Business Research Process

BUS 230: Business Research and Communication

Goals and Learning Objectives

- Goals of this chapter:
  - Learn what research is.
  - Learn why businesses want to do research to inform decisions.
  - Learn about types of research.
  - Learn the steps of the research process.
- Learning objective: LO1: Develop the ability to define a research problem. Formulate research questions and hypotheses that are measurable, well-defined, address the overall problem, are directly related, and reflect the scope of the problem.

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Business Decision Making

- **Business decision making:** process of developing and deciding among alternative ways of,
  - resolving a business problem, or
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- **Business problem:** a situation in which negative consequences are possible.
  - It may not be apparent what the problem is, or even that a problem exists.
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Why Research?

Ambiguous situations:

- Existence of an opportunity or problem may not be obvious.
- Precise nature of the problem or opportunity is not known.
- Alternatives for resolving a problem, or taking advantage of the opportunity are not fully clear.
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Types of Business Research

1. **Exploratory research:** identify problems or opportunities, discover alternatives.
   - Purpose is to clarify ambiguous situations.
   - Not intended to provide answers to problems or opportunities.
   - This is only the first step in a business decision process.
2. **Descriptive research:** describes people, organizations, customers, groups, etc. that are relevant to the business decision (more ahead).
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Evidence for Causation

- Temporal sequence: cause happens first, then effect.
- Concomitant variation: simply means two variables are related.
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- Nonspurious relationship: concomitant variation is evidence that one variable causes another. This one is extremely tough to establish.

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Variable Co-movement

- Spurious relationship: data on two variables are correlated but variables are not directly related to one another.
- Example: ice cream consumption and murder rate are positive related to one another.
- Example: class size and academic performance is related to another. Do you think they are positively related or negatively related?
- Example: alcohol consumption and academic performance??
- Example: being overweight and psychologically depressed??

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Degrees of Causality

- **Absolute causality:** cause is necessary and sufficient to bring about the effect.
- **Conditional causality:** cause is necessary, but not sufficient, to bring about an effect.
  - Close example: smoking *and* lung cancer.
  - Possible business (close) example: develop a new product *and* increasing market share??
- **Contributory causality:** cause does contribute to effect, but the cause is not necessary or sufficient to bring about the effect.
  - Weakest, and most common form of causality.
  - Multiple causes may have the same effect.
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Overview of the Research Process

- Stages of the Research Process:
  1. Defining the research objectives.
  2. Planning a research design.
     - Planning a sample.
     - Collecting the data.
  3. Analyzing the data.
  4. Formulating conclusions.
- Albert Einstein once said, "If we knew what is was we were doing, it wouldn't be called research, would it?"
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- *Problem / research question:* a single statement/question describing the objective of the research project.
  - Term problem is used more generally, what don't we know, what question are we going to answer?
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- Exploratory research.
- Literature review. Often previous (published) research will motivate new questions.
- Pilot study (practice run): small-scale research project that collects data from individuals similar to those which will be used in a full study.
- Focus group: small group discussion in a loosely structured format, where participants are likely similar to those which would be used in a full study.

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- Types of research designs:
  - Collect primary data: answer who is your population? who are you going to sample? how? how many? What are your survey questions?
  - Experiments (like McDonald's). Carefully describe and assure the design will expose cause and effect.
  - Secondary data: use data from a previous study, use economic or financial data.
  - Literature review: piecing together the results from other studies may provide an answer to yours.

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  - Secondary data: use data from a previous study, use economic or financial data.
  - Literature review: piecing together the results from other studies may provide an answer to yours.

Sampling

- Purpose of collecting a sample:
  - Make inferences about the population, based on results from the sample.
  - Objective is *not* just to describe the sample.
- First ask: who is population?
  - Might be obvious: A population may be UW-L students.
  - Might not be obvious: Potential customers of a new product.
- Avoid sample selection bias: the act of being part of your sample itself is related to the result.
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- Obtrusive methods: when gathering data requires filling out a questionnaire or interacting with an interviewer.
- Unobtrusive methods: subjects are not at all disturbed by collection of the data, or possibly even unaware.
  - Counting vehicles passing a billboard.
  - Collecting data on customer purchases.
- Treating research subjects ethically. Even simple questionnaires may pose risks:
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