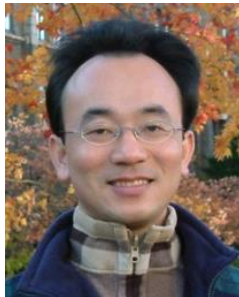**Social Media Marketing Analytics**

社群網路行銷分析

社群網路行銷研究
(Social Media Marketing Research)

1032SMMA03
TLMXJ1A (MIS EMBA)
Fri 12,13,14 (19:20-22:10) D326

Min-Yuh Day
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http://mail. tku.edu.tw/myday/
2015-03-20

課程大綱 (Syllabus)

週次 (Week)　日期 (Date)　內容 (Subject/Topics)

1　2015/02/27　和平紀念日補假(放假一天)

2　2015/03/06　社群網路行銷分析課程介紹
　　　　　　　　(Course Orientation for Social Media Marketing Analytics)

3　2015/03/13　社群網路行銷分析 (Social Media Marketing Analytics)

4　2015/03/20　社群網路行銷研究 (Social Media Marketing Research)

5　2015/03/27　測量構念 (Measuring the Construct)

6　2015/04/03　兒童節補假(放假一天)

7　2015/04/10　社群網路行銷個案分析 I
　　　　　　　　(Case Study on Social Media Marketing I)

8　2015/04/17　測量與量表 (Measurement and Scaling)

9　2015/04/24　探索性因素分析 (Exploratory Factor Analysis)

課程大綱 (Syllabus)

週次 (Week)　日期 (Date)　內容 (Subject/Topics)

10　2015/05/01　期中報告 (Midterm Presentation)

11　2015/05/08　確認性因素分析 (Confirmatory Factor Analysis)

12　2015/05/15　社會網路分析 (Social Network Analysis)

13　2015/05/22　社群網路行銷個案分析 II
(Case Study on Social Media Marketing II)

14　2015/05/29　社群運算與大數據分析
(Social Computing and Big Data Analytics)

15　2015/06/05　社群網路情感分析 (Sentiment Analysis on Social Media)

16　2015/06/12　期末報告 I (Term Project Presentation I)

17　2015/06/19　端午節補假 (放假一天)

18　2015/06/26　期末報告 II (Term Project Presentation II)

Outline

- Marketing Research
- The Marketing Research Process
- Basis of Social Media Marketing Theory

Marketing Research

- Marketing Research is the planning, collection, and analysis of data relevant to marketing decision making and the communication of the results of this analysis to management.

The Nature of Marketing Research
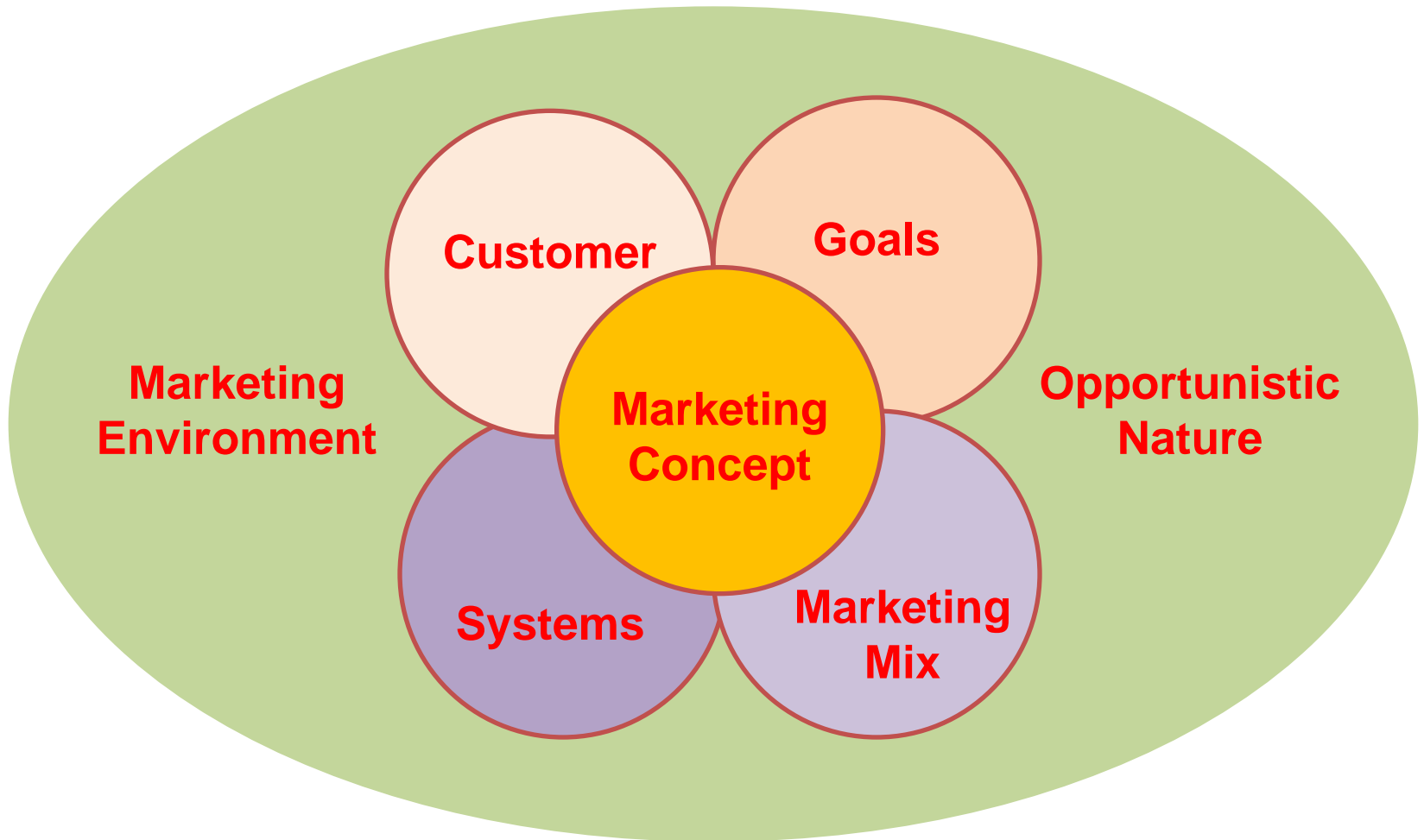
Capturing Marketing Insights

- Collecting Information and Forecasting Demand
- Conducting Marketing Research

Good marketers need **insights** to help them interpret past performance as well as plan future activities

Marketing Research

systematic design, **collection**, **analysis**, **and** **reporting** of **data and findings** relevant to a specific marketing situation facing the company.

Definition of Marketing Research

Customer Orientation

Goals Orientation

Systems Orientation
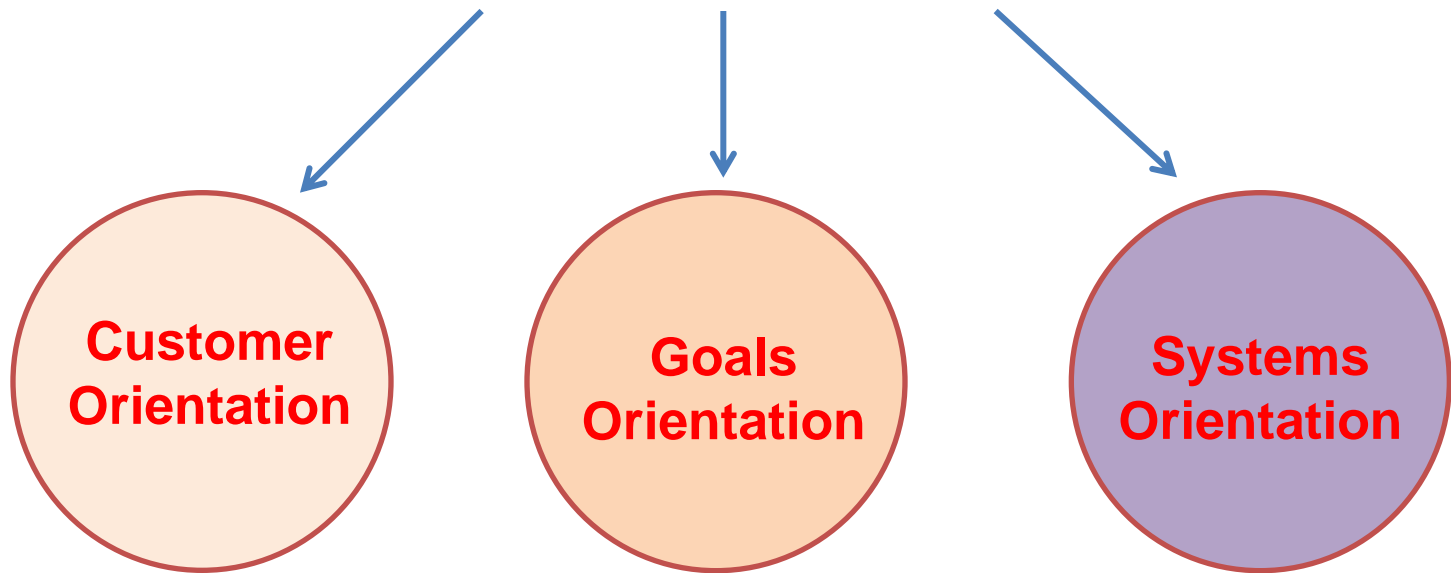
The Marketing Research Impact
Its Importance to Management – Three Critical Roles

- Descriptive
  - The gathering and presenting of statements of fact

- Diagnostic
  - The explanation of data or actions

- Predictive
  - The specification of how to use descriptive and diagnostic research to predict the results of a planned marketing decision

The Problem Definition Process 8 Steps
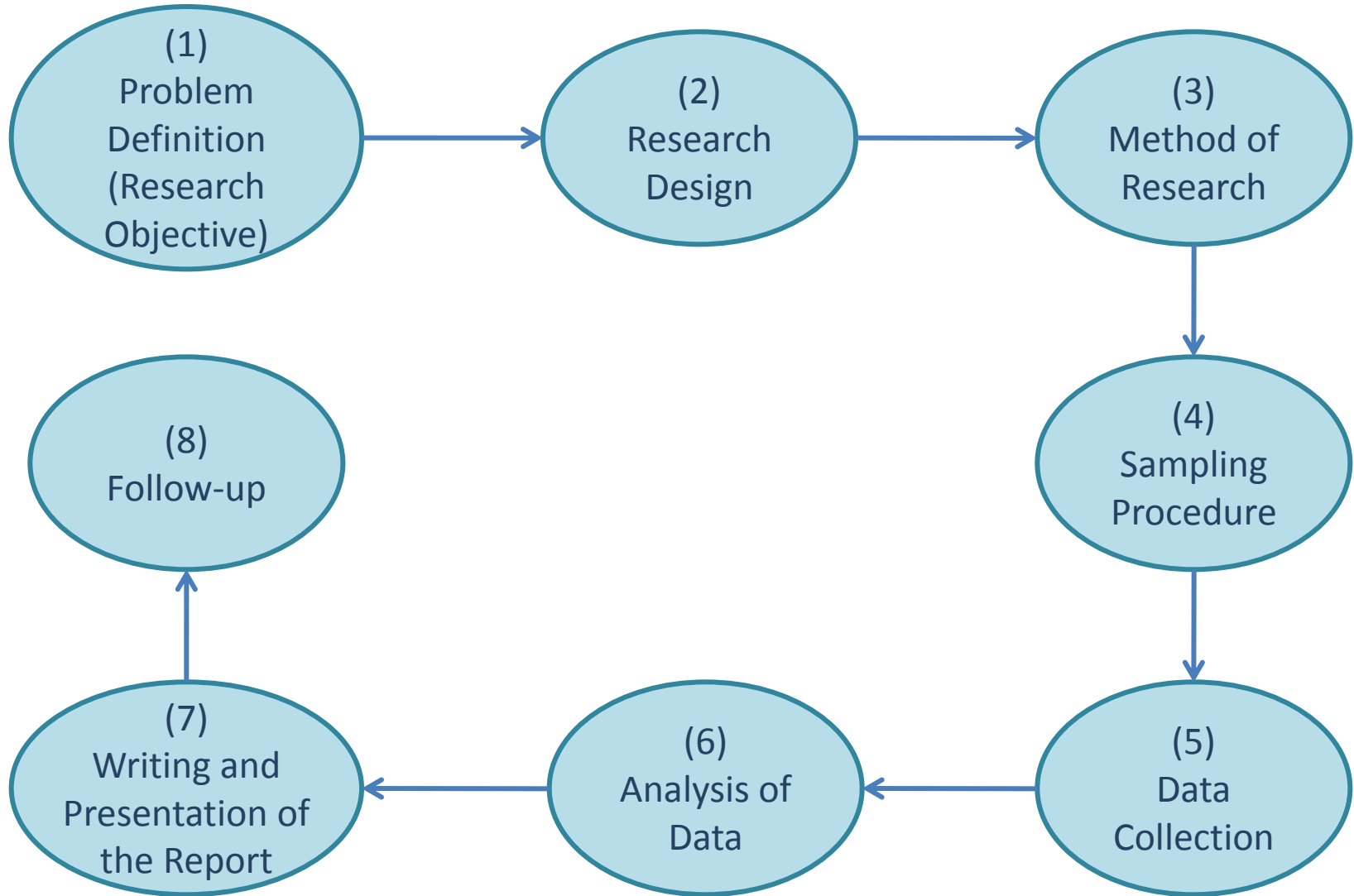
1. Recognize the problem or opportunity
2. Find out why the information is being sought
3. Understand the decision making environment
4. Use the symptoms to help clarify the problem
5. Translate management problem to marketing research problem
6. Determine whether the information already exists
7. Determine whether the question can be answered
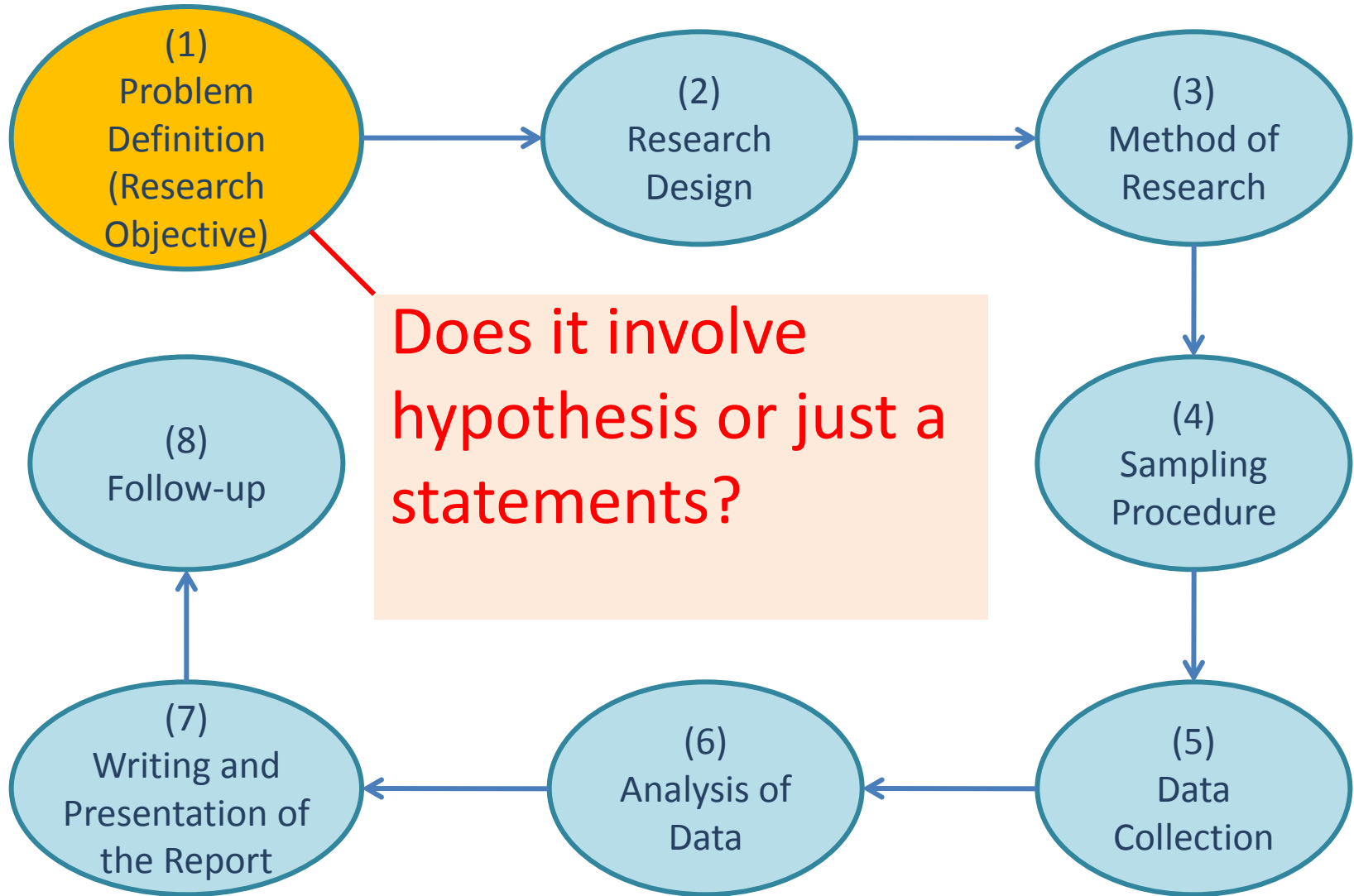8. State the research objectives

Understand the Decision-Making Environment

```
┌─────────────────────────────────┐
│       Situation Analysis        │
└─────────────────────────────────┘
                 │
                 ▼
┌─────────────────────────────────┐
│      Strategy Development        │
└─────────────────────────────────┘
                 │
                 ▼
┌─────────────────────────────────┐
│      Marketing Program          │
│        Development              │
└─────────────────────────────────┘
                 │
                 ▼
┌─────────────────────────────────┐
│        Implementation           │
└─────────────────────────────────┘
```

The Marketing Research Process

The Marketing Research Process

(1) Problem Definition (Research Objective)

(2) Research Design

(3) Method of Research

(4) Sampling Procedure

(5) Data Collection

(6) Analysis of Data

(7) Writing and Presentation of the Report

(8) Follow-up

Does it involve hypothesis or just a statements?

The Marketing Research Process

(1) Problem Definition (Research Objective) → Management Decision Problem → Marketing Research Problem → Marketing Research Objective
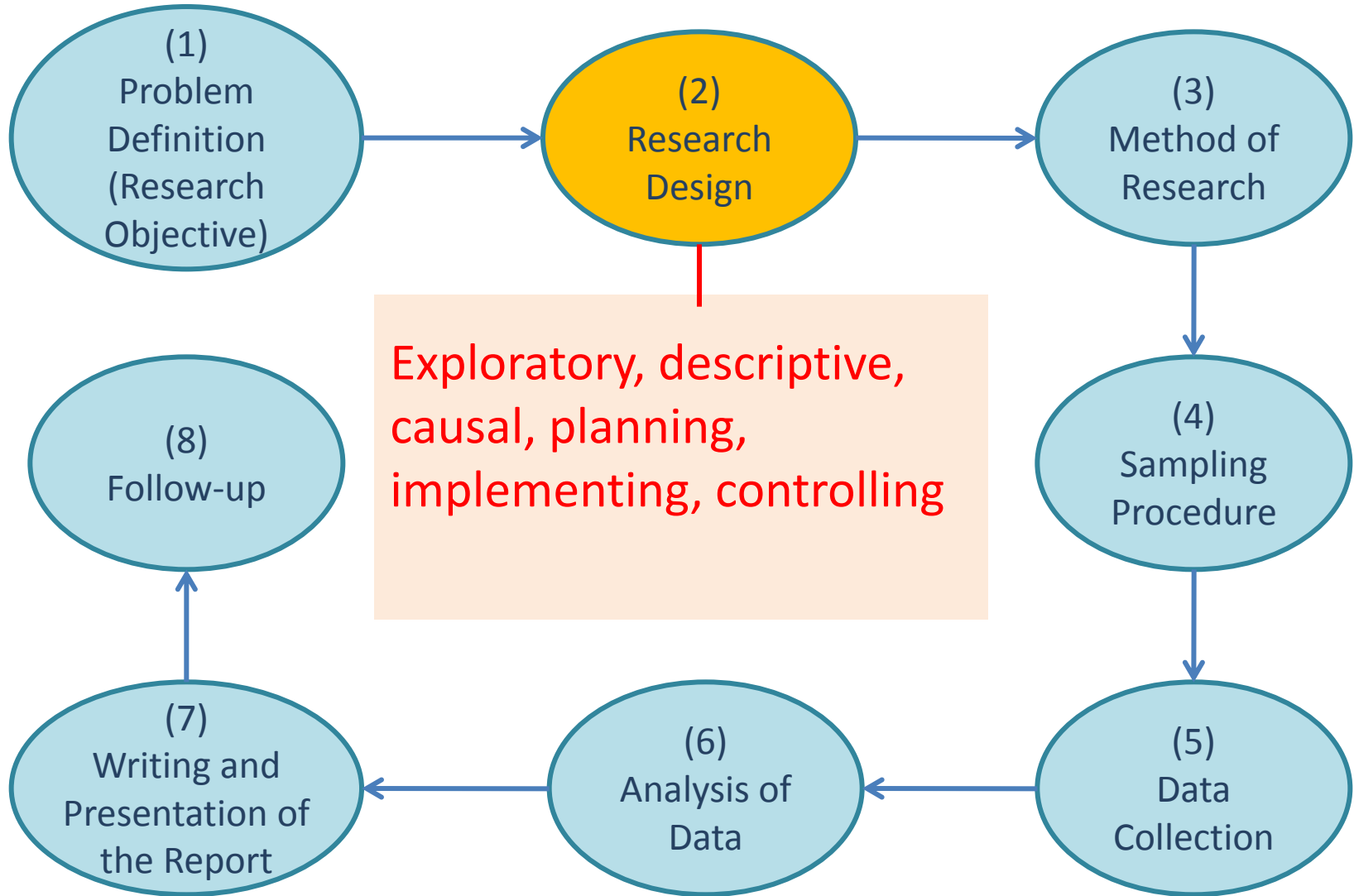
The Marketing Research Process

(1) Problem Definition (Research Objective)

(2) Research Design

(3) Method of Research

(4) Sampling Procedure

(5) Data Collection

(6) Analysis of Data

(7) Writing and Presentation of the Report

(8) Follow-up

Exploratory, descriptive, causal, planning, implementing, controlling

The Marketing Research Process

(2)
Research Design

Descriptive Studies:
Studies of association
(who, what, when,
where, how)

Causal Studies:
dependent variable
independent variable
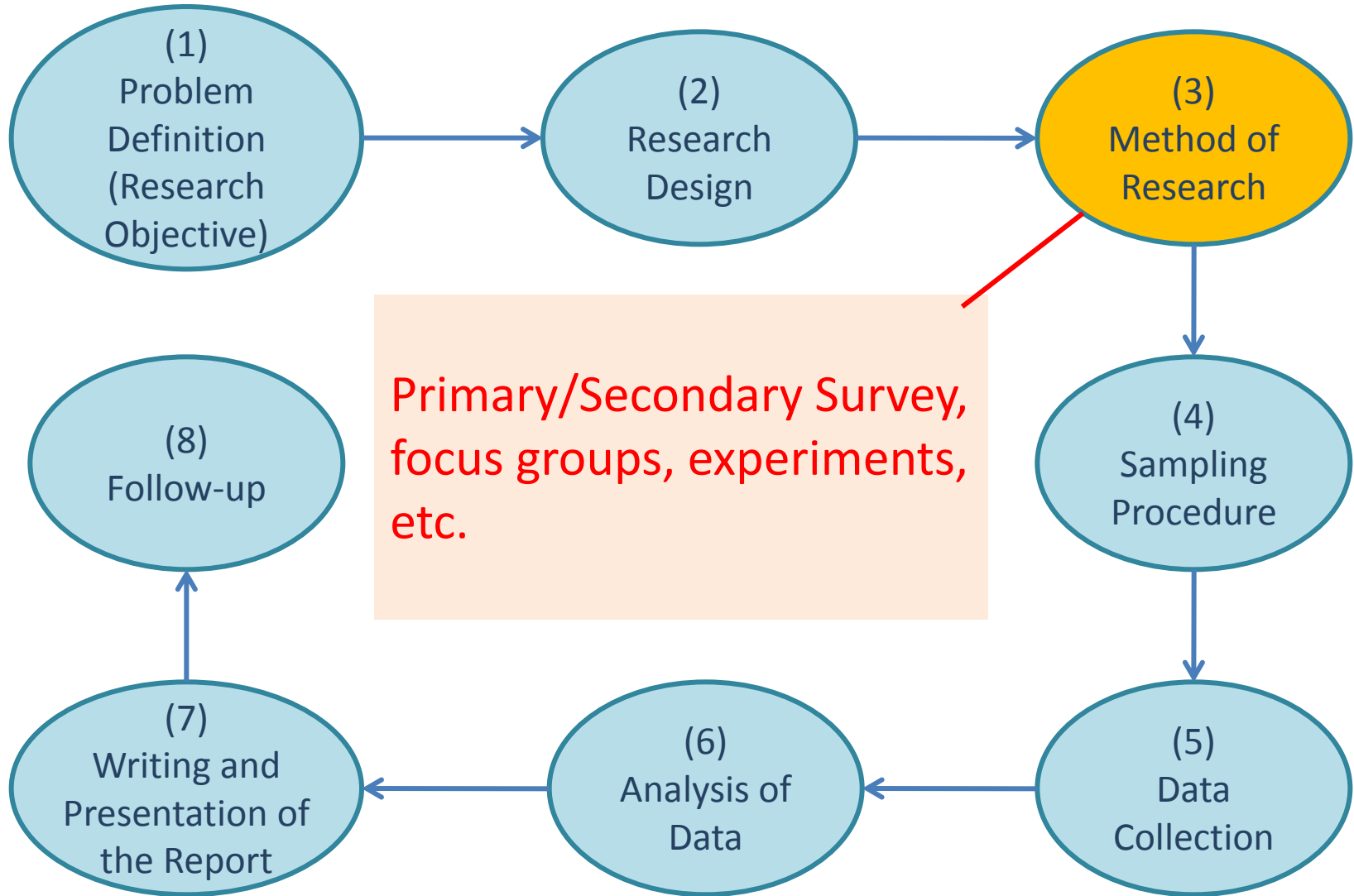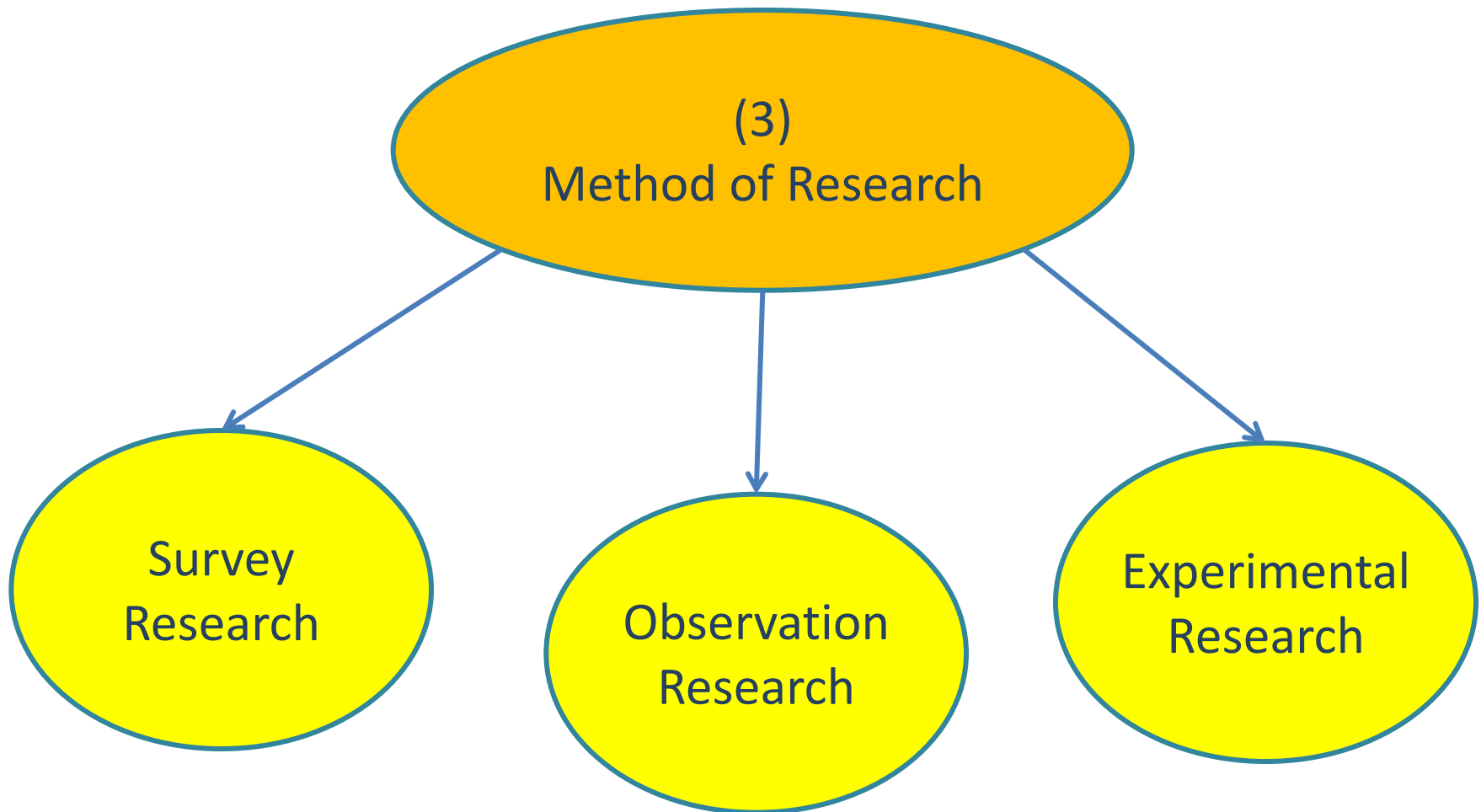
Marketing Research Design

- Marketing Research Design
  - "The plan to be followed to answer the marketing research objectives."

- It is the detailed blueprint used to guide the research study towards its objectives including what and how you will conduct the research study.
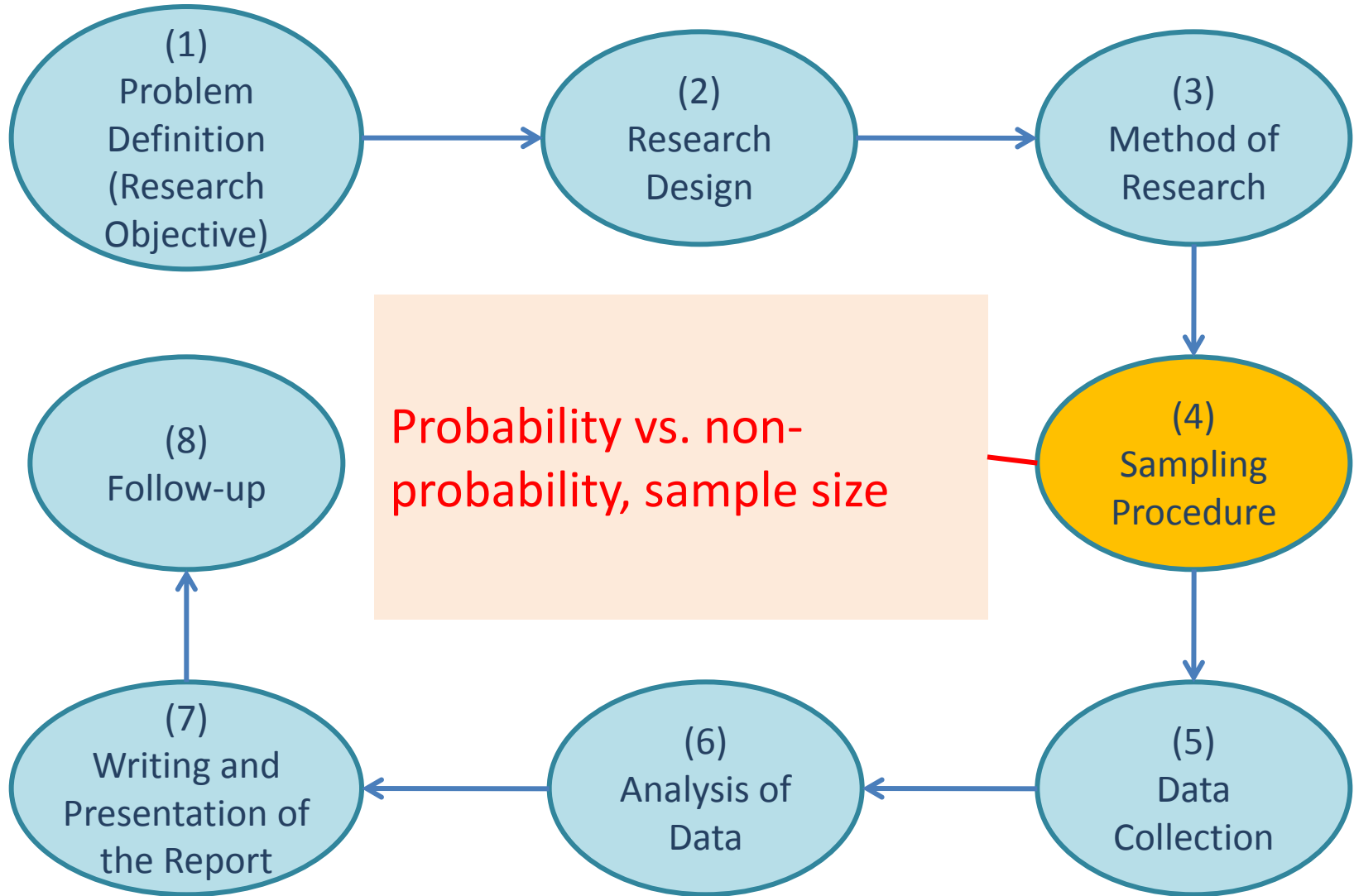
The Marketing Research Process

(1) Problem Definition (Research Objective) → (2) Research Design → (3) Method of Research → (4) Sampling Procedure → (5) Data Collection → (6) Analysis of Data → (7) Writing and Presentation of the Report → (8) Follow-up

Primary/Secondary Survey, focus groups, experiments, etc.

The Marketing Research Process

(3)
Method of Research

Survey Research

Observation Research

Experimental Research

The Marketing Research Process

(1) Problem Definition (Research Objective) → (2) Research Design → (3) Method of Research → (4) Sampling Procedure → (5) Data Collection → (6) Analysis of Data → (7) Writing and Presentation of the Report → (8) Follow-up

Probability vs. non-probability, sample size

The Marketing Research Process

(4)
Sampling Procedure

Probability Samples

Non-Probability Samples

The Marketing Research Process

(1) Problem Definition (Research Objective) → (2) Research Design → (3) Method of Research → (4) Sampling Procedure → (5) Data Collection → (6) Analysis of Data → (7) Writing and Presentation of the Report → (8) Follow-up

Telephone, mail, mall intercept, Internet, etc.

The Marketing Research Process

(1)
Problem
Definition
(Research
Objective)

(2)
Research
Design

(3)
Method of
Research

(4)
Sampling
Procedure

(5)
Data
Collection

(6)
Analysis of
Data

(7)
Writing and
Presentation of
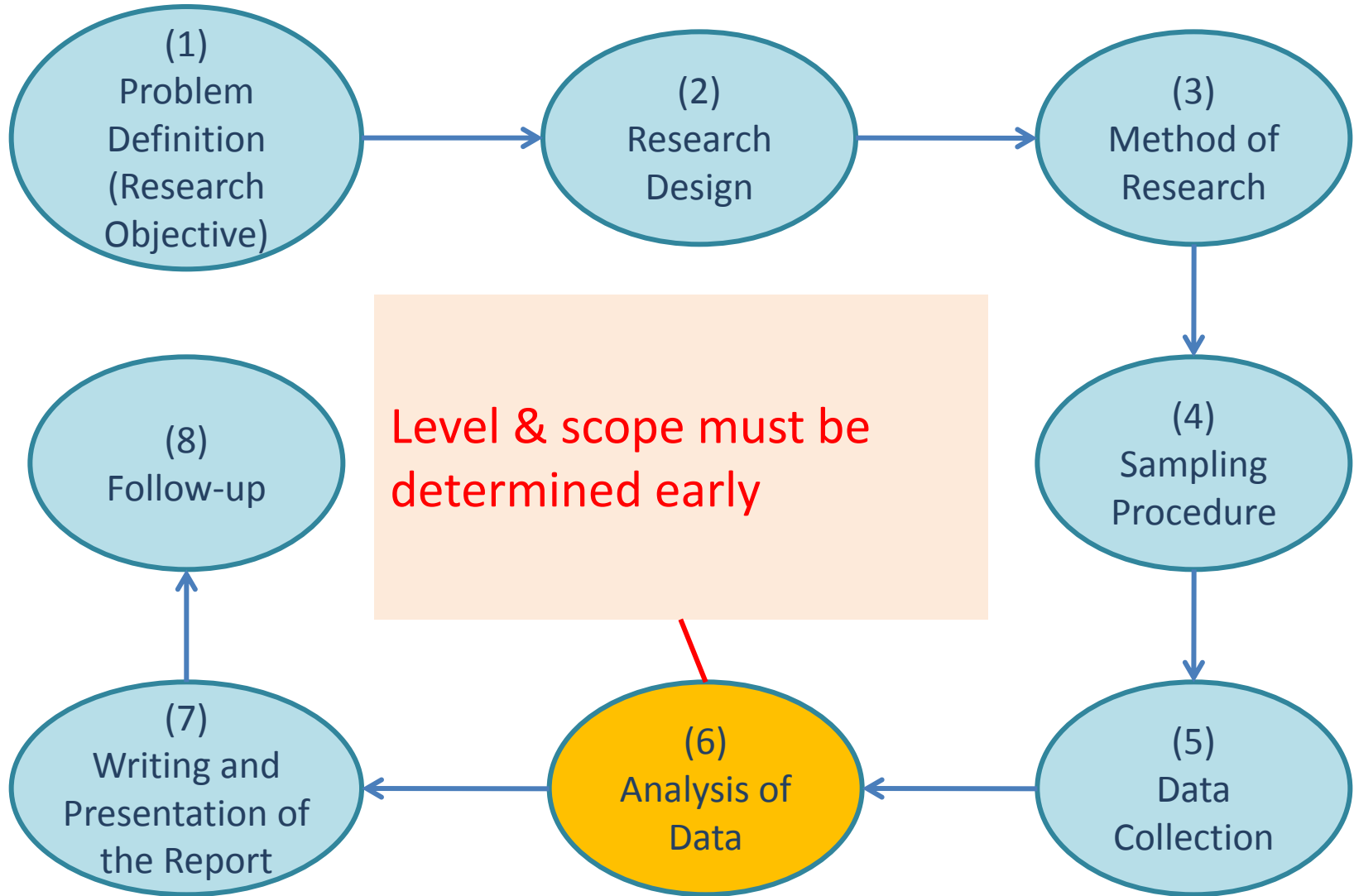the Report

(8)
Follow-up

Level & scope must be determined early

The Marketing Research Process

The Marketing Research Process

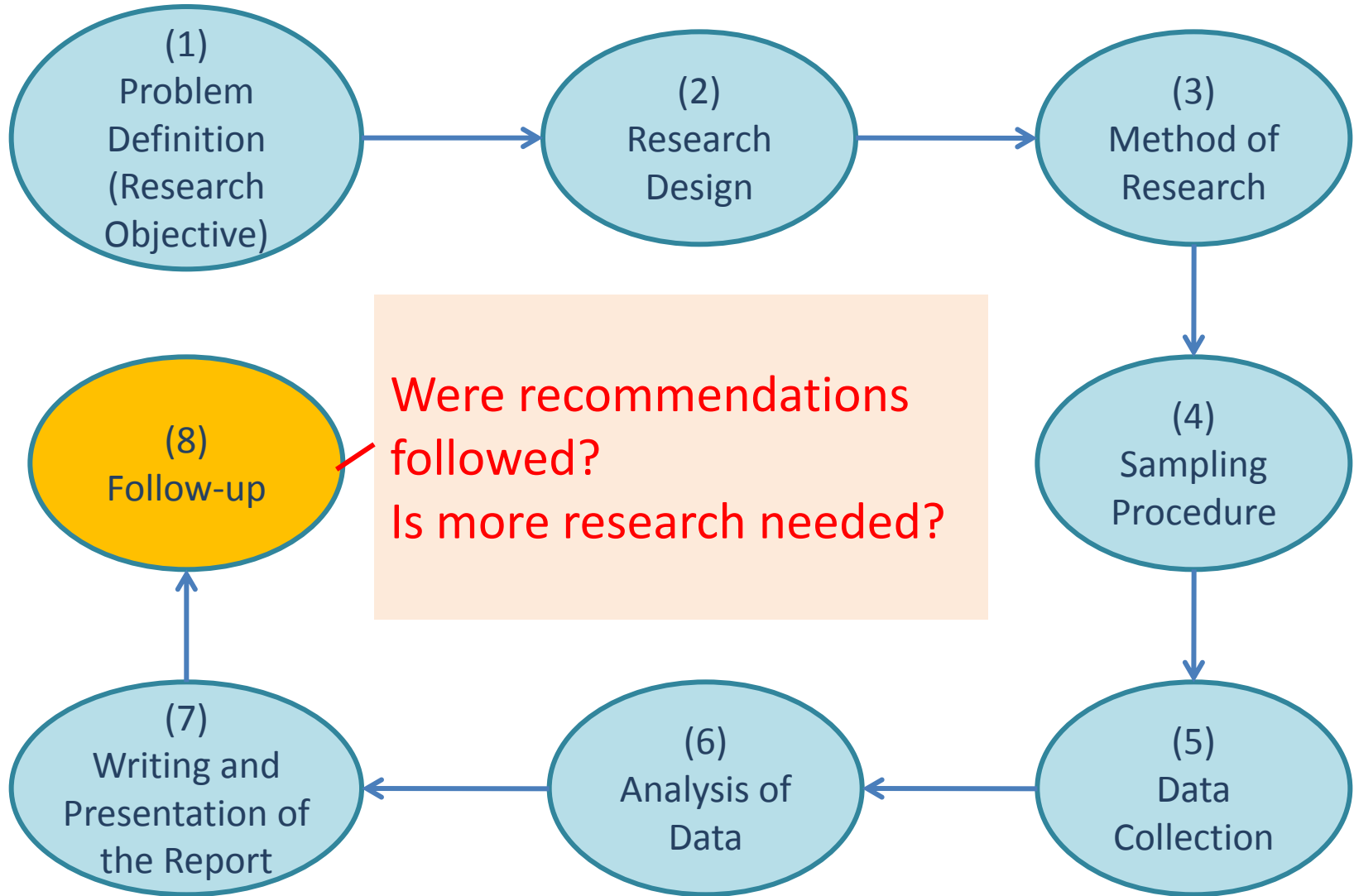(1) Problem Definition (Research Objective) → (2) Research Design → (3) Method of Research → (4) Sampling Procedure → (5) Data Collection → (6) Analysis of Data → (7) Writing and Presentation of the Report → (8) Follow-up

Determine format, font, layout, PPTs, etc.

The Marketing Research Process

(1) Problem Definition (Research Objective)

(2) Research Design

(3) Method of Research

(4) Sampling Procedure

(5) Data Collection

(6) Analysis of Data

(7) Writing and Presentation of the Report

(8) Follow-up

Were recommendations followed?
Is more research needed?

Marketing Research Approaches

Observation

Focus groups

Surveys

Behavioral data

Experiments

Marketing Success Metrics

| External	Internal
Awareness	Awareness of goals
Market share (volume or value)	Commitment to goals
Relative price (market share value/volume)	Active innovation support
Number of complaints (level of dissatisfaction)	Resource adequacy
Consumer satisfaction	Staffing/skill levels
Distribution/availability	Desire to learn
Total number of customers	Willingness to change
Perceived quality/esteem	Freedom to fail
Loyalty/retention	Autonomy
Relative perceived quality	Relative employee satisfaction

Marketing

"Meeting needs profitably"

Value

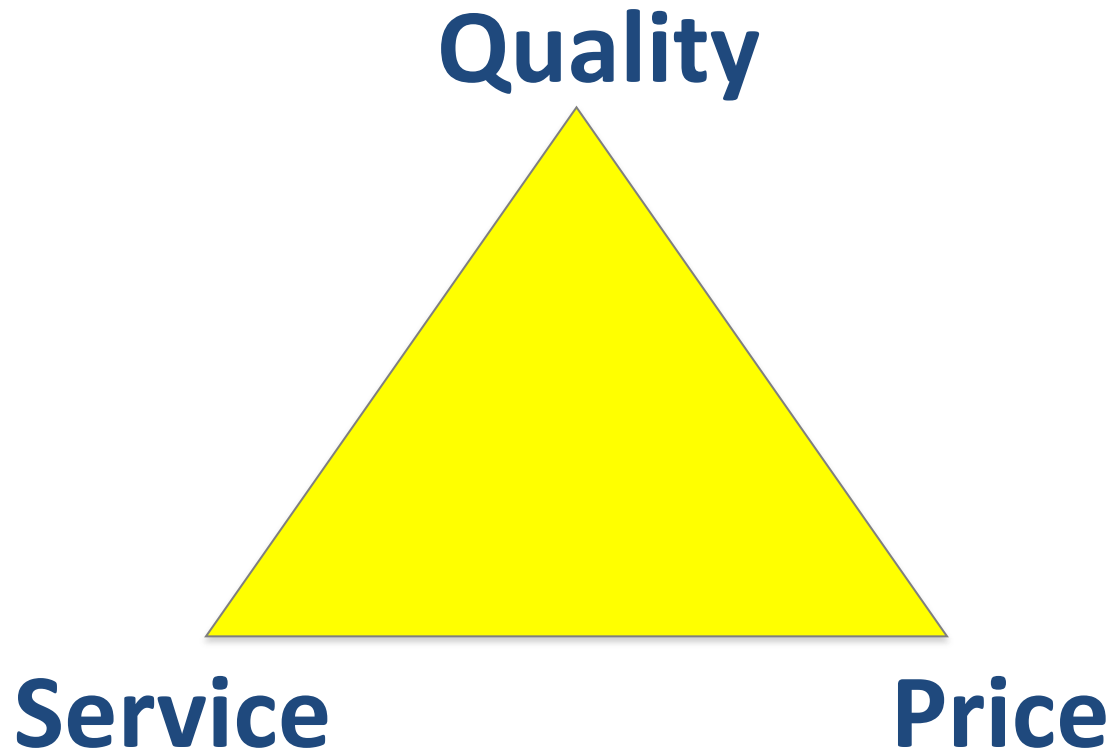the sum of the tangible and intangible **benefits and costs**

Value

Total customer **benefit**

Total customer **cost**

Customer perceived **value**
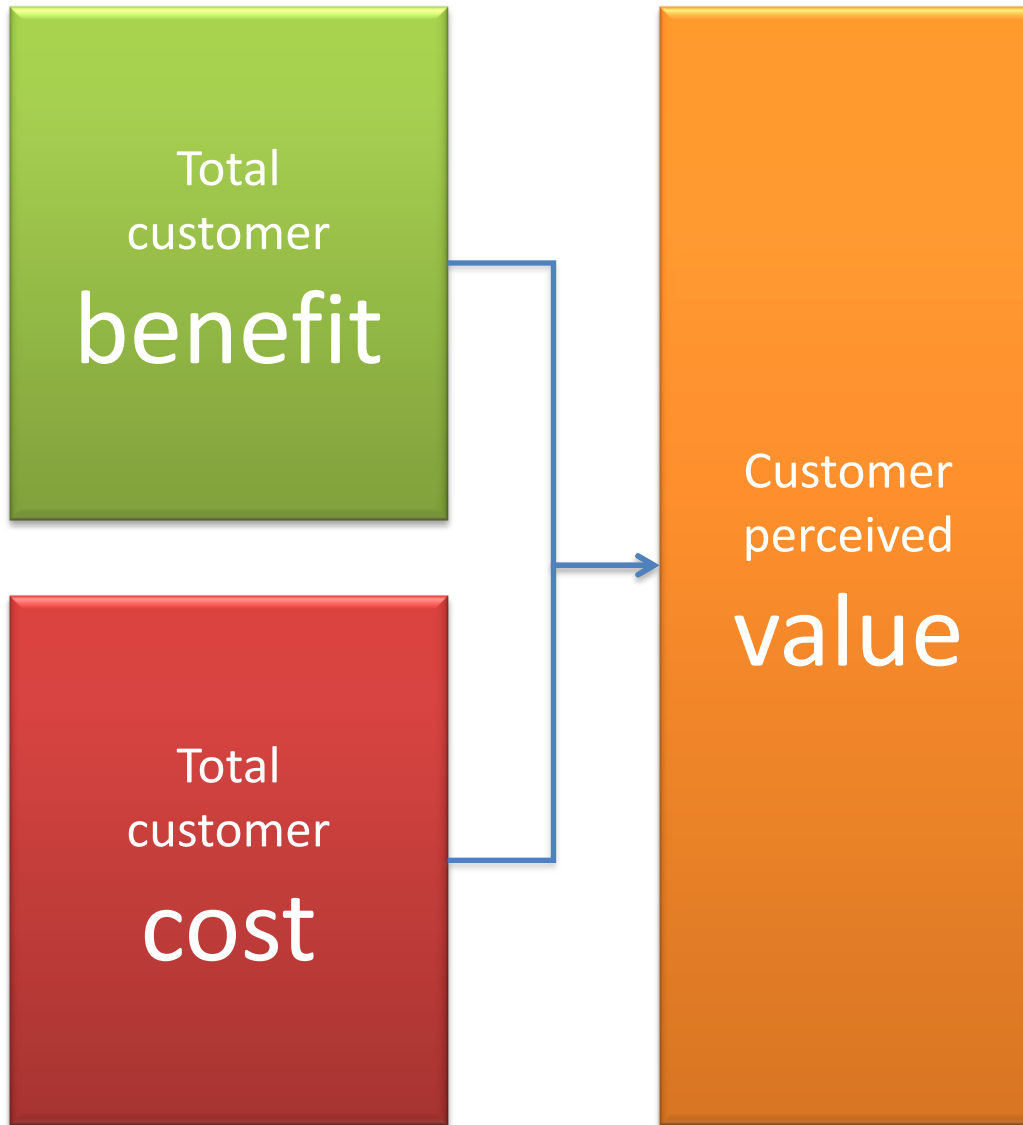
Customer Value Triad

Quality, Service, and Price (qsp)

Quality
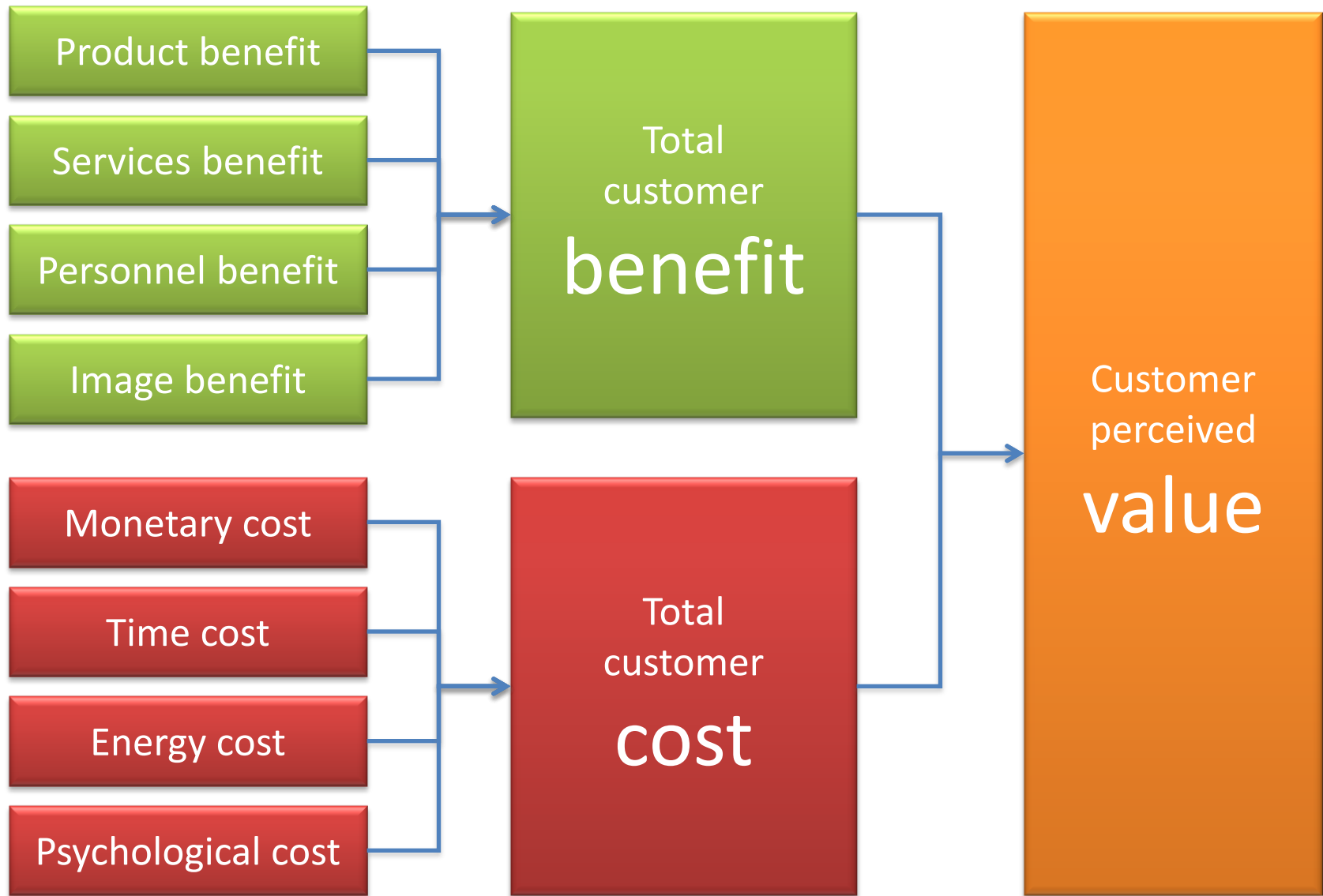
Service

Price

Value and Satisfaction

- Marketing
  - identification, creation, communication, delivery, and monitoring of customer value.

- Satisfaction
  - a person's judgment of a product's perceived performance in relationship to expectations

Building **Customer Value**, Satisfaction, and Loyalty

Customer Perceived Value

Product benefit	
Services benefit	
Personnel benefit	→ Total customer **benefit**
Image benefit	

Monetary cost	
Time cost	
Energy cost	→ Total customer **cost**
Psychological cost	

→ Customer perceived **value**

# Satisfaction

"a person's feelings of pleasure or disappointment that result from comparing a product's perceived performance (or outcome) to expectations"

Loyalty

**"a deeply held commitment to
rebuy or repatronize
a preferred product or service
in the future
despite situational influences and
marketing efforts having the
potential to cause switching
behavior."**

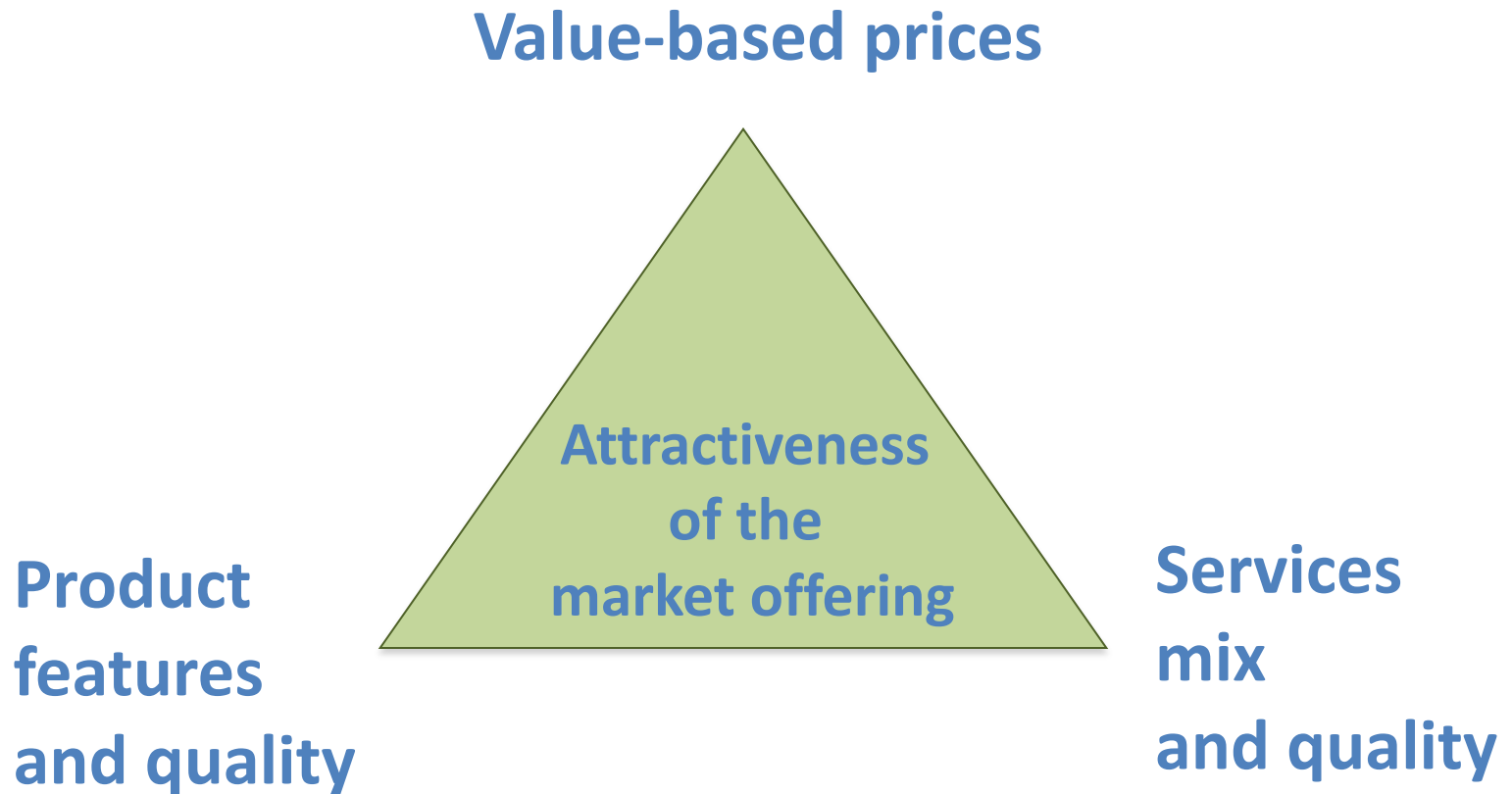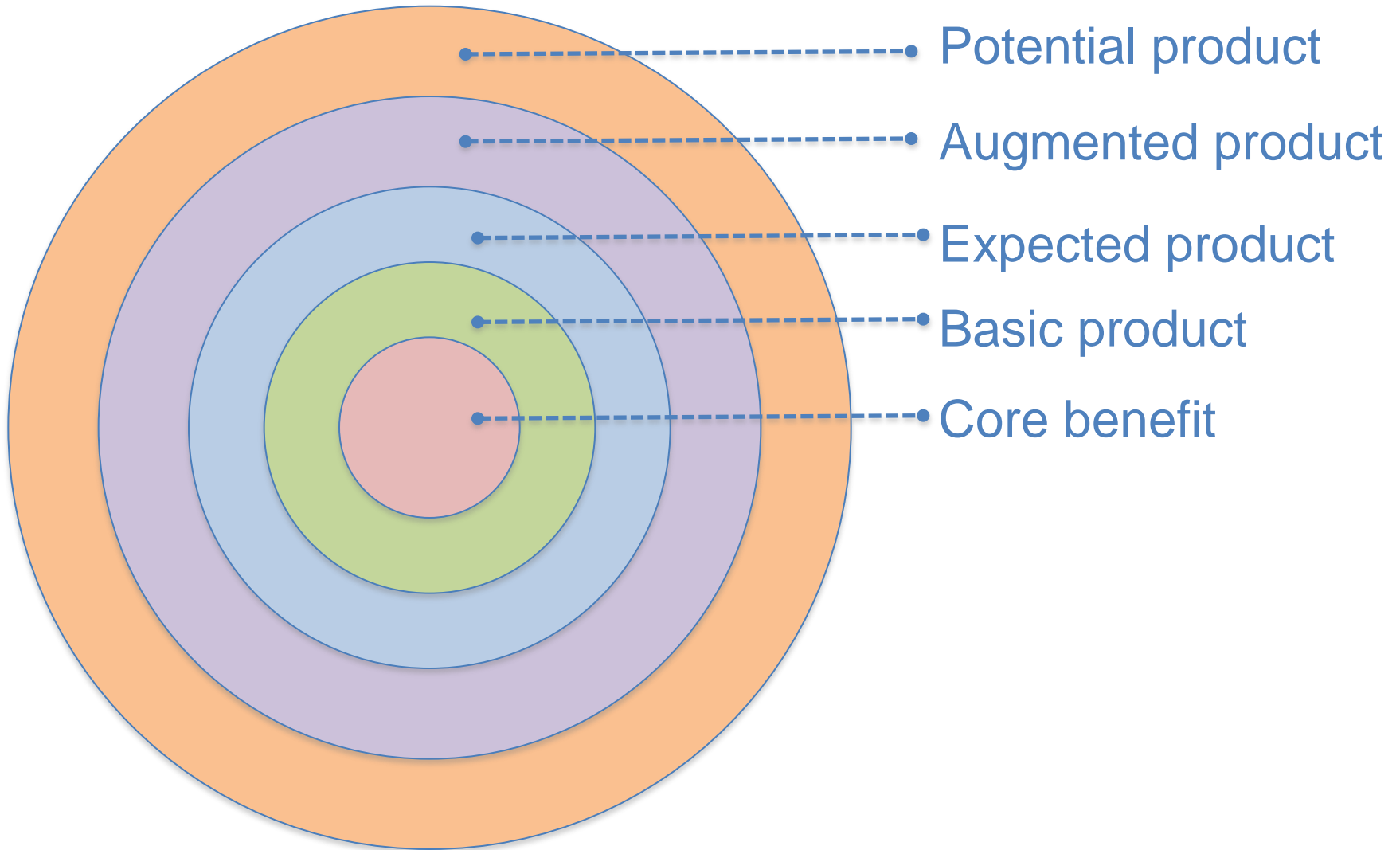# Customer Perceived Value, Customer Satisfaction, and Loyalty
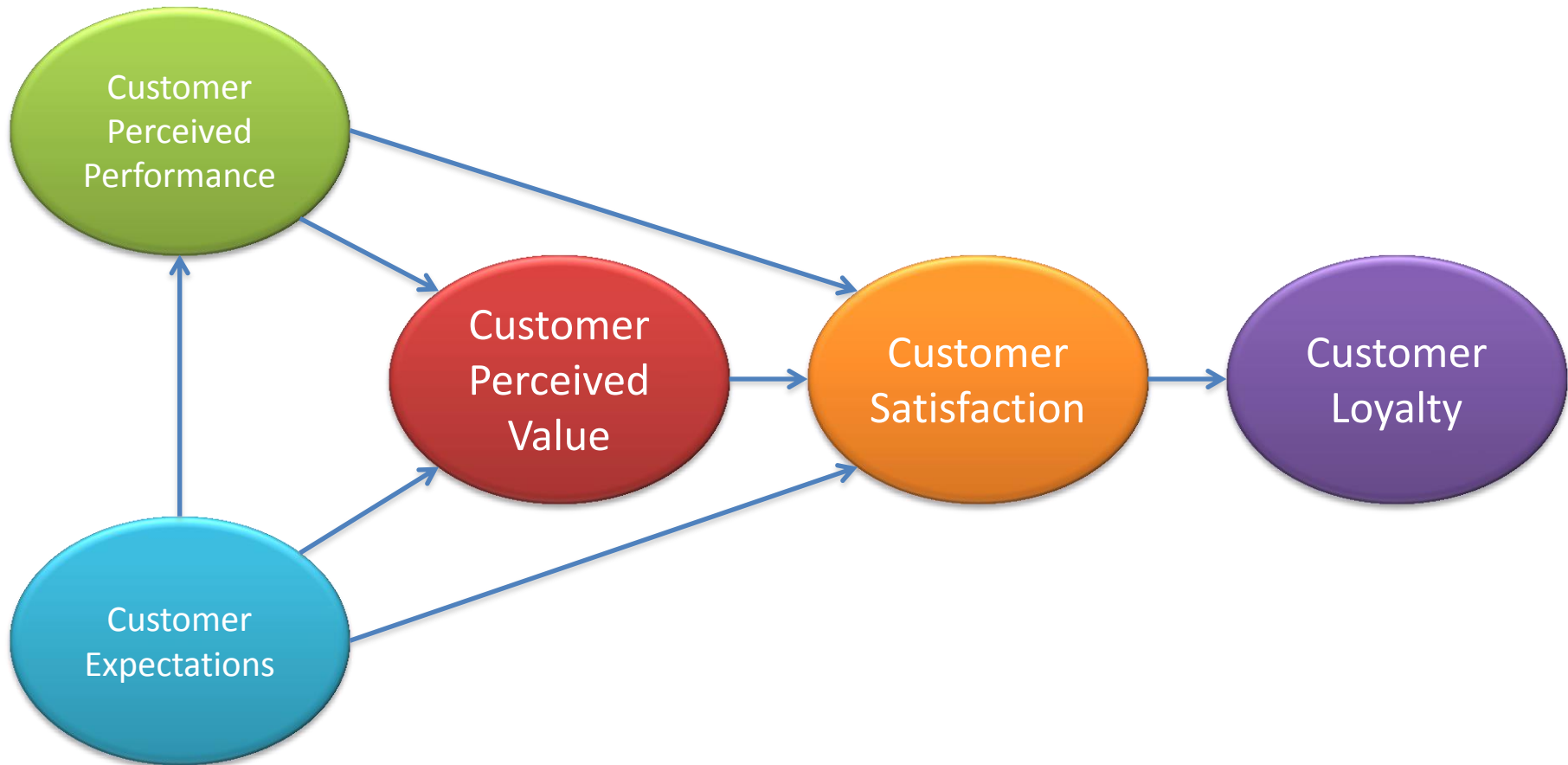
Customer Value Analysis

1. Identify the major attributes and benefits customers value

2. Assess the quantitative importance of the different attributes and benefits

3. Assess the company's and competitors' performances on the different customer values against their rated importance

4. Examine how customers in a specific segment rate the company's performance against a specific major competitor on an individual attribute or benefit basis

5. Monitor customer values over time

Components of the Marketing Offering

Value-based prices

Product features and quality

Attractiveness of the market offering

Services mix and quality

Product Levels:
The Customer-Value Hierarchy

- Potential product
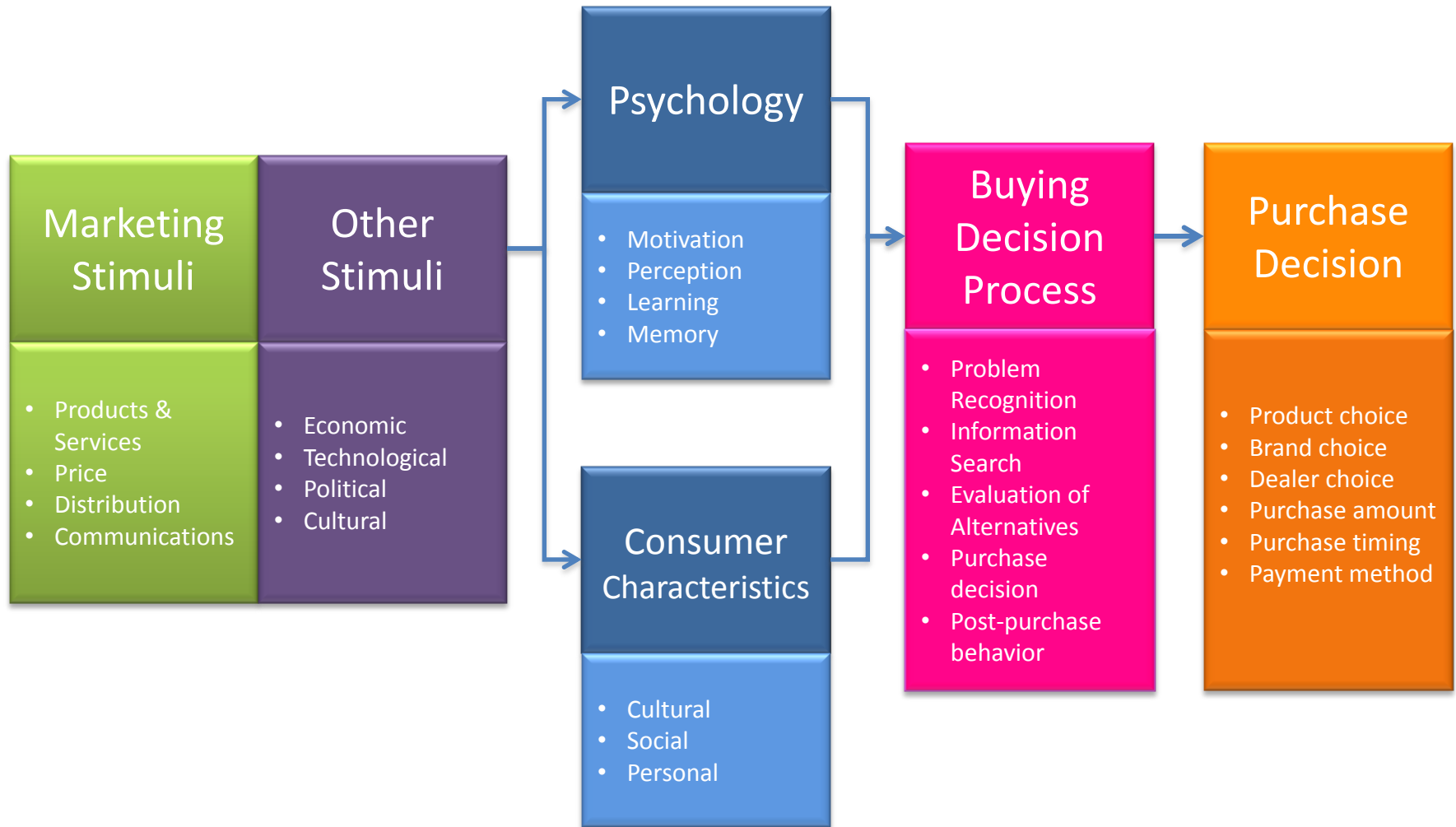- Augmented product
- Expected product
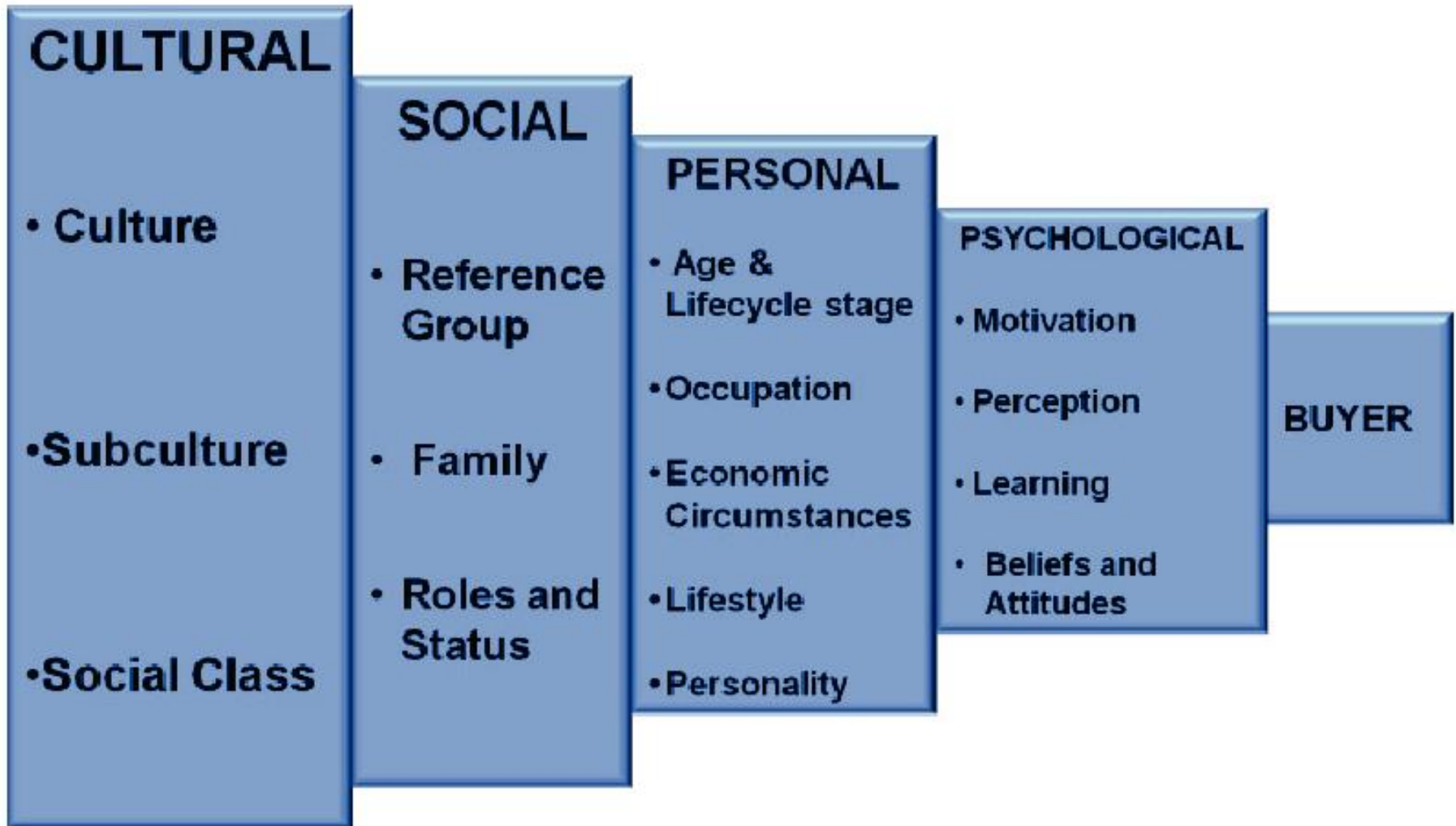- Basic product
- Core benefit

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Analyzing Consumer Markets

- The aim of marketing is to meet and satisfy target customers' needs and wants better than competitors.

- Marketers must have a thorough understanding of
  how consumers think, feel, and act
  and offer clear value to each and every target consumer.

How consumers
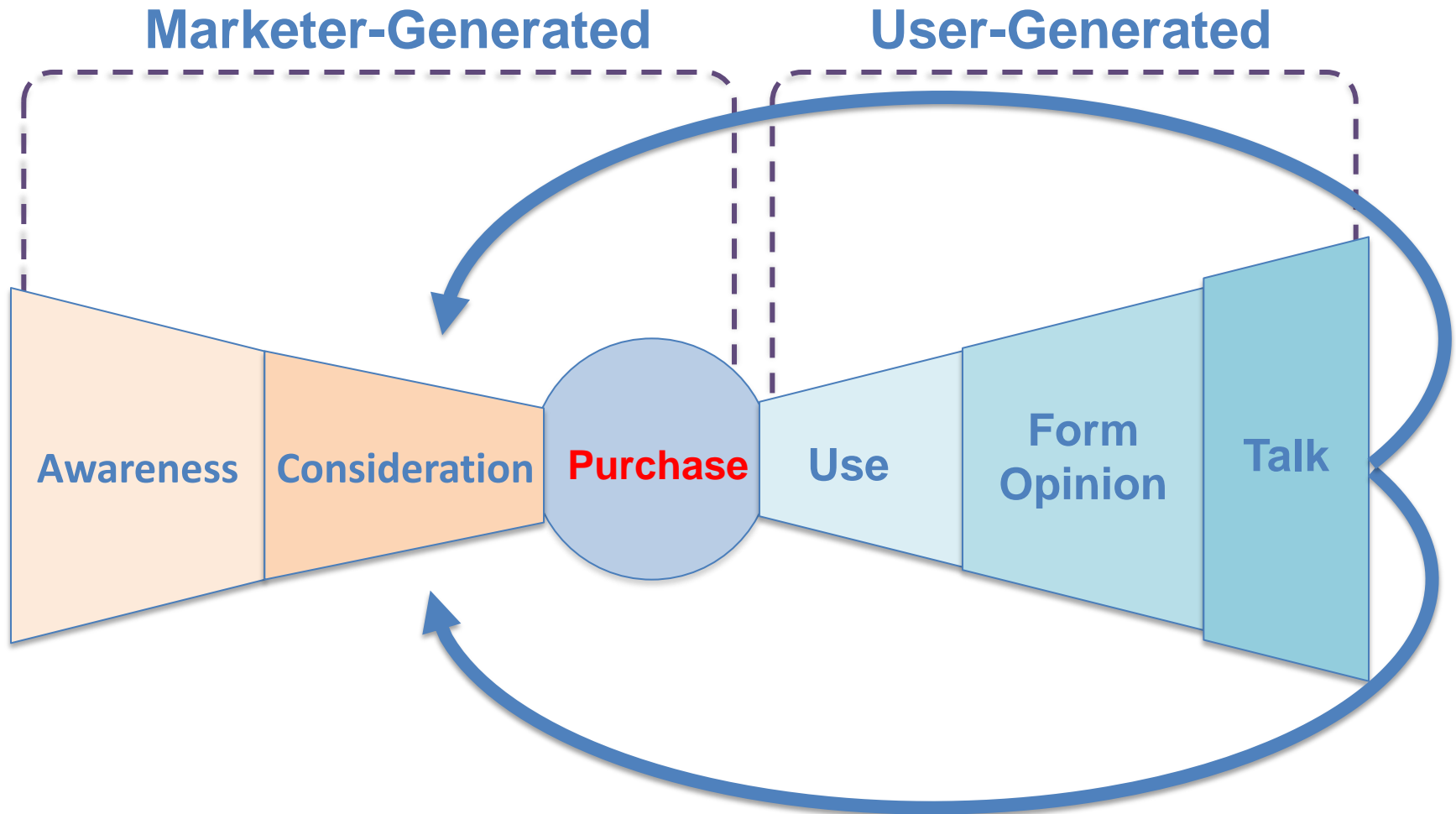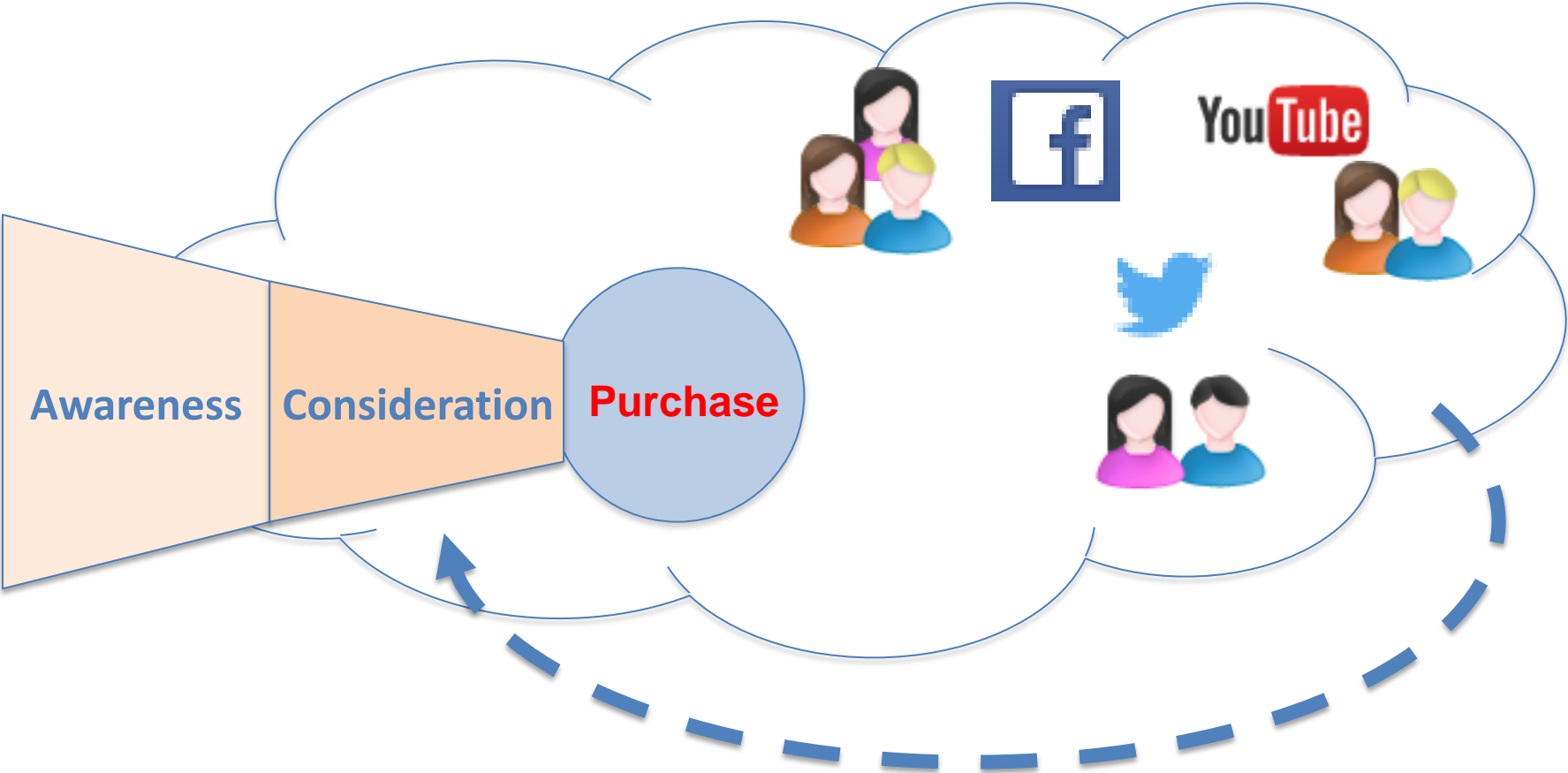# think, feel, and act

Model of Consumer Behavior

Marketing Stimuli
- Products & Services
- Price
- Distribution
- Communications

Other Stimuli
- Economic
- Technological
- Political
- Cultural

Psychology
- Motivation
- Perception
- Learning
- Memory

Consumer Characteristics
- Cultural
- Social
- Personal

Buying Decision Process
- Problem Recognition
- Information Search
- Evaluation of Alternatives
- Purchase decision
- Post-purchase behavior

Purchase Decision
- Product choice
- Brand choice
- Dealer choice
- Purchase amount
- Purchase timing
- Payment method

Factors Affecting Consumer Behavior

CULTURAL
- Culture
- Subculture
- Social Class

SOCIAL
- Reference Group
- Family
- Roles and Status

PERSONAL
- Age & Lifecycle stage
- Occupation
- Economic Circumstances
- Lifestyle
- Personality

PSYCHOLOGICAL
- Motivation
- Perception
- Learning
- Beliefs and Attitudes

BUYER

The Social Feedback Cycle
Consumer Behavior on Social Media

Marketer-Generated · User-Generated · Awareness · Consideration · Purchase · Use · Form Opinion · Talk

The New Customer Influence Path

Structured Engagement
Engagement Process on Social Media

Engagement

Consumption

Curation

Creation

Collaboration

Source: Evans et al. (2010), Social Media Marketing: The Next Generation of Business Engagement

50
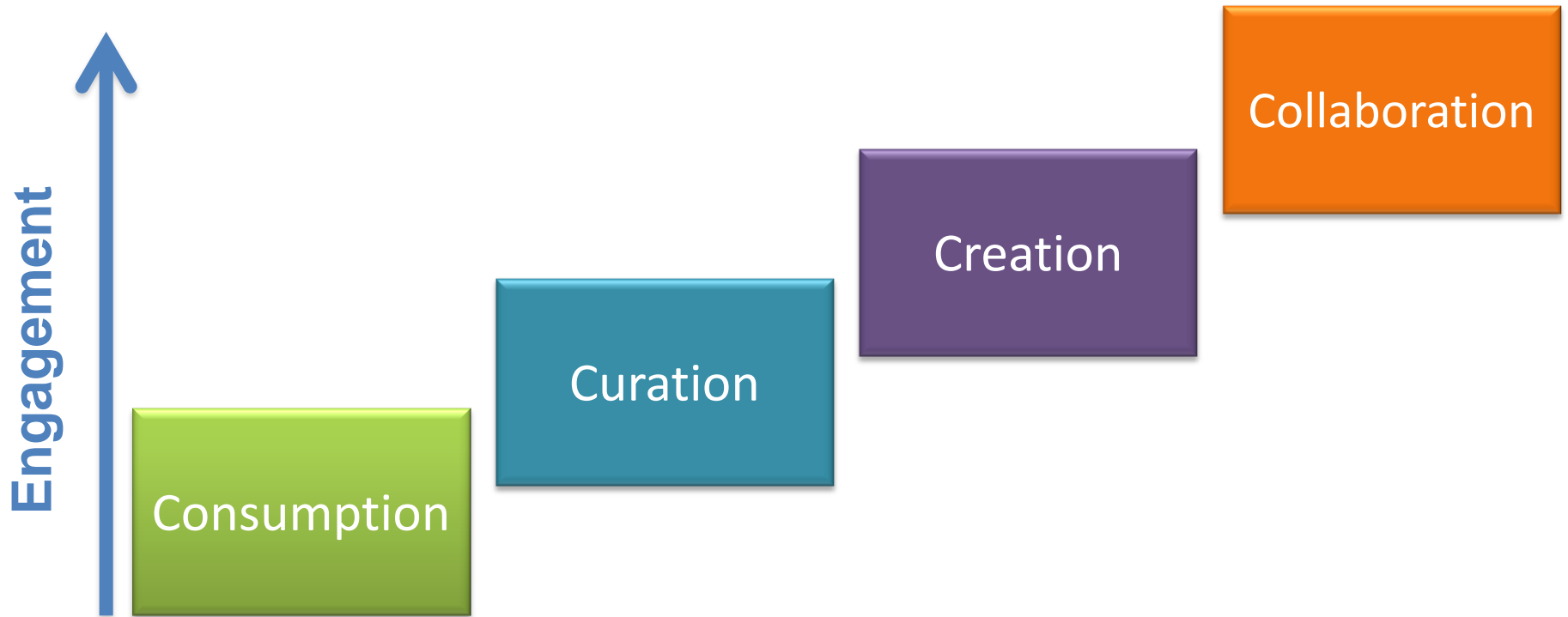
Nothing is so **practical** as a good **theory**

Theory

- a set of propositions or
  an abstract conceptualization of the
  relationship between entities.

Purpose of theory

- increase scientific understanding through a systematized structure capable of both explaining and predicting phenomena (Hunt, 1991)

Theory

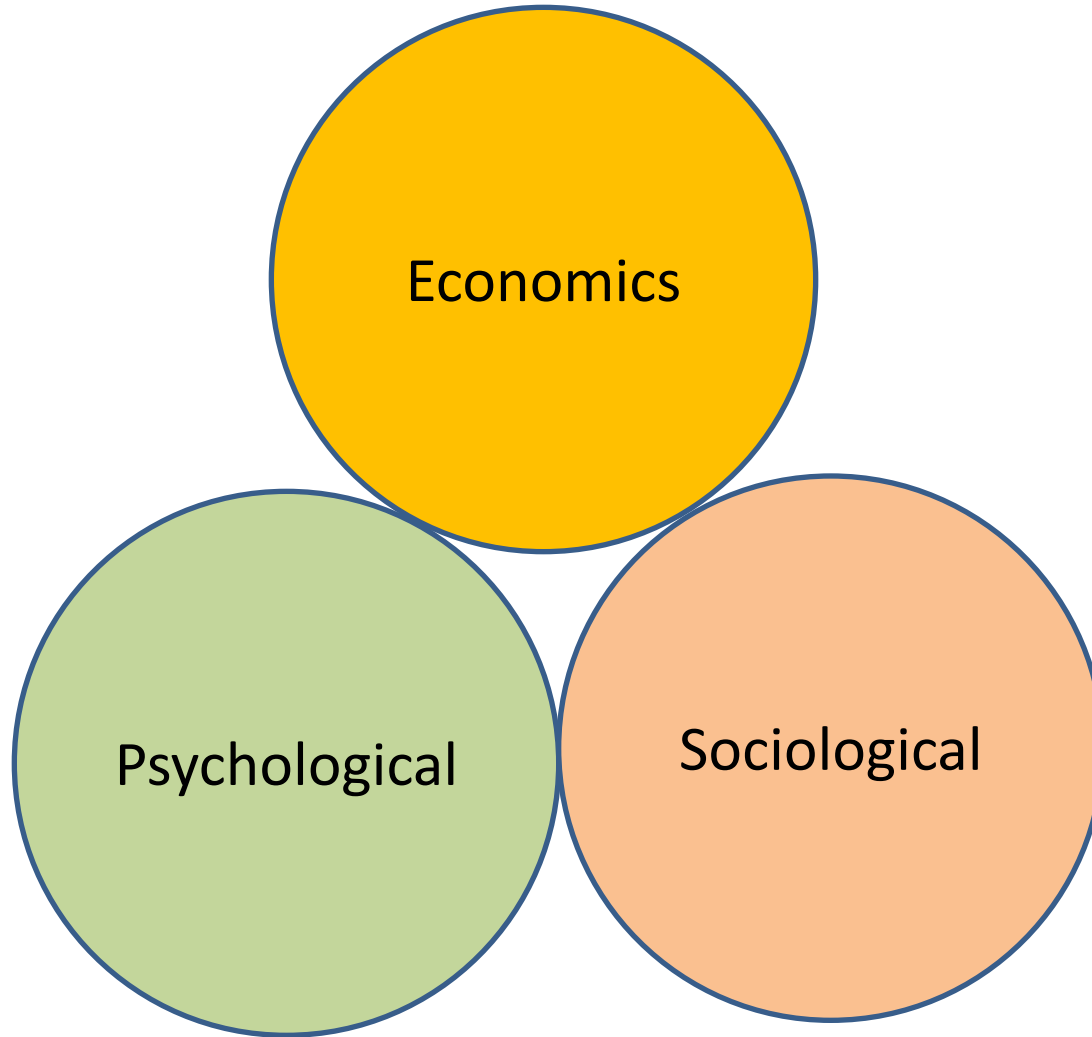- a statement of relations among concepts within a set of boundary assumptions and constraints (Bacharach, 1989)

Marketing

**Identifying
and
meeting
human and social needs**

Basis of Marketing Theory

Disciplinary Underpinnings of Marketing Theory

- The economics basis of marketing
- The psychological basis of marketing
- The sociological basis of marketing
- Cultural aspects of marketing

Psychological foundations of marketing

- Motivation

- Perception

- Decision making

- Attitudes

- Persuasion

Psychological Constructs and Some Associated Marketing Areas

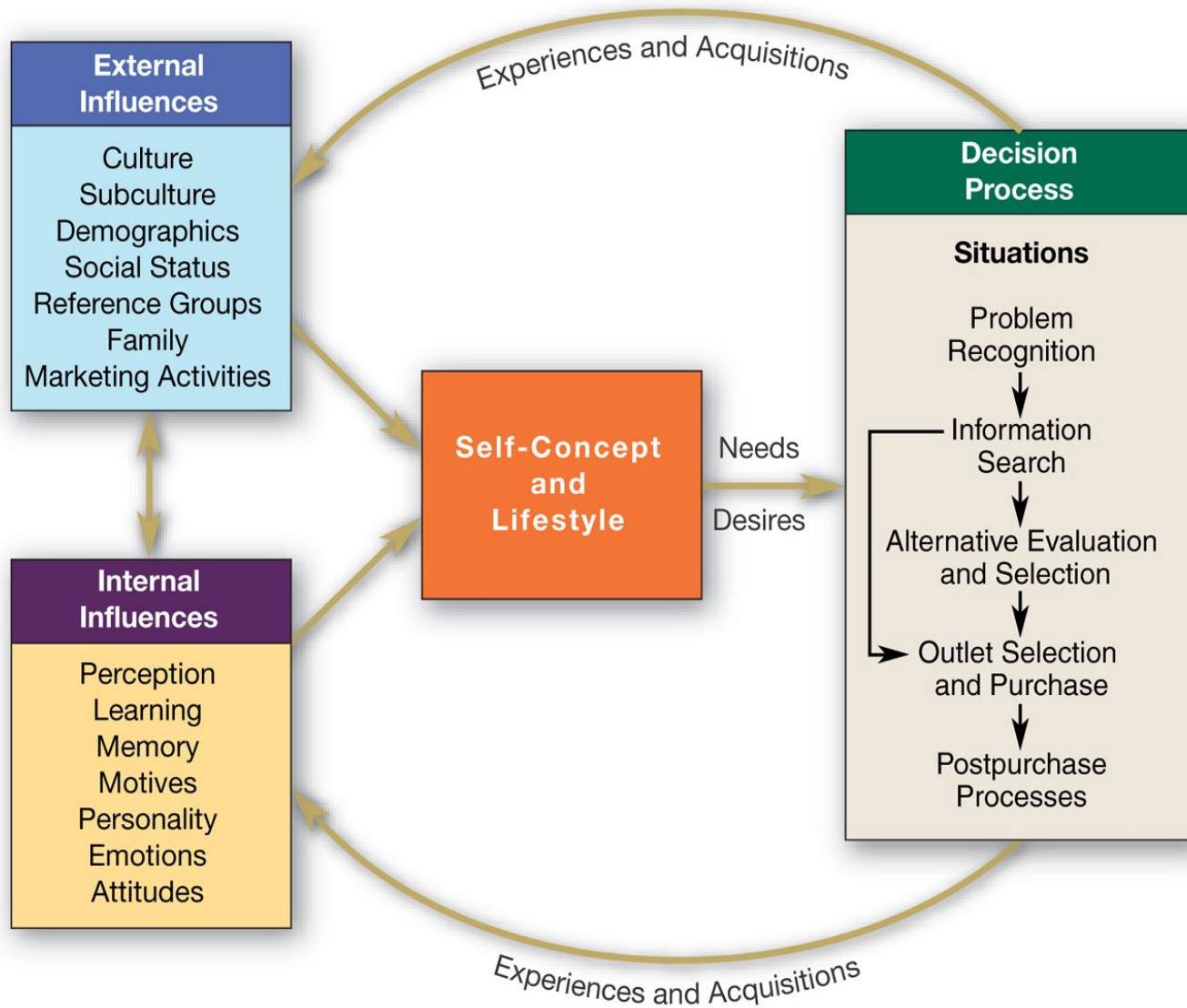| Psychological Construct	Marketing areas
Learning	Brand recall, loyalty
Motivation	Consumer needs, choice conflicts
Perception	Product packaging, advertising content
Decision making	Brand selection, consumer involvement, post-purchase evaluation
Attitudes	Customer satisfaction, trust, ad influence
Personality	Consumer segmentation, materialism, addictions

Motivation

- both physiological needs (e.g. hunger, thirst, pain avoidance, security, maintenance of body temperature)
and psychogenic needs (e.g. achievement, affiliation, status, approval, power)
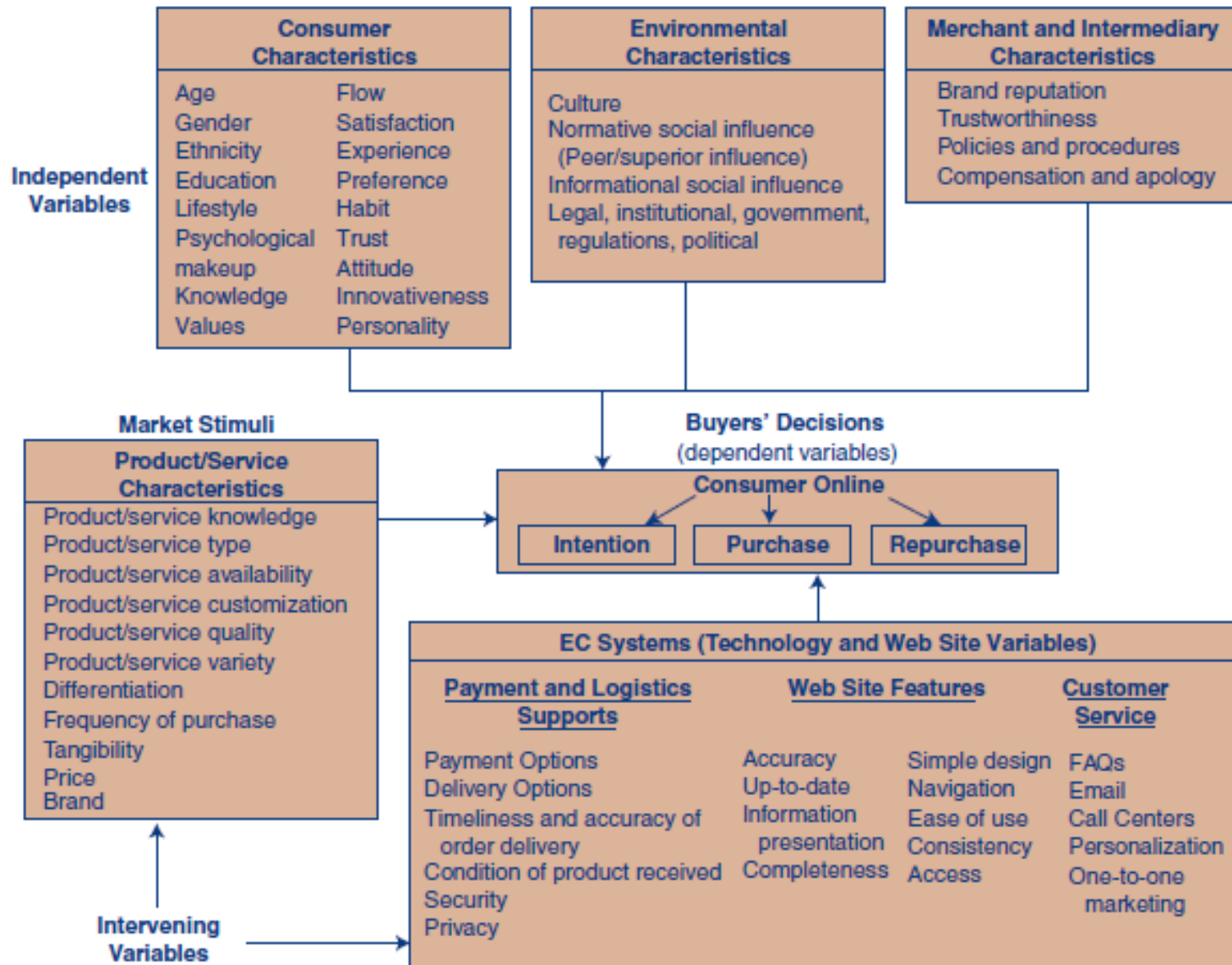motivate consumer behaviour

Motivation and Psychological Needs

- the waste of money and/or resources by people to display a higher status than others' is clearly linked to the psychological ego-related needs for status, approval and self-confidence, although it may be influenced in part by extrinsic factors, such as social norms and cultural values

Overall Model of Consumer Behavior

EC Consumer Behavior Model

Consumer Characteristics

Independent Variables

Age	Flow
Gender	Satisfaction
Ethnicity	Experience
Education	Preference
Lifestyle	Habit
Psychological makeup	Trust
Knowledge	Attitude
Values	Innovativeness
	Personality

Environmental Characteristics

Culture
Normative social influence (Peer/superior influence)
Informational social influence
Legal, institutional, government, regulations, political

Merchant and Intermediary Characteristics

Brand reputation
Trustworthiness
Policies and procedures
Compensation and apology

Market Stimuli

Product/Service Characteristics

Product/service knowledge
Product/service type
Product/service availability
Product/service customization
Product/service quality
Product/service variety
Differentiation
Frequency of purchase
Tangibility
Price
Brand

Buyers' Decisions (dependent variables)

Consumer Online

Intention	Purchase	Repurchase

EC Systems (Technology and Web Site Variables)

Payment and Logistics Supports

Payment Options
Delivery Options
Timeliness and accuracy of order delivery
Condition of product received
Security
Privacy

Web Site Features

Accuracy
Up-to-date Information presentation
Completeness

Simple design
Navigation
Ease of use
Consistency
Access

Customer Service

FAQs
Email
Call Centers
Personalization
One-to-one marketing

Intervening Variables

Customer Satisfaction in EC

Information Quality

Accuracy of Content
Up-to-Date Content
Information Presentation
(Visual representation of products)
Completeness of Content
(Detailed description of products)

System Quality

Privacy and Security
Simple Design
Ease of Navigation
Ease of Use
Consistency of Web Site

Service Quality

Flexibility (Billing and Delivery Option)
Timeliness of Order Delivery
Accuracy of Order Delivery
Condition of Products Received
Responsiveness
Fairness of Policies and Procedures
Empathy (Compensation and Apologies)

Consumer Satisfaction with an Internet Store

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TRUST IN EC

- **Trust**

  The psychological status of willingness to depend on another person or organization.

Source: Turban et al. (2010), Introduction to Electronic Commerce, 3rd edition, Pearson

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EC Trust Models

Trustworthiness of Internet Merchant
- Competency
- Benevolence
- Integrity
- Security Control
- Privacy Control

Trust Certificates and Seals
Vendor Evaluation (BBBOnline)
Product Evaluation
Consumer Endorsement
Co-Branding
Alliances/Affiliates
Web Site Design
Return Policy
Privacy Statement
Free Samples
Education Efforts by Vendor
(The use of security, size, and financial resources)
Simplicity of Shopping
Recommendation Agent
Avatar

Trust in Internet Merchant

Trustworthiness of Shopping Channel
- Reliability
- Understandability
- Security and Privacy
- Payment and Logistics

Trust in Internet as Shopping Channel

EC Trust

Structural Assurance
- Business Culture
- Consumer Protection
- Effective Law

Trust in Business and Regulatory Environments

Demographics, Previous Experience, Personality, Cultural Difference

Copyright ©2011 Pearson Education, publishing as Prentice Hall

Theories used in IS research

88 Theories

Larsen, K. R., Allen, G., Vance, A., Eargle, D. (Eds.) (2015). Theories Used in IS Research Wiki. http://IS.TheorizeIt.org

88 Theories used in IS research

1. Absorptive capacity theory

2. Actor network theory

3. Adaptive structuration theory

4. Administrative behavior, theory of

5. Agency theory

6. Argumentation theory

7. Behavioral decision theory

8. Boundary object theory

9. Chaos theory

10. Cognitive dissonance theory

Source: Larsen, K. R., Allen, G., Vance, A., Eargle, D. (Eds.) (2015). Theories Used in IS Research Wiki. http://IS.TheorizeIt.org

88 Theories used in IS research

11. Cognitive fit theory
12. Cognitive load theory
13. Competitive strategy (Porter)
14. Complexity theory
15. Contingency theory
16. Critical realism theory
17. Critical social theory
18. Critical success factors, theory of
19. Customer Focus Theory
20. Deferred action, theory of

88 Theories used in IS research

31. Flow theory

32. Game theory

33. Garbage can theory

34. General systems theory

35. General deterrence theory

36. Hermeneutics

37. Illusion of control

38. Impression management, theory of

39. Information processing theory

40. Institutional theory

88 Theories used in IS research

41. International information systems theory

42. Keller's Motivational Model

43. Knowledge-based theory of the firm

44. Language action perspective

45. Lemon Market Theory

46. Management fashion theory

47. Media richness theory

48. Media synchronicity theory

49. Modal aspects, theory of

50. Multi-attribute utility theory

88 Theories used in IS research

51. Organizational culture theory

52. Organizational information processing theory

53. Organizational knowledge creation

54. Organizational learning theory

55. Portfolio theory

56. Process virtualization theory

57. Prospect theory

58. Punctuated equilibrium theory

59. Real options theory

60. Resource-based view of the firm

88 Theories used in IS research

61. Resource dependency theory

62. Self-efficacy theory

63. SERVQUAL

64. Social capital theory

65. Social cognitive theory

66. Social exchange theory

67. Social learning theory

68. Social network theory

69. Social shaping of technology

70. Socio-technical theory

88 Theories used in IS research

71. Soft systems theory

72. Stakeholder theory

73. Structuration theory

74. Task closure theory

75. Task-technology fit

76. Technological frames of reference

77. Technology acceptance model

78. Technology dominance, theory of

79. Technology-organization-environment framework

80. Theory of collective action

Source: Larsen, K. R., Allen, G., Vance, A., Eargle, D. (Eds.) (2015). Theories Used in IS Research Wiki. http://IS.TheorizeIt.org

88 Theories used in IS research

81. Theory of planned behavior
82. Theory of reasoned action
83. Transaction cost economics
84. Transactive memory theory
85. Unified theory of acceptance and use of technology
86. Usage control model
87. Work systems theory
88. Yield shift theory of satisfaction

Top 10 IS Theories 2014

1. Institutional theory (9.4%)
2. Social network theory (6.7%)
3. Contingency theory (6.6%)
4. Organizational culture theory (5.8%)
5. Transaction cost economics (5.6%)
6. DeLone and McLean IS success model (5.1%)
7. Technology acceptance model (5.1%)
8. Socio-technical theory (4.8%)
9. Garbage can theory (4.0%)
10. Diffusion of innovations theory (3.7%)

Social Media Services and Information Systems

- Social Media Services (SMS)

- Information Systems (IS)

- Computer Mediated Communication (CMC)

Theories of Information Systems

- Theory of Reasoned Action (TRA)

- Technology Acceptance Model (TAM)

- Theory of Planned Behavior (TPB)

- Unified Theory of Acceptance and Use of Technology (UTAUT)

- Integration of User Satisfaction and Technology Acceptance (IUSTA)

TRA (1975)
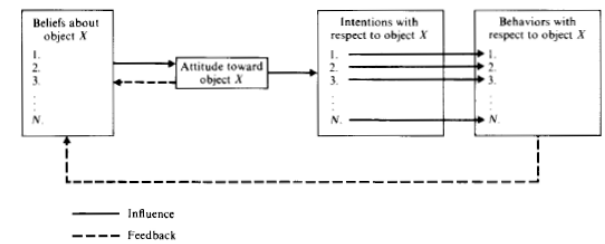
Fig. 1.1 Schematic presentation of conceptual framework relating beliefs, attitudes, intentions, and behaviors with respect to a given object.
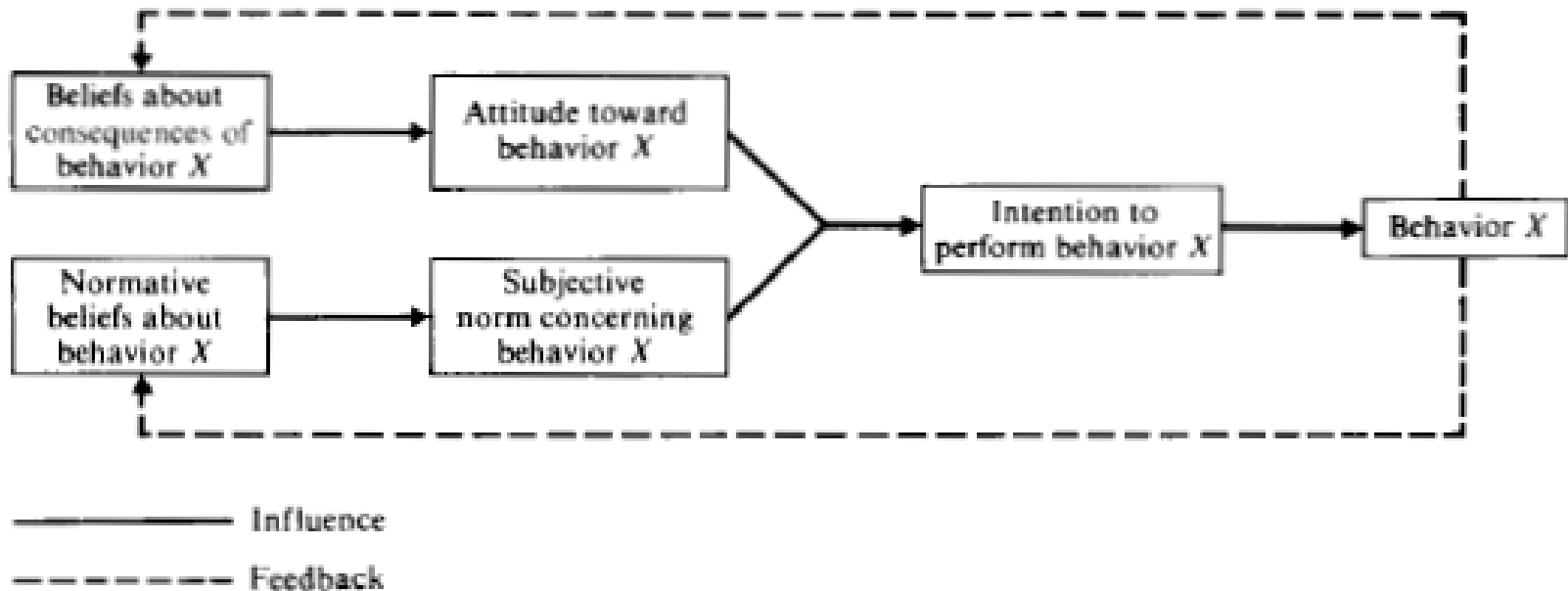
——————— Influence

— — — — — Feedback

Fig. 1.2 Schematic presentation of conceptual framework for the prediction of specific intentions and behaviors.

Fishbein, M., & Ajzen, I. (1975). Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research. Reading, MA: Addison-Wesley.

TRA (1989)
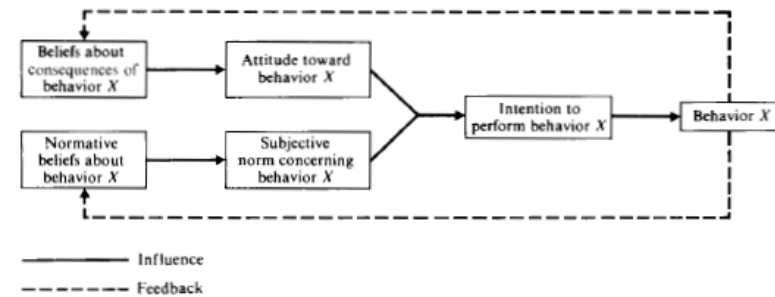
Fig. 1.2 Schematic presentation of conceptual framework for the prediction of specific intentions and behaviors.

FIGURE 1. Theory of Reasoned Action (TRA).

Davis,F.D.,R.P.Bagozzi and P.R.Warshaw,"User acceptance of computer technology : A comparison of two theoretical models ",Management Science,35(8),August 1989,pp.982-1003

TPB (1985)

Beliefs and Evaluations $(\Sigma \; b_i e_i)$ → Attitude Toward Behavior (A)

Normative Beliefs and Motivation to comply $(\Sigma \; nb_i mc_i)$ → Subjective Norm (SN)

Attitude Toward Behavior (A) and Subjective Norm (SN) → Behavioral Intention (BI) → Actual Behavior

FIGURE 1. Theory of Reasoned Action (TRA).

$p_s \; \Sigma \; b_{s_i} e_i \longrightarrow p_s A_s$

$p_f \; \Sigma \; b_{f_i} e_i \longrightarrow p_f A_f$

$\longrightarrow A_t$

$p_r \; \Sigma \; b_i m_i \longrightarrow p_r SN \longrightarrow SN_t$

$\longrightarrow I_t$

b_c

$\longrightarrow BE$

$- \rightarrow B_t$

C

$\longrightarrow B$

Fig. 2.1. Schematic presentation of the theory of planned behavior

Ajzen, I., (1985) "From Intentions to Actions: A Theory of Planned Behavior," in J. Kuhl and J. Beckmann (Eds.) Action Control: From Cognition to behavior, Springer Verlag, New york, 1985, pp.11-39.

TPB (1989)
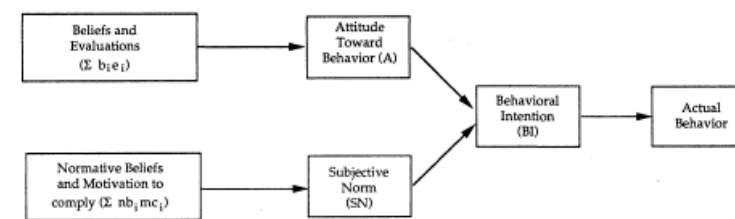
FIGURE 1. Theory of Reasoned Action (TRA).
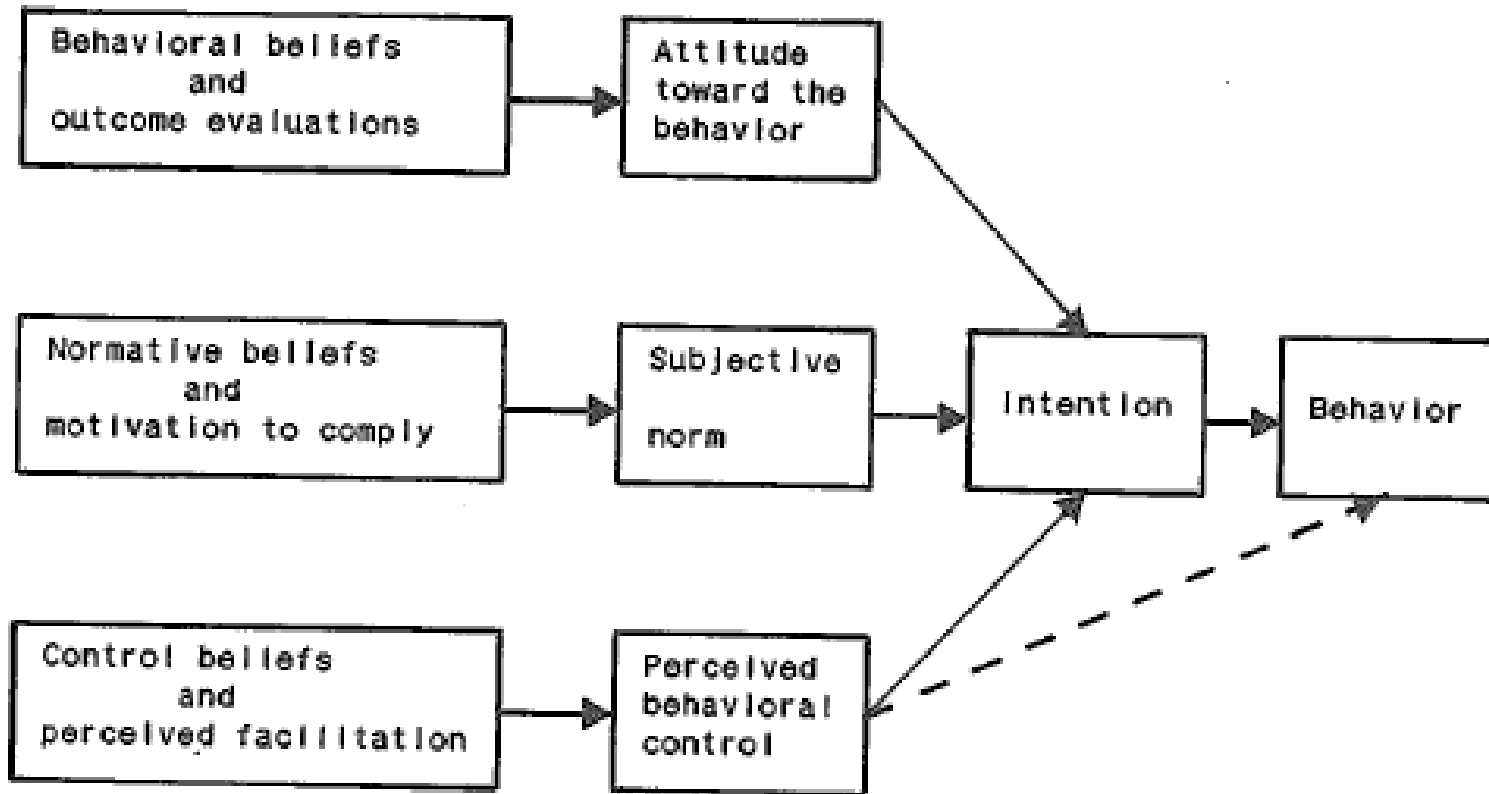
FIG. 10.2. Theory of planned behavior.
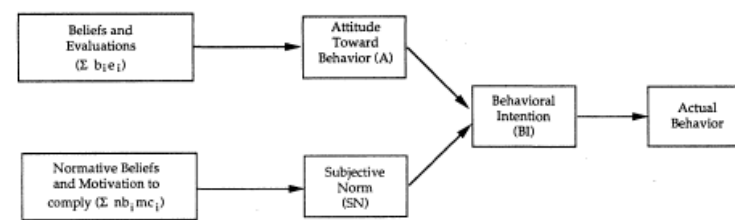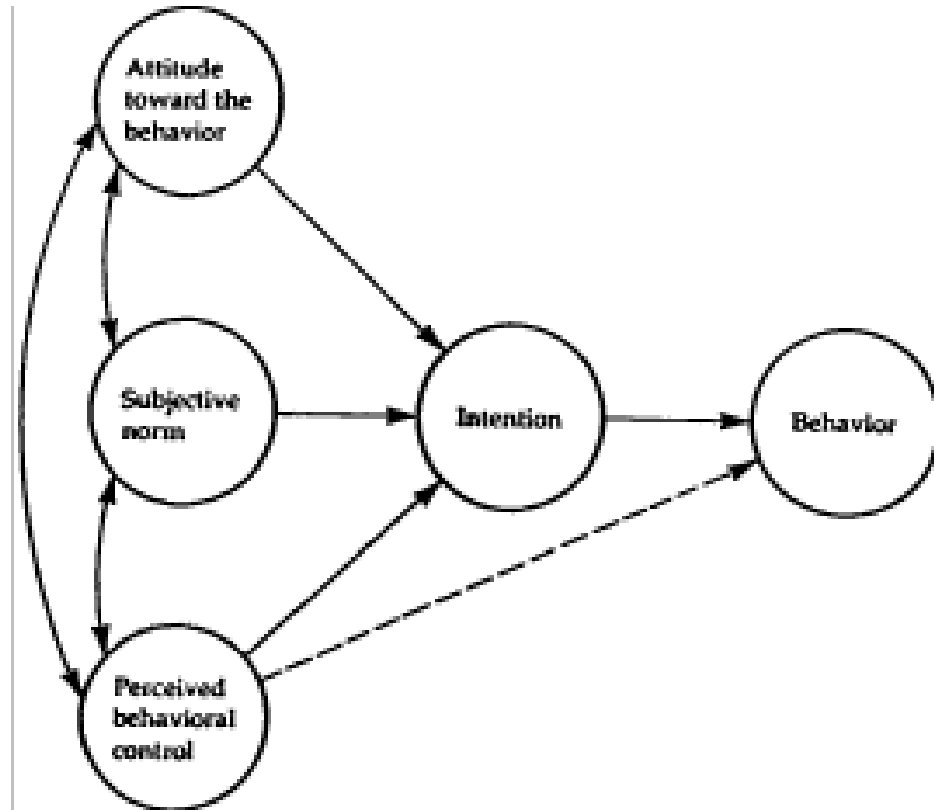
Ajzen, I., (1989) "Attitude Structure and Behavior," in A. R. Pratkanis, S. J. Breckler, and A. G. Greenwald(Eds.), Attitude Structure and Function, Lawrence Erlbaum Associates, Hillsdale, NJ, 1989, pp.241-274.

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TPB (1991)

Beliefs and Evaluations ($\Sigma\, b_i e_i$)

Attitude Toward Behavior (A)

Normative Beliefs and Motivation to comply ($\Sigma\, nb_i mc_i$)

Subjective Norm (SN)

Behavioral Intention (BI)

Actual Behavior

FIGURE 1. Theory of Reasoned Action (TRA).

Attitude toward the behavior

Subjective norm

Perceived behavioral control

Intention

Behavior

FIG. 1. Theory of planned behavior

Ajzen, I. (1991). The theory of planned behavior. Organizational Behavior and Human Decision Processes, 50, 179-211.
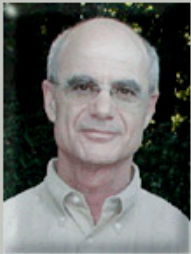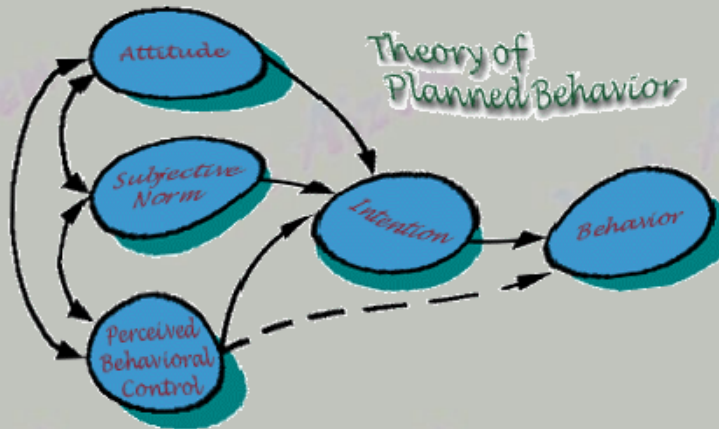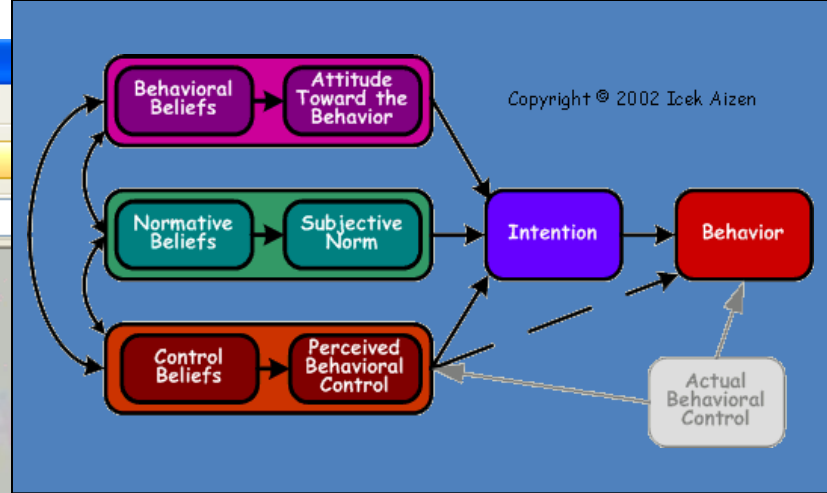
TAM (1989)
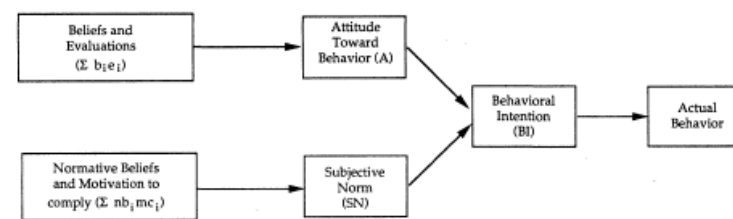
FIGURE 1. Theory of Reasoned Action (TRA).

FIGURE 2. Technology Acceptance Model (TAM).

Davis,F.D.,R.P.Bagozzi and P.R.Warshaw,"User acceptance of computer technology : A comparison of two theoretical models ",Management Science,35(8),August 1989,pp.982-1003
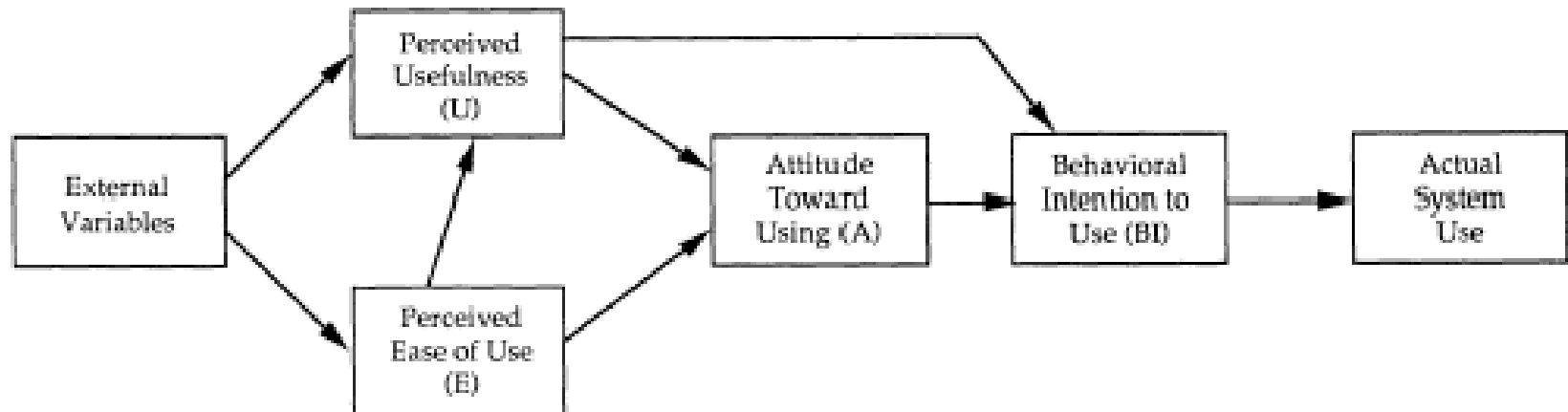
TAM2 (2000)
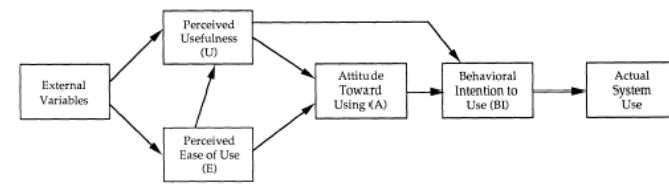
FIGURE 2. Technology Acceptance Model (TAM).

Figure 1   Proposed TAM2—Extension of the Technology Acceptance Model
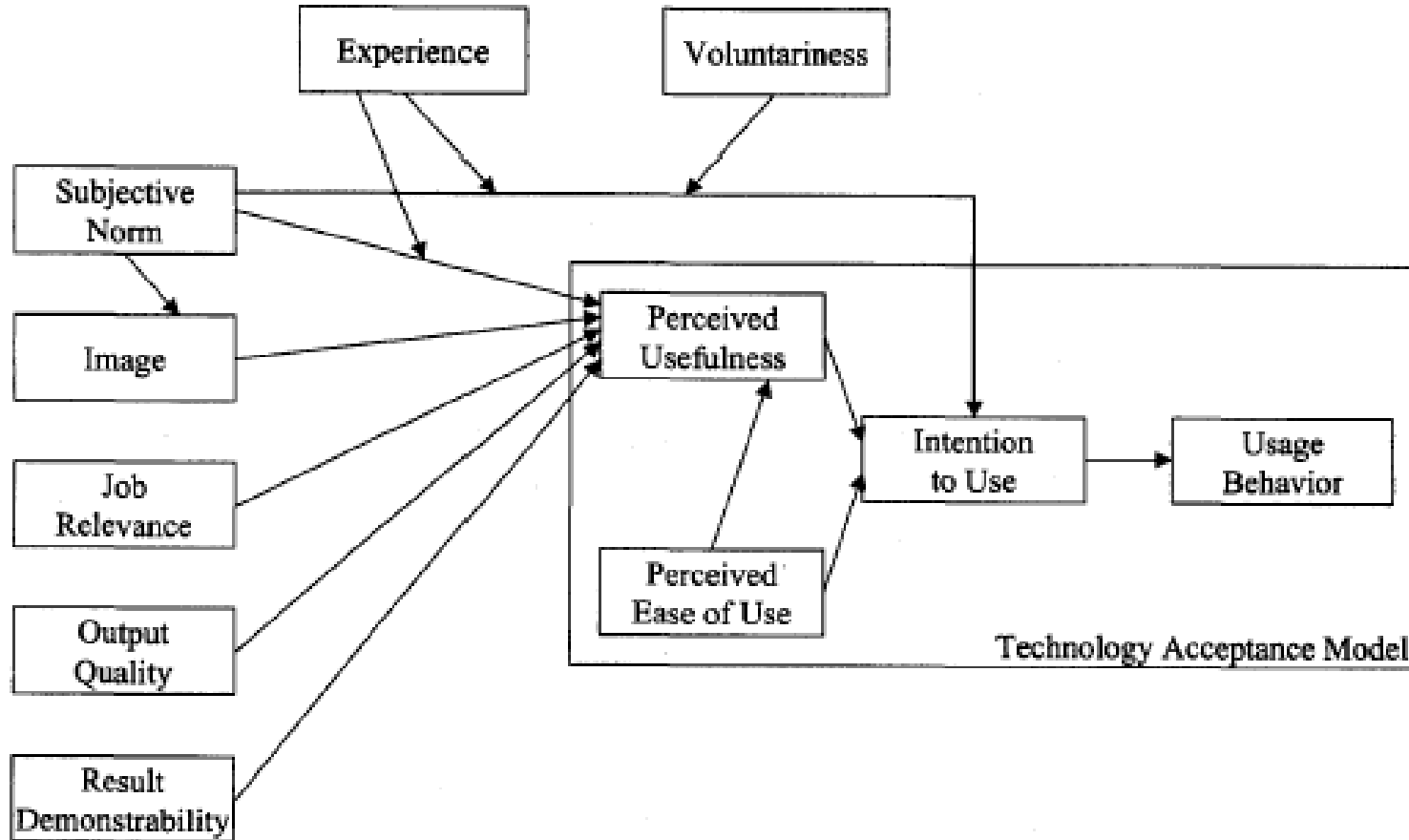
Venkatesh, V., & Davis, F. D. (2000) "A theoretical extension of the technology acceptance model: Four longitudinal field studies", Management Science, 46(2), pp. 186-204.

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UTAUT (2003)
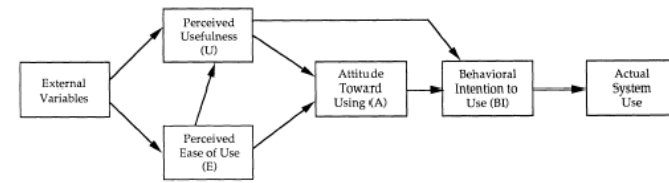
FIGURE 2. Technology Acceptance Model (TAM).

Unified Theory of Acceptance and Use of Technology (UTAUT)

Venkatesh, V., M.G.Morris, G..B.Davis and F.D.Davis (2003), "User Acceptance of Information Technology: Toward A Unified View", MIS Quarterly, 27(3), pp. 425-478.
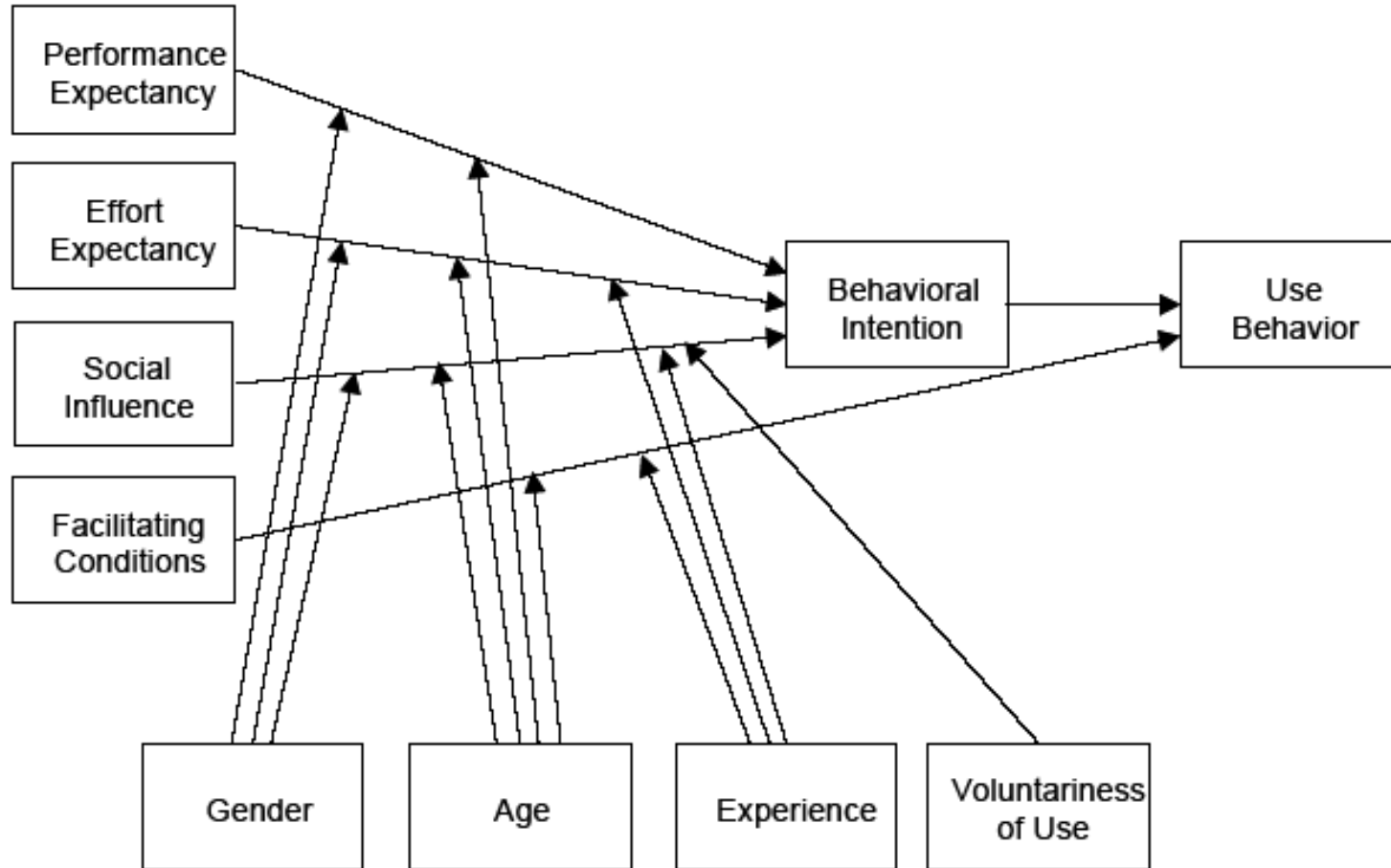
Social Cognitive Theory **(SCT)** (Compeau and Higgins 1995)

Theory of Reasoned Action **(TRA)** (Fishbein and Ajzen 1975)

Technology Acceptance Model **(TAM)** (Davis 1989)

Innovation Diffusion Theory **(IDT)** (Moore and Benbasat 1991)

Unified Theory of Acceptance and Use of Technology **(UTAUT)** (Venkatesh et al. 2003)

Motivation Model **(MM)** (Davis et al. 1992)

Model of PC Utilization **(MPCU)** (Tompson et al. 1991)

Combined TAM and TPB **(C-TAM-TPB)** (Taylor and Todd 1995)

Theory of Planned Behavior **(TPB)** (Ajzen 1991)

US
(User Satisfaction)

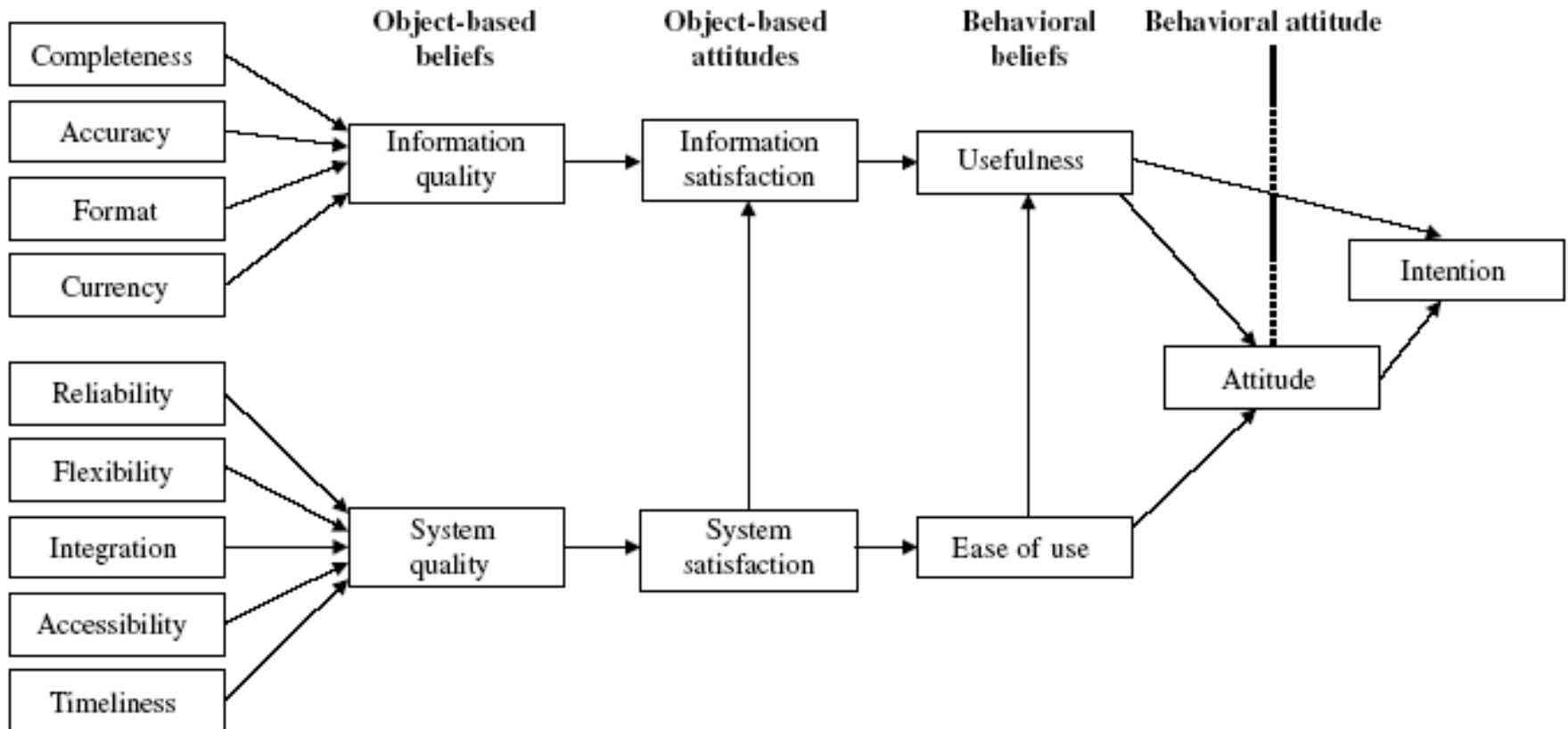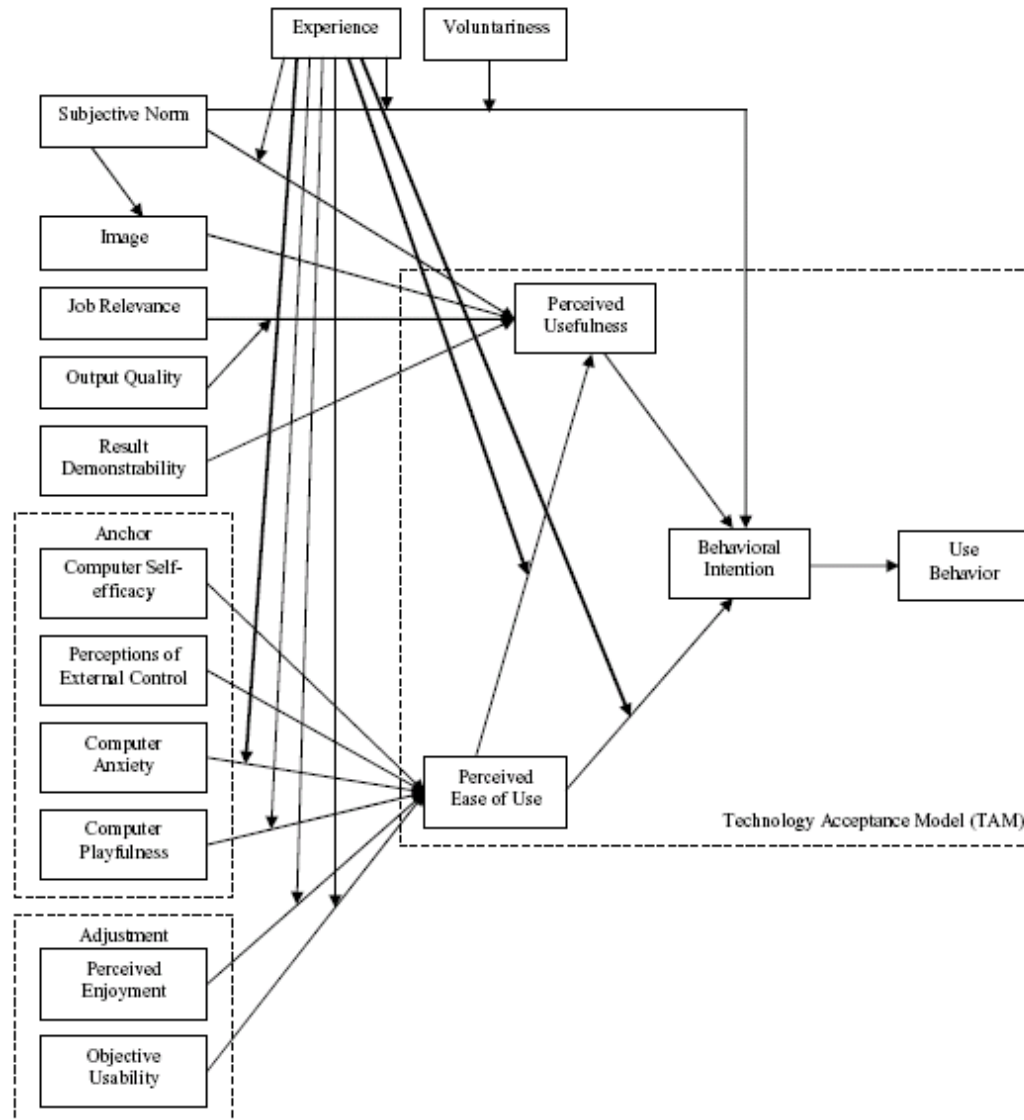Figure 2   The User Satisfaction Research Stream Approach

Wixom, B.H., and Todd, P.A. "A theoretical integration of user satisfaction and technology acceptance," Information Systems Research (16:1), Mar 2005, pp 85-102.
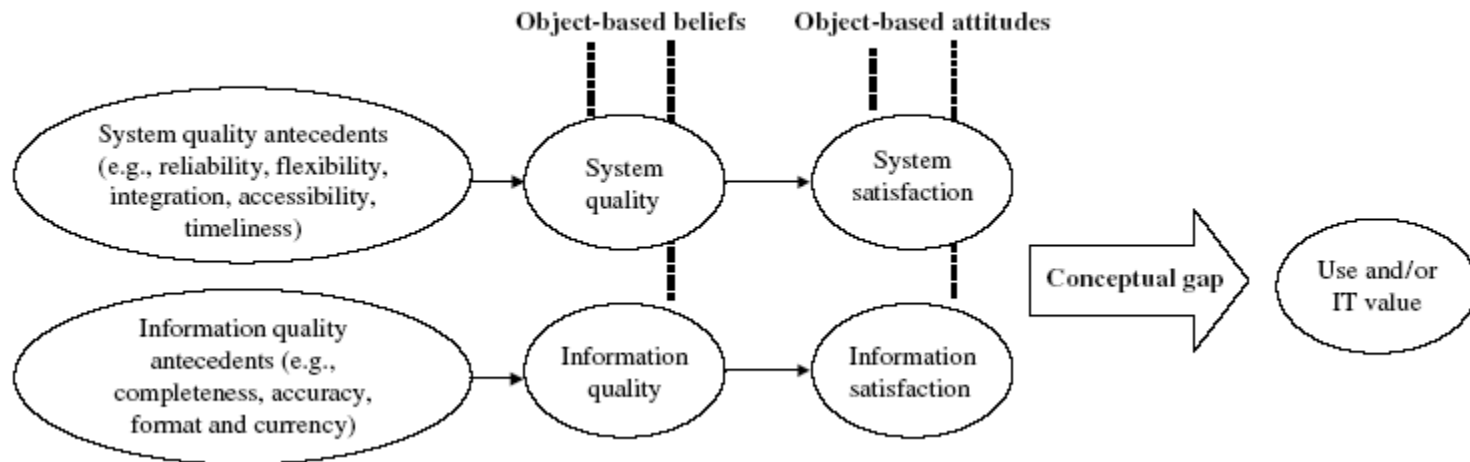
IUSTA (2005)
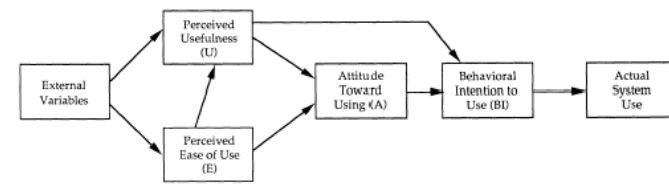
FIGURE 2. Technology Acceptance Model (TAM).

IUSTA (integration of user satisfaction and technology acceptance)

TAM 3
(2008)

ªThick lines indicate new relationships proposed in TAM3.

# Theories of Media and Information

1. Information Theory
2. Innovation diffusion theory
3. Media System Dependency Theory
4. Knowledge Gap Theory
5. Agenda Setting Theory
6. Elements of Agenda Setting Theory
7. Framing Theory
8. Spiral of Silence Theory
9. New Production Research
10. Media Intrusion Theory

Information Theory (1949)
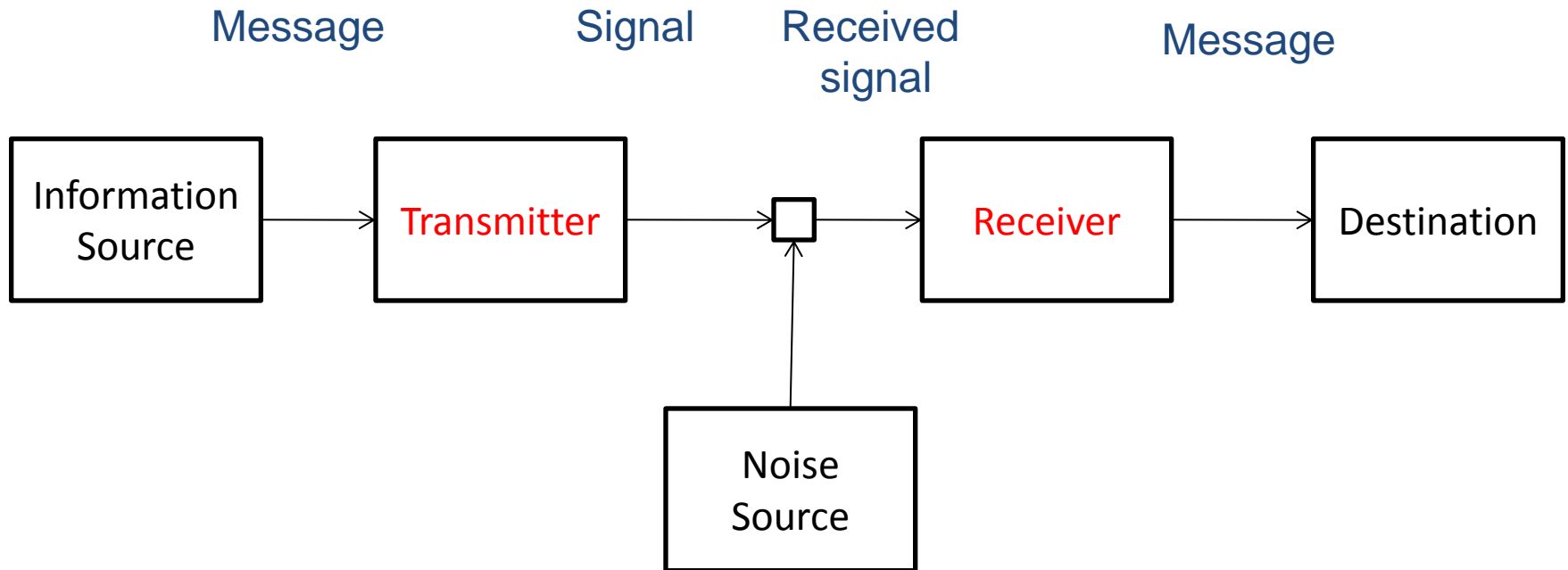
Mathematical (Information) Model of Communication
Source: Shannon & Weaver (1949)

Understanding the Media:
The Extensions of Man
(1964)
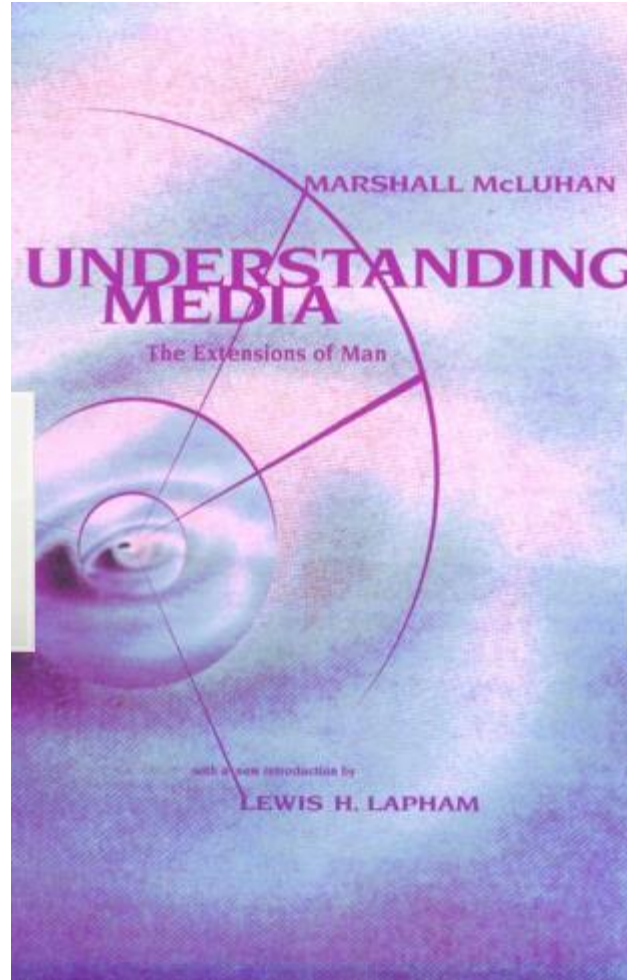
The Medium is the Massage:
An Inventory of Effects
(1967)

- The Medium is the Massage: An Inventory of Effects (1967)
  - by Marshall McLuhan

Theories of Social Media Services

- Media Richness Theory (MRT)
  - (Daft & Lengel, 1986)

- Media Synchronicity Theory (MST)
  - (Dennis et al., 1998, 1999, 2008)

- Media Naturalness Theory (MNT)
  - (Kock, 2001; 2004)
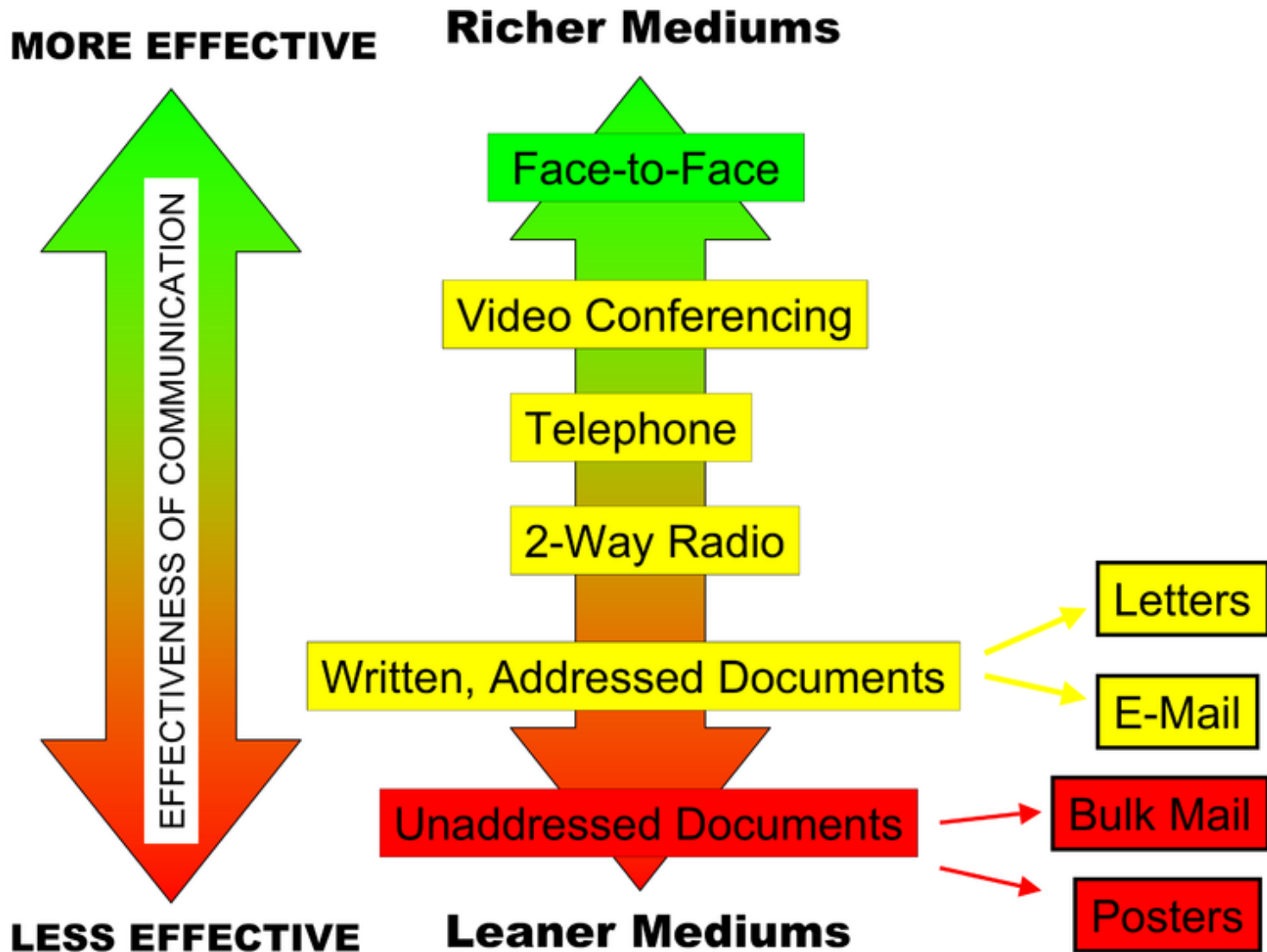
Media Richness Theory (MRT)

- Daft, 1984

- Information Richness Theory

- Origin from
  - Information Processing Theory
    - Galbraith
  - Contingency Theory

Media Richness Theory (MRT)

- Media Richness is a function of
  - Instant Feedback
  - Multiple cues
  - Language variety
  - Personal focus

Source: Larsen, K. R., Allen, G., Vance, A., Eargle, D. (Eds.) (2015). Theories Used in IS Research Wiki. http://IS.TheorizeIt.org

Media Richness Theory

(Daft & Lengel, 1986)

MORE EFFECTIVE

Richer Mediums

EFFECTIVENESS OF COMMUNICATION

Face-to-Face

Video Conferencing

Telephone

2-Way Radio

Written, Addressed Documents → Letters, E-Mail

Unaddressed Documents → Bulk Mail, Posters

LESS EFFECTIVE

Leaner Mediums

Media Richness Theory

- Information richness
  - The ability of information to change understanding within a time interval

Media Richness Theory

- Media richness is a function of
    1. The medium's capacity for immediate feedback
    2. The number of cues and channels available
    3. Language variety
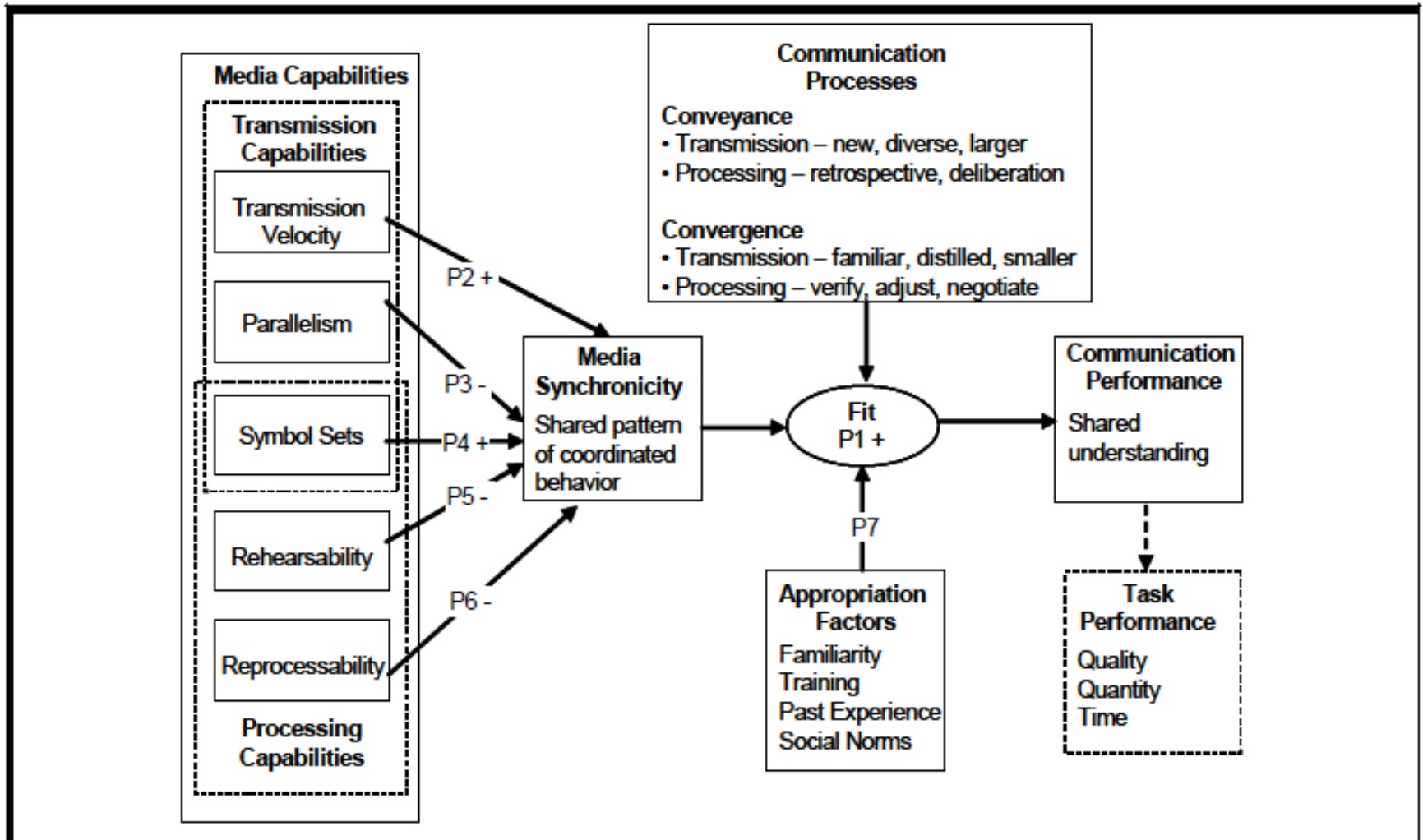   4. The degree to which intent is focused on the recipient

Media Synchronicity Theory (MST)

- Dennis et al. (1998; 1999; 2008)

MISQ Paper of the Year Recipients

- **Paper of the Year for 2009**
  "Exploring Human Images in Website Design: A Multi-Method Approach"
  Dianne Cyr, Milena Head, Hector Larios, and Bing Pan
  (Volume 33, Issue 3, September 2009)

- **Paper of the Year for 2008**
  "Media, Tasks, and Communication Processes: A Theory of Media Synchronicity"
  Alan R. Dennis, Robert M. Fuller, and Joseph S. Valacich
  (Volume 32, Issue 3, September 2008)

- **Paper of the Year for 2007**
  "Toward a Deeper Understanding of System Usage in Organizations: A Multilevel Perspective"
  Andrew Burton-Jones and Michael J. Gallivan
  (Volume 31, Issue 4, December 2007)

Media Synchronicity Theory
(MST)

Figure 1. Media Synchronicity Theory

Dennis et al. (2008),"Media, Tasks, and Communication Processes: A Theory of Media Synchronicity", MIS Quarterly (32:3), 575-600

Media Synchronicity Theory (MST)

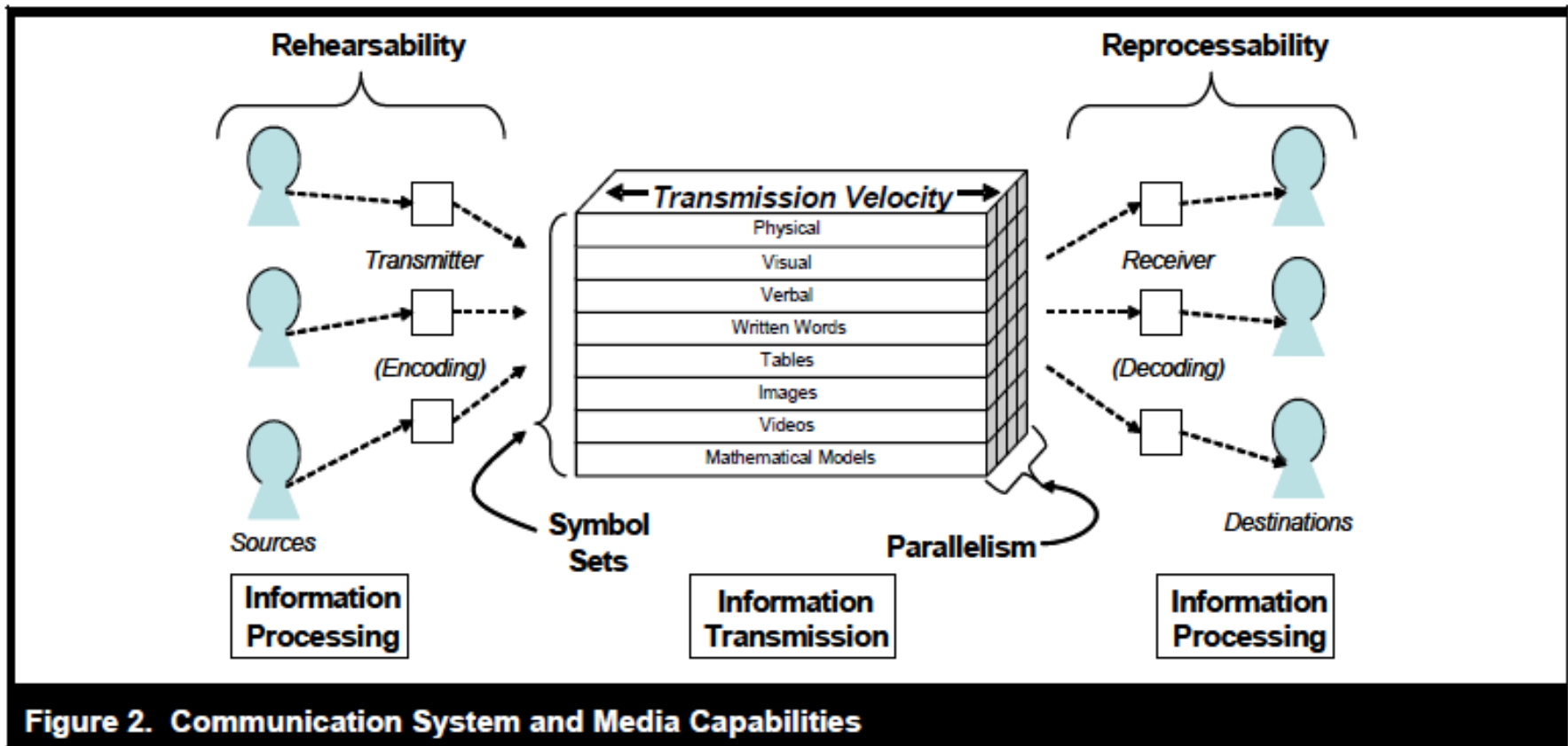| Table 1. Communication Process Characteristics			
Communication Process	Information Transmission Characteristics	Information Processing Characteristics	Media Synchronicity Required
Conveyance	Higher Quality Various Formats Multiple Sources	Retrospective Slower	Lower
Convergence	Lower Quality Specific Format Specific Sources Faster	Verification Adjustment Negotiation Faster	Higher

Media Synchronicity Theory (MST)

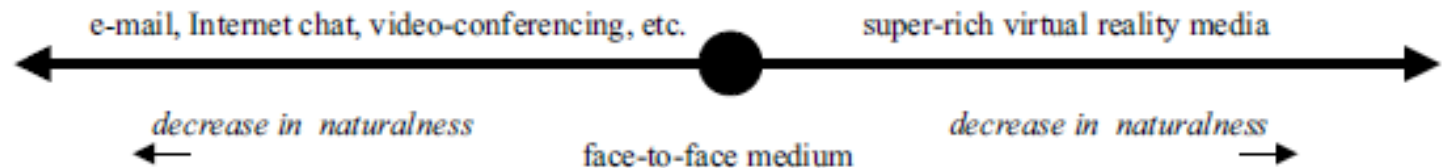**Figure 2. Communication System and Media Capabilities**

Dennis et al. (2008),"Media, Tasks, and Communication Processes: A Theory of Media Synchronicity", MIS Quarterly (32:3), 575-600

Media Synchronicity Theory (MST)

Table 2. Comparsion of Selected Media and Their Capabilities								
	Transmission Velocity	Parallelism	Symbol Sets	Rehearsability	Reprocessability	Information Transmission	Information Processing	Synchronicity
Face-to-face	High	Medium	Few-Many	Low	Low	Fast	Low	High
Video Conference	High	Medium	Few-Medium	Low	Low	Fast	Low	High
Telephone Conference	High	Low	Few	Low	Low	Fast	Low	Medium
Synchronous Instant Messaging	Medium-High	Low-Medium	Few-Medium	Medium	Medium-High	Medium	Low-Medium	Medium
Synchronous Electronic Conferencing	Medium-High	High	Few-Medium	Medium	High	Medium	Medium	Low-Medium
Asynchronous Electronic Conferencing	Low-Medium	High	Few-Medium	High	High	Slow	High	Low
Asynchronous Electronic Mail	Low-Medium	High	Few-Medium	High	High	Slow	High	Low
Voice Mail	Low-Medium	Low	Few	Low-Medium	High	Slow	Medium	Low
Fax	Low-Medium	Low	Few-Medium	High	High	Slow	High	Low
Documents	Low	High	Few-Medium	High	High	Slow	High	Low

Dennis et al. (2008),"Media, Tasks, and Communication Processes: A Theory of Media Synchronicity", MIS Quarterly (32:3), 575-600
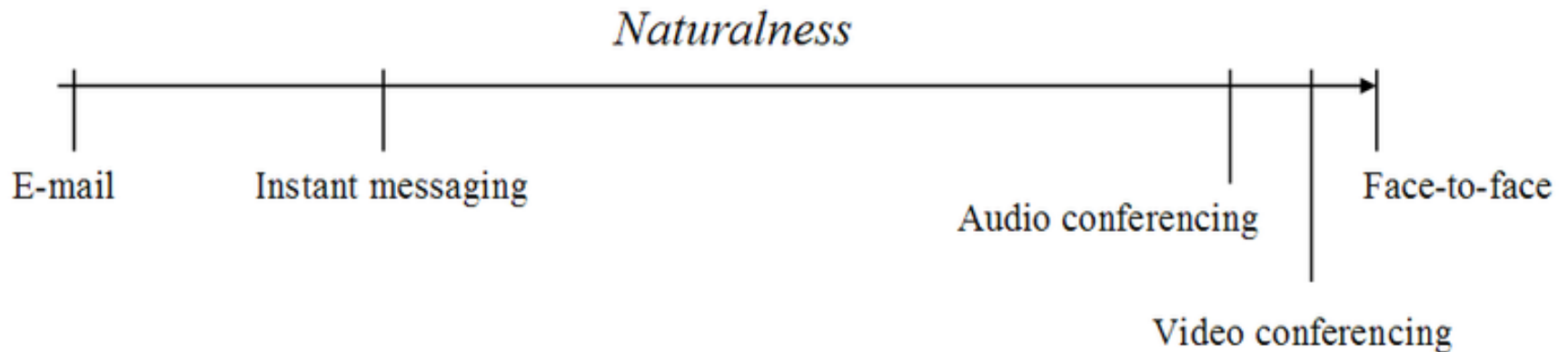
Media Naturalness Theory (MNT)

Figure 1   The Media Naturalness Scale

Note. The highest degree of naturalness is found at the center of the scale.

Kock, N. (2004). The psychobiological model: Towards a new theory of computer-mediated communication based on Darwinian evolution. Organization Science, 15(3), 327-348.

Media Naturalness Theory (MNT)

Media naturalness scale

Summary

- Marketing Research
- The Marketing Research Process
- Basis of Social Media Marketing Theory

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