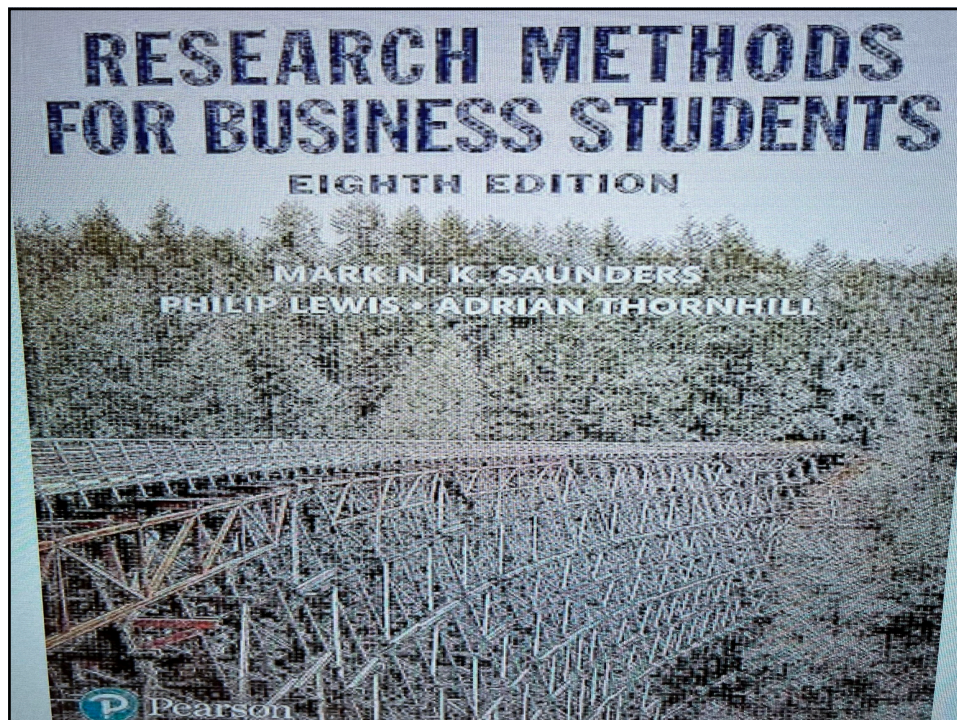


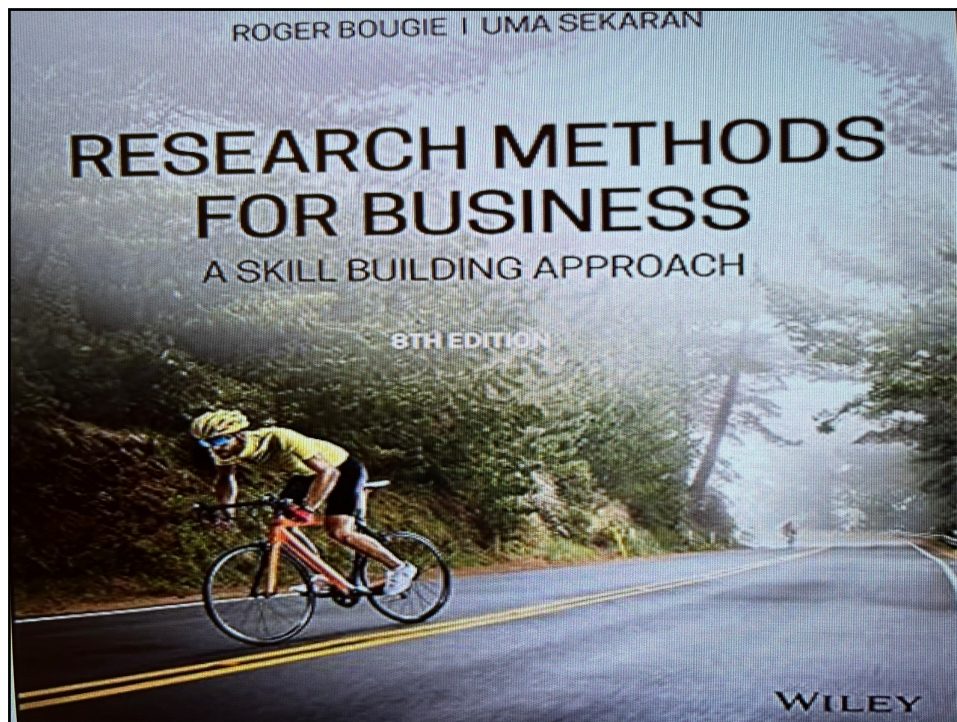
Introduction to Research Methods

Prof. Peter Fong

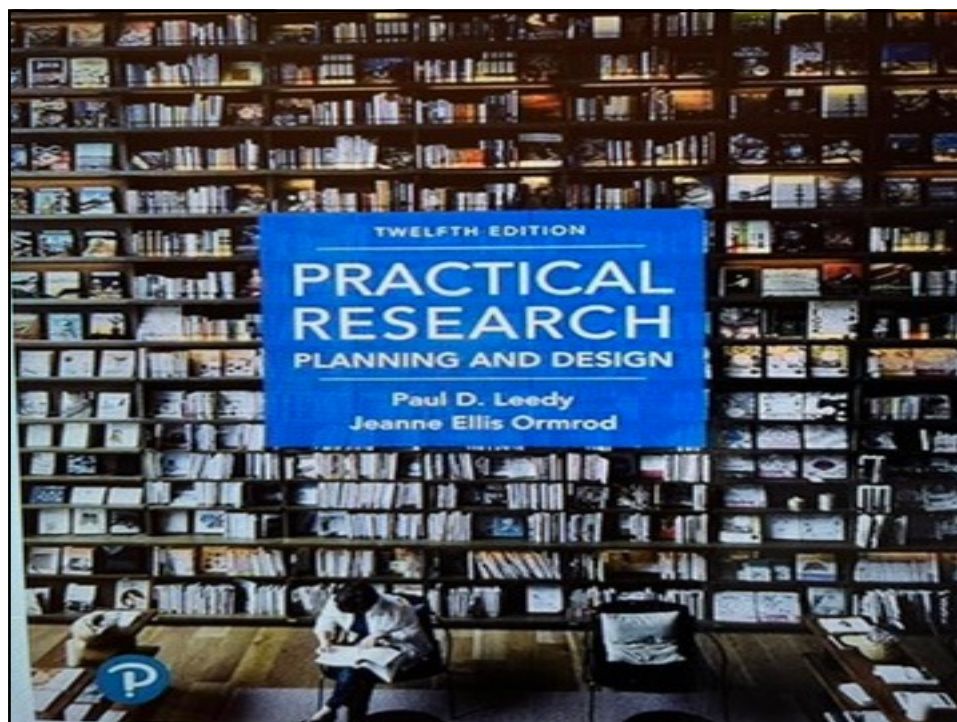
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What is research?

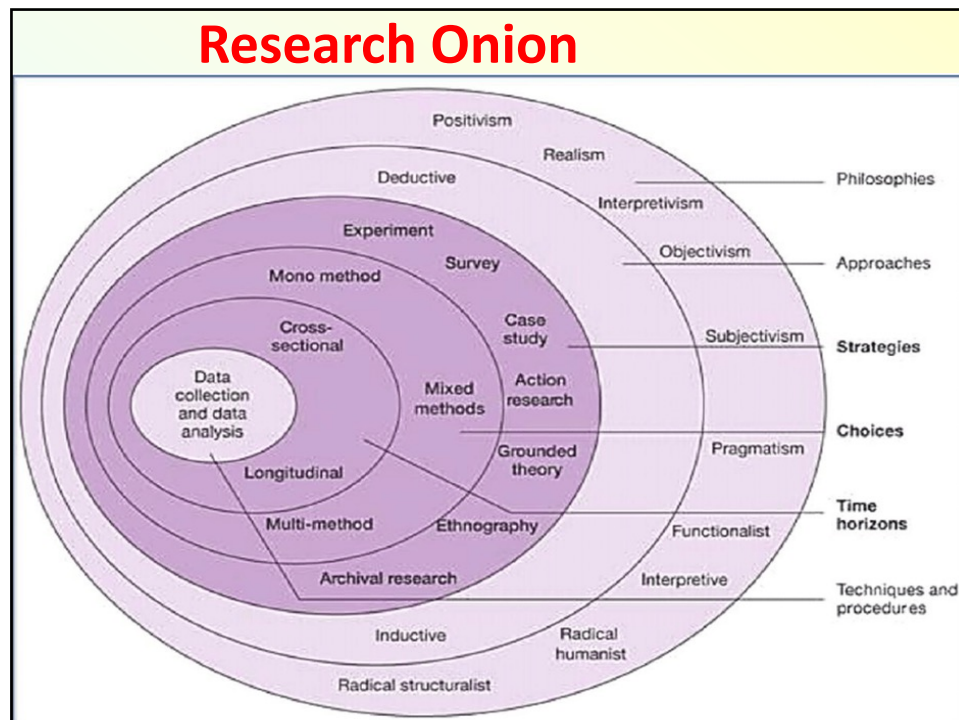
- process of systematic inquiry
- inquisitive: seeking to answer the research question
- careful, methodical
- original
- academic research has a central concern for theory: testing existing theory (deductive research) or developing new theory (inductive research)

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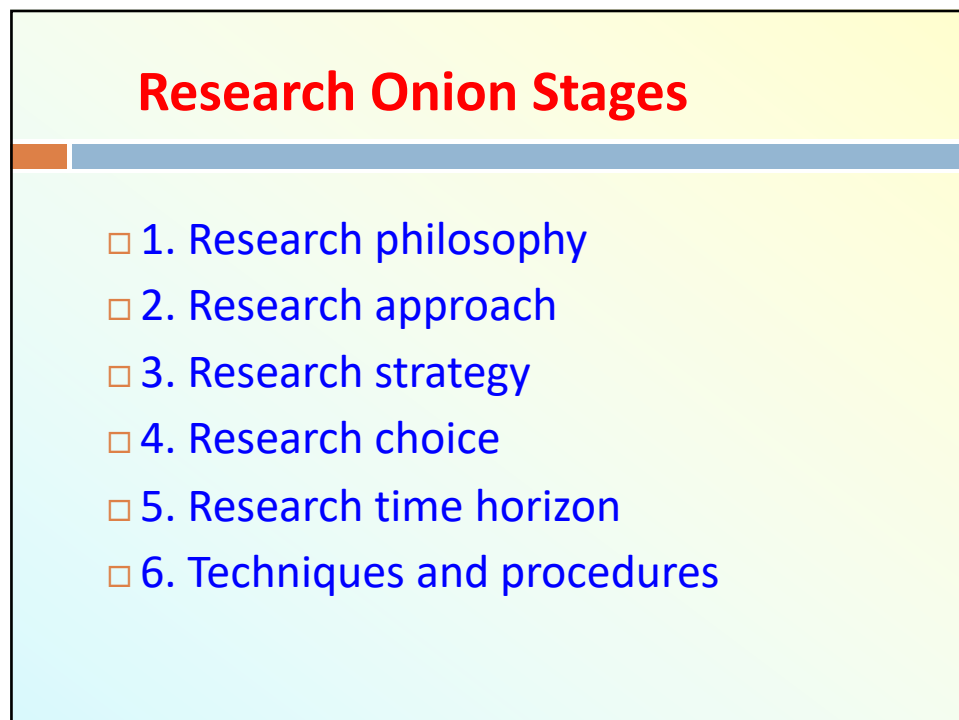
The Research Onion

- The Research Onion is the step-by-step development stages of a research work with the focus on the research questions (Saunders et al, (2007).
- The onion layers represent different stages of a research process, going from the outer layer to the inner layer.
- Bryman (2012) commented that the Research Onion approach can be adapted for almost any type of research method in a variety of contexts.

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Research Onion

1. Research philosophy

- Positioning the philosophical assumptions can help to shape the understanding of the research questions and underpin the choice of research methods.

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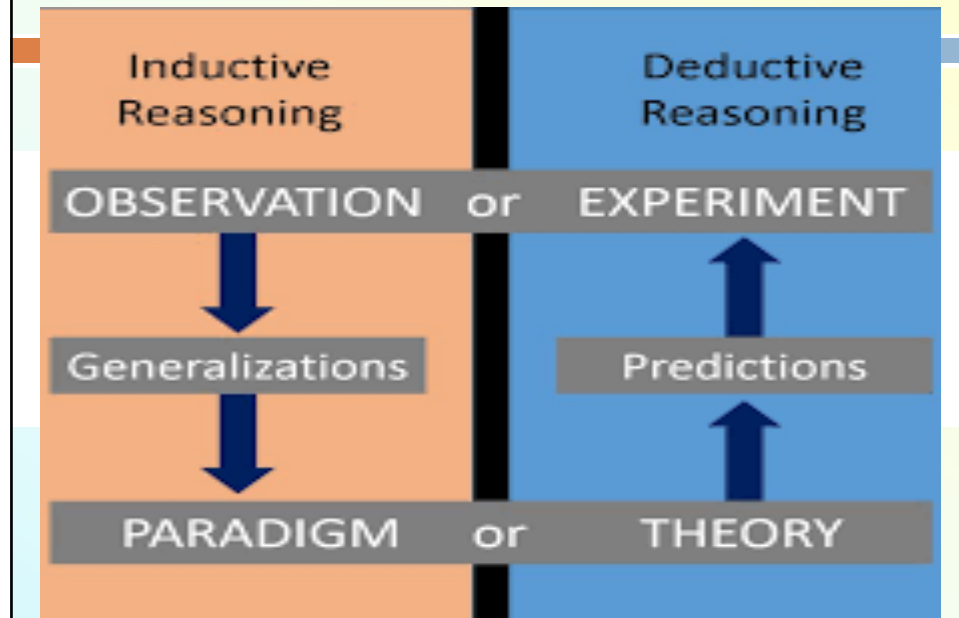
Research Onion

□ 2. Research approach

- There are two types of approach in most researches, **deductive and inductive.**

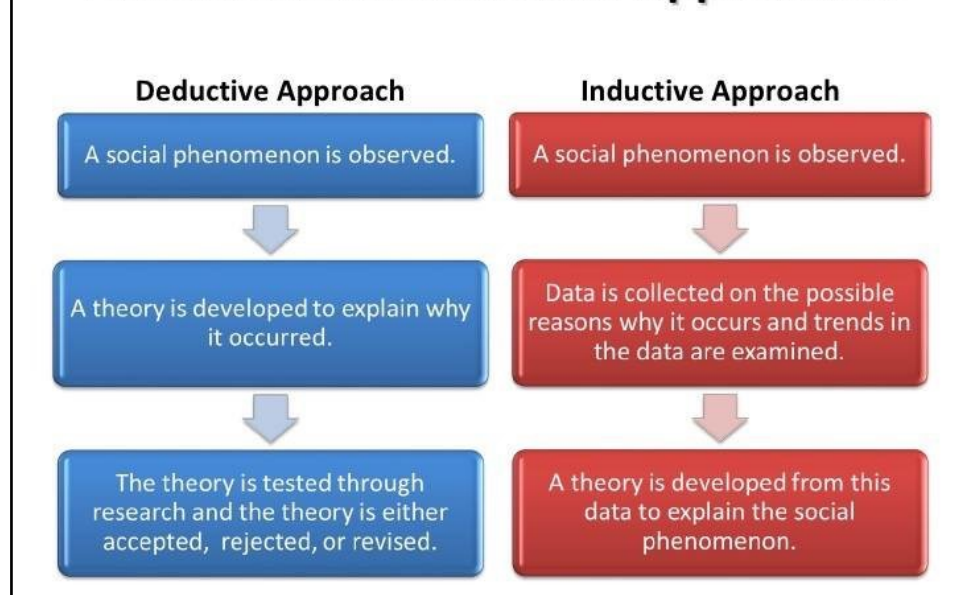
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2. Research approach



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Deductive and Inductive Approaches



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INDUCTIVE reasoning	VS	DEDUCTIVE reasoning
No matter how unrealistic that sounds, in many fields, such as science and law, "proof" simply doesn't exist; there can only be facts and evidence that lead you to certain conclusions.		
INDUCTIVE REASONING - Someone who uses INDUCTIVE reasoning makes specific observations and then draws a general conclusion. - When you're using inductive reasoning, correct observations won't necessarily lead you to a correct general conclusion. EXAMPLES - Every quiz has been easy. Therefore, the test will be easy. - The teacher used PPT in the last few classes. Therefore, the teacher will use PPT tomorrow. 		DEDUCTIVE REASONING DEDUCTIVE reasoning is a specific conclusion follows a general theory. - When you're using deductive reasoning, your conclusion will be correct if all the statements you say is correct. EXAMPLES - All students in this class play guitar. <u>Sam is a student of this class.</u> --> Therefore, Sam plays guitar. - At the conference, all the people present are thirty or older. <u>Maria is in the room.</u> --> Therefore, Maria is at least thirty.

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Research Onion

3. Research strategies

- The research strategy describes how the researcher intends to carry out the work.
- The strategies can include experiments, surveys, case study, interviews, systematic literature review, action research, etc.

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Research Onion

4. Research choice

- Mono methods usually refer to quantitative or qualitative methods.
- Multi method is similar with the mixed method as it also combines quantitative and qualitative methodologies in a study
- Mixed method establishes a particular and precise set of data while multi method is used where the research is divided into segments; with each producing a specific data set.

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Research Onion

5. Research time horizon

- The research time horizon can be cross-sectional or longitudinal.
- The cross-sectional focuses on the current situation.

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Research Onion

6. Techniques and procedures

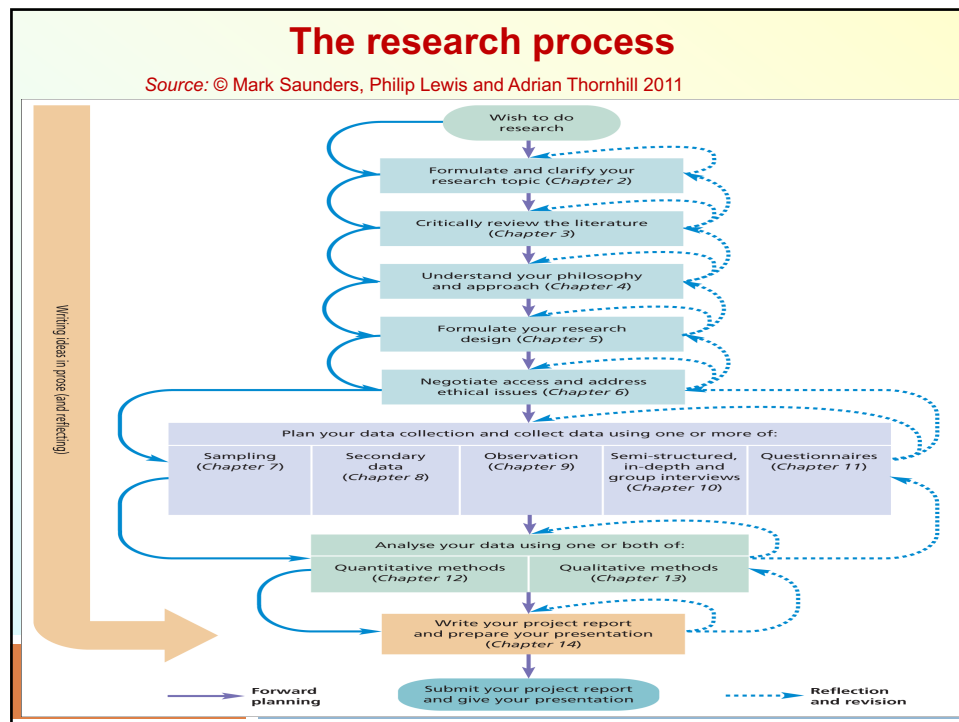
- Data collection and data analysis
- There are various techniques and tools for data collection and analysis.

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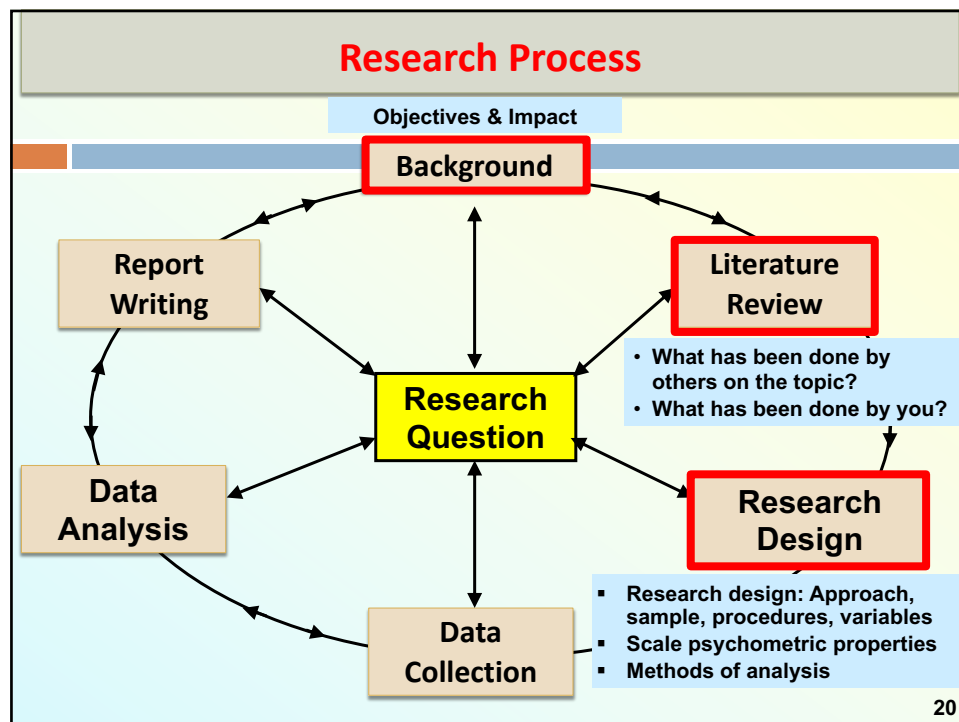
The research process

- research questions
- literature and theory review
- research design & methodology
- data collection
- analysis
- Interpretation
- Conclusions/recommendations

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Applied versus Basic Research

- **Basic research:** generates a body of knowledge by trying to comprehend how certain problems that occur in organizations can be solved.
- **Applied research:** solves a current problem faced by the manager in the work setting, demanding a timely solution.

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Basic and applied research

Sources: Authors' experience; Easterby-Smith et al. (2008), Hedrick et al.

Basic research ←→ Applied research

Purpose:

- expand knowledge of processes of business and management
- results in universal principles relating to the process and its relationship to outcomes
- findings of significance and value to society in general

Context:

- undertaken by people based in universities
- choice of topic and objectives determined by the researcher
- flexible time scales

Purpose:

- improve understanding of particular business or management problem
- results in solution to problem
- new knowledge limited to problem
- findings of practical relevance and value to manager(s) in organisation(s)

Context:

- undertaken by people based in a variety of settings including organisations and universities
- objectives negotiated with originator
- tight time scales

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Examples Applied Research

- Apple's iPod fueled the company's success in early years, helping to increase sales from \$5 billion in 2001 to \$32 billion in the fiscal year 2008. Growth for the music player averaged more than 200% in 2006 and 2007, before falling to 6% in 2008. Some analysts believe that the number of iPods sold will drop 12% in 2009. "The reality is there's a limited group of people who want an iPod or any other portable media player," one analyst says. "So the question becomes, what will Apple do about it?"
- The existing machinery in the production department has had so many breakdowns that production has suffered. Machinery has to be replaced. Because of heavy investment costs, a careful recommendation as to whether it is more beneficial to buy the equipment or to lease it is needed.

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Definition of Business Research

- **Business research:**
an organized and systematic inquiry or investigation into a specific problem, undertaken with the purpose of finding answers or solutions to it.

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Examples of Research Areas in Business

- Absenteeism
- Communication
- Motivation
- Consumer decision making
- Customer satisfaction
- Budget allocations
- Accounting procedures

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Why managers should know about research

- Being knowledgeable about research and research methods helps professional managers to:
 - Identify and effectively solve minor problems in the work setting.
 - Know how to tell good from bad research.
 - Appreciate the multiple influences and effects of factors impinging on a situation.
 - Take calculated risks in decision making.
 - Prevent possible vested interests from exercising their influence in a situation.
 - Relate to hired researchers and consultants more effectively.
 - Combine experience with scientific knowledge while making decisions.

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The Manager–Researcher Relationship

- Each should know his/her role
- Trust levels
- Value system
- Acceptance of findings and implementation
- Issues of inside versus outside researchers/consultants

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Internal Researchers

- Advantages:
 - Better acceptance from staff
 - Knowledge about organization
 - Would be an integral part of implementation and evaluation of the research recommendations.
- Disadvantages
 - Less fresh ideas
 - Power politics could prevail
 - Possibly not valued as “expert” by staff

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External Researchers

□ Advantages

- Divergent and convergent thinking
- Experience from several situations in different organizations
- Better technical training, usually

□ Disadvantages

- Takes time to know and understand the organization
- Rapport and cooperation from staff not easy
- Not available for evaluation and implementation
- Costs

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Business Research

Companies choose internal researchers or external researchers depending on:

- Industry type,
- Company size,
- Availability of expertise, and
- Financial resources.

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Case Study

- Definition: In a case study, a particular individual, program or event is studied in depth; findings may not be generalizable.
- Method: The researcher collects extensive data on the individual(s), program(s), or event(s) on which the investigation is focused.
- Data Analysis: involves (1) organization of details about the case, (2) categorization of data, (3) interpretation of single instances, (4) identification of patterns, and (5) synthesis and generalizations.
- Research Report: includes (1) a rationale for studying the case, (2) a detailed description of facts related to the case, (3) a description of data that was collected, (4) a discussion of patterns found, and (5) a connection to the larger scheme of things.

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Business Case Study

- It involves the examination and analysis of real-life business situations.
- It improves students' critical thinking, decision-making, and problem-solving skills with complex business scenarios.
- Harvard University Business School is renowned for its use of the case study method.
- Students are given cases with actual business situations.
- They feature a variety of issues and perspectives to be analysed and discussed on the challenges faced by the companies involved.

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Harvard's business case study: Steps

- 1. Preparation: Students read and analyse the case beforehand, focusing on identifying the main issues and potential solutions.
- 2. Classroom discussion: In class, students engage in an interactive discussion facilitated by the professor. The discussion is primarily student-led, with the professor providing guidance.
- 3. Analysis & problem-solving: Students are encouraged to apply relevant business theories, and propose effective and feasible solutions to the challenges faced by the company.
- 4. Consideration of alternatives: Students explore different approaches and possible outcomes, considering both short-term and long-term implications.

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Harvard's business case study: Steps

- 5. Learning from peers: Classmates are encouraged to share their thoughts, perspectives, and experiences, fostering a collaborative learning environment.
- 6. Decision-making: Through the case study method, students develop their decision-making abilities by evaluating alternative courses of action and making recommendations based on the available information.
- 7. Reflection and feedback: After the classroom discussion, students reflect upon the case, the analysis, and the decision-making process. Feedback from the professor and peers helps students refine their analytical and presentation skills.

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Harvard's Business Case Study

- The Harvard Business School's case study method provides a rich learning experience that simulates real-world business situations.
- It enables students to apply theoretical knowledge to practical problems and challenges commonly encountered in the business world, preparing them to tackle complex issues in their future careers.

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