MARKETING INFORMATION SYSTEMS AND MARKETING RESEARCH

Bibliography:

Kotler, Keller, Brady, Goodman and Hansen (2012), Marketing Management 14ed., cap. 5

MIEIC –MARKETING
© GABRIELA BEIRÃO - mgbeirao@fe.up.pt

Marketing information systems and marketing research

- ☐ Analyzing the company environment

- ☐ Competitive analysis

- ☐ Marketing information systems (MIS)

- ☐ Marketing research

Marketing Environment

☐ The actors and forces outside marketing that affect marketing management's ability to build and maintain successful relationships with target customers

☐ Studying the marketing environment allows marketers to take advantage of opportunities and combat threats

☐ Marketing intelligence and research are used to collect information about the environment

The Environments That Affect Marketing

Economic Environment

Competitive Environment

Political and Legal Environment

Marketing Strategy ⟷ Customer Value and Behavior

Technological Environment

Social Environment

Natural Environment

© Gabriela Beirão

Analysis of competition
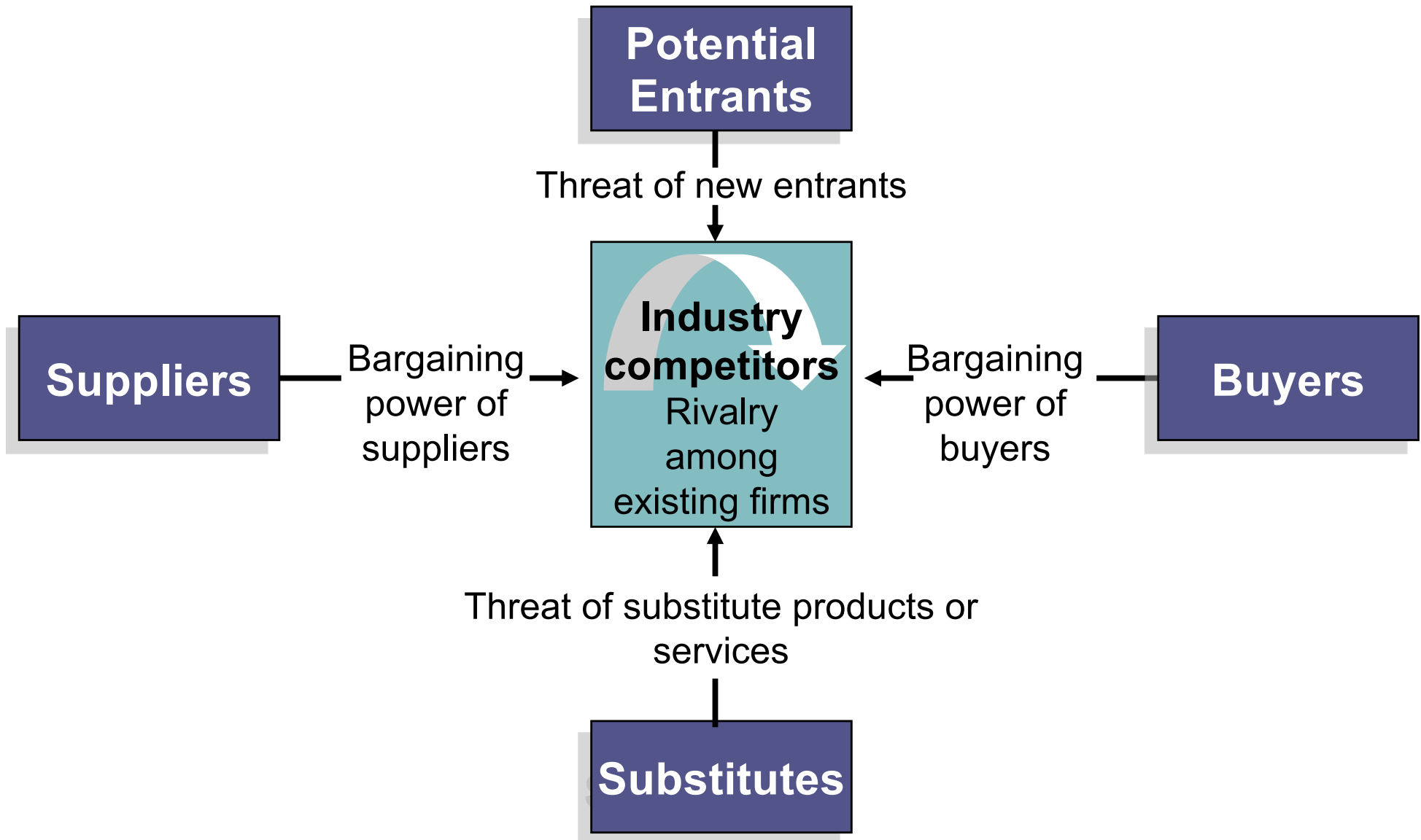
☐ **Industry** – A group of firms producing products or services that are close substitutes

☐ **Competitors** – companies that satisfy the same customer needs.
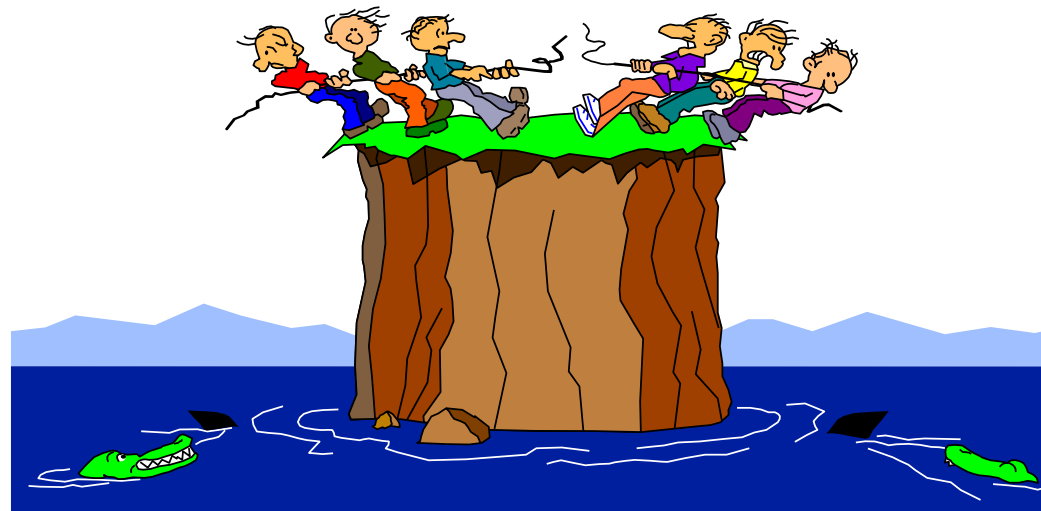
Analysis of competition – Porter's Five Forces Model of Competition

© Gabriela Beirão

Strategic groups

☐ **Strategic group**: a group of firms in an industry following the same or similar strategy along the same strategic dimensions

☐ Companies should pay special attention to **competitors** that belong to the same strategic group.

◼ A company must provide greater customer value and satisfaction than its competitors do

◼ The company must position its offerings strongly against competitors' offerings in the minds of consumers

The power of information

□ "Marketing is becoming a battle based more on information than on sales power".

(Kotler)

Companies need **fresh and deep insights into customers needs and wants**

Marketing Information System (MIS)

☐ **MIS**: People and procedures to:

➢ gather, sort, analyze, evaluate, and distribute needed, timely, and accurate information to marketing decision makers.
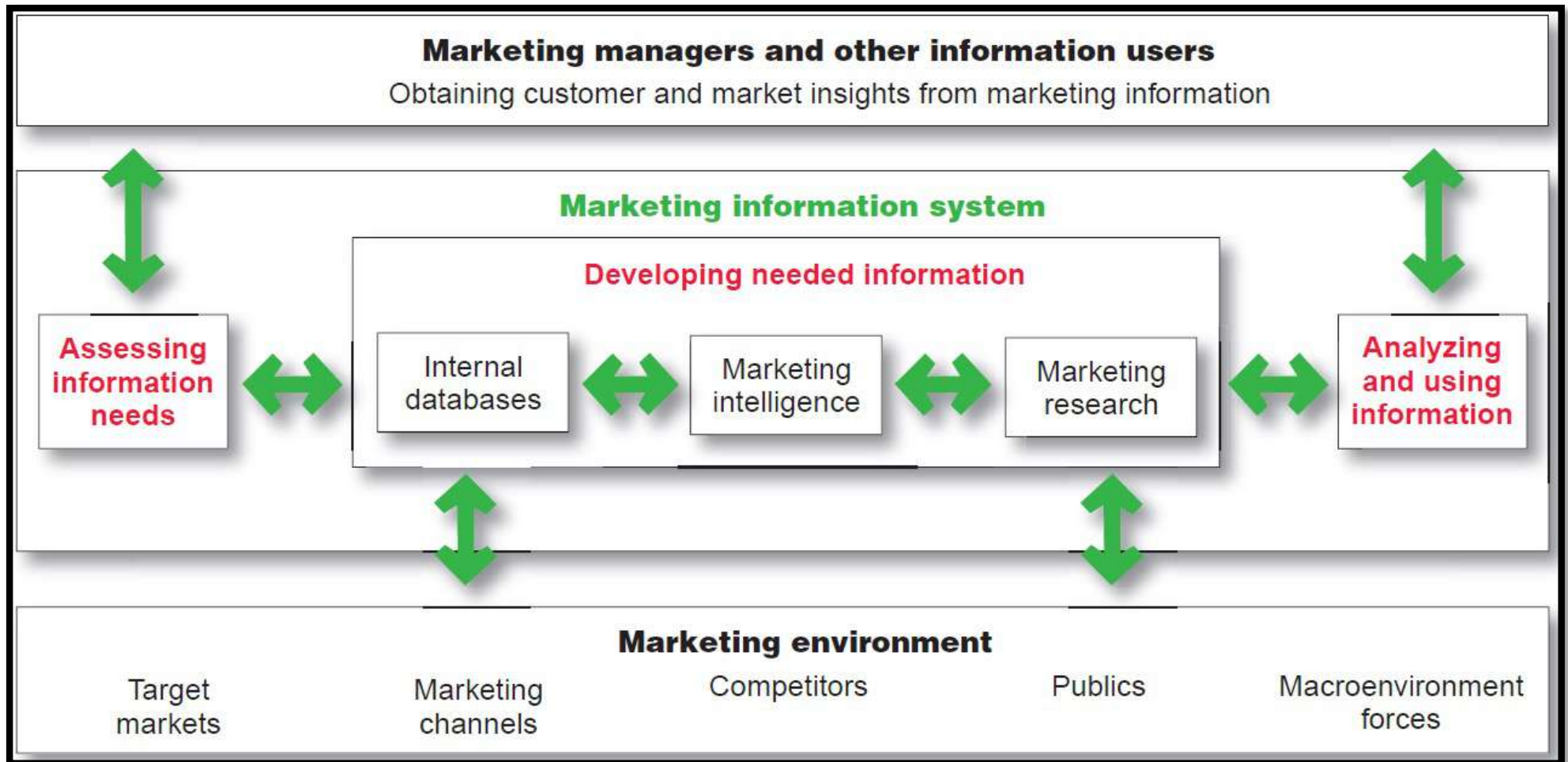
Characteristics of a Good MIS

☐ Balancing the information users would like to have against what they need and what is feasible to offer

User's
Needs

MIS
Offerings
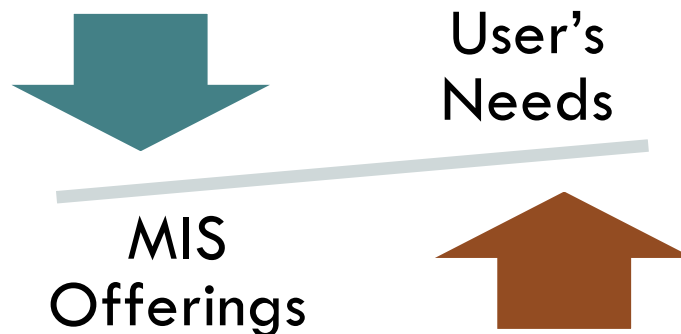
The Marketing Information System

Source:(Kotler and Armstrong, Marketing Principles, 2009)

© Gabriela Beirão

Internal data

☐ **Internal databases** are electronic collections of consumer and market information obtained from data sources within the company network

  ❑ Internal reports of orders
  ❑ Prices
  ❑ Costs
  ❑ Inventory levels
  ❑ Receivables/ Payables
  ❑ Key information on customers
    ■ Sales
    ■ Websites visited
    ■ Demographics/ psychographics
    ■ Service measures

Information systems and value chain integration

- The value chain integration and information share along the chain enable improvements in efficiency and response time (ex: Zara).

- Orders place to suppliers and production are adjusted according information from sales.
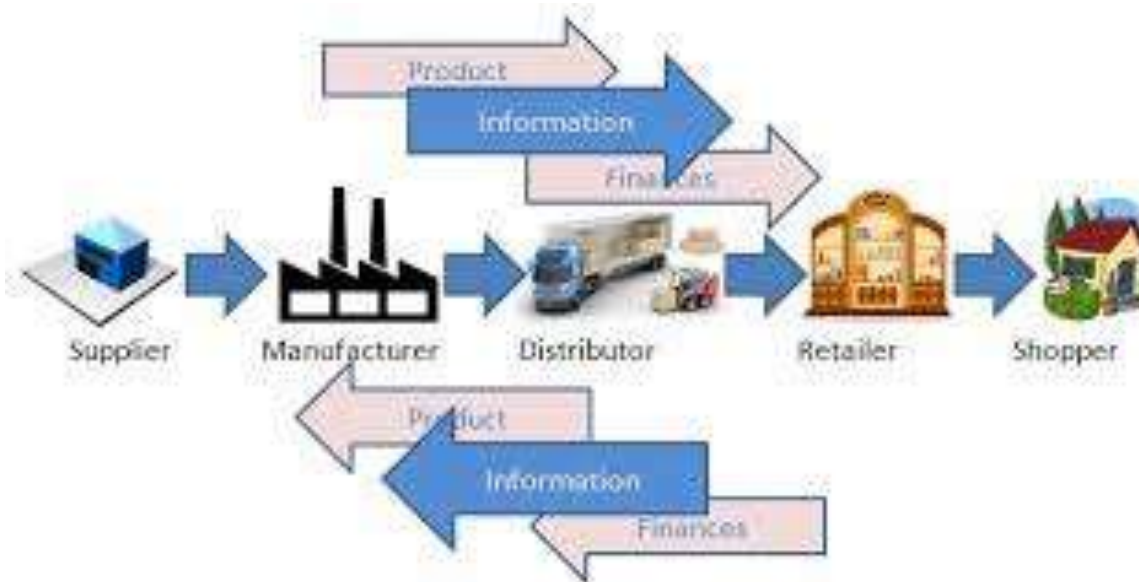
Marketing intelligence

☐ Systematic collecting everyday information from newspapers, customers, suppliers, retailers, monitoring social media…

- ❑ Sales force
- ❑ wholesalers and retailers
- ❑ Contact network
- ❑ Customer feedback

Measures to improve marketing intelligence

- ☐ Train and motivate sales force to report new developments

- ☐ Motivate distributors, retailers and other intermediaries to pass information

- ☐ Network externally: collect competitor information.

- ☐ Set a customer advisory panel

- ☐ Take advantage of government data resources

- ☐ Purchase information from outside research vendors

- ☐ Collect marketing intelligence on Internet
    - ☐ Use online customer feedback
    - ☐ Online communities and social networks
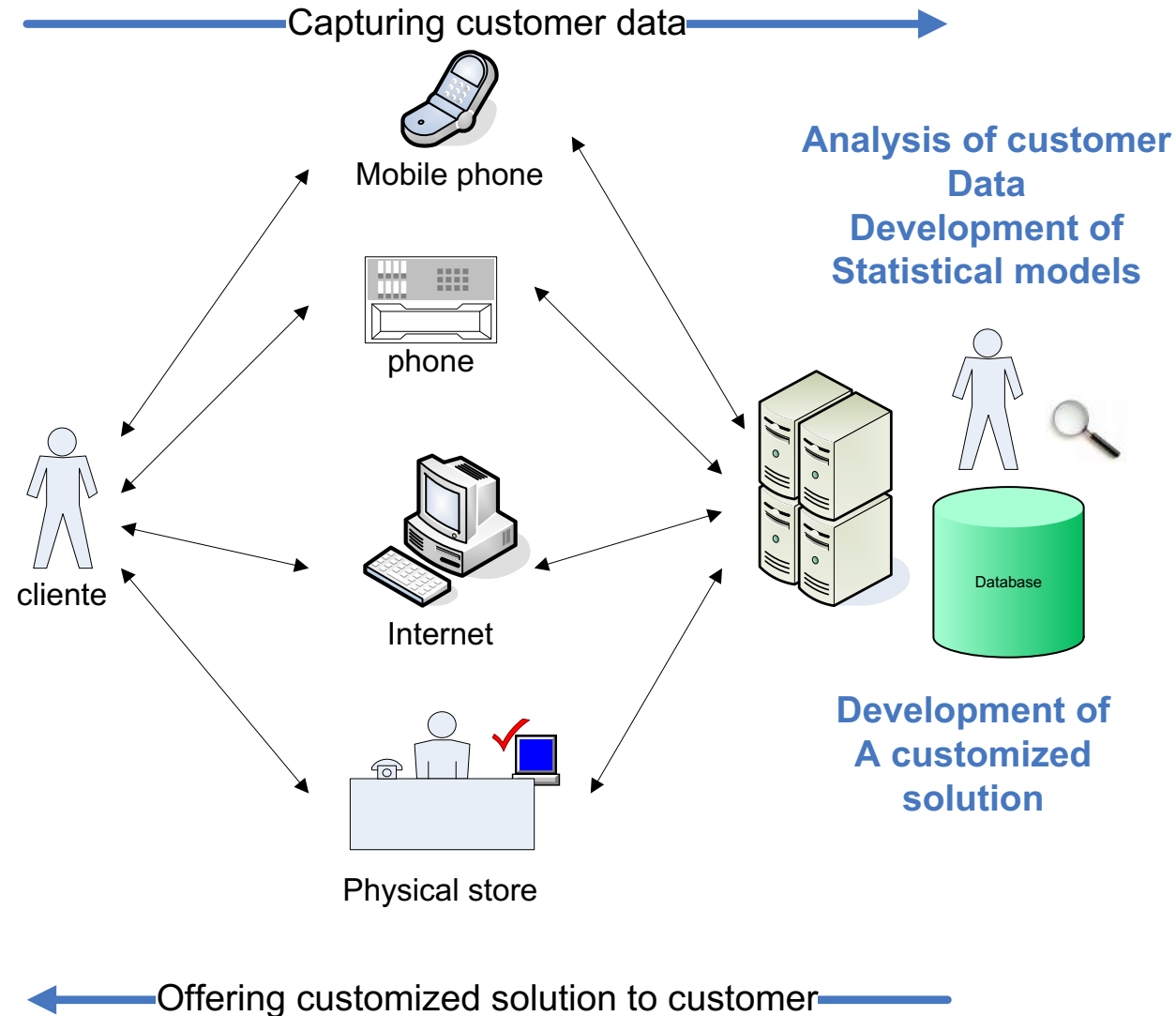
Databases, data warehousing and data mining

- **Database marketing**: building, maintaining and using customer databases to contact, transact, and build customer relationships.

- Examples:
  - UK supermarket giant Tesco collects 1.5 billion pieces of data every month to set prices and promotions;
  - Amazon reports generating 30 percent of its sales through its recommendation engine ("You may also like").

Using CRM systems to develop customized solutions

Capturing customer data

Mobile phone

phone

Internet

Physical store

Analysis of customer Data
Development of Statistical models

Database

Development of A customized solution

cliente

Offering customized solution to customer

Marketing research

☐ Systematic design, collection, analysis, and reporting of data relevant to a specific marketing situation facing an organization.

☐ Collect information which is not available elsewhere, to support a particular decision.

Understand the complete problem situation

Source: Hair et al., Essentials of Marketing Research, 2016.
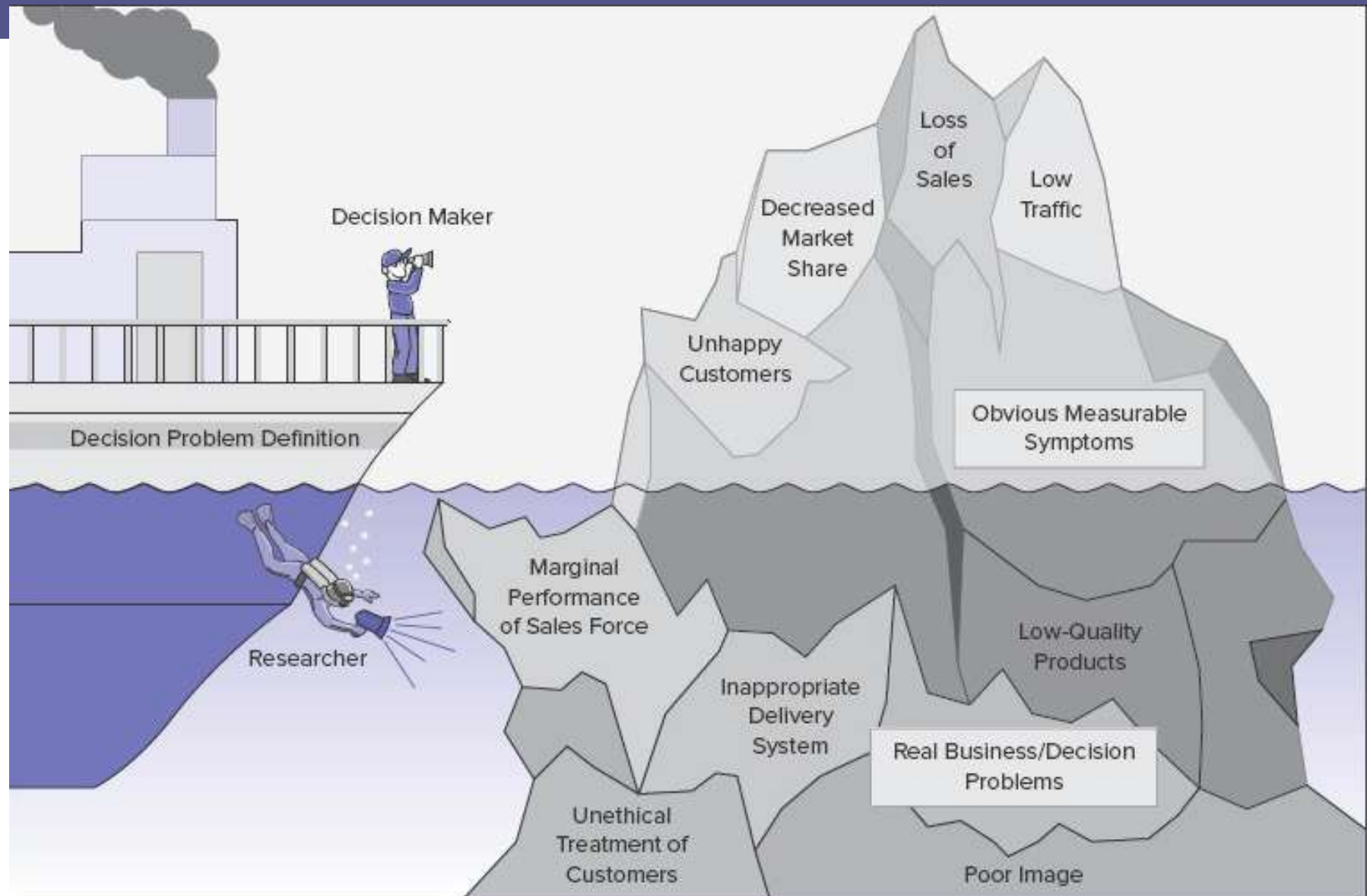
Developing the research design

- Type of research design:
  - Exploratory
  - Descriptive
  - Causal
- Data sources
- Sample design
- Data collection techniques
- Data analysis

Developing the research design

Exploratory research	Descriptive research	Causal research
• Gathering preliminary information that will help define the problem and suggest hypotheses • Ex: interviews, focus groups	• Generating information to better describe marketing problems, situations, or markets • Ex: customer satisfaction survey	• Testing hypotheses about cause-and-effect relationships • Ex: Experiment to test store ambience

Qualitative methods

- More open approaches, enabling an in-depth study of customers behaviors and attitudes.

- Theoretical sampling: interviewees are selected based on their theoretical relevance

- The small samples used cannot allow statistical inference to the overall population.

- Data collection techniques
  - Observations
  - In-depth interviews
  - Focus groups
  - usability tests…

Observational research

- Ethnographic research- observational research that involves sending trained observers to watch consumers in their natural environments to uncover unarticulated desires, meanings and behaviors that might not be captured in other forms of research.

© Gabriela Beirão
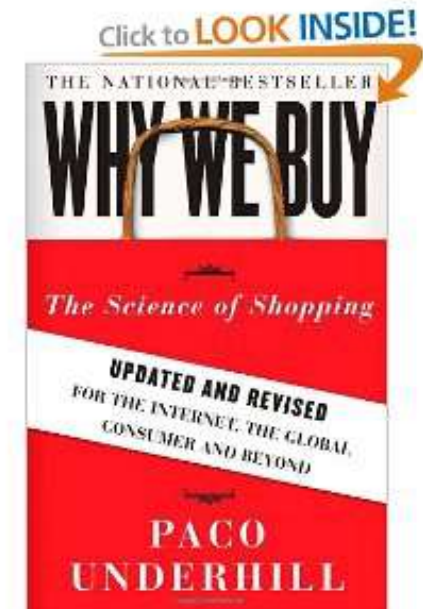
Individual and focus group interviews

- ☐ A group of customers is gathered and guided across a semi-structured interview.

- ☐ Focus groups and interviews are useful to capture information that customers are able to verbalize.

  ➤ Group dynamics can reveal interesting information.

  ➤ Individual interviews – not influenced by others

Example 3M

- "How do college students *really* study?" asked David Windorski, a 3M inventor of Post-it® brand products, when thinking about adding a new item to the Post-it® line.

  - Observation and interviews with dozens of students about their study behavior, such as how they used their textbooks, took notes, wrote term papers, and reviewed for exams.

  - Often, they watched students highlight a passage and then mark the page with a Post-it® Note or the smaller Post-it® Flag.

  - Develop 15 or 20 models that were given to students - and also office workers -to get their reactions.

  - After several years of research, development, and production engineering, 3M introduced its new products.

Example 3M

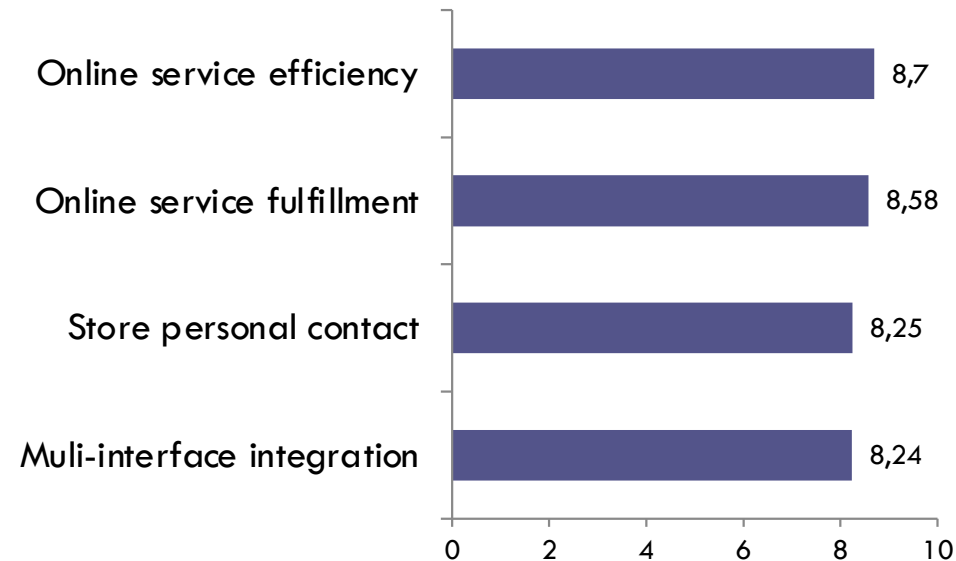| MARKETING MIX ELEMENT	COLLEGE STUDENT MARKET SEGMENT	OFFICE WORKER MARKET SEGMENT	RATIONALE FOR MARKETING PROGRAM ACTION
Product strategy	Offer Post-it® Flag Highlighter to help college students in their studying	Offer Post-it® Flag Pen to help office workers in their day-to-day work activities	Listen carefully to the needs and wants of potential customer segments to use 3M technology to introduce a useful, innovative product
Price strategy	Seek retail price of about $3.99 to $4.99 for a single Post-it® Flag Highlighter or $5.99 to $7.99 for a three-pack	Seek retail price of about $3.99 to $4.99 for a single Post-it® Flag Pen; wholesale prices are lower	Set prices that provide genuine value to the customer segment being targeted
Promotion strategy	Run limited promotion with a TV ad and some ads in college newspapers and then rely on student word-of-mouth messages	Run limited promotion among distributors to get them to stock the product	Increase awareness among potential users who have never heard of this new, innovative 3M product
Place strategy	Distribute Post-it® Flag Highlighters through college bookstores, office supply stores, and mass merchandisers	Distribute Post-it® Flag Pens through office wholesalers and retailers as well as mass merchandisers	Make it easy for prospective buyers to buy at convenient retail outlets (both products) or to get at work (Post-it® Flag Pens only)

Quantitative methods

☐ Usually uses a questionnaire with a set of questions that can be responded in a scale. The questionnaire is then administered to a statistically representative sample of the population.

☐ Questionnaire design is crucial for the quality of results.

☐ These methods enable statistical inference from the sample to the population under study.

☐ The information gathered from each respondent is not so rich as the one gathered through open ended questions.

Survey research

☐ Research procedures for collecting large amounts of raw data using question-and-answer formats to learn about people's knowledge, attitudes, beliefs, preferences and satisfaction, and to measure these magnitudes in the general population.

Category	Value
Online service efficiency	8,7
Online service fulfillment	8,58
Store personal contact	8,25
Muli-interface integration	8,24

Questionnaire do's and don'ts

- ✓ Ensure questions are free of bias
- ✓ Make questions simple
- ✓ Make questions specific
- ✓ Avoid jargon or shorthand
- ✓ Avoid sophisticated or uncommon words
- ✓ Avoid ambiguous words
- ✓ Avoid negative questions
- ✓ Avoid hypothetical questions
- ✓ Avoid words that could be misheard
- ✓ Desensitize questions by using response bands
- ✓ Use mutually exclusive categories
- ✓ Allow for 'other' in fixed-response

Behaviors and Attitudes

☐ **Behavioral data provide information on what the customers do.**

- ◼ The purchase patterns collected through information systems and direct observation provide information on consumers' buying habits, brand preferences, and product usage.

☐ **Attitudes help to explain why customers behave as observed.**

- ◼ Interviews and surveys provide information about the reasons of consumers' behavior and their feelings about something.

Differences between qualitative and quantitative research

1. Research goals/objectives

2. Type of research

3. Type of questions

4. Time of execution

5. Representativeness

6. Type of analysis

7. Research skills

8. Sample sizes
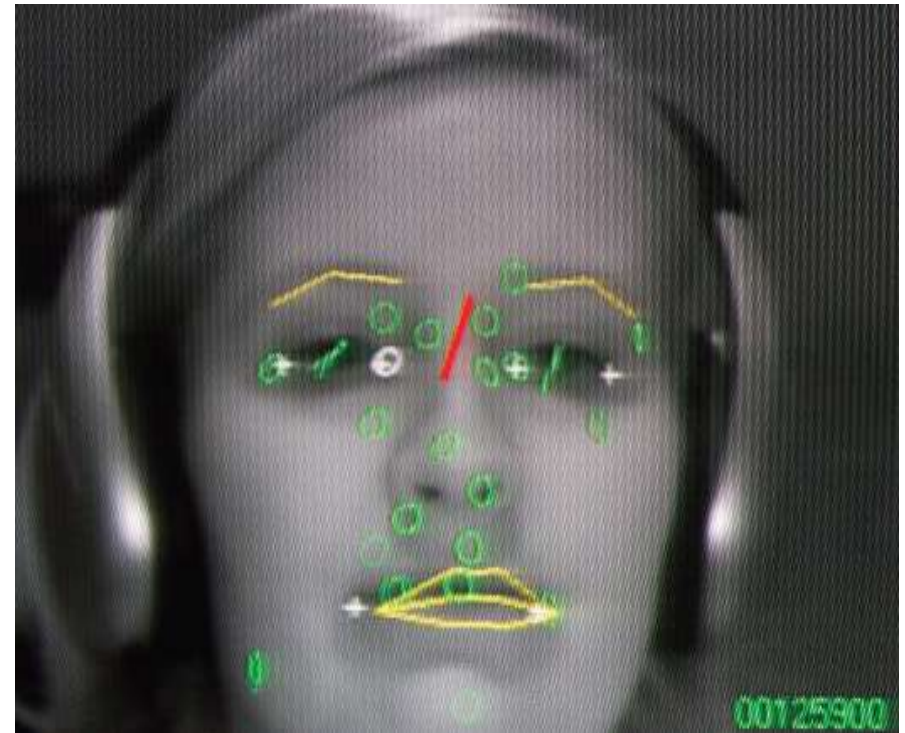
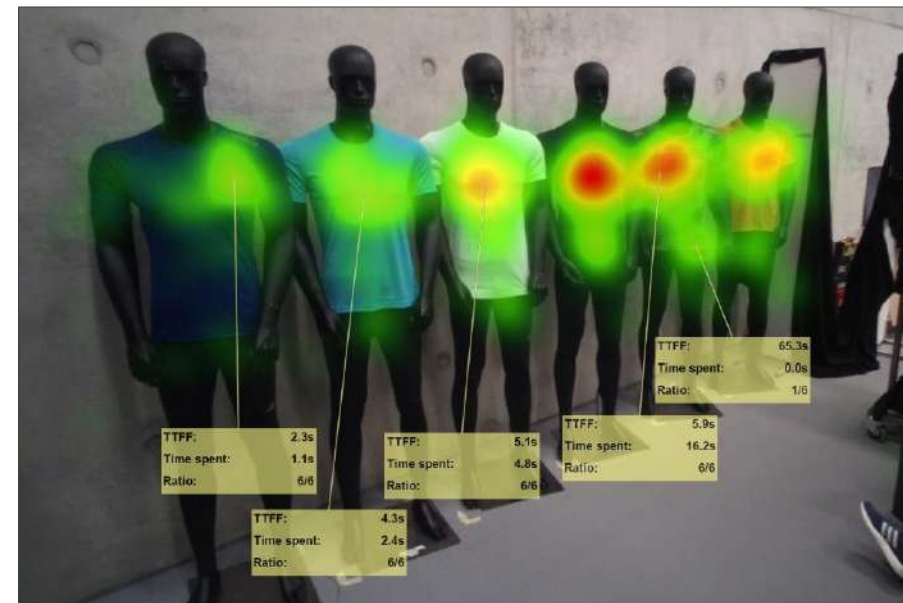9. Generalization of results
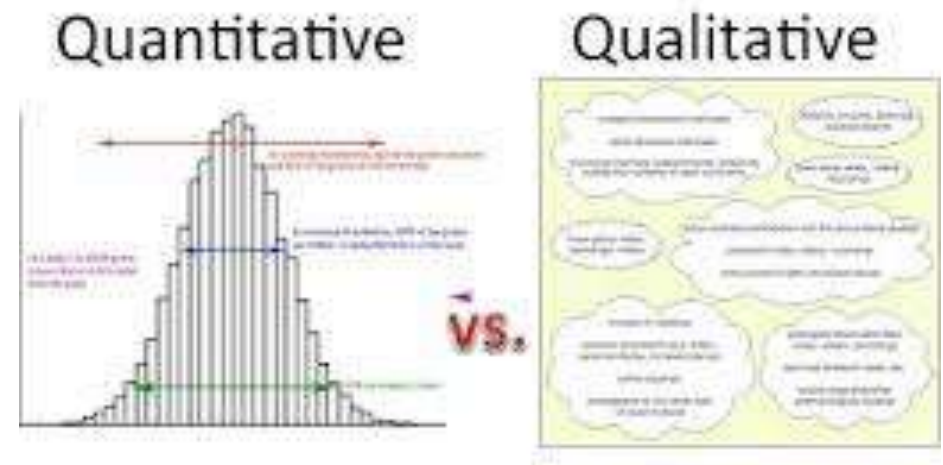
New tecnological research tools

□ **Technological devices**

- ◘ Galvanometer
- ◘ Tachistoscope
- ◘ Eye-tracking
- ◘ Facial detection
- ◘ Skin sensors
- ◘ Brain wave scanners
- ◘ Audiometer
- ◘ GPS

Example: Test with eye-movement tracking glasses

© Gabriela Beirão

Choice among marketing research methods

- ☐ The choice of research methods depends on study objectives and context.

- ☐ Qualitative and quantitative studies can be used as complementary.

- ☐ Behavioral and attitudinal data are both important to understand customers.

- ☐ Combining different methods allows for richer and more robust results.

Example: Coca Cola Failure- Chronology

May 1985	**Old Coke withdrawn**
	New Coke introduced
July	**Old Coke reintroduced as Coke Classic**

Example: Coca Cola Failure- Background and Research

- Early 80s, share losses to Pepsi

- New Product research carried out

  - $4m cost

  - 200,000 taste tests

  - 60% of consumers preferred the New Coke in blind tests

- BUT research was narrowly defined

  - considered taste not emotions

  - dropping Old Coke not mentioned

Example: U.S. Reaction to Old Coke's Return

Political   Senator David Prior of Arkansas on the Senate Floor:

"*A very meaningful moment in the history of America, this shows that some national institutions cannot be changed*"

Media   ABC interrupted its soap opera, General Hospital on Wednesday afternoon to break the news

Economic   Coca Cola's share price rose to its highest level in 12 years

Example: Reinventing Marketing at Coca-Cola
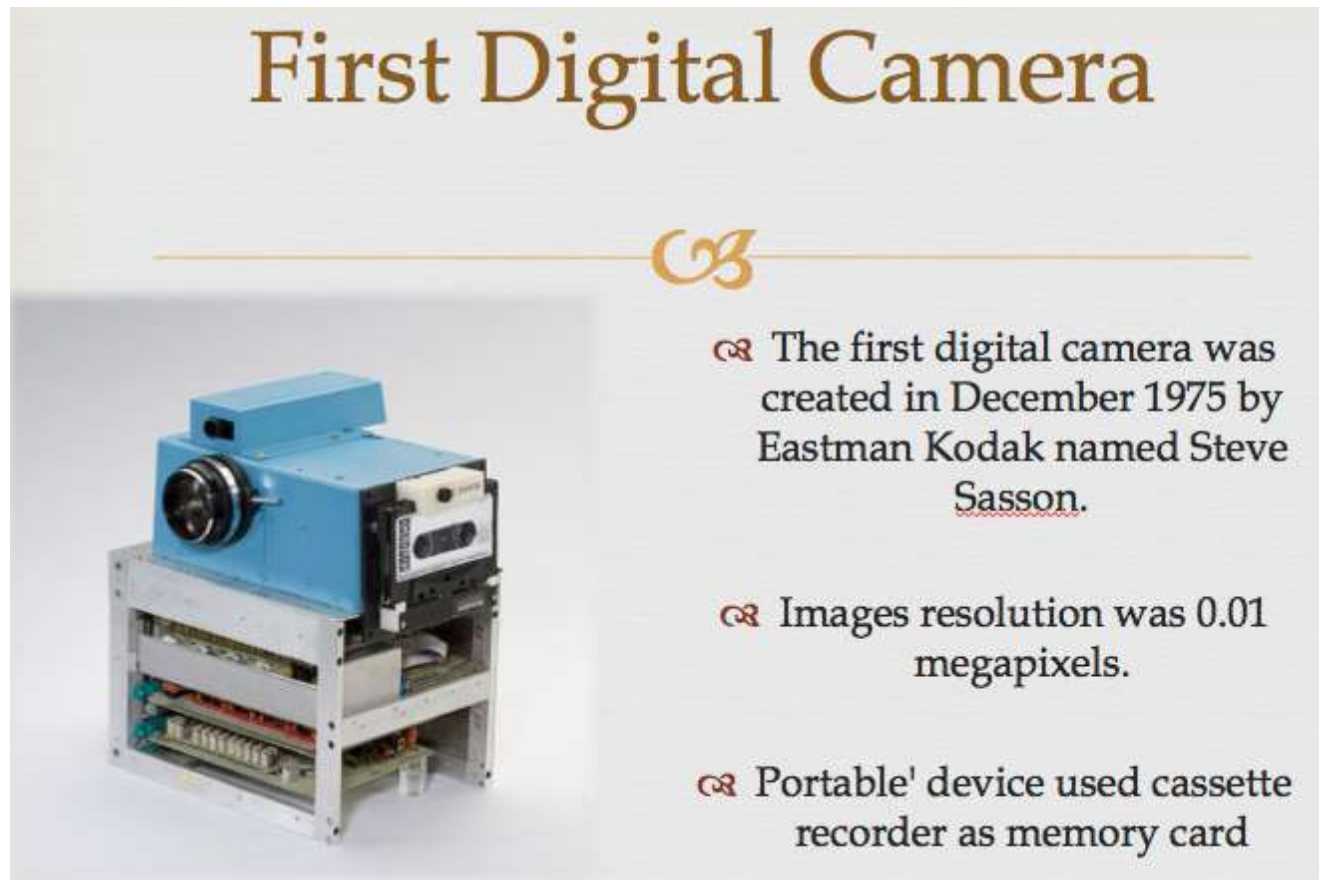
- Coca-Cola is changing the way it does marketing
  - Adding a strong digital component
  - Moving consumers from *impressions* to expressions to *conversations* to *transactions.*
- *Consumer expressions* as any level of engagement with brand content: a comment, "like," or share on Facebook, a Tweet, or an uploaded photo or video.
- Coca-Cola strives to put strongly sharable pieces of communications online that will generate impressions but also lead to expressions from consumers who join or extend the communication storyline and ultimately buy the product.
- These communications focus on the core themes of "happiness" and "optimism" that define the brand's positioning.
- Coca-Cola actively experiments, allocating 70 percent of its budget to activities it knows will work, 20 percent to improving those activities, and 10 percent to experimentation.

Example: Kodac failure

- In 1975, Kodak created the world's first digital camera.

First Digital Camera

- The first digital camera was created in December 1975 by Eastman Kodak named Steve Sasson.

- Images resolution was 0.01 megapixels.

- Portable' device used cassette recorder as memory card

Example: Kodac failure

- Kodak Decides to Press Pause on Digital Cameras
- After investing millions of dollars into getting digital cameras into production, a few years later, they were all set to launch the world's first commercially available digital camera – until members of the senior management team put a stop to the whole endeavor.

Decline of Film

Film rolls sold — Camera sales
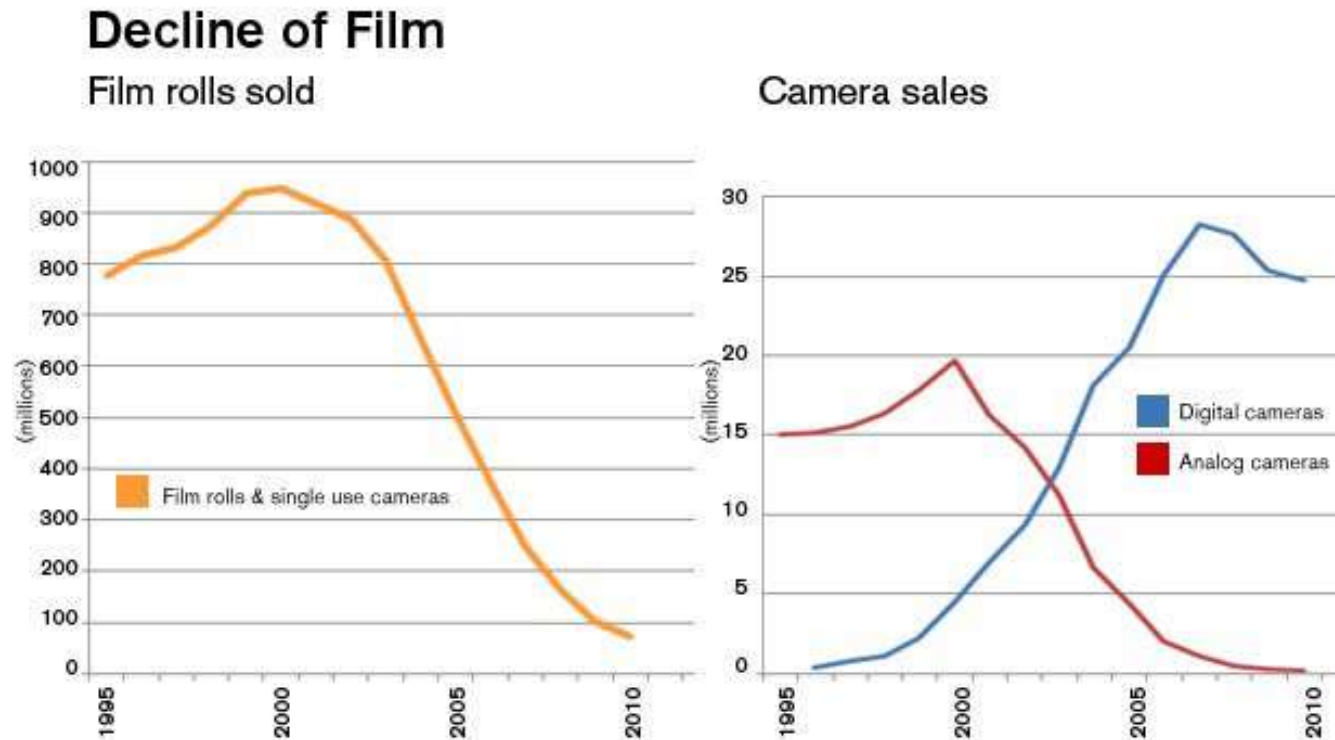
Example – McDonalds

McDonald's Salads Fail to Sell. And They Make you Fat.
- McDonald's in 2005 decided to launch their 'healthy' salad range
- Salads Only Make Up 2 To 3 Percent Of Sales

Research to Avoid

□ **When the research is unethical**

- ❑ (e.g., falsifying data; advocacy research; selling products under the pretense of marketing research, laying)

□ **When the research results would not be used**

- ❑ (e.g., "I know better" managers)

□ **When the manager specifies what the results should be**

□ **When you're tempted to take short cuts**

□ **When the costs of the research outweigh its potential benefits (and "costs" go beyond money)**

Question

- The senior design engineer for a car manufacturer wishes to identify the most appropriate design changes to be integrated into the next generation of their automotives.

- What type of research do you suggest?

Key learning points

□ Understand the environmental and industry forces that affect the company's ability to serve its customers.

□ Understand the importance of information in gaining insights about the marketplace and customers.

□ Understand the marketing information system and the different sources for obtaining data data

□ Outline the steps in the marketing research process

□ Understand the differences between qualitative and quantitative research