

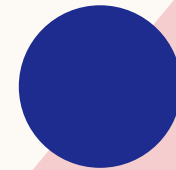


# **DATA ANALYSIS PROJECT**

Nipun Kumar

# TASKS:

1. Using Analytics for improving financial performance.
2. Segmentation and Classification of customers.
3. Clustering.
4. Analytics for automating operations.



# INTRODUCTION

- ABC Pharma is a company that produces nutritional products and branded generic pharmaceuticals.

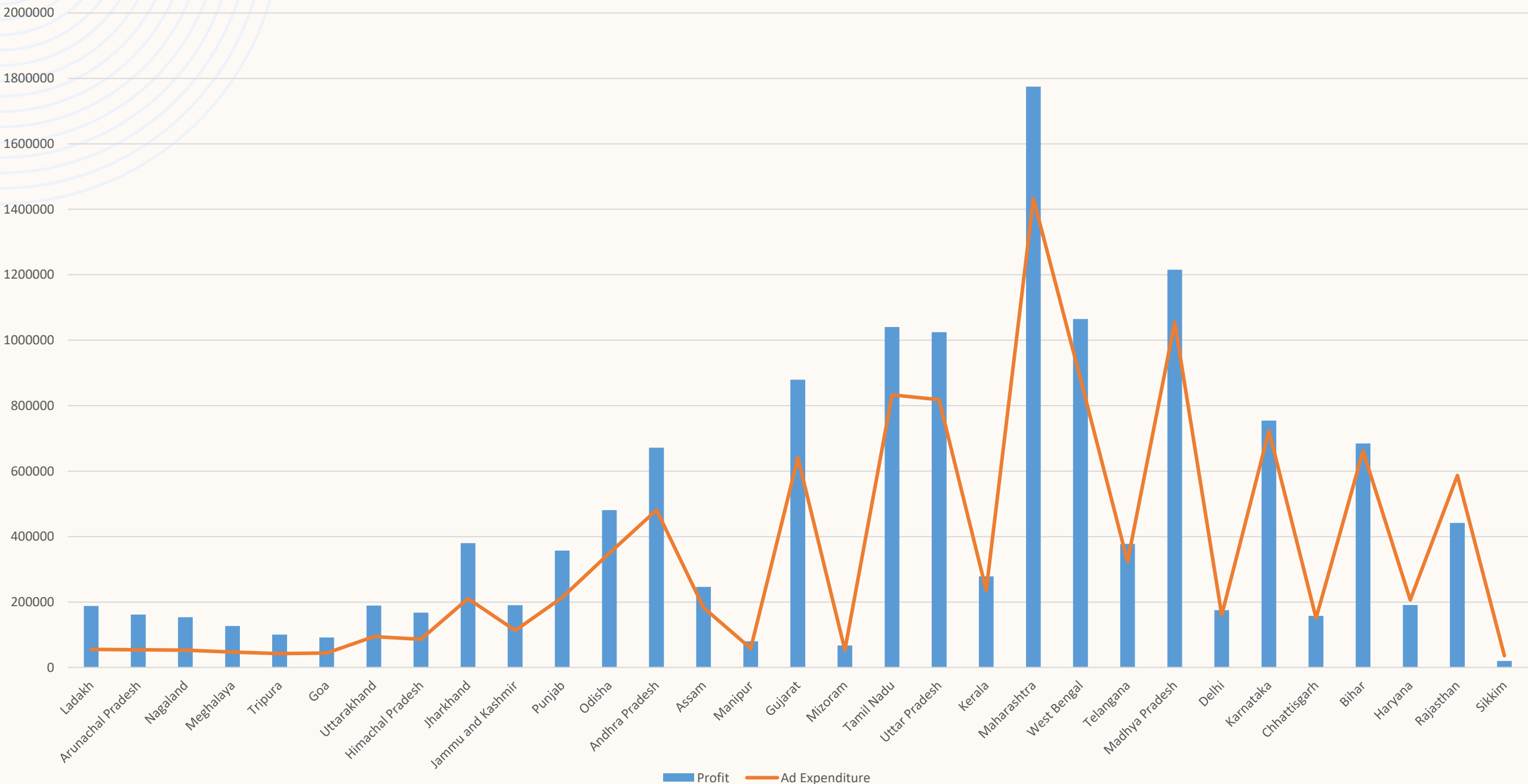
They have been in the market since last 20 years.

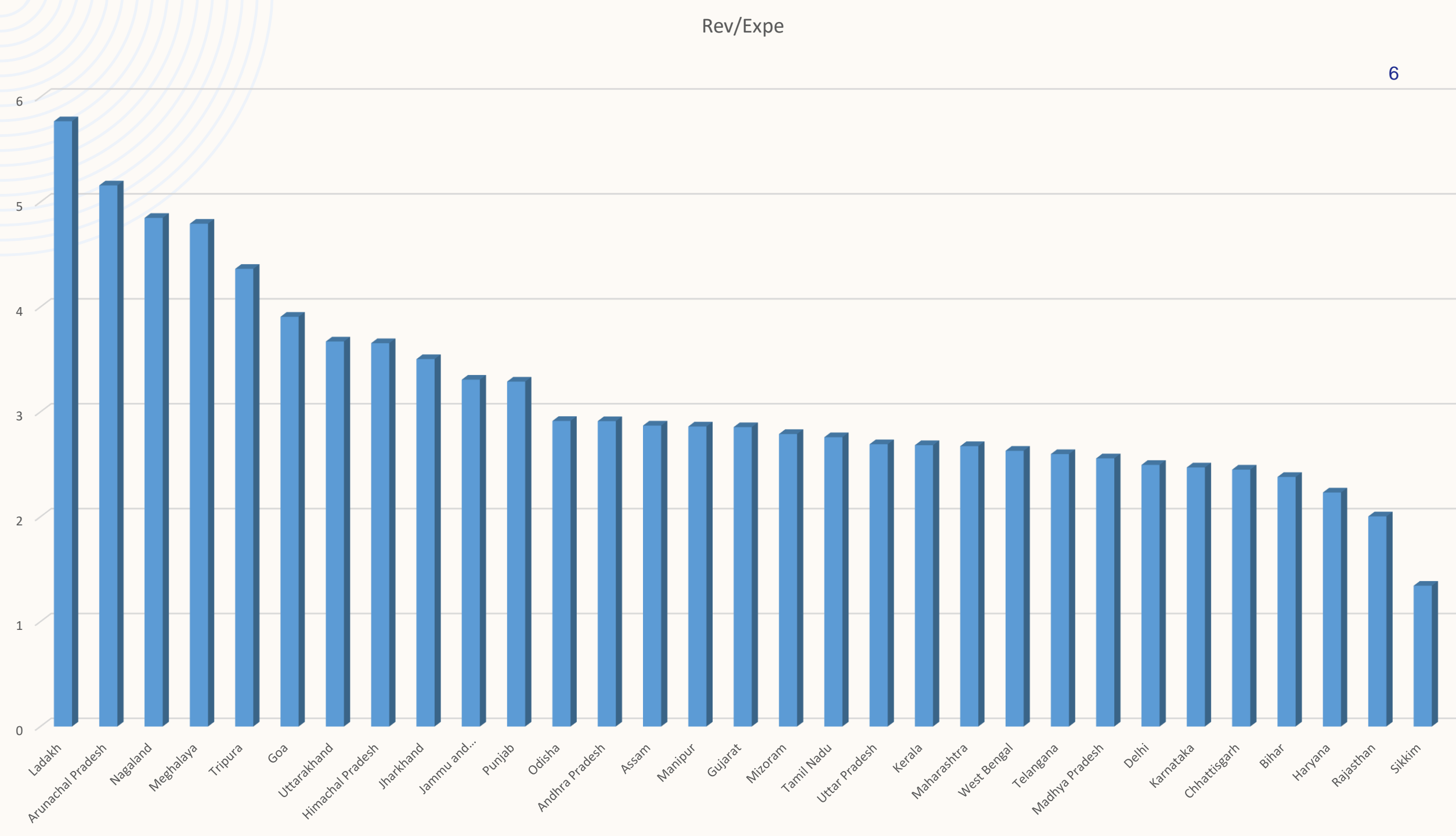
- This helps them to enjoy the margin on their product prices.
- Mostly rich people are their customers from different states.
- They have seen a 5% growth frequently since last few years but other companies selling related product saw 8% growth.
- Management wants to focus on marketing and its effectiveness.



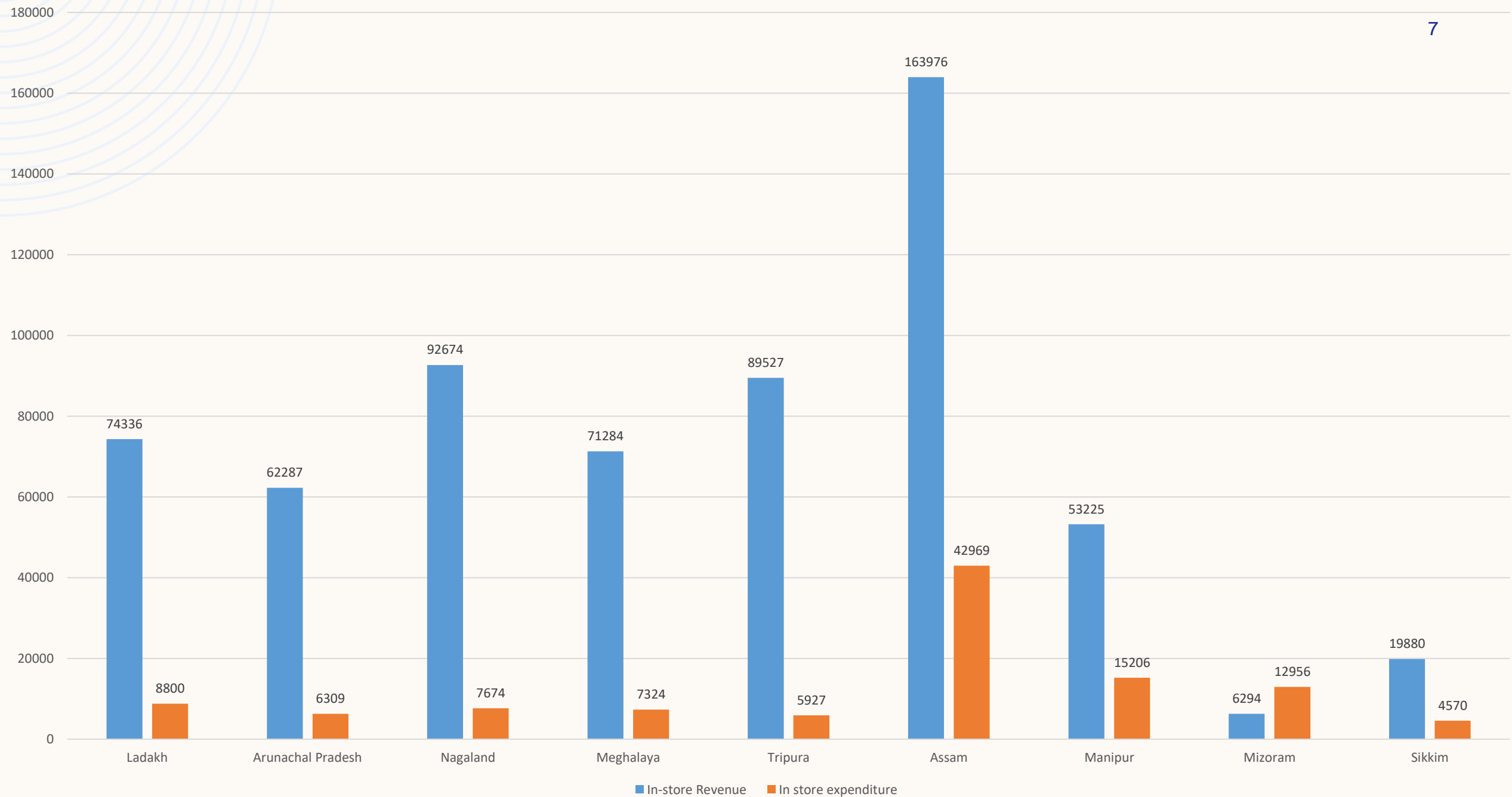
# **ANALYTICS FOR IMPROVING PERFORMANCE**

Profit and Ad expenditure comparison





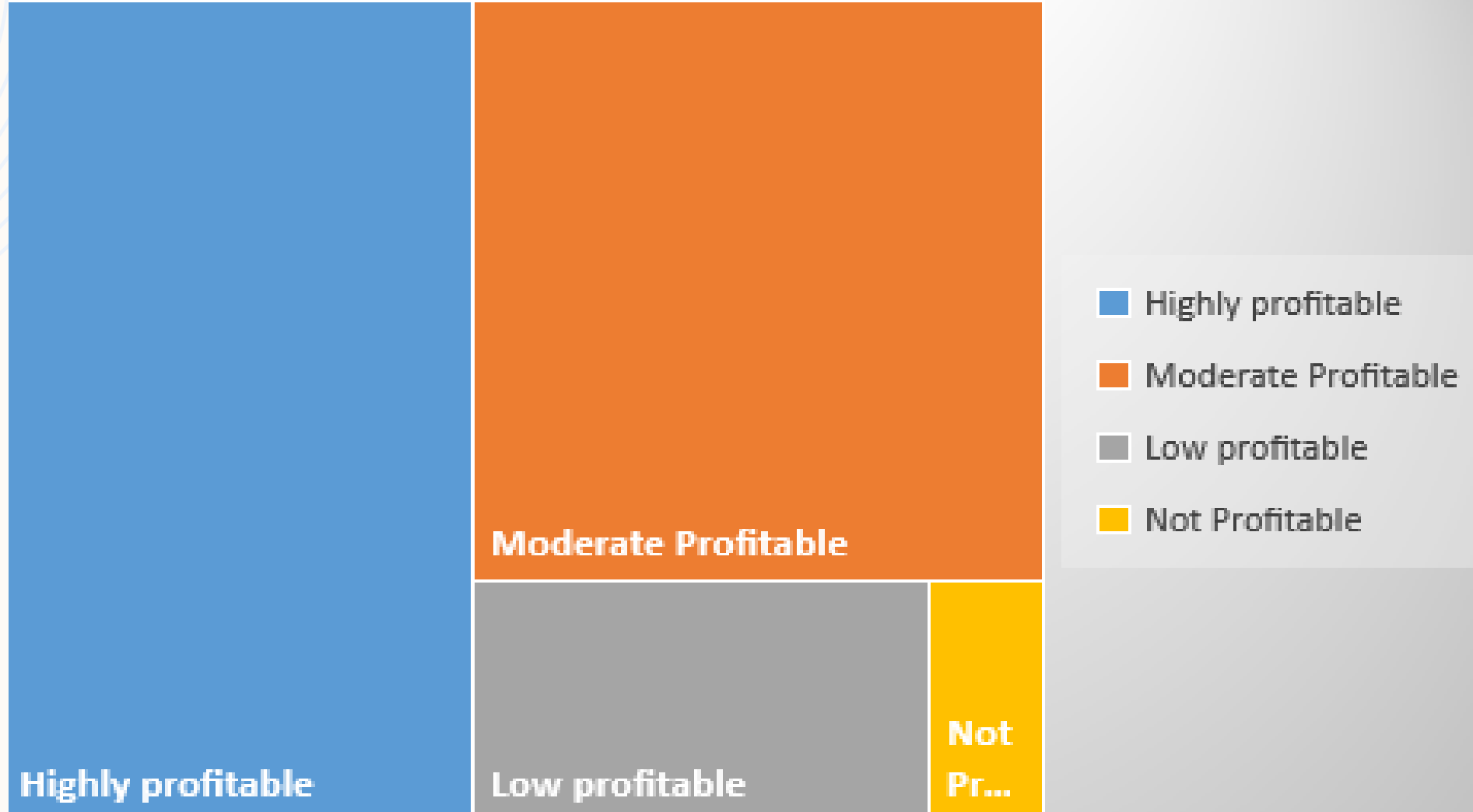
In store Revenue and expenditure in north East states



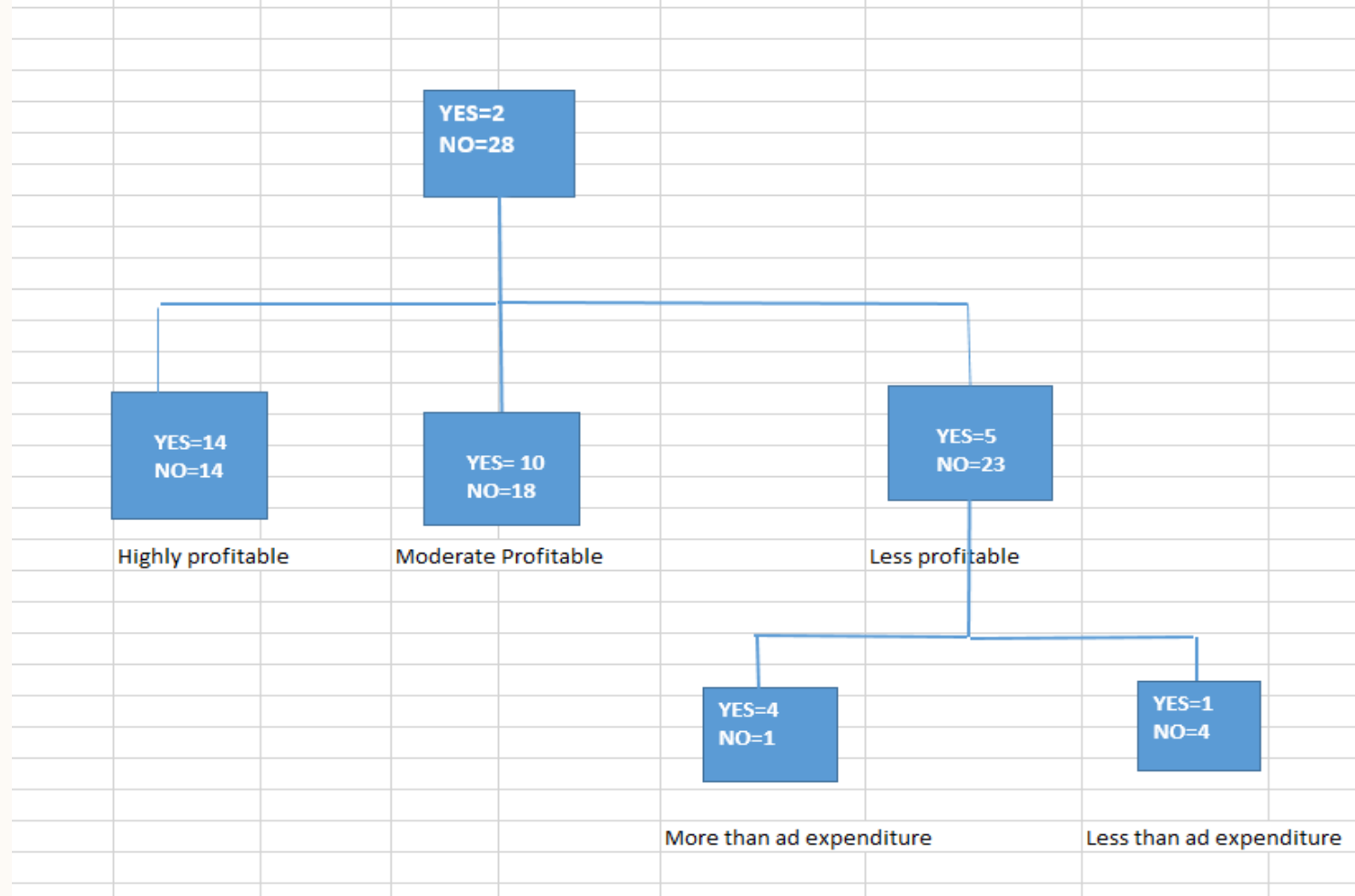


# **SEGMENTATION & CLASSIFICATION**





Out of customers from 30 states & UT compared, 14 of them are highly profitable, 12 of them are moderate, 4 are where profit is comparatively low and 1 state is where profit is extremely low or none at all.



1<sup>st</sup> phase:  
Have more in-store channel expenditure than online channel expenditure (2 states were filtered out and rest 28 were selected)

2<sup>nd</sup> phase:  
Profit levels are checked  
States with less profitability were checked (23 were filtered out and rest 5 are selected)

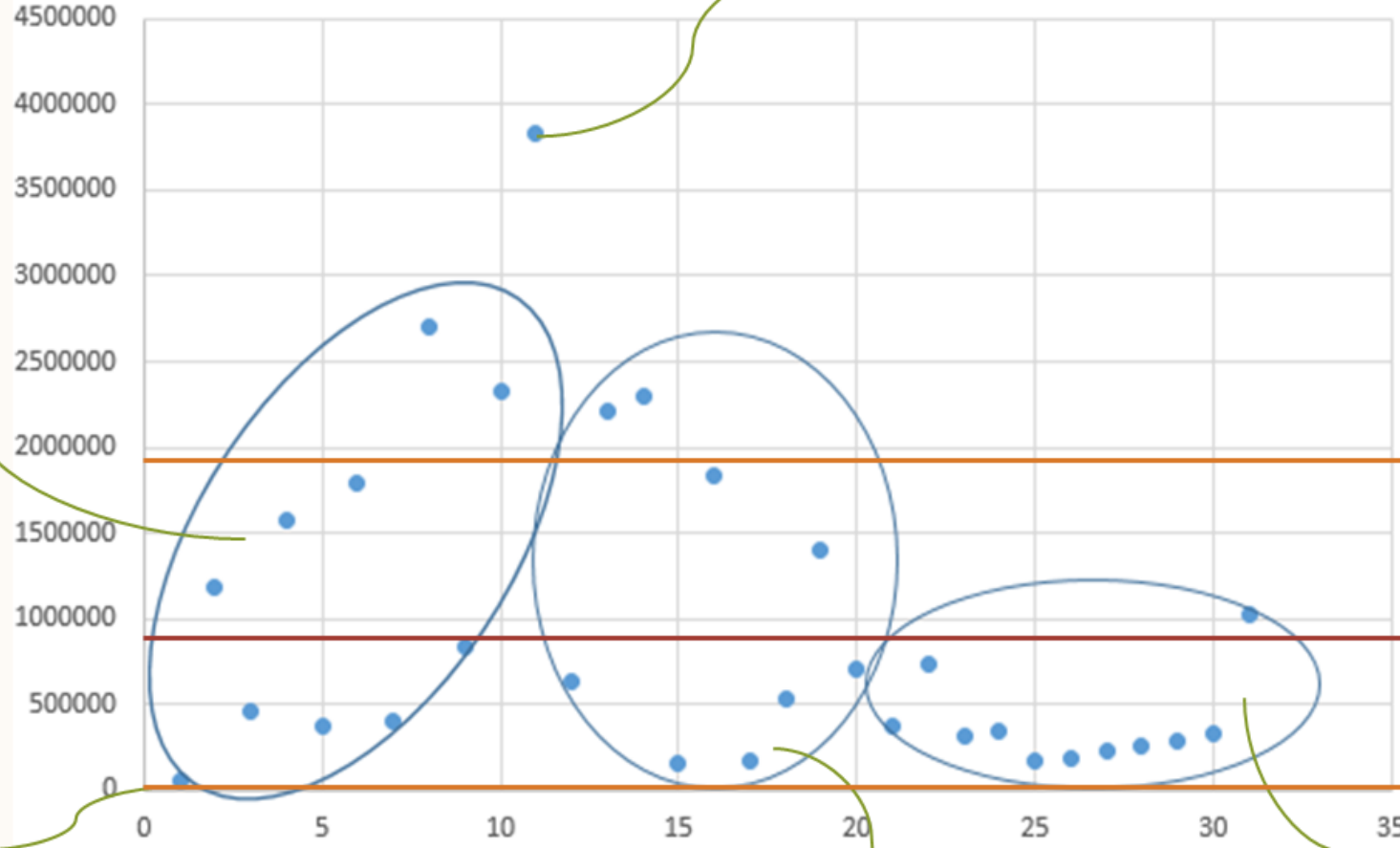
3<sup>rd</sup> phase:  
Profit vs Ad expenditure checked (4 were filtered out and 1 was selected)



# **CLUSTERING**

Cluster-1

Highest revenue:\$3830967  
State : Maharashtra



Upper limit: \$1891317

Average= \$956493.8387  
S. Deviation=\$934823.9008

Lower limit: \$21670

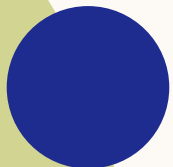
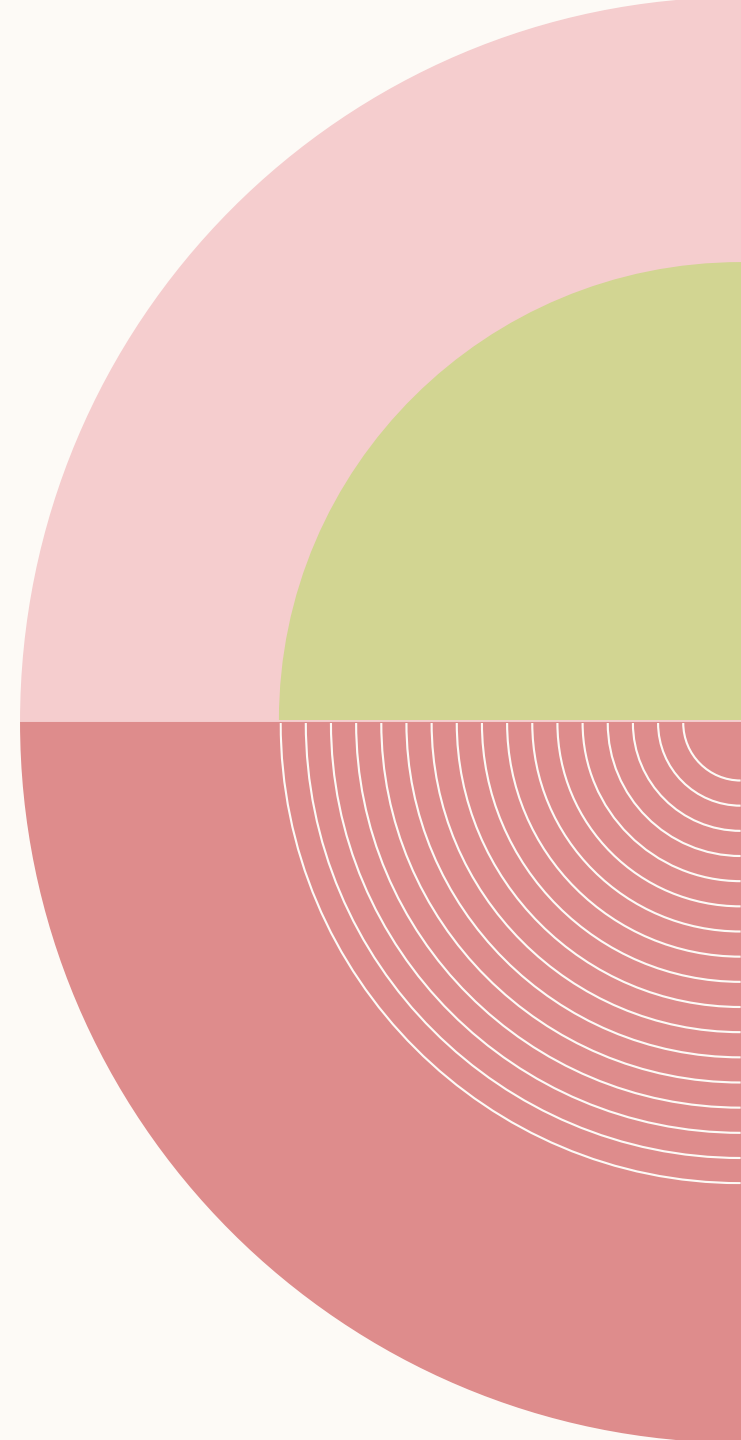
Lowest revenue:\$48660  
State : Sikkim

Cluster-2

Cluster-3

# INSIGHTS

- The ratio of profit: ad expenditure should be more so the places where it is less we should focus on the things that are not related to advertisement in those states especially the states where ratio falls less than 1.
- In-store ads should be more focused on north east regions as they tend to show more profit in-store with less investment
- Also considering the company main customers are rich they should focus on online channel costs/ads more; especially in places like Maharashtra.
- Ladakh seems to have the best rev/exp ratio which shows that its method of getting customers is best of all.





# THANK YOU

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