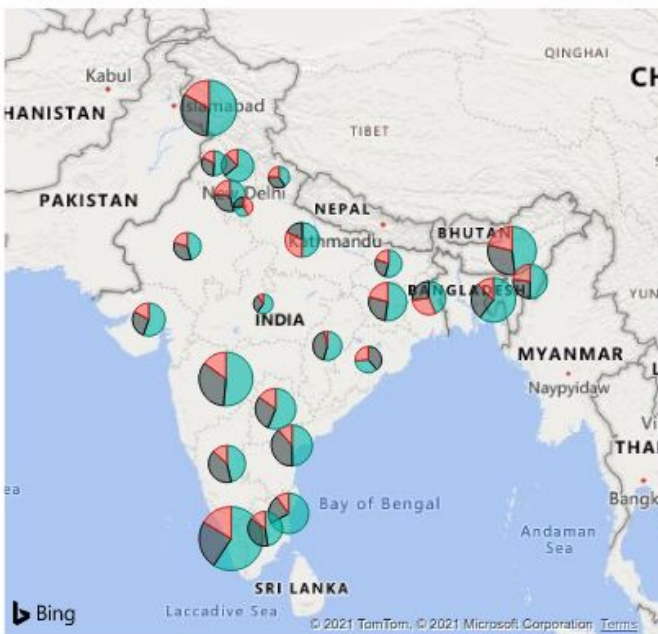


Market, Segment, Category and Region Performance



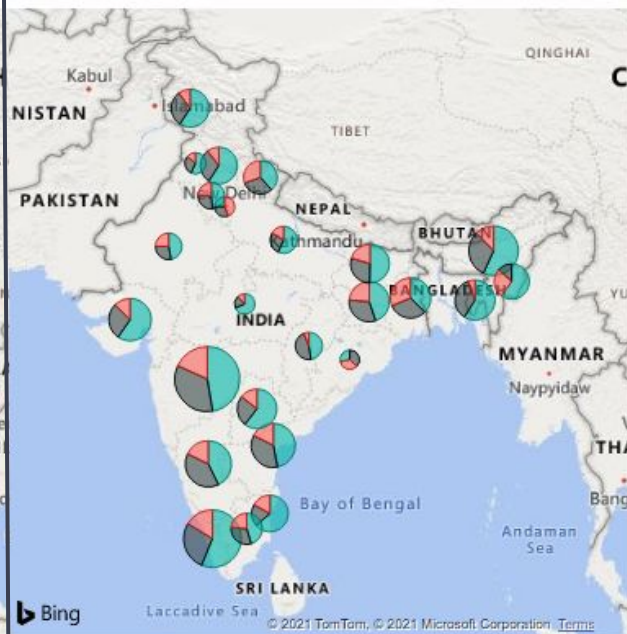
Sales by State and Segment

Segment ● Consumer ● Corporate ● Home Office



Profit by State and Segment

Segment ● Consumer ● Corporate ● Home Office



Top 5 states by sales in technology segment

Category ● Technology



Top 5 states by sales in furniture segment

Category ● Furniture



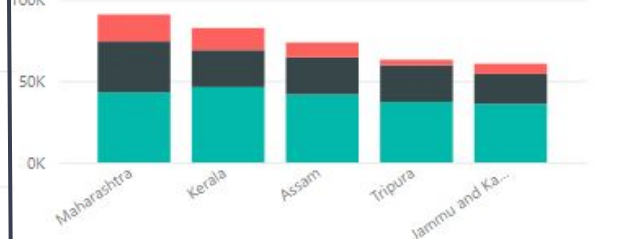
Top 5 States by Sales

Segment ● Consumer ● Corporate ● Home Office



Top 5 States by Profit

Segment ● Consumer ● Corporate ● Home Office

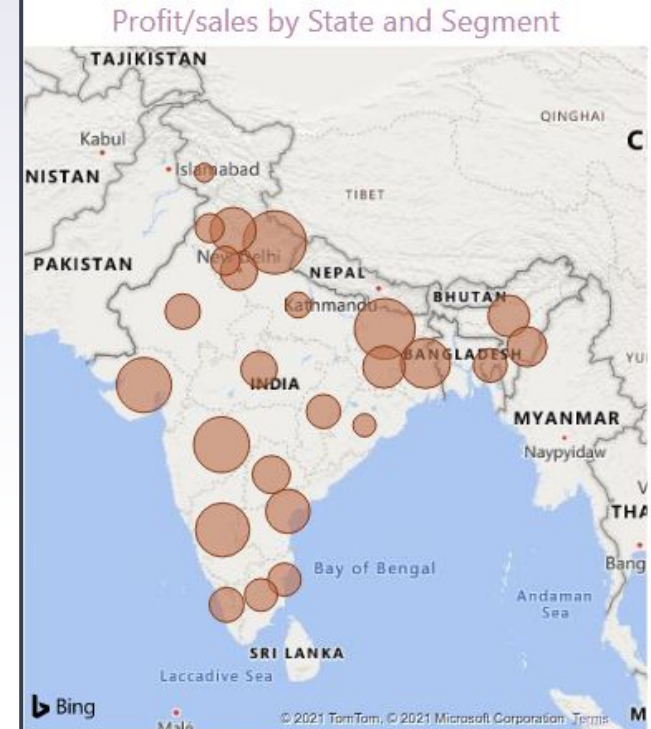


Top 5 states by sales in office supplies segment

Category ● Office Supplies

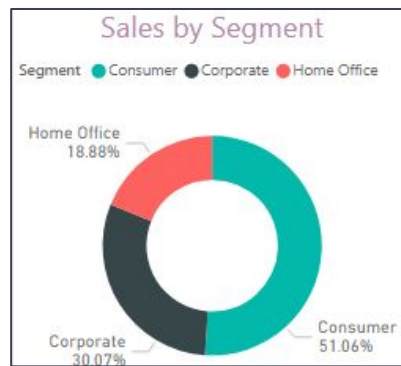


- ▶ **Kerala, J&K, Maharashtra, Assam** and **Tripura** have the highest sales *and* profits
- ▶ **Uttarakhand, Bihar, Maharashtra, Gujarat** and **Karnataka** earn high profits with relatively low sales.
- ▶ Thus, a new metric, **Profit/Sales** is introduced, a high value of which will correspond to more profit to the company with minimum efforts.
- ▶ This indicates that:
 - ▶ Cost in those states such as rent, maintenance is low
 - ▶ Further attention can be given to these states to bolster overall profit

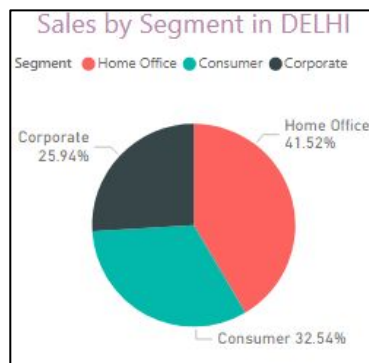


Special attention to exceptional regions:

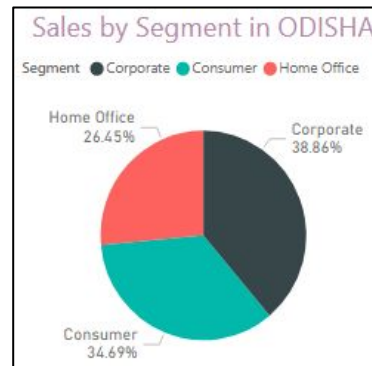
- **Delhi:** The only region where the proportion of Home Office sales is the greatest (41.25%)
- **Odisha:** The only region where the proportion of corporate sales is the greatest (38.86%)
- **Chhattisgarh:** Chhattisgarh has exceptionally low proportion of home office sales (3.66%)



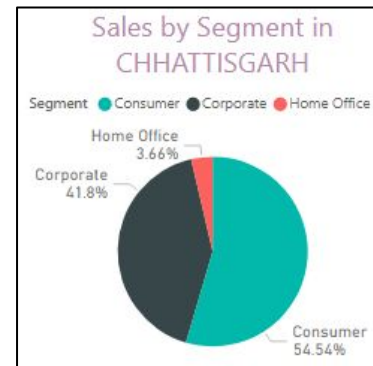
Overall



Delhi

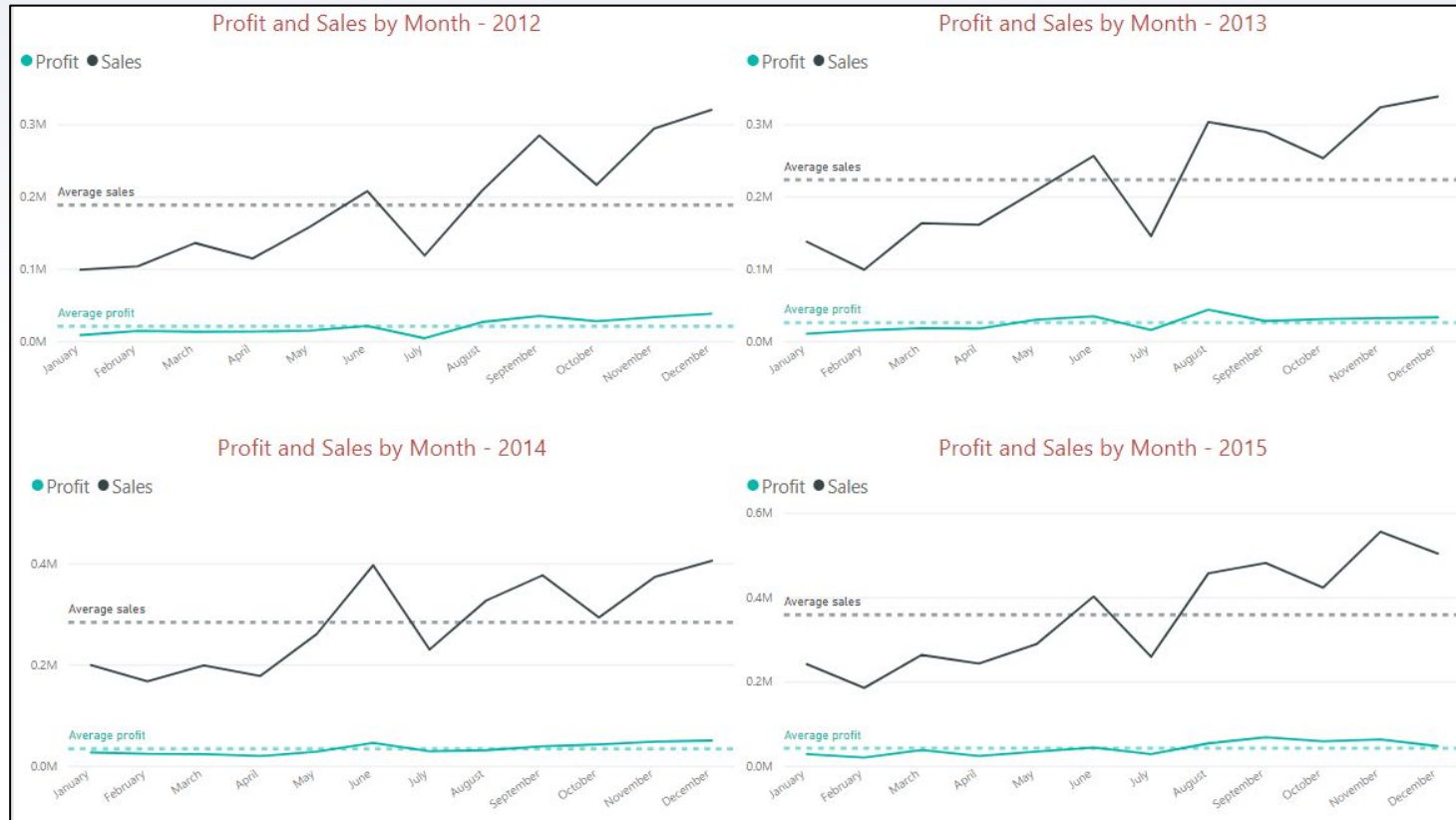


Odisha



Chhattisgarh

Seasonality Factors in Sales



Seasonality Factors in Sales

- ▶ The trend of sales remain the same YoY
 - ▶ However, **average** and **maximum** sales **increase** YoY
- ▶ **Lowest sales** (and profit) observed in **February**
 - ▶ Due to lack of festivals and holidays & extreme weather conditions
- ▶ **Sharp increase** in **August** every year
 - ▶ Can be attributed to back-to-school season
- ▶ **Yearly maximum** sales in **December**
 - ▶ Holiday season (Christmas and New Year)

