

MADT8101 Customer Analytics

Course summary

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Overview

Customer analytics is a process by which data from customer behavior is used to help make key business decisions



Objective



Why we need Customer Analytics?

Customer Behavior is the Key!!

Example Factor

- Economics
- Psychological
- Cultural
- Demographic

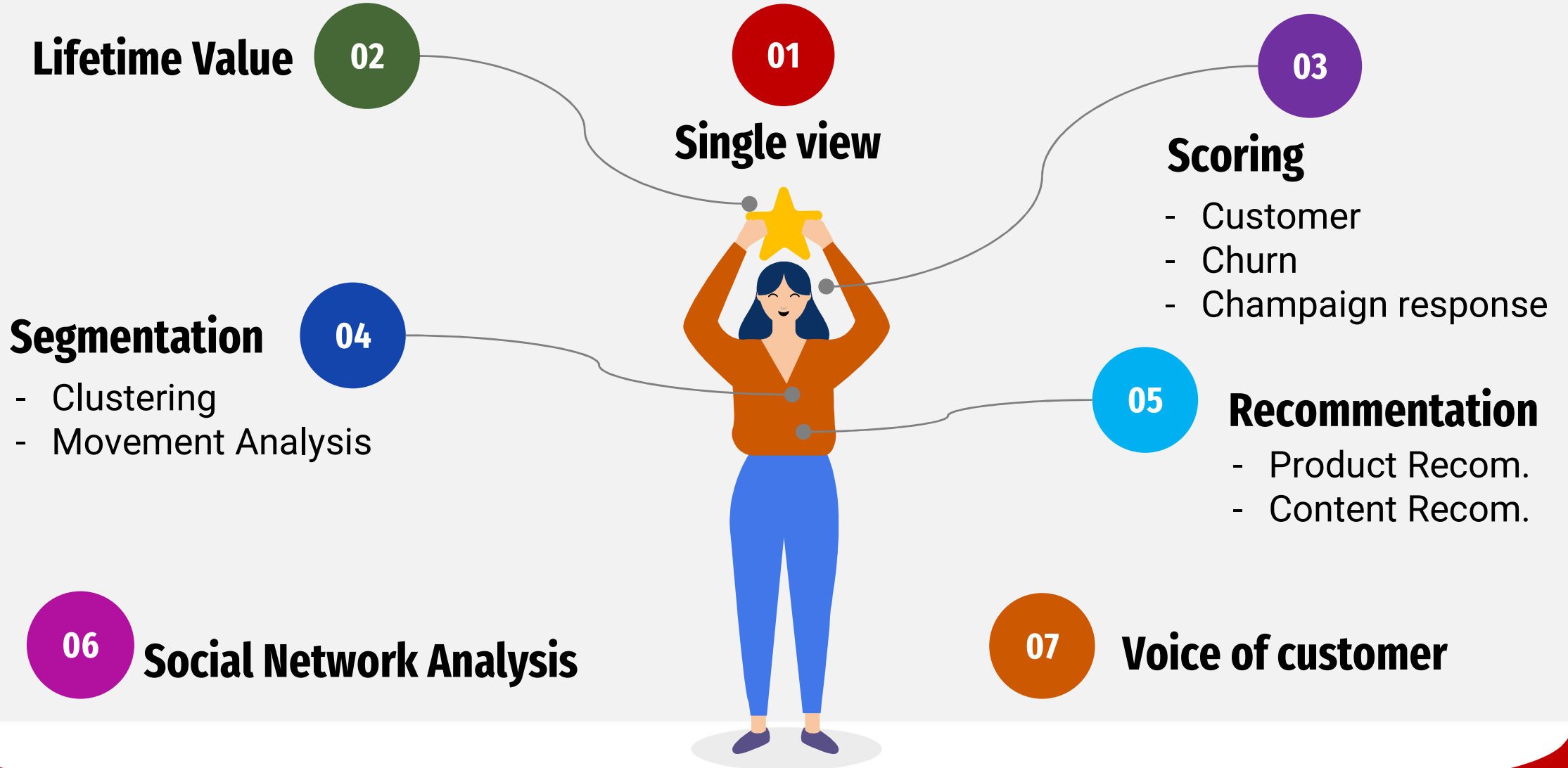
Maslow's hierarchy of needs



Customer Data Analysis - Overview

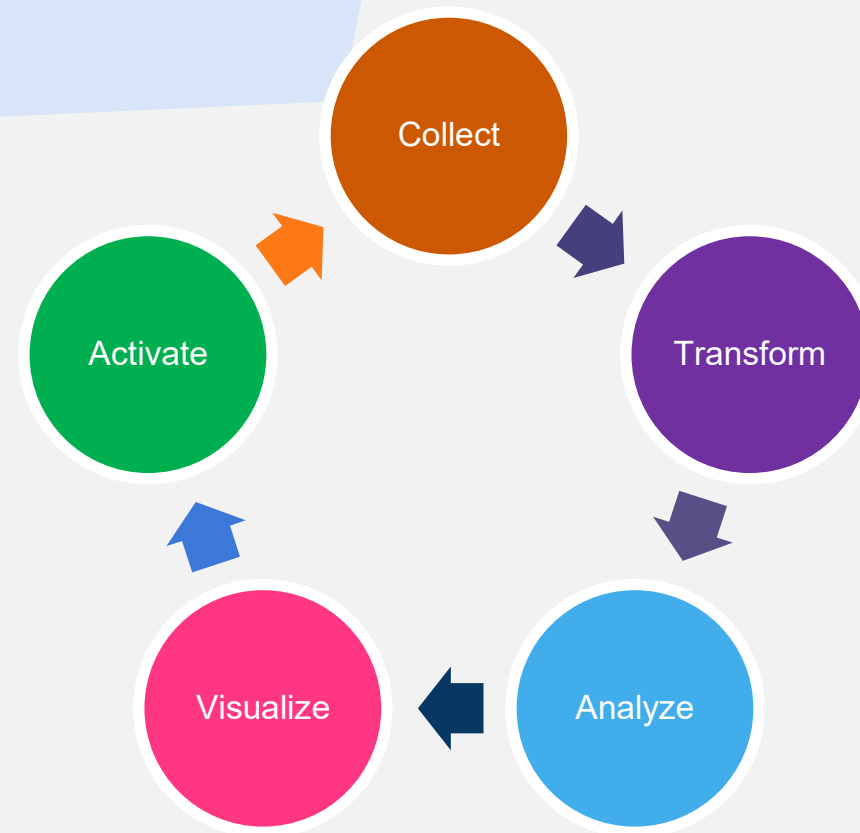


Customer Data Platform



Customer Data Platform

A Customer Data Platform (CDP) is a platform that amalgamates and manages customer data from various source.



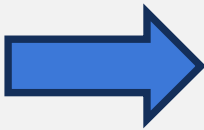


Customer Single view

Table Details: TRANSACTIONS

Row	SHOP_WEEK	SHOP_DATE	SHOP_WEEKDAY	SHOP_HOUR	QUANTITY	SPEND	PROD_CODE	P
1	200801	20080229	6	16	1	0.97	PRD0900830	C
2	200801	20080229	6	16	1	0.86	PRD0900531	C
3	200801	20080229	6	16	1	2.2	PRD0901039	C
4	200801	20080229	6	16	3	1.38	PRD0904891	C
5	200801	20080229	6	16	1	0.39	PRD0903052	C
6	200801	20080229	6	16	3	5.43	PRD0903081	C
7	200801	20080229	6	16	1	1.59	PRD0903003	C
8	200801	20080229	6	16	3	2.49	PRD0904321	C
9	200801	20080229	6	16	1	1.96	PRD0903117	C

Transaction



Row	CUST_CODE	LAST_VISIT	TOTAL_VISIT	TOTAL_SPEND
1	CUST0000944589	20080322	12	251.96
2	CUST0000229535	20080323	29	213.51999999999998
3	CUST0000453734	20080323	29	200.05

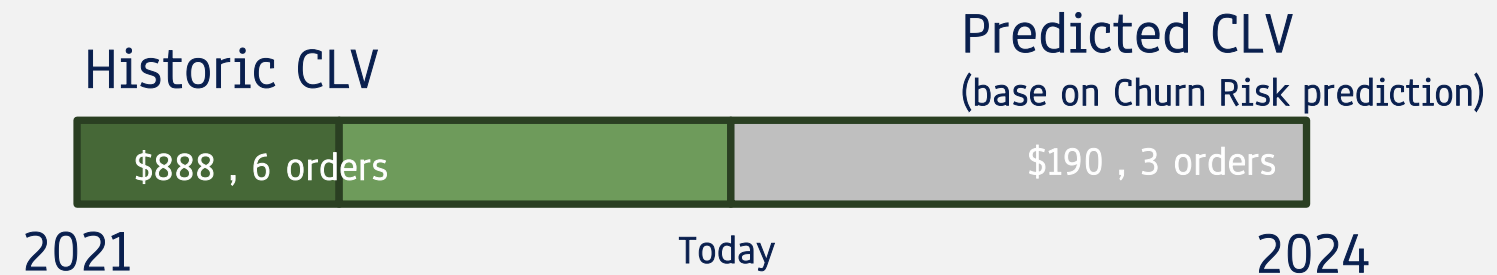
Single record

Example

Row	CUST_CODE	LAST_VISIT	TOTAL_VISIT	TOTAL_SPEND	AVG_WEEKLY_VISIT	AVG_WEEKLY_SPEND	AVG_BASKET_SIZE
1	CUST0000944589	20080206	2	53.5	2.0	53.5	26.75
2	CUST0000667959	20080208	3	12.93	3.0	12.93	4.31
3	CUST0000229535	20080206	4	15.24	4.0	15.24	3.81

Customer Lifetime Value

CLV is value of customer relationship, based on the present value of projected future cash flow from relation ship



$$\text{CLV} = \frac{T \times \text{AOV} \times \text{AGM} \times \text{ALT}}{\text{Number of clients for the period}}$$





Scoring

Customer

Points to Level

Adjust the Medium Level Points range (highlighted in yellow) below to determine the appropriate ranges for each Level.

Qualification		Level
Low	High	
61	100+	High
30	60	Medium
0	29	Low

Interest		Level
Low	High	
61	100+	High
45	60	Medium
0	44	Low

Lead Rating

See the Lead Rating outcome based on the Qualification Answers and Interest Behaviors selected above.

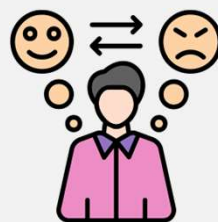
	Points	Level	Rating
Calculated Qualification	78	High	A
Calculated Interest	70	High	

03

Scoring

Churn

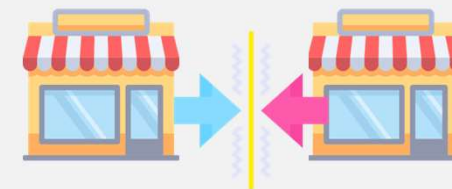
Factor / Indicator



Satisfaction



Time
between
Purchase



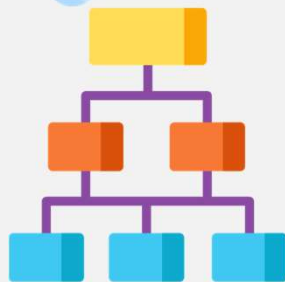
Competitor

Need prediction

03

Scoring

Campaign



Know your
customer



Up-Sell
Cross-Sell
Other

Timing

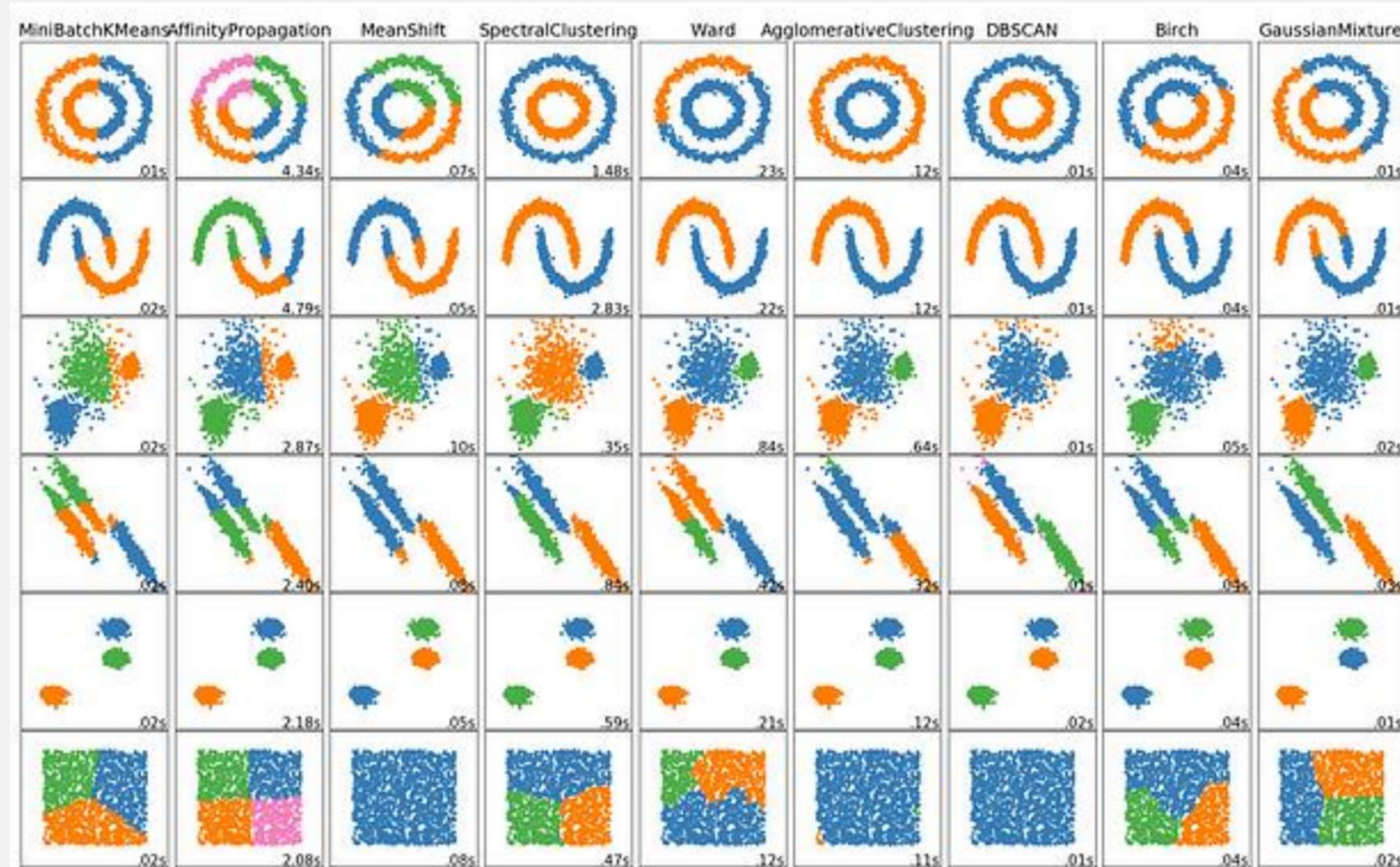
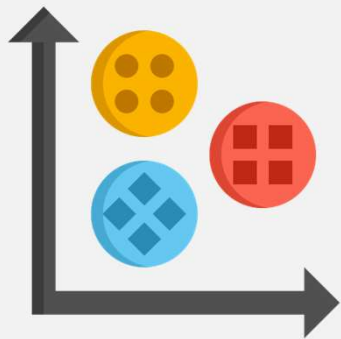
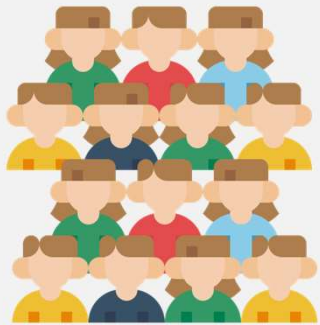
Language

Package



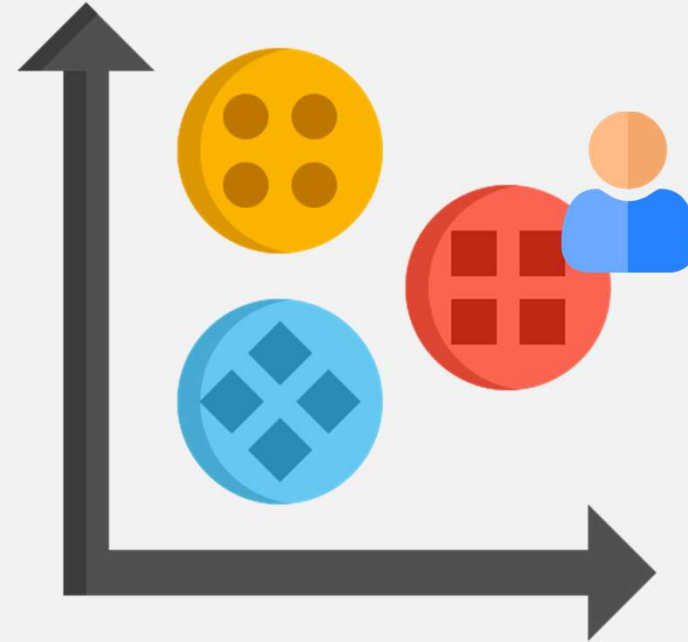
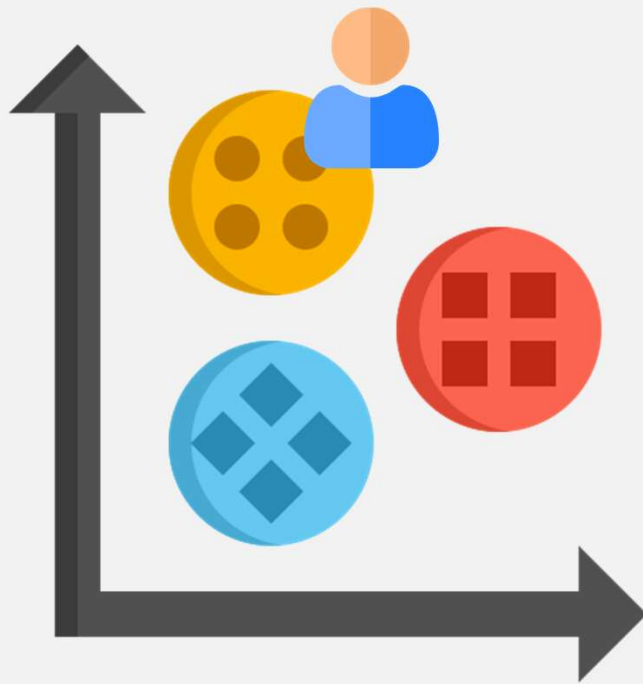
Segmentation

Clustering



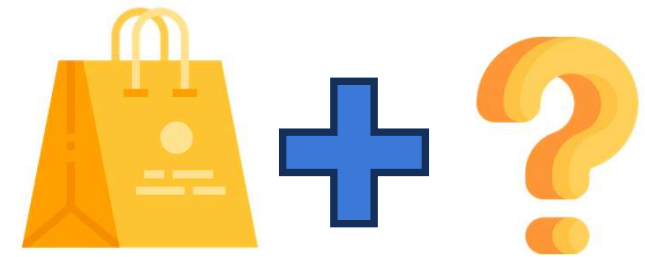
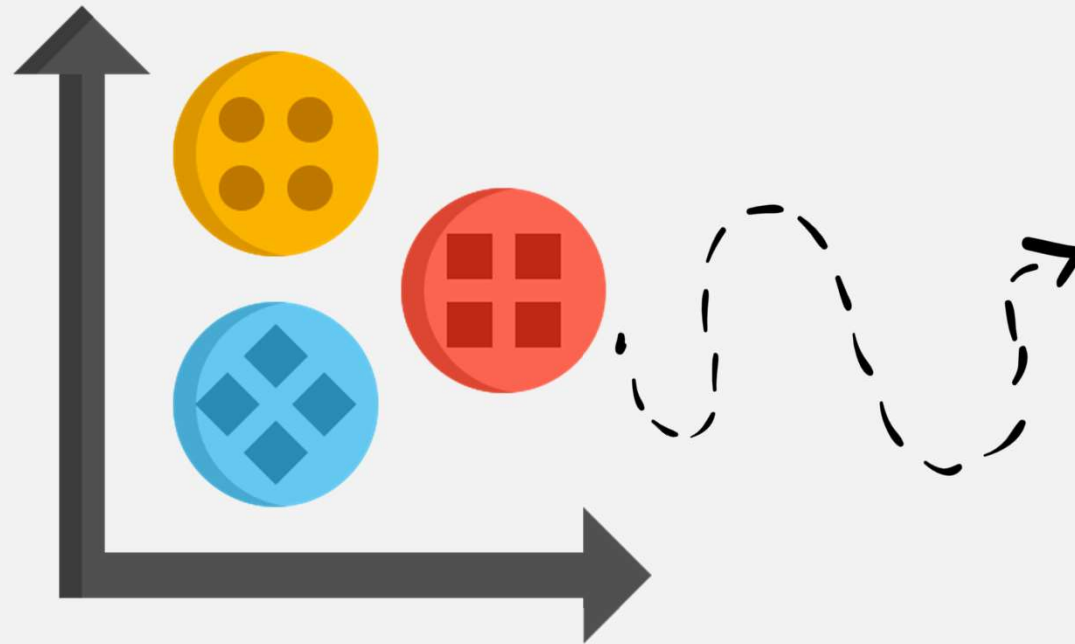
Segmentation

Segment Movement

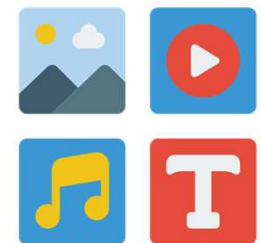
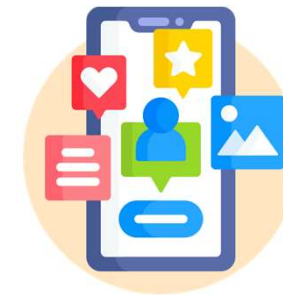




Recommendation



Product



Content

Social Network Analysis



Connection
overview

Closeness

Betweenness

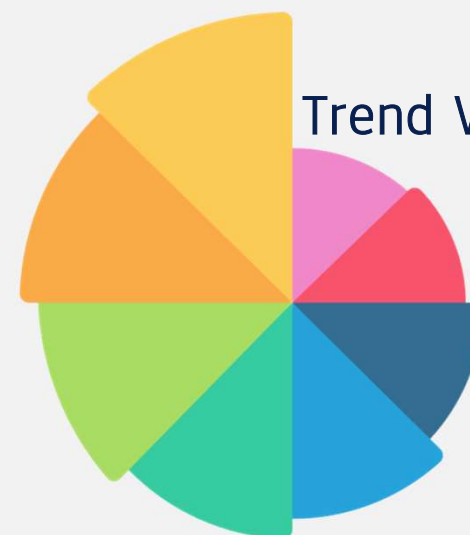


07

Voice of customer

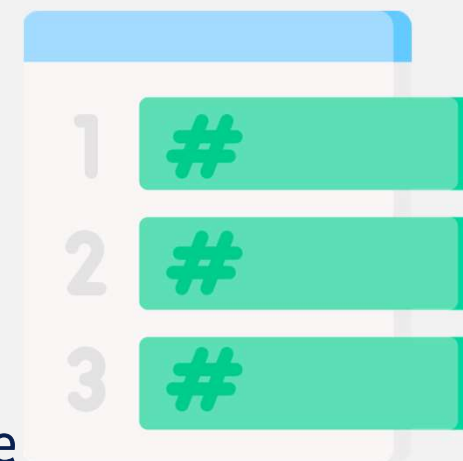


Sentiment



Trend Visualize

Topic Trend



Focus target

Customer Analytics Step

**Identify Problem,
Target**

**Identify Data
and technic**

**Analysis
outcome**

Implementation

1

What is problem? What you need to know?

2

Which data and technique need to address problem?

3

Analyse result of analytics, adjust model to ensure the accurate of result.

4

Take action from your analysis



Use case 1

Key customer of Target item

**Identify Problem,
Target**

1

- Identify customer's characteristic of key item
- Recheck whether key customer change from PY or not

**Identify Data
and technic**

2

- Data : Historical sale data PY & CY (involve target item only)
- Technique : Clustering & Segmentation & Movement analysis

**Analysis
outcome**

3

- Naming segmentation
- Hypothesis testing (recheck assumption)
- Analyse factor impact segmentation change

Implementation

4

- Translate factor into strategy
- Marketing campaign support key customer

Use case 2

Product Interest of Key customer

**Identify Problem,
Target**

1

- Focus interesting of key customer
- Seek opportunities for up-selling / Cross-selling

**Identify Data
and technic**

2

- Data : Historical sale data of Key customer (ex. Target segment)
- Technique : Product recommendation

**Analysis
outcome**

3

- Trend Analysis
- Marketing trend

Implementation

4

- Hypothesis testing (recheck assumption)
- Marketing campaign
- KPI



Key takeaway

Problem should be cleared

Choose the right data

Think about implementation

Hypothesis test and KPI of
test result

Thank you

for watching!

