Sound bites from last class

• An Insider’s View to Marketing Research
• MR reduces uncertainty
• Reducing uncertainty is sufficient to justify MR
A simple example

• Suppose you are evaluating the opportunity of investing $10 million in growing and selling square watermelon in U.S. Your opportunity cost is $1 million

• If the demand is strong (35% of the chance), you will make $5 million

• If the demand is moderate (55% of the chance), you will make $3 million

• If the demand is weak (10% of the chance), you will make $1 million
• A marketing research can be done to generate a fully accurate understanding of which of the three scenarios will arise

• The cost of doing such a research is $20,000

• Should you invest in the research?
Role of Research in Marketing

MKTG 3350: MARKETING RESEARCH

Yacheng Sun
Leeds School of Business

Dr. Yacheng Sun, UC Boulder
Today’s Agenda

• A case study – how marketing research can (and should) potentially change managerial decisions

• Estimating the value of information: is it worth doing the research?

• Discussions: Types of marketing research

• A brief comparison between MR and MIS
A Case Study
The managerial problem

• As competition becomes increasingly fierce, the top brass of Walgreen would like to increase the Bottom line by slashing marketing costs.

• On the other hand, the top line has to be meticulously protected.

• An in-house market research team is assigned with the task with two seemingly conflicting objectives.
Currently, Walgreen predominantly markets using flyers in newspapers; and the marketing is done by zip-code.
• The research question: Is the current promotion strategy a good one?

• Identify the possible alternatives
The Data
How the generated intelligence changes managerial decision

• **The insight:**

• What is the implication of such finding on Walgreen’s marketing strategy?

• **The recommendation:**
Communication is also important

• The biggest challenge, however, was in changing Walgreen’s business process to use the insights generated.

• The Store Operations area was uncomfortable with the changes because of poor communication in the initial stage.

• Researchers had to start small, found a district manager who was willing to try things.

• Given the first win, the research group set up a process to review the marketing spending with each district manager throughout the U.S.
Marketing Research as the Link Between the Firm and the Market

Marketing research should be done only if its value is higher than its cost

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Assess the Value of Marketing Research: The Framework

Manager’s Experience/Belief

Marketing Knowledge

Decision Making

Information Obtained From Marketing Research

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• Manager’s beliefs, no matter how strong, are not always right.

• The rule of thumb: take calculated risk

• Use MR to reduce risk when the stake is high

• Assess the value of MR in the first place
Value of Marketing Research: An Example

• Decision:
  – To launch a new product or keep selling the current product.

• Payoffs:
  – Current product: $5 million
  – New product: $1 million (if failure), $6 million (if success)

• Manager’s belief about success: 50%

• Now assume that a marketing research project can be done to accurately predict the success or failure of the new product.

• What’s the value of the research?
Assess the Value of Marketing Research Information

Step 1. What will be the decision without marketing research?

Step 2. What are the odds that marketing research will change the decision made in Step 1?

Step 3. When the change occurs, how much will be the gain?

Step 4. Value of MR = Odds of changing decision in Step 2 * the gain in Step 3
Launch

Do not

Launch $5 \text{ mil.}$
Solution to the Example
Step 1: What will be the decision without MR

Expected values of the two decisions:

Continue selling the current product =

Launching the new product =

Therefore, the decision without marketing research is to continue selling the current product.
0.5
MR Predicts success
Launch. Change decision

0.5
MR Predicts failure
Do not launch.
No change in decision

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Solution to the Example
Step 2: What are the odds that MR will change the decision

• MR will predict whether the new product will succeed or fail.

• If MR predicts failure of the new product
  – Go with the current product
  – Decision will not change
  – MR has no value in this case

• If MR predicts success of the new product
  – Launch the new product
  – Decision will change
  – 50% chance of change in decision

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Solution to the Example
Step 3: What is the gain if decision changes?

• When decision changes
  – Profit increases from $\text{\$ million}$ to $\text{\$ million}$
  – Gain is $\text{\$ million}$
Solution to the Example
Step 4: Value of Marketing Research Information

The expected value of the marketing research information is:

\[
\text{Odds of change in decision (Step 2)} \times \text{Gain from change in decision (Step 3)} = \ast \text{ million} = \ast \text{ million}
\]
Estimating Value of Imperfect Information

• Suppose marketing research information is correct 90% of the time
• How much is it worth?

• Bayes Rule: Relationship between joint and conditional probabilities of events,
  \( \Pr(A, B) = \Pr(A) \cdot \Pr(B|A) = \Pr(B) \cdot \Pr(A|B) \)
Marketing Research versus Marketing Information System
A Classification of Marketing Research

Marketing Research

Problem Identification Research
- Market potential research
- Market share research
- Image research
- Market characteristics research
- Sales analysis research
- Forecasting research
- Business trends research

Problem Solving Research
- Segmentation research
- Product research
- Pricing research
- Promotion research
- Distribution research
PROBLEM SOLVING RESEARCH

Segmentation Research
- determine basis of segmentation
- establish market potential and responsiveness for various segments
- select target markets and create lifestyle profiles
  - demography, media, and product image characteristics

Product Research
- test concept
- determine optimal product design
- package tests
- product modification
- brand positioning and repositioning
- test marketing
- control store tests

Pricing Research
- importance of price in brand selection
- pricing policies
- product line pricing
- price elasticity of demand
- initiating and responding to price changes

Promotional Research
- optimal promotional budget
- sales promotion relationship
- optimal promotional mix
- copy decisions
- media decisions
- creative advertising testing
- claim substantiation
- evaluation of advertising effectiveness

Distribution Research
- determine type of distribution
- attitudes of channel members
- intensity of wholesale and retail coverage
- channel margins
- location of stocking points and territorial control
<table>
<thead>
<tr>
<th>Marketing Decisions Aided by Research</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Target Decisions</strong></td>
</tr>
<tr>
<td>Who are our target customers? What are their demographics?</td>
</tr>
<tr>
<td>Should we aim our promotion at more than one target market?</td>
</tr>
<tr>
<td>What are the strengths and weaknesses of our competitors who court the same target customers?</td>
</tr>
<tr>
<td>Is the size of our target market likely to increase, decrease, or remain the same in the near future?</td>
</tr>
<tr>
<td><strong>Product Decisions</strong></td>
</tr>
<tr>
<td>What modifications should be made to extend the life cycle of existing products?</td>
</tr>
<tr>
<td>What products should we add to or delete from our product line?</td>
</tr>
<tr>
<td>What changes should be made in the packaging of specific products?</td>
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<tr>
<td>Should we expand, contract, or maintain our present product line?</td>
</tr>
<tr>
<td><strong>Place Decisions</strong></td>
</tr>
<tr>
<td>How should the market be divided into territories?</td>
</tr>
<tr>
<td>Where should we locate inventory centers and retail facilities?</td>
</tr>
<tr>
<td>Who are the key distributors in the various markets, and what competitive lines do they carry?</td>
</tr>
<tr>
<td><strong>Price Decisions</strong></td>
</tr>
<tr>
<td>Should we price at, above, or below the competition?</td>
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<tr>
<td>What special price incentives should we use to stimulate sales?</td>
</tr>
<tr>
<td>Will the market bear a price sufficient to yield a profit?</td>
</tr>
<tr>
<td><strong>Promotion Decisions</strong></td>
</tr>
<tr>
<td>What kinds of advertising appeal, slogan, and theme should we use?</td>
</tr>
<tr>
<td>What media should we use? How should we allocate our budget among the various media?</td>
</tr>
<tr>
<td>How large should the advertising budget be?</td>
</tr>
</tbody>
</table>
| How effective is our advertising?
Research by Stage in Product Life Cycle

Interface between Product and Research Cycles

- **Precommercialization**
  - Focus groups
  - Market definition studies
  - Target segment identification
  - Concept tests
  - Name/package evaluation
  - Product tests
  - Copy tests
  - Pretest markets
  - Test markets

- **Introduction**
  - Awareness/attitude studies
  - Usage studies
  - Tracking studies
  - Product refinement tests
  - New advertising strategy tests

- **Growth**
  - Awareness/attitude studies
  - Tracking studies
  - Positioning
  - Promotion tests
  - Market structure studies

- **Maturity**
  - Segmentation studies
  - Lifestyle research
  - Repositioning studies

- **Decline**
  - Price elasticity studies
  - Cost reduction studies

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## Planning and Research Process for New Product

<table>
<thead>
<tr>
<th>Planning process</th>
<th>Marketing research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify opportunity</td>
<td>Focus groups</td>
</tr>
<tr>
<td></td>
<td>Market definition study</td>
</tr>
<tr>
<td></td>
<td>Idea generation</td>
</tr>
<tr>
<td>Design</td>
<td>Consumer measurement</td>
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<tr>
<td></td>
<td>Product engineering and marketing mix</td>
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<tr>
<td>Test</td>
<td>Forecasting sales potential</td>
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<tr>
<td></td>
<td>Name and package testing</td>
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<tr>
<td></td>
<td>Advertising and product testing</td>
</tr>
<tr>
<td>National launch (rollout)</td>
<td>Pretest marketing forecasts</td>
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<tr>
<td>Evaluate</td>
<td>Tracking studies</td>
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<tr>
<td></td>
<td>Market response analysis</td>
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<tr>
<td></td>
<td>Store audits</td>
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<td></td>
<td>Product refinement tests</td>
</tr>
</tbody>
</table>
Marketing Research versus Marketing Information System

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MIS vs. Marketing Research

<table>
<thead>
<tr>
<th>MIS</th>
<th>MARKETING RESEARCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous Output</td>
<td>Output when Sought</td>
</tr>
<tr>
<td>Uses More Data Sources</td>
<td>Uses Only Data Sources Relevant to the Research Problem</td>
</tr>
<tr>
<td>Receives, Analyzes, and Distills a Greater Volume of Information</td>
<td>Receives, Analyzes, and Distills a Lesser Volume of Information</td>
</tr>
<tr>
<td>Required by the Modern Marketing Manager</td>
<td>Required by the Modern Marketing Manager</td>
</tr>
</tbody>
</table>
Contrasting characteristics of marketing research and a marketing information system

<table>
<thead>
<tr>
<th>MARKETING RESEARCH</th>
<th>MARKETING INFORMATION SYSTEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Emphasis is on handling external</td>
<td>1  Handles both internal and external data</td>
</tr>
<tr>
<td>information</td>
<td></td>
</tr>
<tr>
<td>2  Concerned with solving problems</td>
<td>2  Concerned with preventing as well as solving problems</td>
</tr>
<tr>
<td>3  Operates in a fragmented, intermittent</td>
<td>3  Operates continuously—is a system</td>
</tr>
<tr>
<td>fashion—on a project-to-project basis</td>
<td></td>
</tr>
<tr>
<td>4  Tends to focus on past information</td>
<td>4  Tends to be future-oriented</td>
</tr>
<tr>
<td>5  Not computer-based</td>
<td>5  A computer-based process</td>
</tr>
<tr>
<td>6  One source of information input into a</td>
<td>6  Includes other subsystems besides marketing research</td>
</tr>
<tr>
<td>marketing information system</td>
<td></td>
</tr>
</tbody>
</table>
Recap

• Necessary condition to do marketing research
• Sufficient condition to do marketing research
• Quantifying the value of marketing research
• What is marketing research?
  – How is it related to MIS?