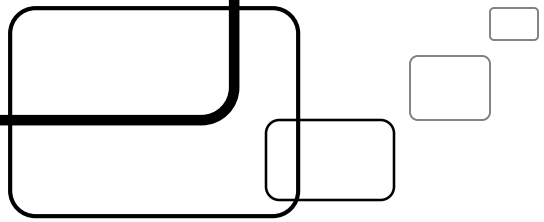
http://www.MarketingEngineer.co.kr

Scientific Marketing Strategy
For Big Data Era



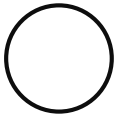
Basic Question

Question 1.

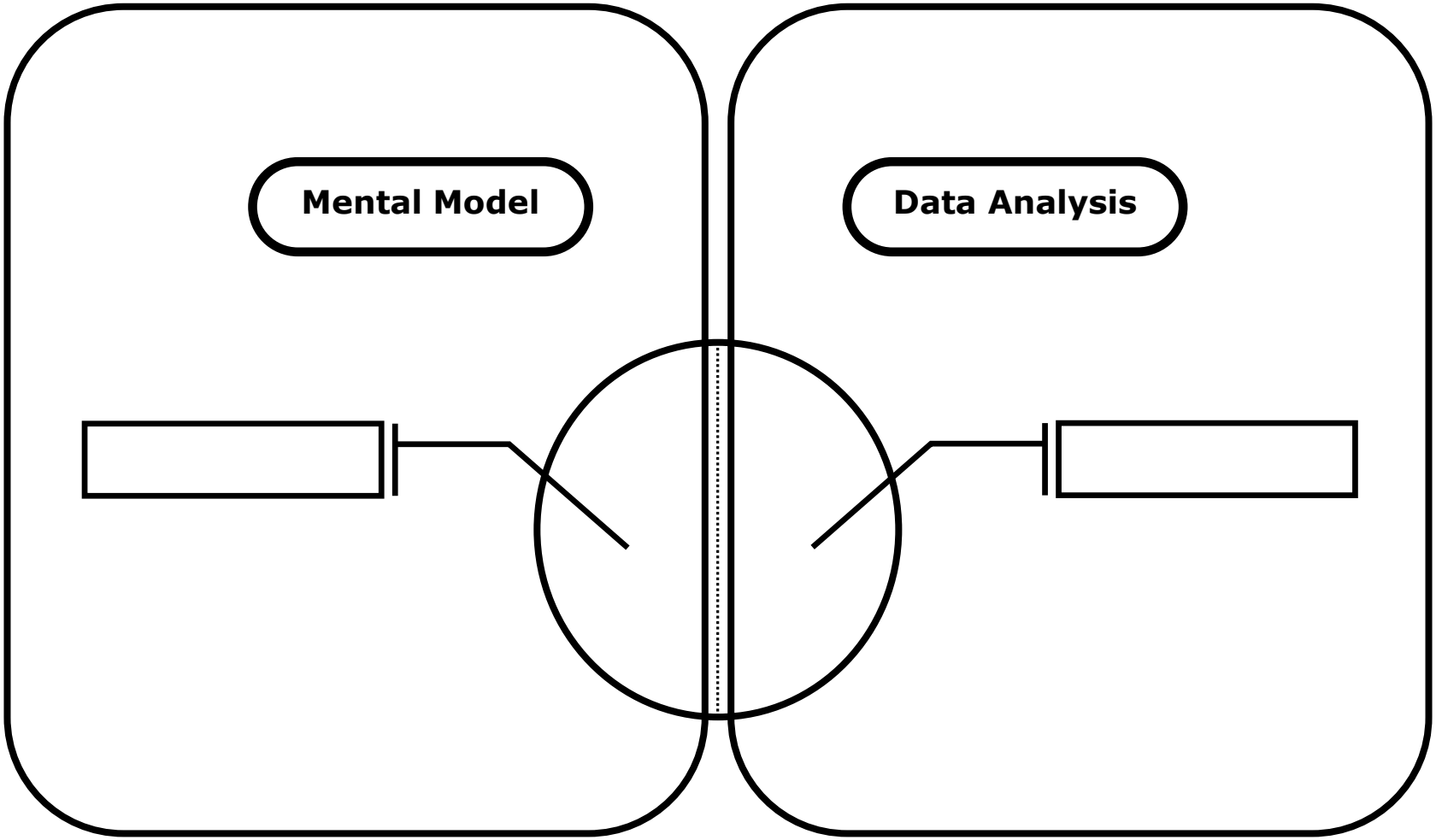
Question 2.

Question 3.

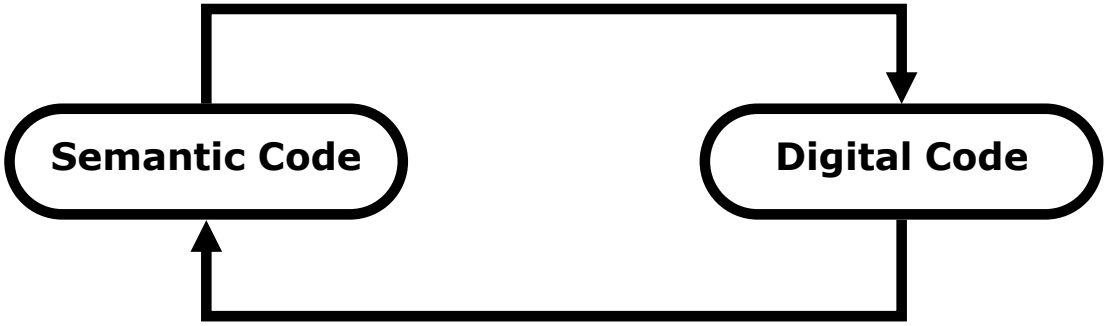
Customer Data Analysis – Case Study



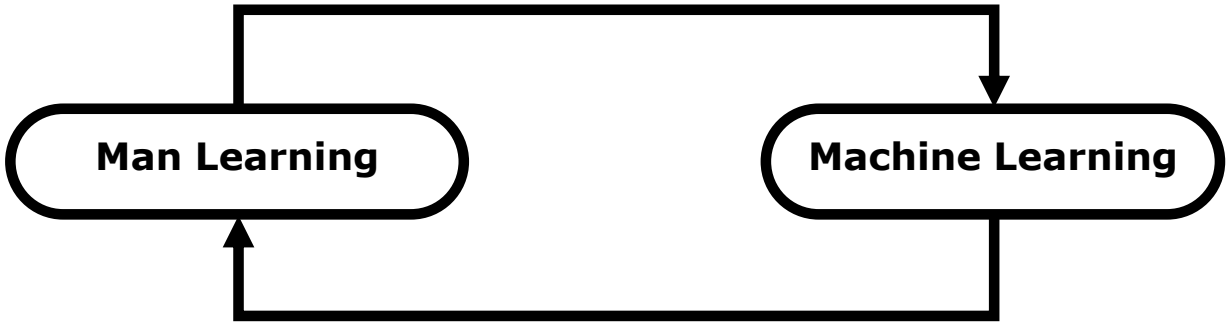
Mental Model & Data Analysis



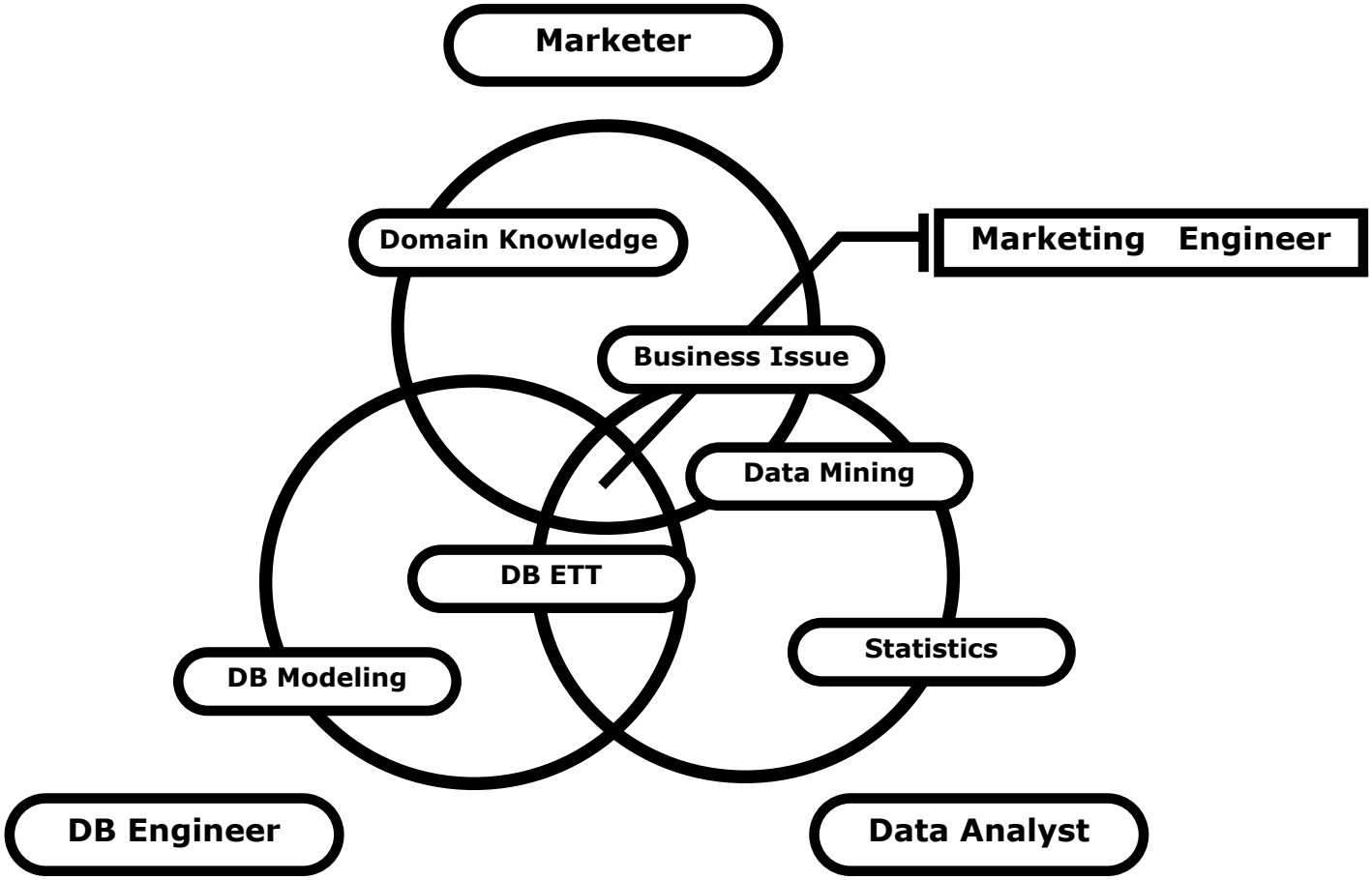
Customer Data Analysis



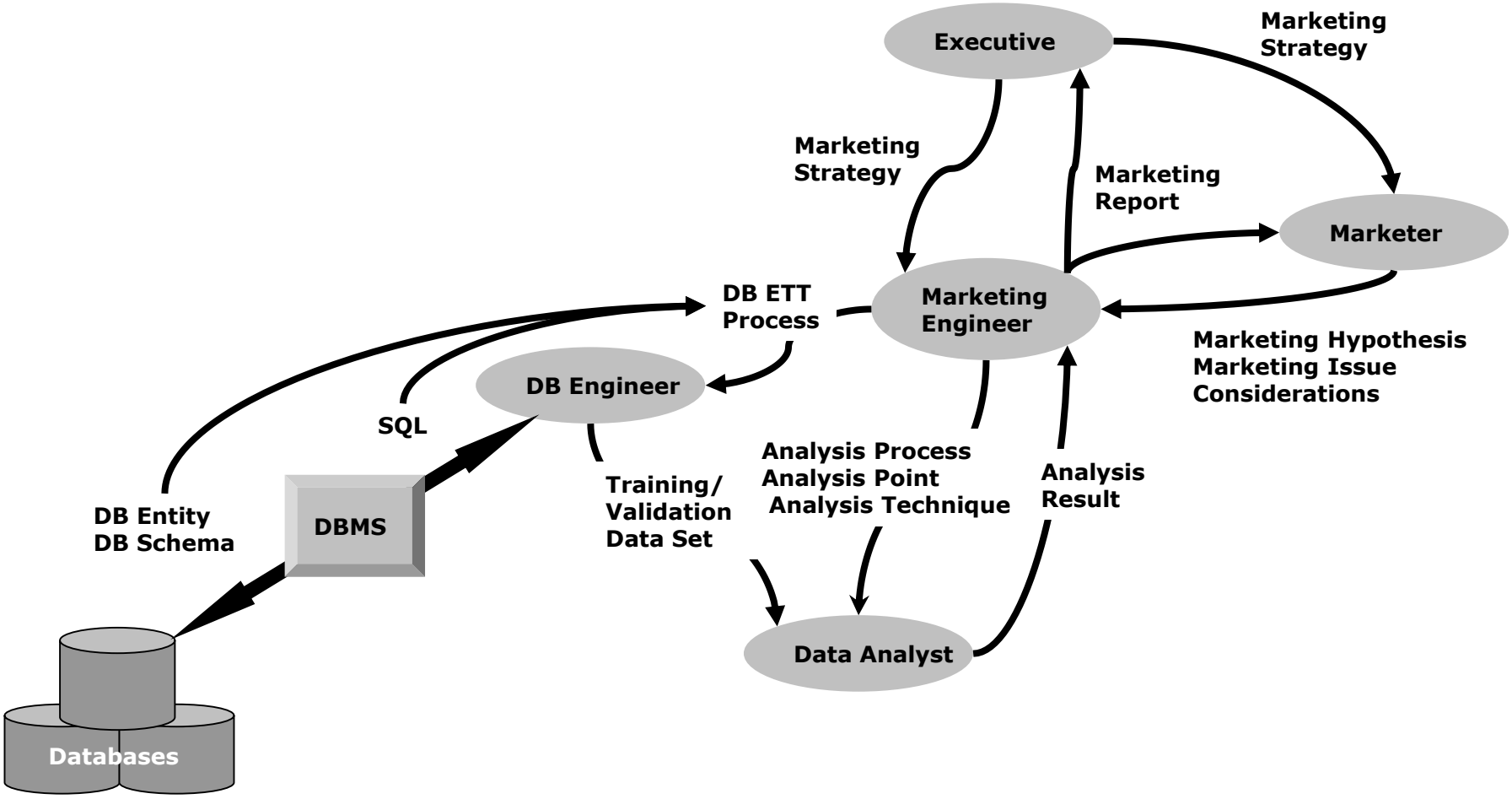
Definition of Machine Learning



Marketing Engineer



Role of Marketing Engineer

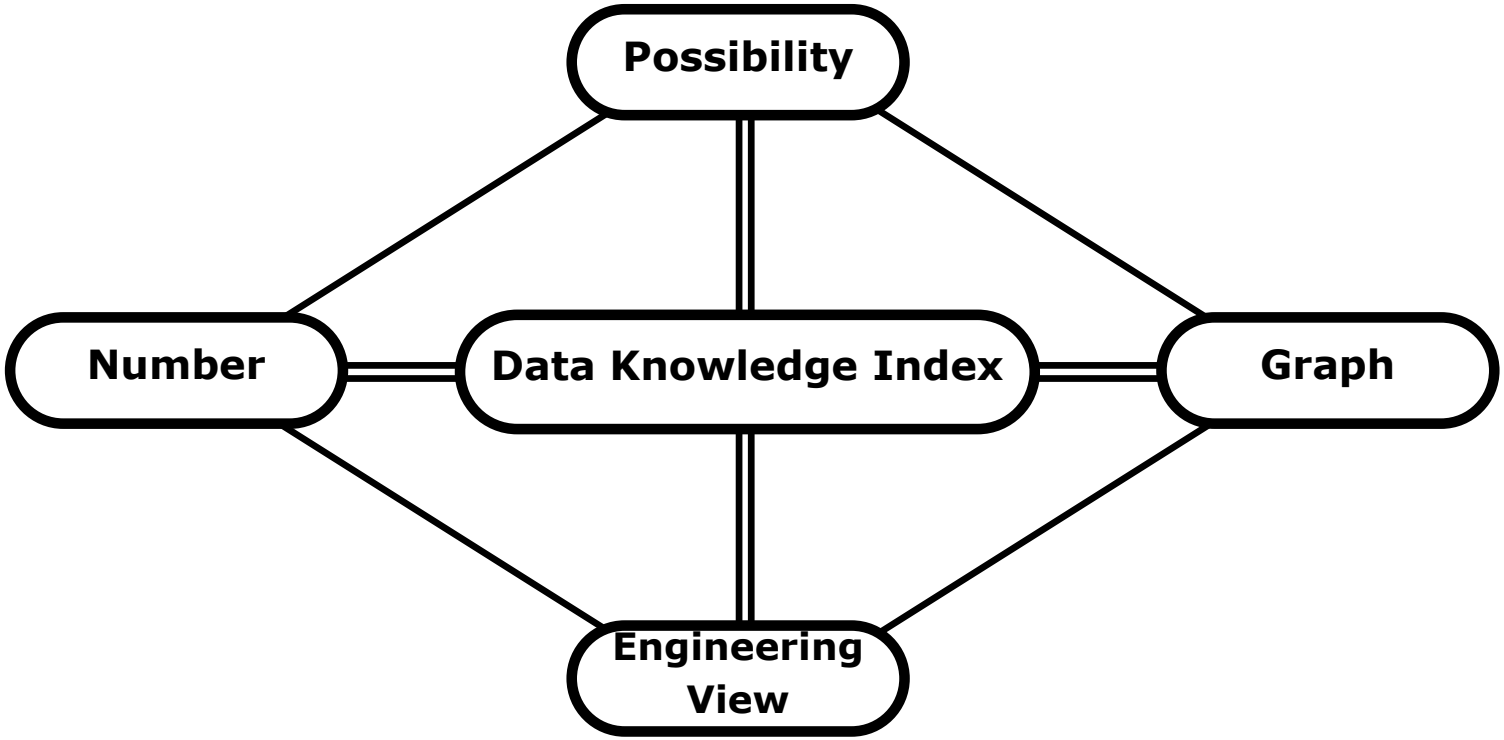


MKTG. Strategy & Data Analysis

- Segmentation
- Customer Preference
- Marketing Mix Strategy
- Product Life Cycle
- Purchase Pattern
- Loyalty Program
- Marketing Scenario
- Positioning Strategy
- Exploration of Variables

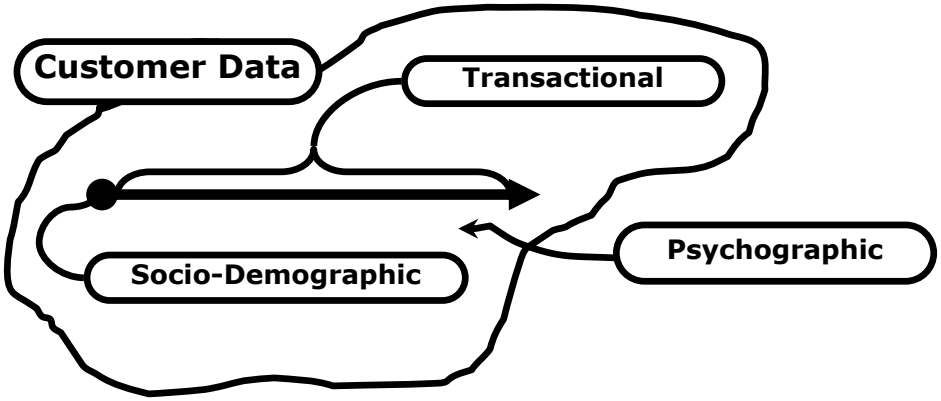
- Association Rule
- Correlation Analysis
- Regression
- Correspondence Analysis
- Cluster Analysis
- Classification
- Discriminant Analysis
- Descriptive Statistics
- Decision Making Theory
- Experimental Design
- Time-Series

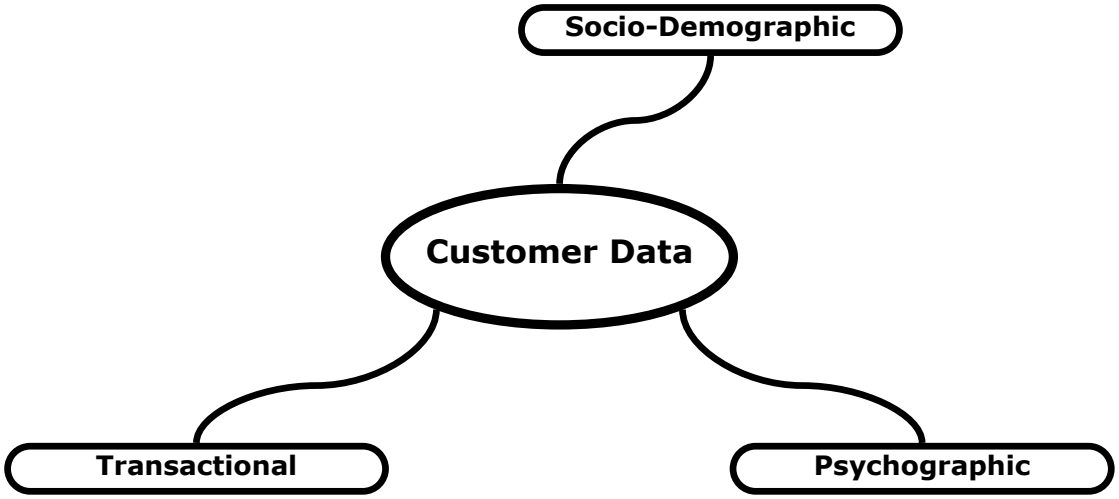
Data Knowledge Index



Big Data MAP – Case Study

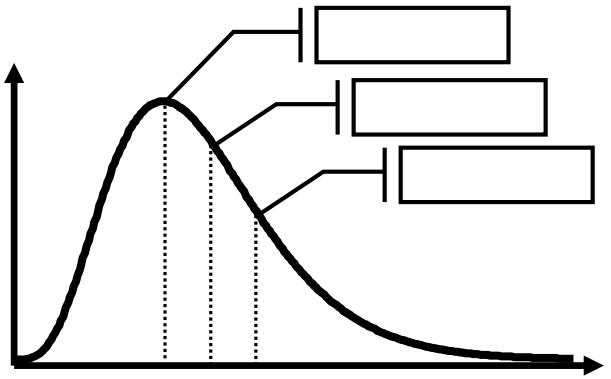
Data Analysis Map





Mean vs Median vs Mode – Right KPI?

Mean vs Median vs Mode



- **Mean**
- **Median**
- **Mode**

Market Basket Analysis – Case Study I

POS Data

Market Basket	Product
1	Beer Milk Sandwich
2	Beer Chip Chocolate
3	Beer Milk Chip Chocolate
4	Chip Chocolate

STEP 1

- POS Database Scan
- Candidate Product
  {Beer}, {Milk}, {Sandwich}, {Chip}, {Chocolate}
- Support Calculation

Product	# of Basket	Support
Beer	3	3/4
Milk	2	2/4
Sandwich	1	1/4
Chip	3	3/4
Chocolate	3	3/4

STEP 2

- STEP 1 Result ➔ Beer, Chip, Chocolate
- Candidate Product
  {Beer, Chip}, {Beer, Chocolate}, {Chip, Chocolate}
- Support Calculation

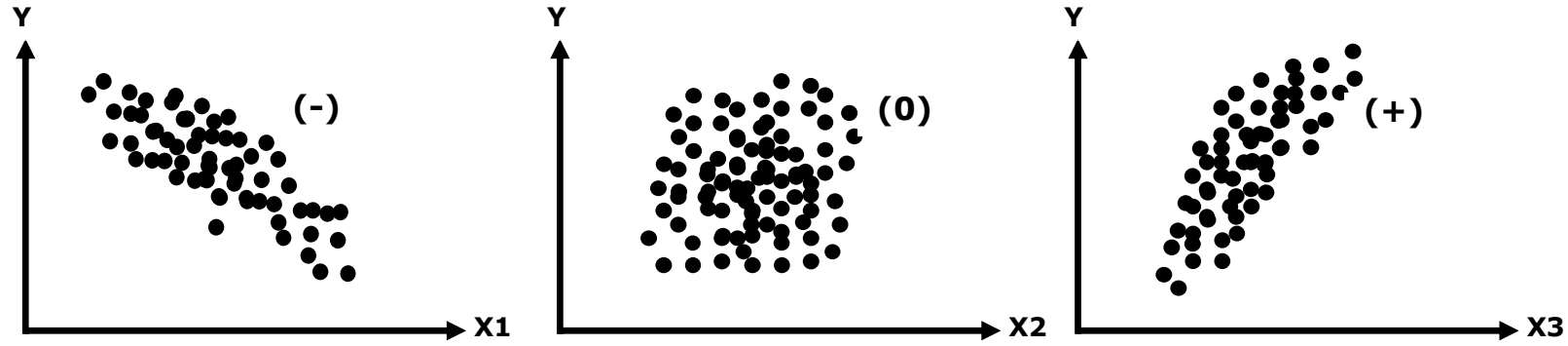
Product	# of Basket	Support
Beer, Chip	2	2/4
Beer, Chocolate	2	2/4
Chip, Chocolate	3	3/4

Marketing Strategy

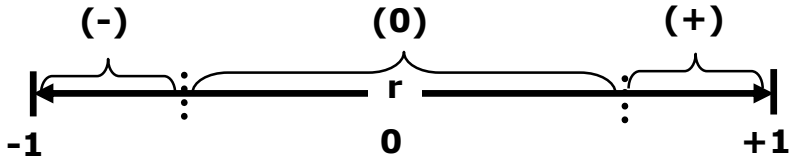
- Final Result ➔ {Chip, Chocolate}
- Marketing Issue
- Marketing Strategy

Correlation Analysis - Concept

X vs Y Data



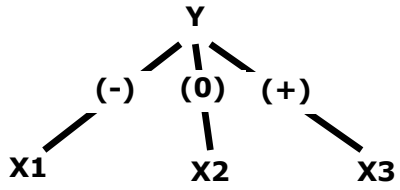
Coefficient of Correlation



$$Cov(X,Y) = \sigma_{XY} = E[(X-\mu_X)(Y-\mu_Y)]$$

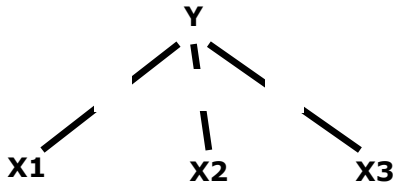
$$r = Corr(X,Y) = \frac{Cov(X,Y)}{\sigma_X \sigma_Y}$$

Correlation Map

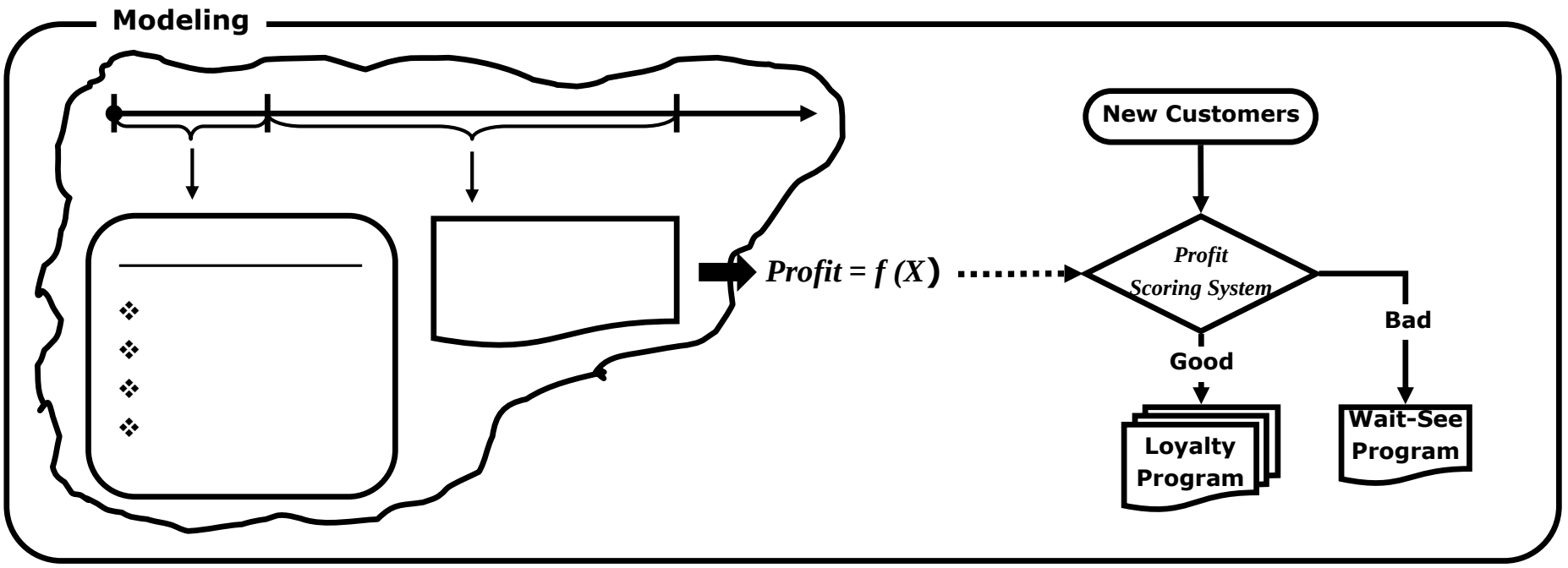


Marketing Issue

- Y :
- X1 :
- X2 :
- X3 :

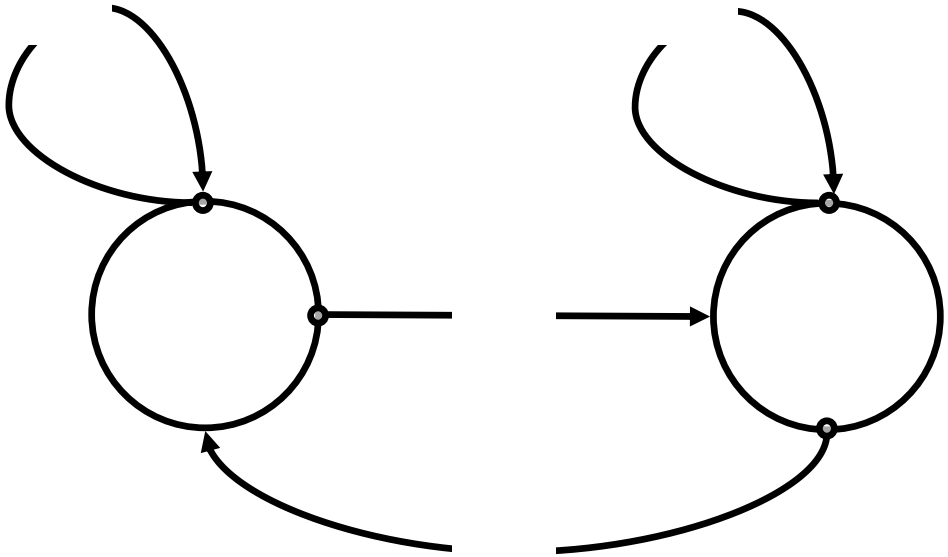


Scoring based on Regression

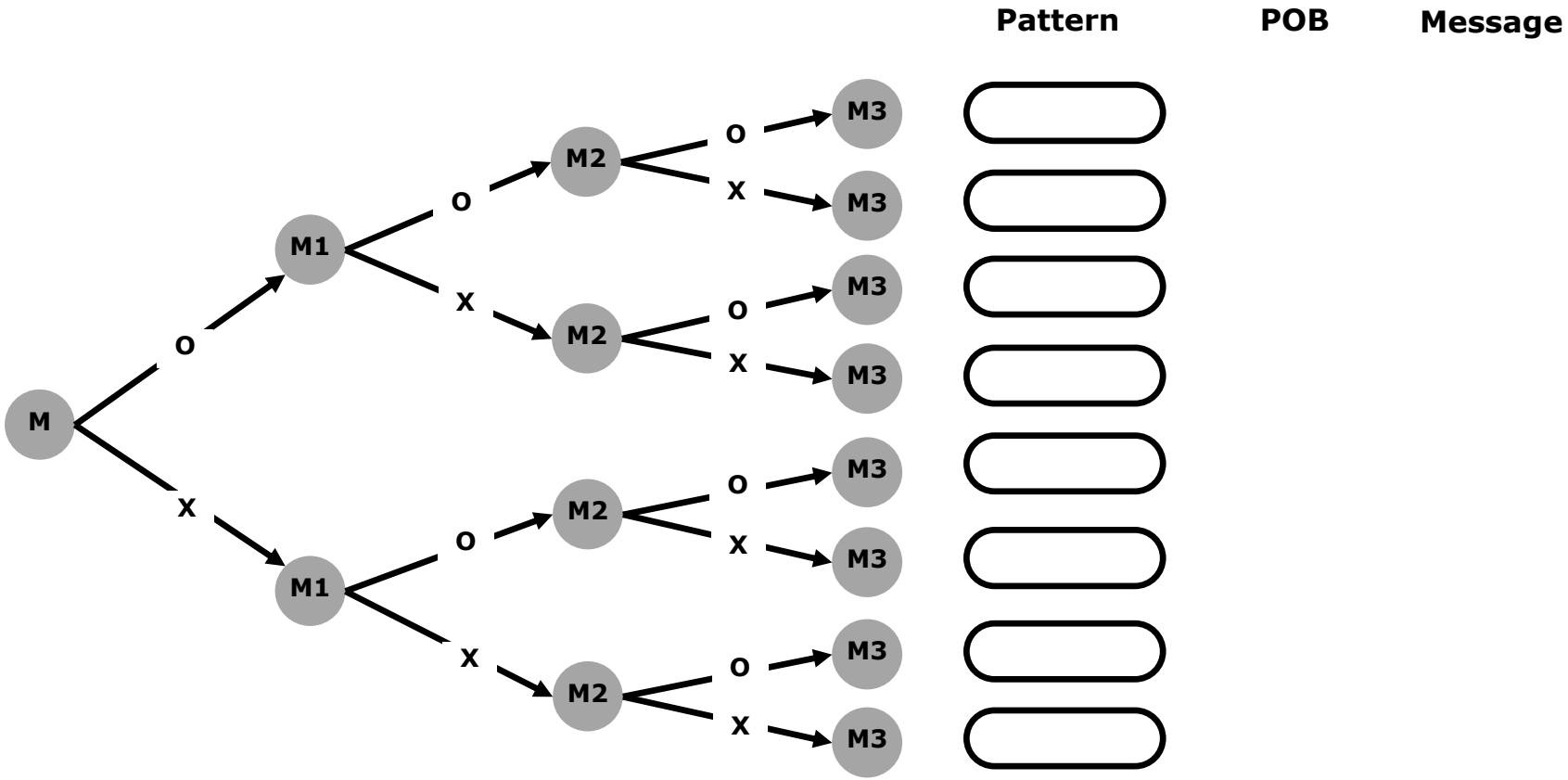


Regression Issue Planning

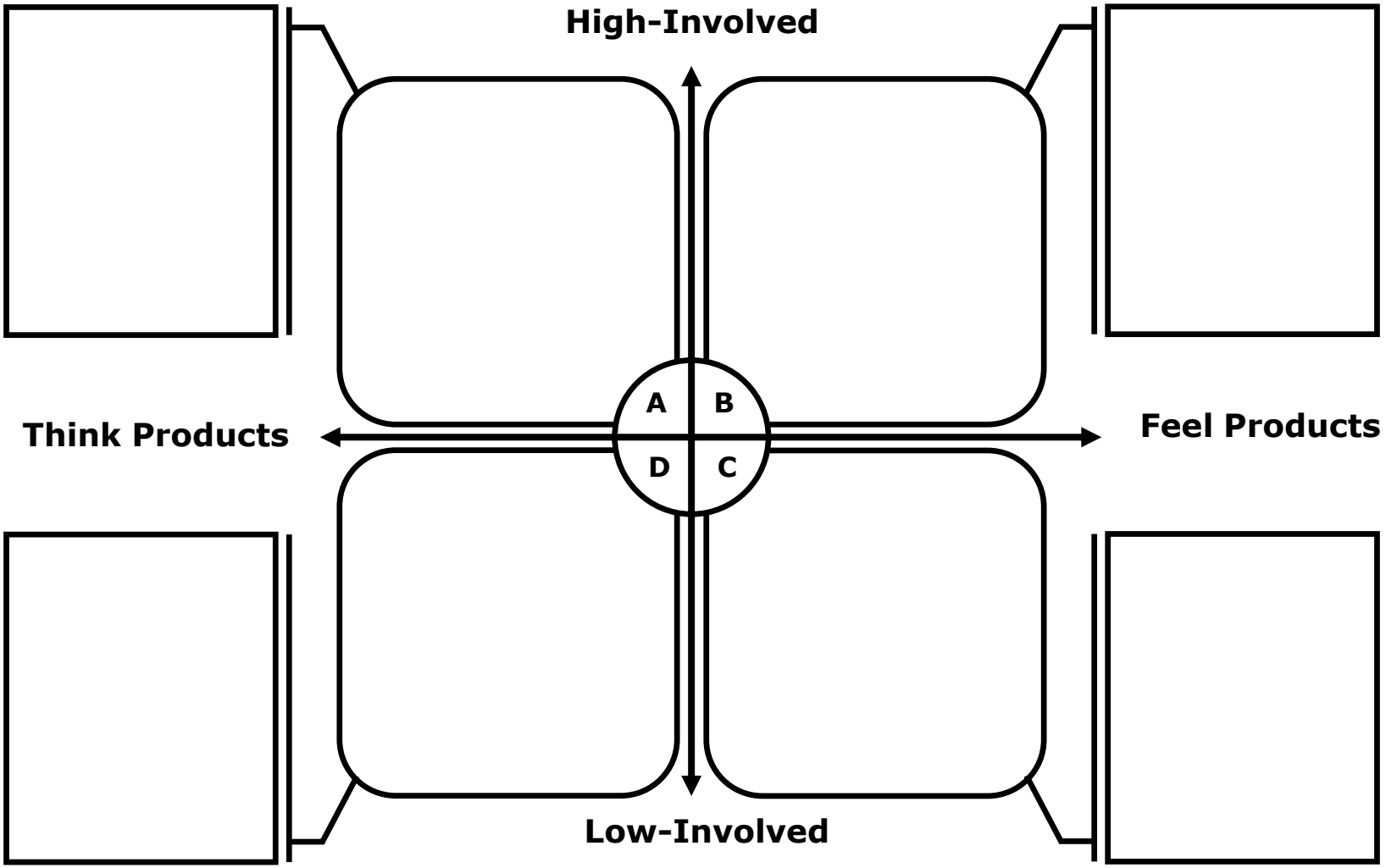
OX Patterning



OX Patterning

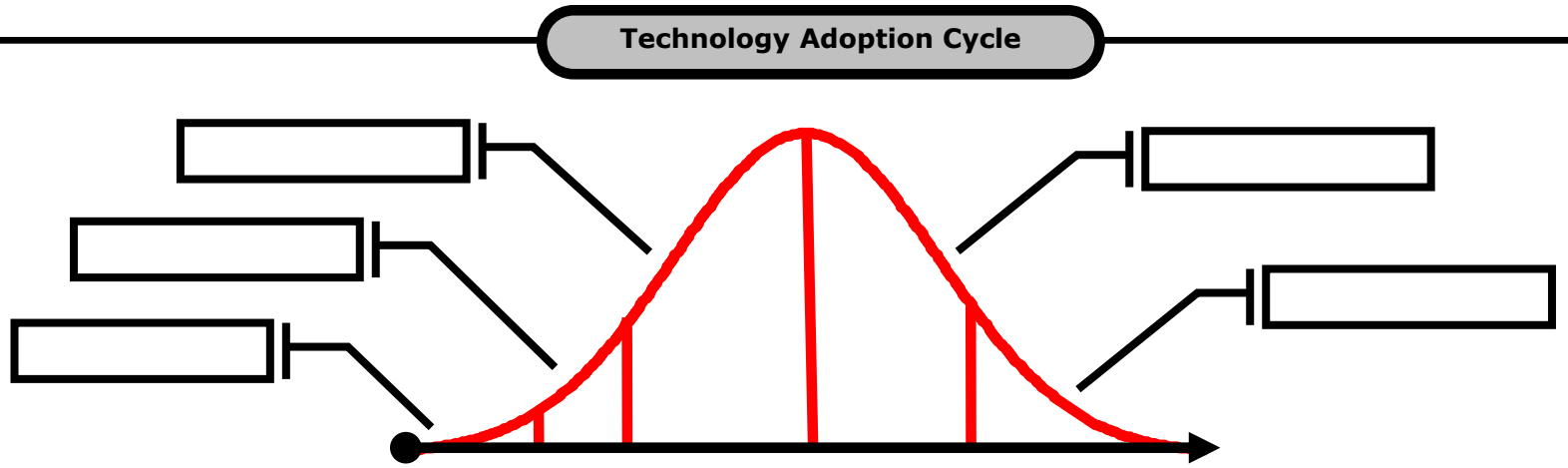


Perceptual Map – FCB Grid



*FCB (Foote, Cone & Belding)

Customer Segmentation

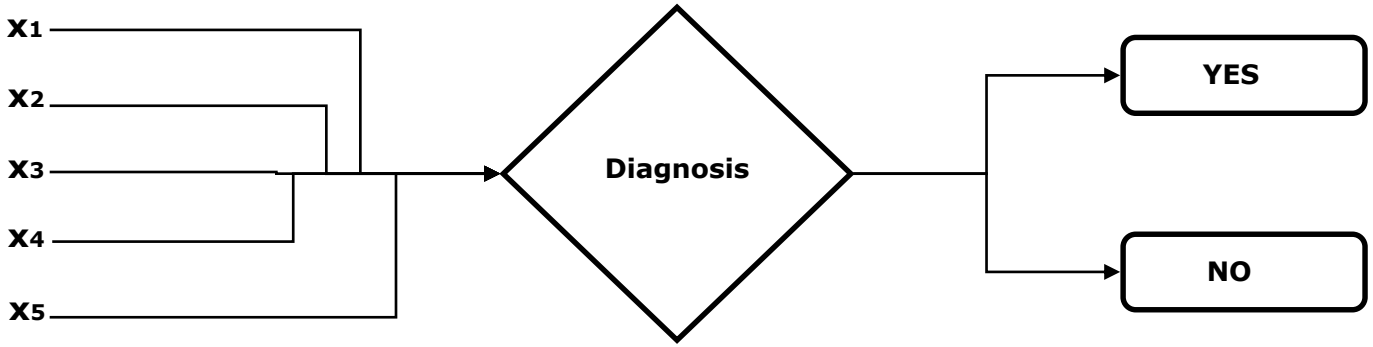


Cluster & Index Matrix

	-		-	년간 카드이용 금액등급지수				쇼핑관련 지수						외식관련 지수						건강관련 지수			문화관련 지수				야외활동관련 지수				주유관련 지수					출퇴근 관련 지수		자기관리지수					기타 지수					
	연령대	성별	직장유부여부지수	70대 이상	30대 ~ 40대 여성	40대 ~ 50대 남성	명품신드롬족	쇼핑이용지수						외식지수	한식선호도지수					건강관심도지수	스포츠선호도지수																											
Metro-sexual																																														

Classification

Classification - Concept



Model Validation		Actual Result: YES	Actual Result: NO
Prediction	YES	a	b
	NO	c	d

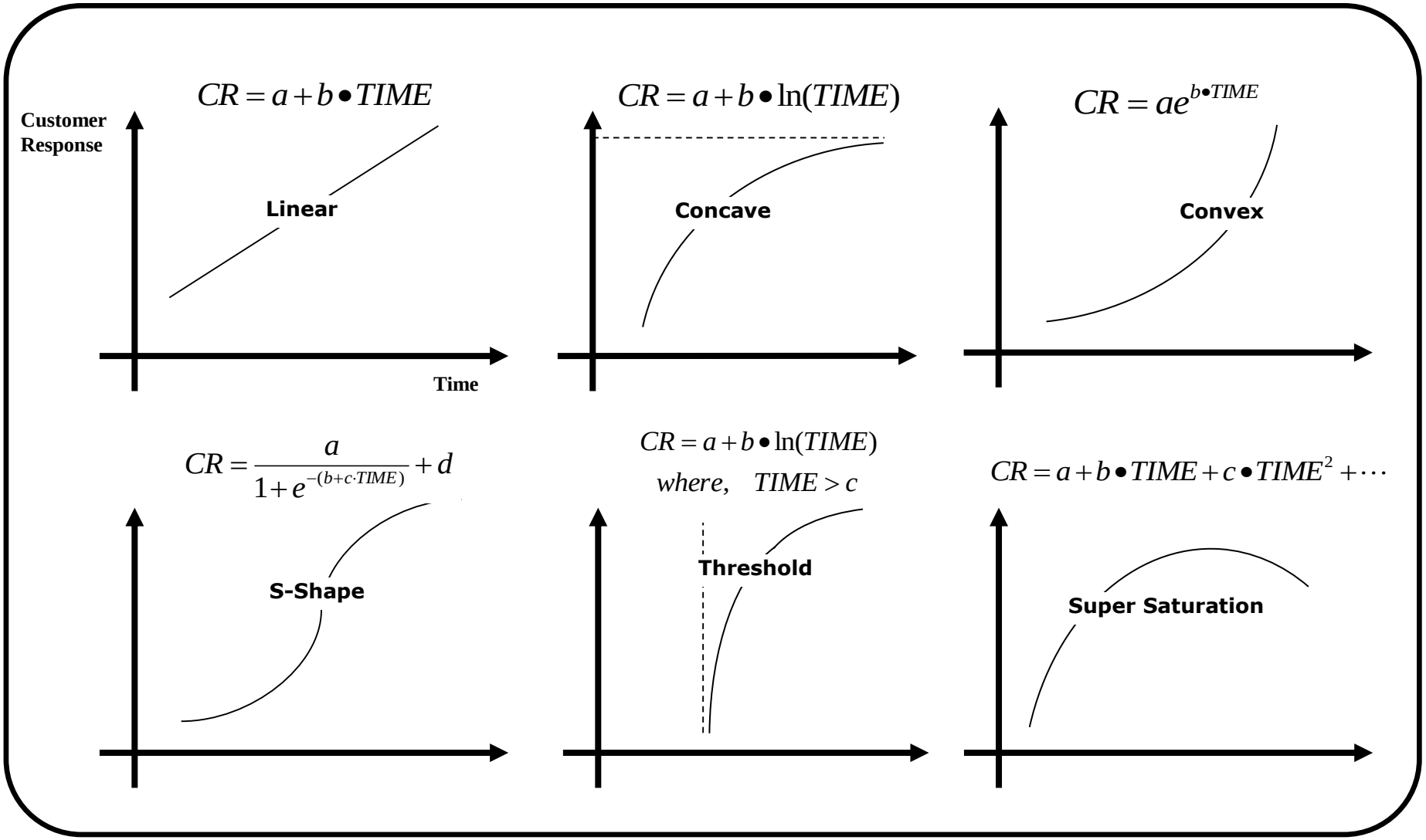
ACCURACY =

ERROR RATE =

SENSITIVITY =

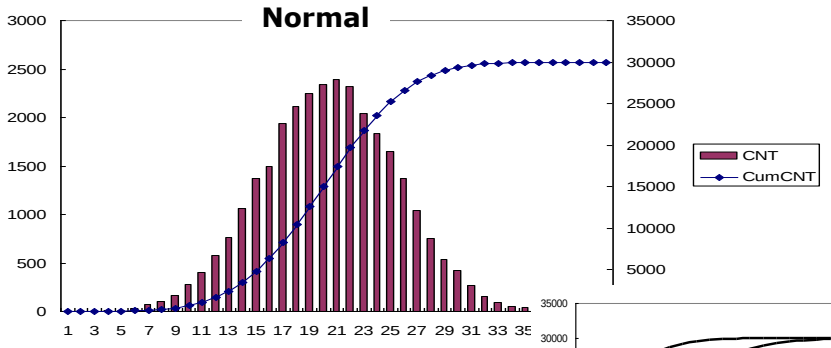
SPECIFICITY =

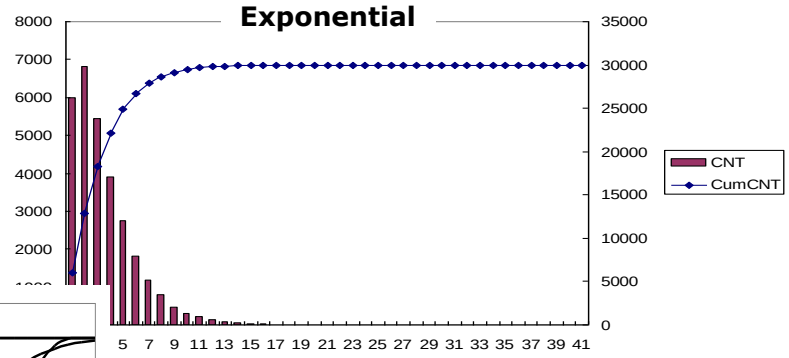
Customer Response Model

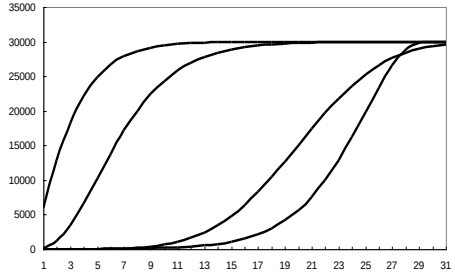


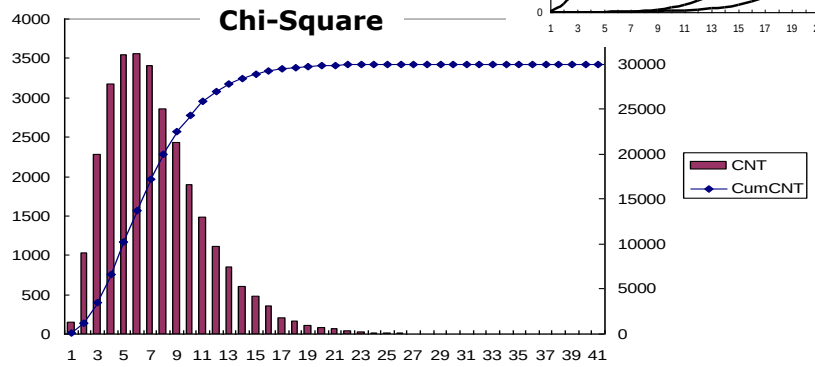
Cumulative Unique Customer

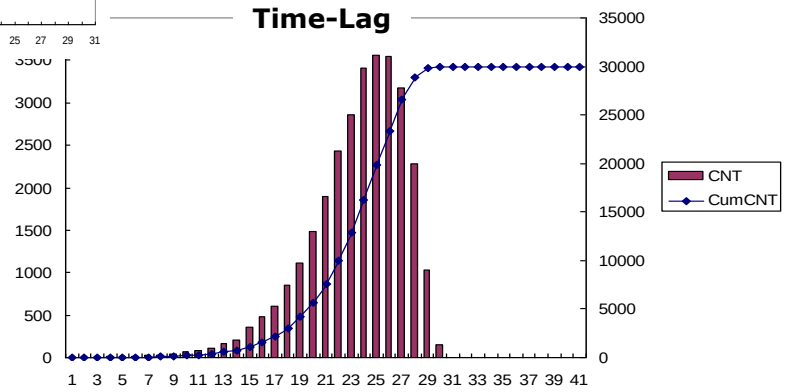
Pattern of Cumulative Sales Curve











Marketing Rule Based System – Case Workshop

Behavior Set

Integrated Marketing Channel

Diagnosis Algorithm

Scenario Set

Rule Set

Campaign System

Segmentation

Customer Behavior Class by MECE

Marketing Action

Marketing Rule Based System