

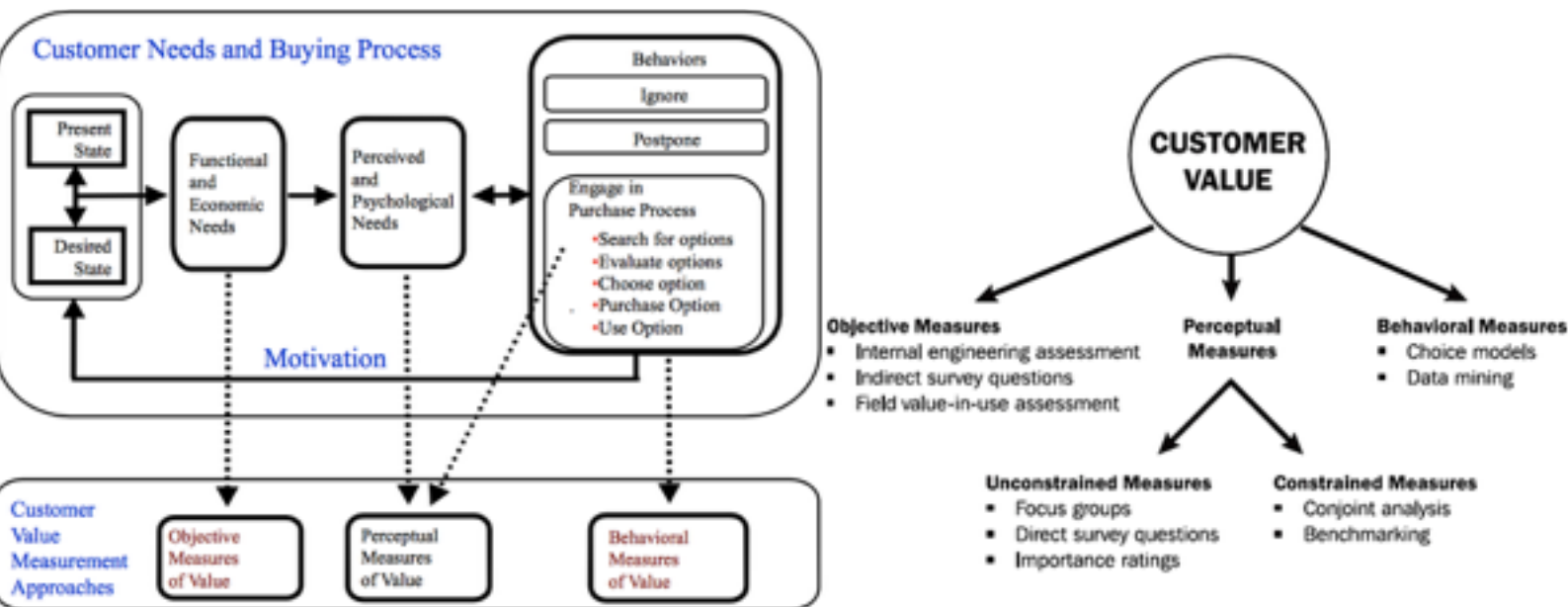
MARK3054 Marketing Analysis

Week 2 Consumer Preference Elicitation 引出

Maslow's hierarchy of needs (value)

- Physiological - water, food, sex, sleep
- Safety - security of body, healthy, property
- Belonging/Love - friendship, family
- Esteem - self-esteem, confidence, achievement
- Self-actualisation - morality, creativity, problem solving

Customer Value Measurement Approaches



Linear Regression

Find the best description of the relationship

- find the relationship which **minimises the sum of the squared errors** over all the observations (e)

Regression Result Analysis

- R square: percentage of the change in the Y variable explained by the change in the X variables
- Adjusted R square: R square adjusted to penalise the number of the X variables
- ANOVA test: examines the overall significance of the regression model
- Variable coefficient: effect size & significance impact or contribution (t test)
- e.g. a unit change in weight will make a positive change of WTP with 10.914, if the p value is significant less than 0.5, the effect is significant

Multicollinearity

- if the correlation between variables $> \pm 0.7$, the multicollinearity problem exist (Or, if $vif > 10$)

$$\text{Result: } WTP = 4.682 + 10.271 \times \text{Weight} + 1.650 \times \text{Brand} + 1.346 \times \text{Weight} \times \text{Brand} + \varepsilon$$

Interaction

- the brand advantage Vittoria has, is smaller with a smaller package, larger with a larger package (positive relationship)
- How much more? \$1.346 more with every 1 more kg

Week 3 Conjoint analysis

- determine how people value different attributes
- individuals have different preferences toward certain attributes of a product or service

Design Products based on Consumer Preference

I. Value of Attractiveness (Good design)

- higher market attractiveness, higher market share

II. Value of Product Superiority 产品优势

- product superiority is more powerful success driver than market attractiveness

Key Research Question: **Consumer's preference** for a product, among the existing products on the market

- adopt the consumer preference in beginning steps of the **new product development** (e.g. Design, Market definition)
- if u are not clear what consumer want or their preference, you will not retain product success though attractiveness or product superiority.

Example

- preference of pizza

Week 12 Big Data Mechanism

Advances in Technology and Big Data

- bring new opportunity and problems
- change the way we study problems
- change the data sources we use and the way we collect them
- change the way we do sampling
- change the way analyse the data
- change the way utilise the results

Features of big data that lead to changes

1. Multiple sources (data fusion)

- combine different sources of data
- (**Example 1**: combining text analysis in your product design (air conditioner))

- customer problem: 'the air from the air conditioner is too cold', 'where to buy air conditioner that do not blow cold air on you',
- Solve: "a smart conditioner", if you can design a product that satisfied customers need, new market formed)
- (Example 2: combining search engine data with sales data to minimise storage (air conditioner)
- Problem: we need to know the conversion rate (5%) of customers and the average days (2.5) they need from search to purchase
- Solve: re-design delivery system, setup the delivery number = $5\% \times \text{search number}$ & the delivery time is 2.5 days later

2. Large volume

- 1 petabyte = 10240 TB
- 1 exabyte = 1024 petabyte

3. Velocity (Speed)

- real time personalised actions
- e.g. Website Morphing

4. Variety (text, images, audio, video, ...)

- marketers can determine which advertisements to show you based on what you like on e.g. Facebook

5. Machine learning

- e.g. target knows your are pregnant

6. Digital footprint (足迹)

- e.g. other website knows what you searched in another website
- Not only virtual footprint, but the real one (Google map footprint), marketers could design the position of physical advertisements on the way for you

Deficiency/Can & Cannot of Big Data

- Know existing customers but not new customers
- Know existing behaviours (e.g., purchase of existing products) but not behaviours in a new context (e.g., new products, change of environment)
- Know "what is going on" rather than "why", marketers should understand why and then take actions