Management Capstone

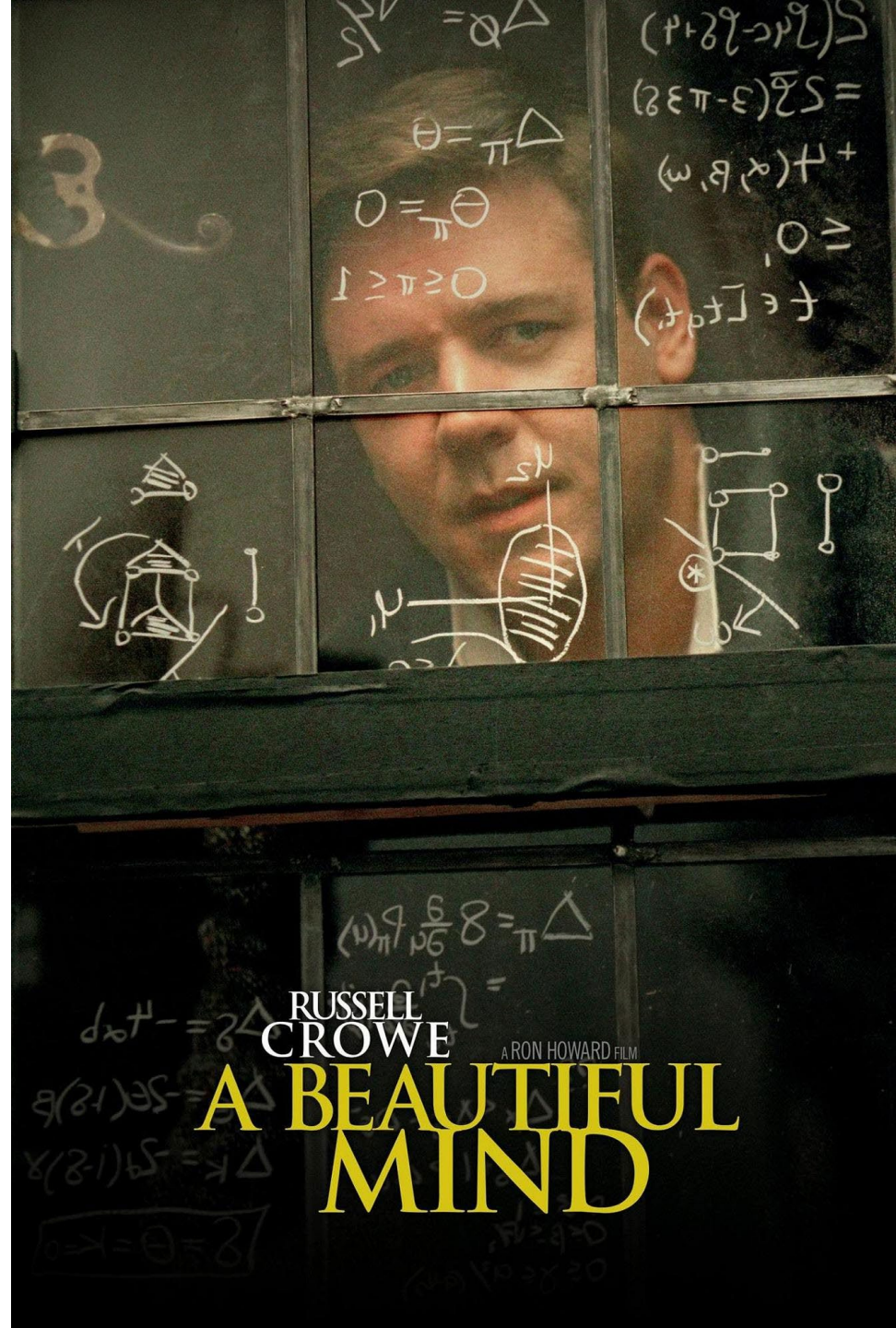**(Tutorial 4: Research Design,**

Methodology, and Writing

Introduction)

Tutor: James Lai

SILC Business School, Shanghai U.

Email: Jiun-Yan.Lai@uts.edu.au

Office: Wen Shang Building 309

RUSSELL CROWE

A RON HOWARD FILM

A BEAUTIFUL MIND

Research Design

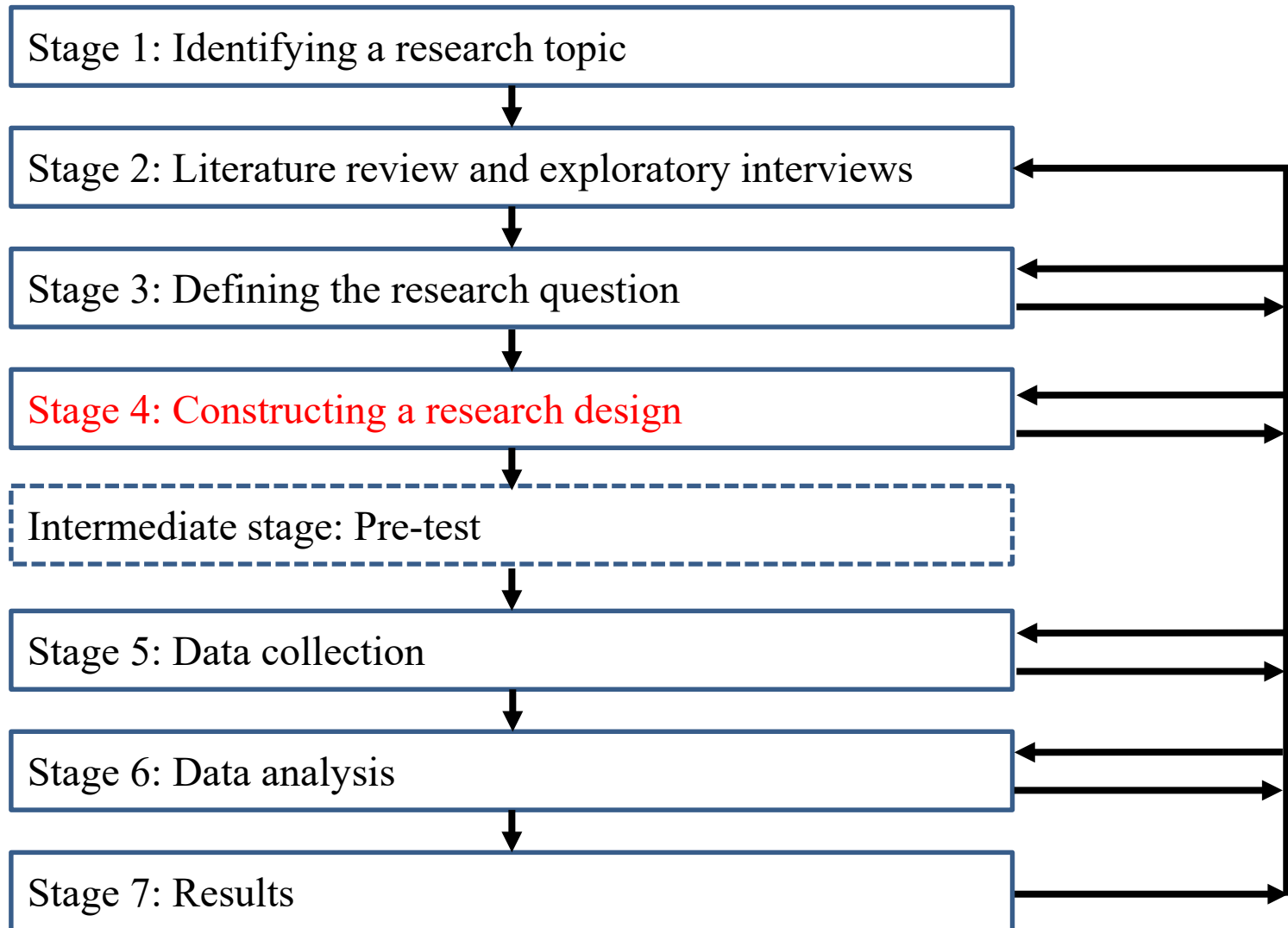| Research	
Research Philosophy	**Research Strategy**
Research Design (Framework/Proposal)	**Research Approach**
Sampling	**Data Collection Technique**

Research Design

- Before beginning your paper, you need to decide how you plan to design the study.

- Research design (研究设计) refers to the overall strategy utilized to carry out research that defines a succinct and logical plan to tackle established research question(s) through the collection, interpretation, analysis, and discussion of data.

- Note that your research problem determines the type of design you can use. Its function is to ensure that the evidence obtained enables you to effectively address the research problem as unambiguously as possible.

- Research design is also the conceptual structure (or framework or proposal) within which research is conducted.

Research Design

Source: Royer and Zarlowski (2001)

Research Design
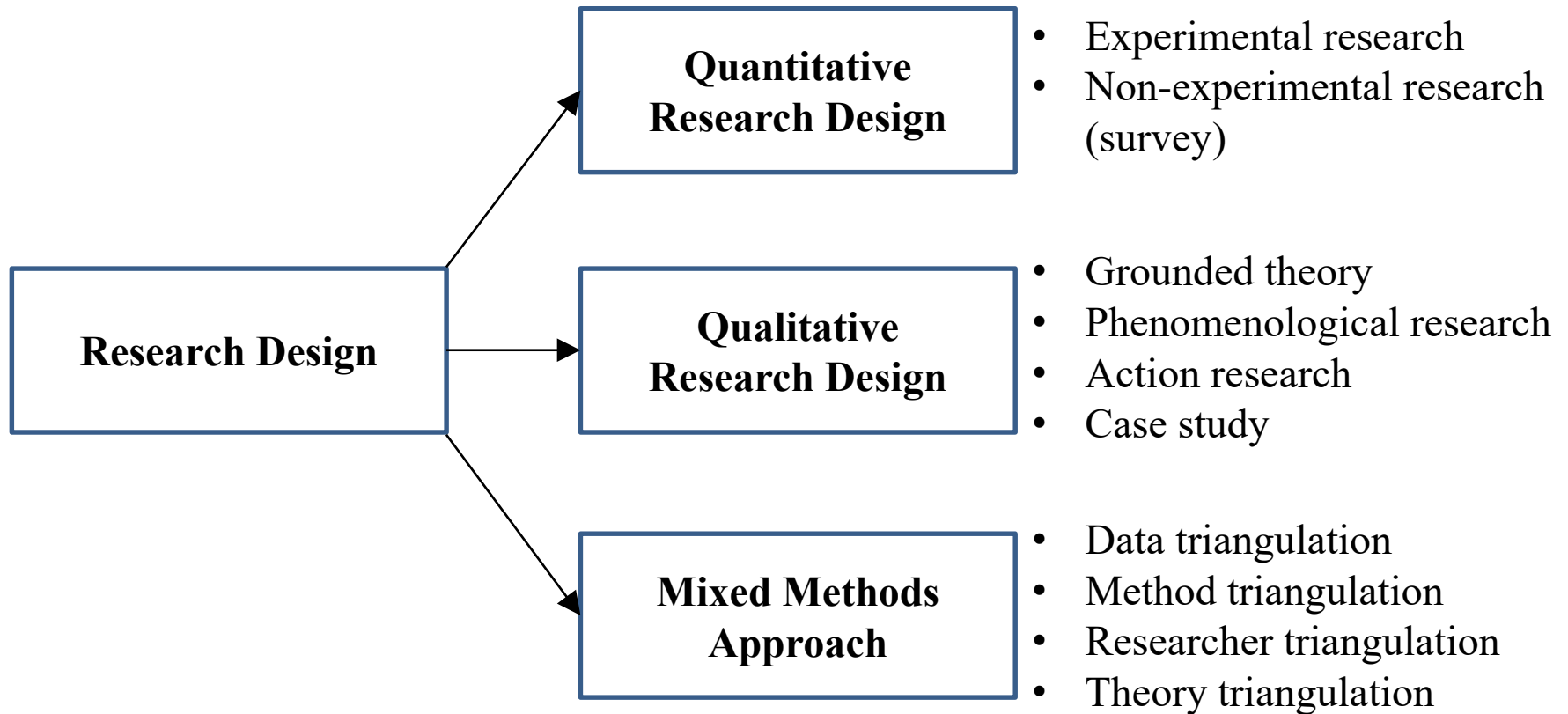
What is Methodology?

Research

Research Philosophy

Research Strategy

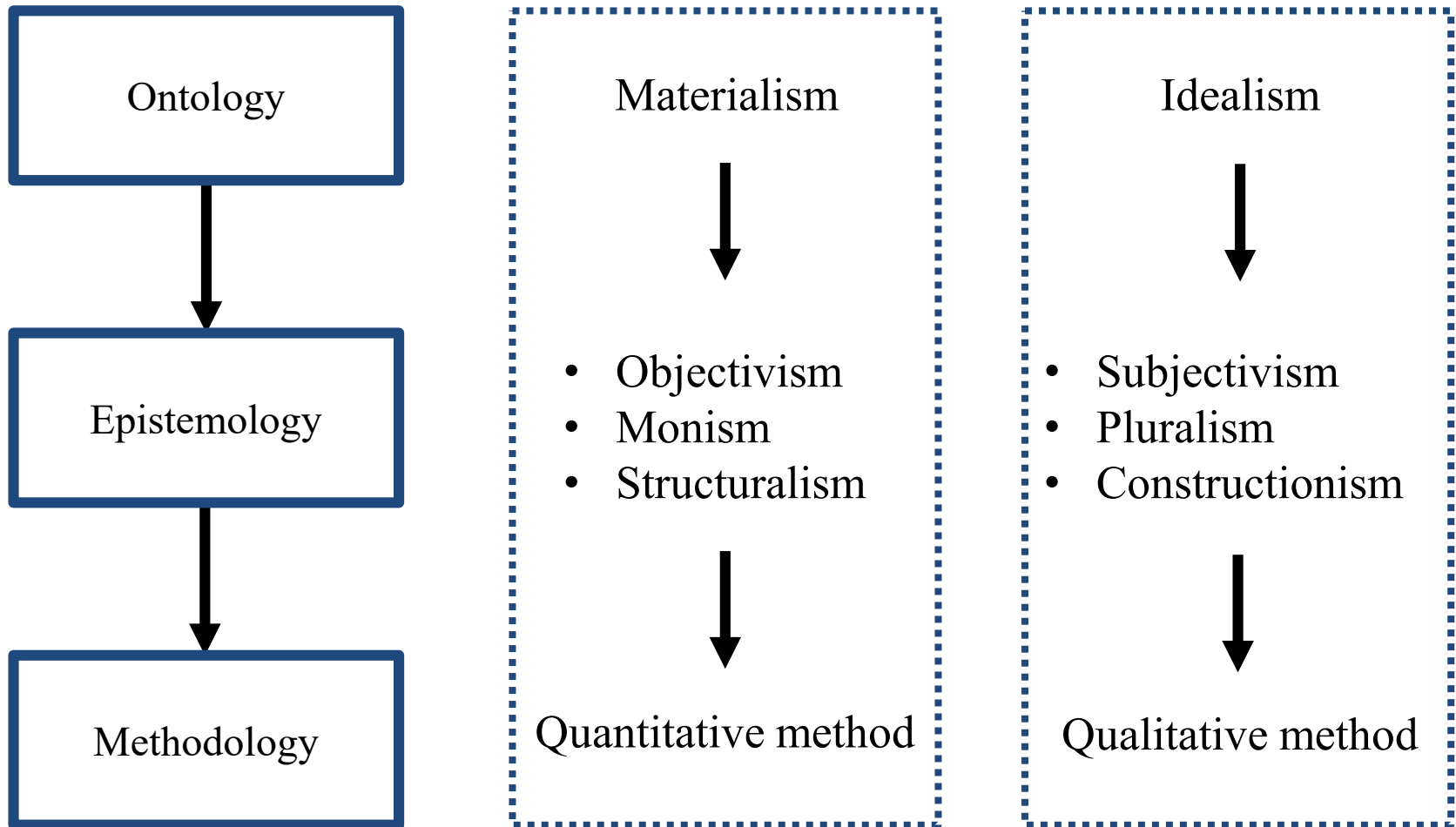**Research Design (Proposal)**

Research Approach

Sampling

Data Collection Technique

Research Philosophy

- Ontology (本体论): What is the form and nature of reality and, therefore, what is there and can be known about it?

  – What exists

  – View on nature of reality

- Epistemology (认识论): What is the nature of the relationship between the knower or would-be knower and what can be known?

  – Perceived relationship with knowledge

  – Are we part of knowledge? Or external to it?

- Methodology (方法论): How can the inquirer (would-be knower) go about finding out whatever he or she believes can be known?

  – How we go about discovering and creating knowledge

Research Philosophy

	Materialism	Idealism
Ontology		
↓	↓	↓
Epistemology	• Objectivism • Monism • Structuralism	• Subjectivism • Pluralism • Constructionism
↓	↓	↓
Methodology	Quantitative method	Qualitative method

Epistemology: Role of Researcher

- According to Evered and Louis (1981), a paper published in the *Academy of Management Review*, there are two inquiry approaches: inquiry from the outside and inquiry from the inside.

- Inquiry from the outside calls for detachment on the part of the researcher, who typically gathers data according to *a priori* analytical categories and aims to uncover knowledge that can be generalized to many situations.

  – Quantitative research

- Inquiry from the inside is characterized by the experiential involvement of the researcher, the absence of *a priori* analytical categories, and an intent to understand a particular situation.

  – Qualitative research
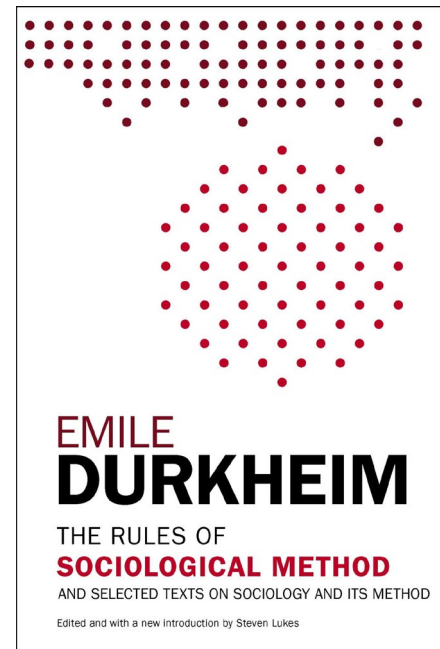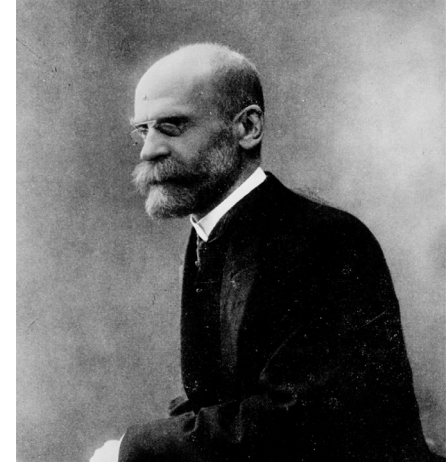
Epistemology: Role of Researcher

Dimension of Difference	MODE OF INQUIRY		
	From the Outside		From the Inside
Researcher's relationship to setting	Detachment, neutrality	←——→	"Being there," immersion
Validation basis	Measurement and logic	←——→	Experiential
Researcher's role	Onlooker	←——→	Actor
Source of categories	A priori	←——→	Interactively emergent
Aim of inquiry	Universality and generalizability	←——→	Situational relevance
Type of knowledge acquired	Universal, nomothetic: theoria	←——→	Particular, idiographic: praxis
Nature of data and meaning	Factual, context free	←——→	Interpreted, contextually embedded

Figure 2
Differences Between the Two Modes of Inquiry

Source: Evered, R., & Louis, M. R. 1981. Alternative perspectives in the organizational sciences: "Inquiry from the inside" and "inquiry from the outside." *Academy of Management Review*, 6(3): 385-395.

Epistemology: Structuralism

- Structuralism is, in sociology, anthropology, archaeology, history, and linguistics, a general theory of culture and methodology that implies that <u>elements of human culture must be understood by way of their relationship to a broader system</u>.

- It works to uncover the structures that underlie all the things that humans do, think, perceive, and feel.

- In Emile Durkheim's book *The Rules of Sociological Method* published in 1895, he argued that "a social fact is every way of acting, fixed or not, capable of exercising on the individual an external constraint."

EMILE
DURKHEIM
THE RULES OF
SOCIOLOGICAL METHOD
AND SELECTED TEXTS ON SOCIOLOGY AND ITS METHOD
Edited and with a new introduction by Steven Lukes

Epistemology: Constructionism

- Constructionism is a paradigm in which knowledge is not regarded as an insight into some objective reality, but instead <u>constructed by humans, partly through social interactions</u>.

- Proponents of constructionism do not strive to uncover a universal set of laws that underpin reality. They attempt to understand the intangible constructions or perspectives that individual form about specific places, events, and issues.

- They do not evaluate whether constructions are true or false but strive to facilitate informed and sophisticated perspectives.

- The observations and findings emerge from the interaction between researchers and reality.

"Believing, with Max Weber, that man is an animal suspended in webs of significance (意义之网) he himself has spun, I take culture to be those webs, and the analysis of it to be therefore not an experimental science in search of law but an interpretive one in search of meaning." (Geertz, 1973: p. 5)

Clifford Geertz
The Interpretation of Cultures
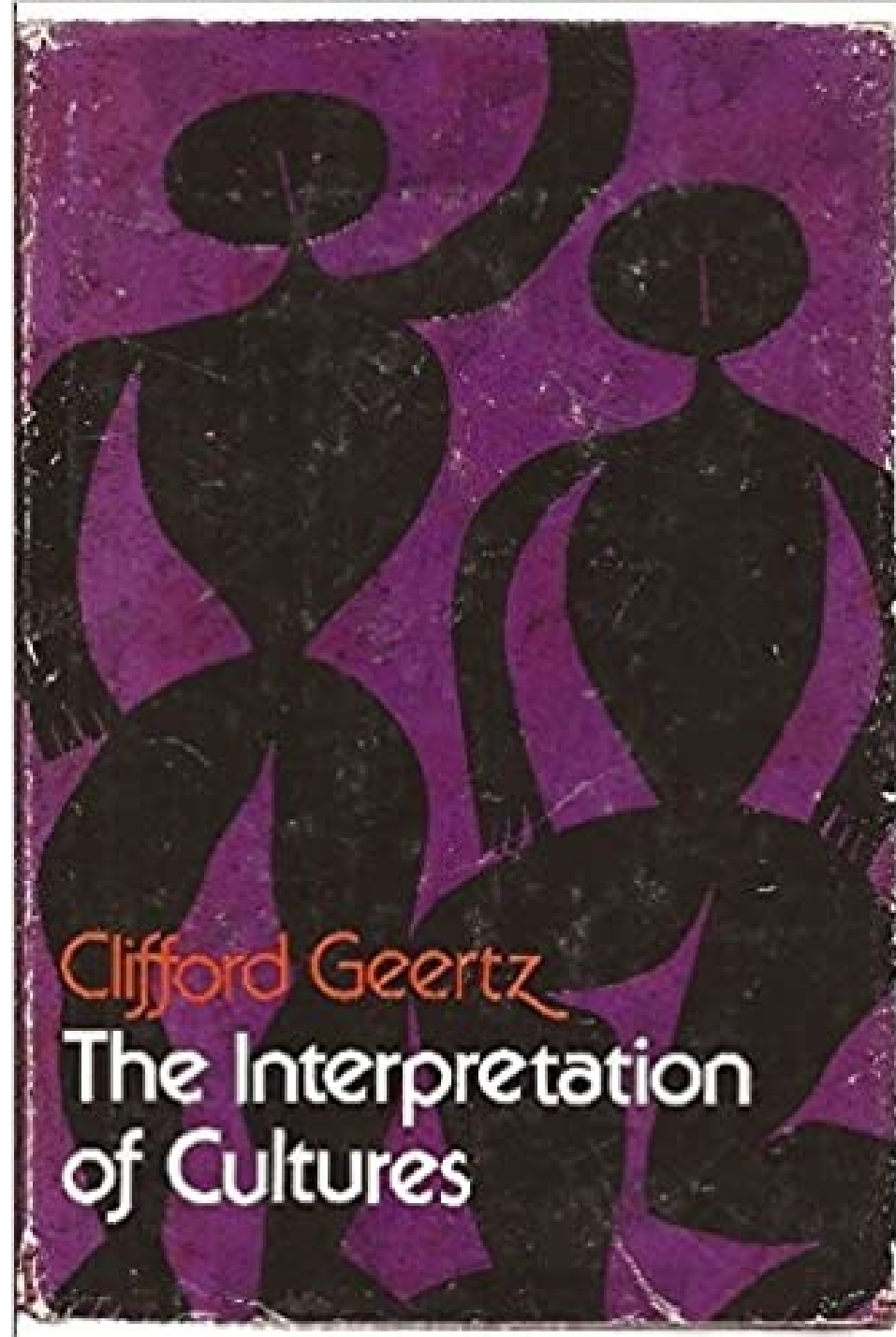
Methodology: Quantitative

- Quantitative research (定量研究) is defined as a systematic investigation of phenomena by gathering quantifiable data and performing statistical, mathematical, or computational techniques.

- Quantitative research collects information from the real world (e.g., existing and potential customers) using sampling methods and sending out online surveys, online polls, questionnaires, etc., the results of which can be depicted in the form of numerical.

- After careful understanding of these numbers, we can predict the future of a product or service and make changes accordingly.

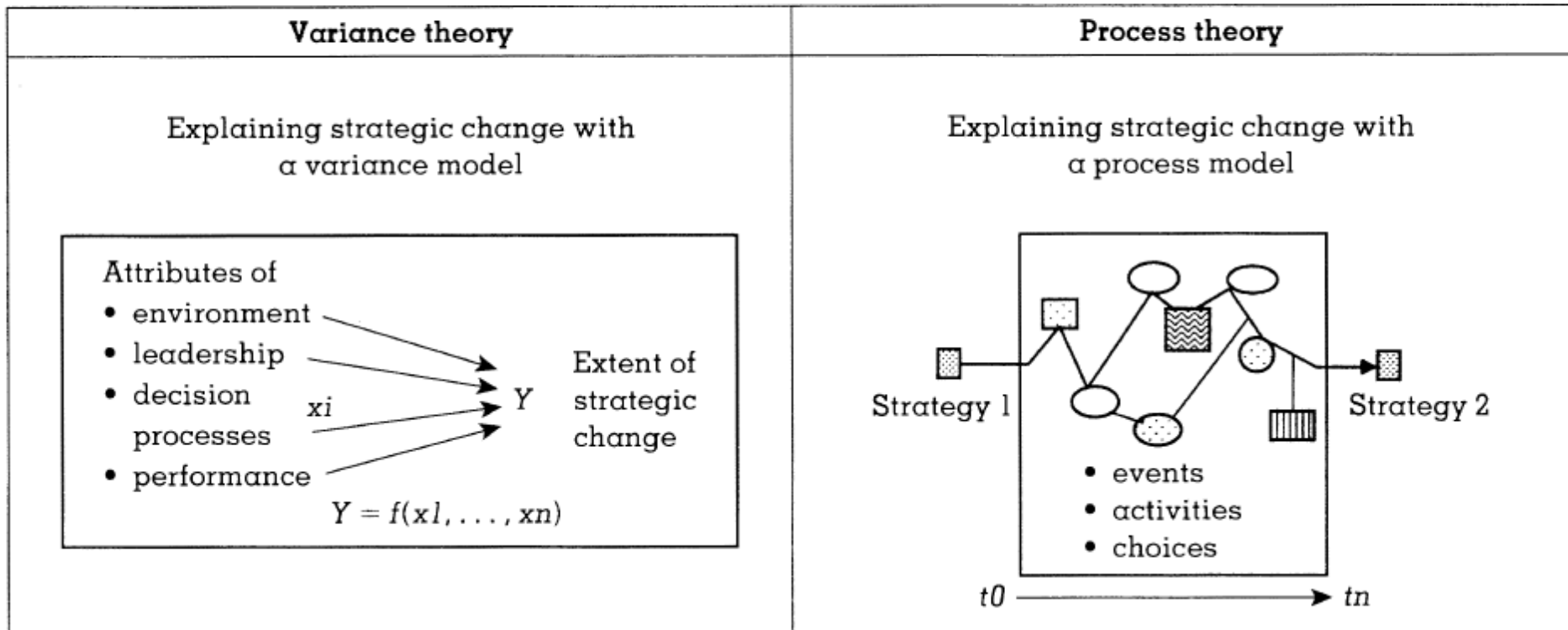# Methodology: Qualitative

- Qualitative research (定性研究) is a process of inquiry that seeks in-depth understanding of a phenomenon within their natural settings.

- Qualitative research focuses on "why" rather than "what."

- It helps collect data that is non-numerical. It relies on data collection methods that are more communication based rather than logical or statistical procedures.
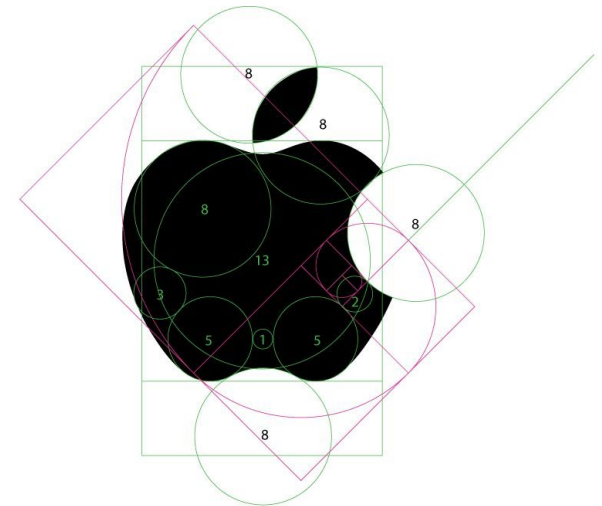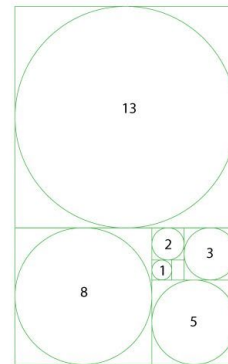
Methodology: Variance vs. Process

FIGURE 1
Two Approaches to Explaining Strategic Change[α]

Variance theory	Process theory
Explaining strategic change with a variance model	Explaining strategic change with a process model

Variance theory side:

Attributes of
- environment
- leadership
- decision processes
- performance

xi → Y → Extent of strategic change

$Y = f(x1, \ldots, xn)$

Process theory side:

Strategy 1 → Strategy 2

- events
- activities
- choices

$t0 \longrightarrow tn$

Source: Langley, A. 1999. Strategies for theorizing from process data. *Academy of Management Review*, 24(4): 691-710.

Methodology: Comparison

| Research Aspect	Quantitative Research	Qualitative Research
Common Purpose	Test hypotheses or specific research questions	Discover ideas, with general research objects
Approach	Measure and test	Observe and interpret
Data Collection Approach	Structured response and categories provided	Unstructured and free form
Data Analysis Approach	Statistical	Non-statistical
Researcher Independence	Researcher uninvolved; observer; results are objective	Research is intimately involved; results are subjective
Samples	Large samples to produce generalizable results (results that apply to other situations)	Small samples – often in natural setting
Example	Temperature: 9" Fahrenheit Height: 6"8'	Temperature: cold Height: Tall

Induction vs. Deduction

(Qualitative research design)

Induction analysis
- Pattern
- Observation
- Categorizing

Generalized laws and theories
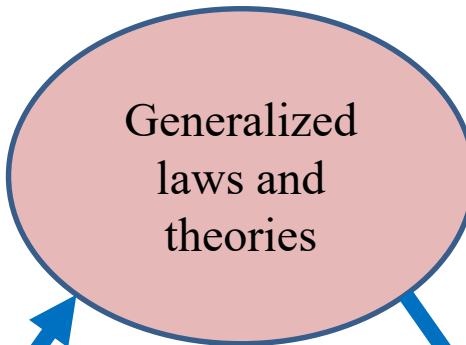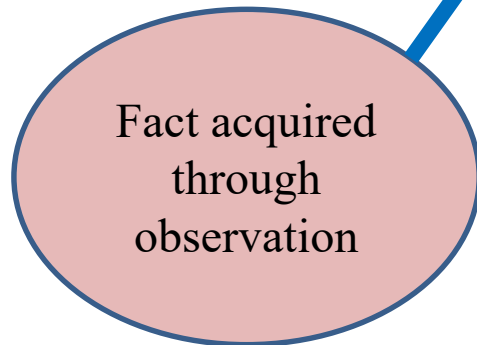
(Quantitative research design)

Deductive analysis
- A priori theory

Fact acquired through observation

Predictions and explanations
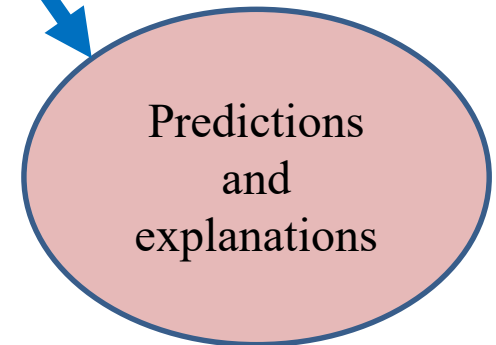
Criticism of Objectivism by Hawthorne Effect
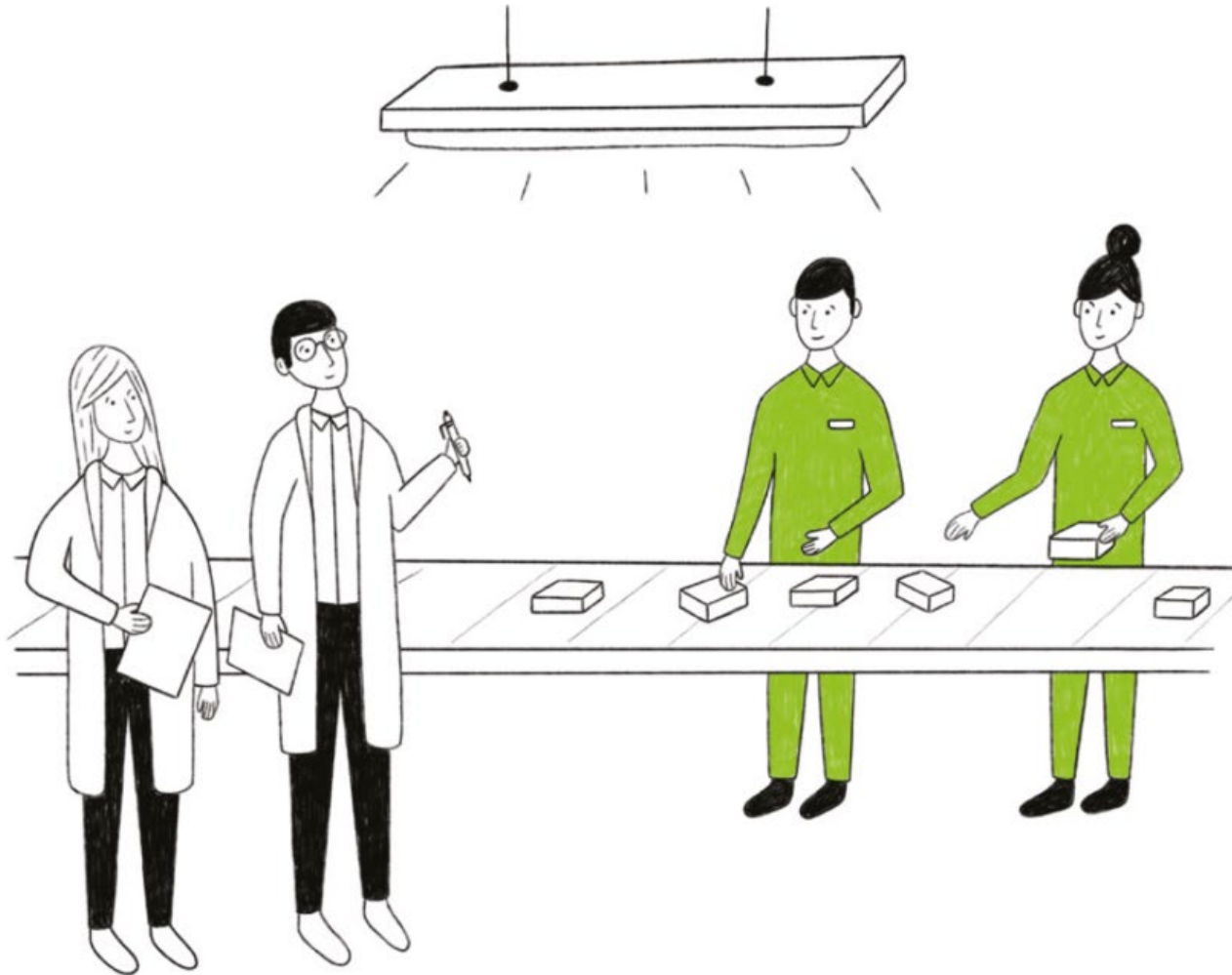
Criticism of Objectivism by Hawthorne Effect

- The Hawthorne effect refers to a type of reactivity in which individuals modify an aspect of their behavior in response to their awareness of being observed.

- The effect gets its name from one of the most famous industrial history experiments that took place at Western Electric's factory in the Hawthorne suburb of Chicago in the late 1920s and early 1930s.

- Workers experienced a series of lighting changes in which productivity was said to increase with almost any change in the lighting.

- Workers' productivity was not being affected by the changes in working conditions, but rather by the fact that someone was concerned enough about their working conditions.

Observer Effect in Social Science?

- In physics, the observer effect is the disturbance of an observed system by the act of observation.

- This is often the result of instruments that, by necessity, alter the state of what they measure in some manner.

- A common example is checking the pressure in an automobile tire; this is difficult to do without letting out some of the air, thus changing the pressure. Similarly, it is not possible to see any object without light hitting the object, and causing it to reflect that light.

- While the effects of observation are often negligible, the object still experiences a change.

How to Write a Good Introduction

- Keep your first sentence short.

- Don't repeat the title.

- Keep the introduction brief.

- Dedicate 1-2 sentences to articulating what the article covers.

- Dedicate 1-2 sentences to explaining why the article is important.

- Refer to a concern or problem your readers might have.

- Be careful telling stories.

- Use real numbers or real fact to convey importance.

Purpose of the Introduction

- Your entire thesis is a chronological story from the introduction to the final discussion or conclusion.

- The first thing you need to do is to clearly articulate (or frame) your research question (or problem).

- Your introduction content should successfully lead readers to the discussion and conclusion section (well-structured).

- Your introduction should be able to answer the two questions. First, why was this study needed to fill in the gap in scientific knowledge?

- What is knowledge gap? The missing piece of theoretical knowledge.

- Second, why does this gap need filling? (inspiring and illuminative contributions)

Introduction Content

- Brief background information about research topic (research question, research target, method, data, contributions, and managerial implications).

- Rationale for undertaking this study (reason for "filling the gap").

- Key references to preliminary work or closely related papers.

- Clarification of terms, definitions, or abbreviations (e.g., RBV).

- Review of pertinent literature.

Introduction Structure
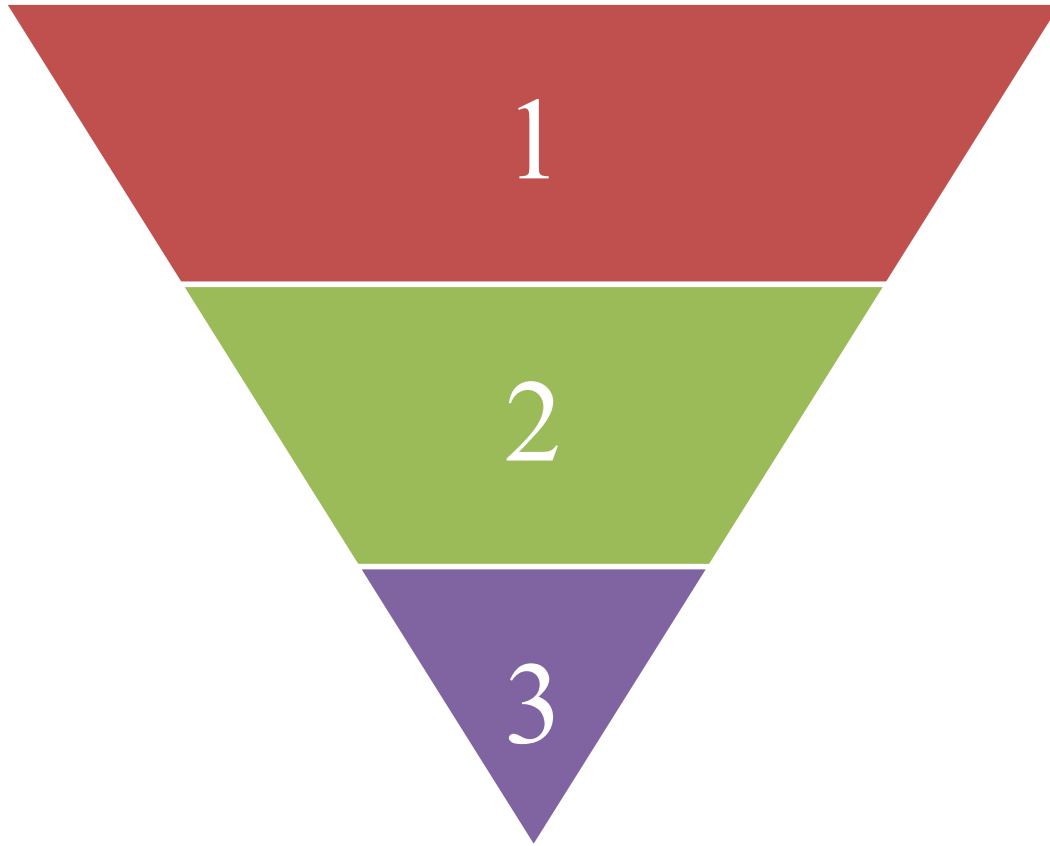
1. What is known? (Our understanding of the world.)

2. What is unknown? (What's the gap we want to fill?)

3. How and why should we fill the gap? (Your rationale and purpose/hypothesis.)

Step 1

- **Step 1: Show what is already known (background information).**

- Give a strong statement that reflects your research subject area.

- State the topic and the problems explored in your study. Ask questions to frame the aims of the study.

- Use keywords from your title.

- Don't state obvious or broad facts about your topic – highly relevant information is always more useful.

- Here you should also:

  – Be sure to cite all the sources referenced.

  – Only give useful background information.

  – Only review relevant, up-to-date primary literature that supports your research.

Step 2

- **Step 2: Show the gap in knowledge.**

- Highlight areas of too little available information.

- Explain why and how we should fill in that gap.

- Explain what logical steps can be developed based on existing research.

- Here you should also:

  – Show you have examined current data and devised a plan.

  – Show your peers your awareness of the direction of your field.

  – Show confidence in pursuing this study.

Step 3

- **Step 3: Show how your study fills in the knowledge gaps? (Purpose and hypothesis)**

- State your purpose and give a clear hypothesis of objective of the study.

- Hypothesis: 1 to 2 sentences supposition/explanation.

- Often written in an "if … then …" format.

- Tell what useful knowledge will be gained.

When should I Write the Introduction

Introduction

Introduction

Materials & Methods

Materials & Methods

Results

Results

Discussion

Discussion

Conclusion

Introduction Writing Tips

- Write in the active voice when possible.

- Write concise sentences.

- Use stronger verbs when possible.

- Don't overuse first-person pronouns.

- Organize your thoughts from broad to specific.

Example

STRATEGIC MANAGEMENT JOURNAL   WILEY

SPECIAL ISSUE ARTICLE

Liminal movement by digital platform-based sharing economy ventures: The case of Uber Technologies

Raghu Garud[1] | Arun Kumaraswamy[2] | Anna Roberts[1] | Le Xu[2]

1 | INTRODUCTION

Platform-based sharing economy business models such as Uber and Airbnb play an important role in transforming today's business landscape (Gerwe & Silva, 2020; Mair & Reischauer, 2017; Parker, Van Alstyne, & Choudary, 2016; Sundararajan, 2016). In comparison to earlier transformations, this transformation is driven by digital technologies, which reduce the costs for people to transact with one another. Indeed, sharing economy platforms have opened many opportunities for entrepreneurs to offer novel business models (Sundararajan, 2016).

However, entrepreneurs confront several challenges in enacting these opportunities. As scholars have noted, entrepreneurs will encounter resistance from existing ecosystem members in their efforts to develop cospecialized assets (Adner, 2012; Ansari, Garud, & Kumaraswamy, 2016; Kapoor & Lee, 2013; Teece, 1986). Entrepreneurs also face the problem of generating same-side and cross-side (or indirect) network effects (described as a "chicken and egg" problem in Caillaud & Jullien, 2003) in the case of platform-based business models

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- Topic: (1) Platform-based sharing economy and (2) business model innovation
- Examples: Uber and Airbnb
- Recent references: Gerwe and Silva (2020), Mair and Reischauer (2017), etc.
- The first paragraph provides the background information of this thesis.
- The second paragraph, which starts with "However," begins to create the gap (what are known and what are unknown).

lenges within each and every local context they enter (see also Grajek & Kretschmer, 2012, for related arguments on the dynamics of critical mass generation being a "local rather than a global phenomenon").

Recent work in institutional theory provides additional insights on entry dynamics pertaining to sharing economy business models. For instance, Mair and Reischauer (2017) note that sharing economy business models confront institutional complexity (Greenwood, Raynard, Kodeih, Micelotta, & Lounsbury, 2011), and therefore are likely to encounter legitimacy challenges on entry (Kuratko, Fisher, Bloodgood, & Hornsby, 2017). First, these business models may not be recognized or understood by market actors (e.g., service providers and users) whose support is required to trigger network effects. In other words, they lack cognitive legitimacy (Aldrich & Fiol, 1994). Second, these novel business models may not conform to regulations designed for traditional business models (see also Sundararajan, 2016). Therefore, they also may lack sociopolitical legitimacy (Aldrich & Fiol, 1994).

- The theory this paper uses: Institutional theory.
- The third paragraph reviews how recent literature of institutional theory explains the focal phenomenon.

==What are the challenges that platform-based sharing economy ventures confront upon permissionless entry into existing ecosystems when their products or services violate existing regulations, and what strategies do they use to establish themselves?== Studying the entry and implementation of platform-based sharing economy ventures offers a unique opportunity to develop insights on viable entry strategies. Our study of Uber identified a suite of interrelated strategies that ventures must undertake on permissionless entry. These include strategies that ventures undertake to address the "chicken and egg" problem (i.e., jump-starting network effects around platform sides) that they confront even while engaging in a "game of chicken" (Schelling, 1960) with regulators.[1]

For instance, efforts by Uber to generate visibility for its services among market actors led to regulators pushing back, thereby exacerbating the company's lack of sociopolitical legitimacy on the regulatory front. Such regulatory pushback threatened to reduce Uber's window of opportunity. Uber then used a series of strategic moves to extend its window of opportunity to establish itself in the market, and to convince the regulators that its service and business model was valuable to society.

Uber's activities in the market domain represent traditional entrepreneurship. However, its activities in the nonmarket domain constitute "regulatory entrepreneurship," that is, the pursuit of a venture with a business plan that seeks to change applicable laws (Pollman & Barry, 2016). Besides identifying the market and nonmarket strategies that Uber deployed, our analysis reveals connections between the two. Specifically, Uber was able to mobilize its growing user base to lobby the regulators on its behalf using the very digital application (or app) that was the foundation for its ridesharing business model.

- After the theory is finely introduced and reviewed, research question is then articulated.
- Research target is then also introduced by stating that "Our study of Uber ……"
- Background information of Uber is also provided to readers.

Management Capstone

(Tutorial 4: Research Design, Methodology, and Writing Introduction)

Tutor: James Lai

SILC Business School, Shanghai U.

Email: Jiun-Yan.Lai@uts.edu.au

Office: Wen Shang Building 309