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# **PURCHASING STRATEGIES IN TIMES OF VOLATILITY**

**A multidimensional perspective of an automotive OEM on the selection and implementation of competitive priorities**

**23. Techno-Ökonomie Kolloquium**

16-04-2018

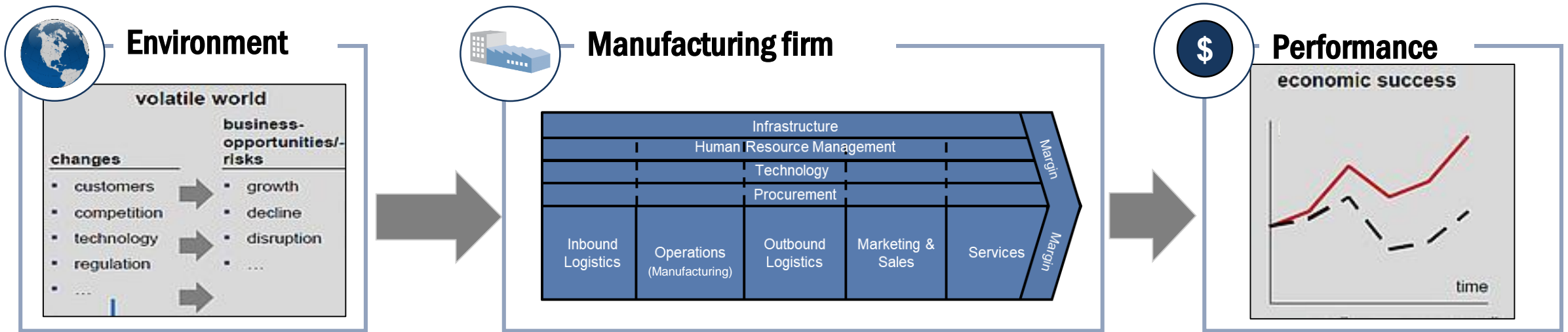


# PURCHASING STRATEGIES IN TIMES OF VOLATILITY

## Agenda

- 1 Initial situation
- 2 Literature review
- 3 Research question & Expected contribution
- 4 Methodological approach
- 5 References

# 1. Initial situation



- ▶ **“Individual businesses no longer compete as stand-alone entities, but rather as supply chains.”** (Christopher, 2011)
- ▶ **“With the increasing level of volatility, the days of static supply chain strategies are over.** (Simchi-Levi & Fine, 2010) **“In a turbulent environment, the goal of strategy should be strategic flexibility”** (Hayes & Pisano, 1994)
- ▶ **Supply Chain Strategy includes decisions including “the selection of partners, the location and capacity of warehouse and production facilities [...]”** (Apics, 2017)
- ▶ **“An analysis of the cost structure of manufacturing companies shows the importance of purchasing to organizations. The largest part of the cost of goods [...] appears to be taken up by purchased materials and services.”** (Van Weele, 2010)

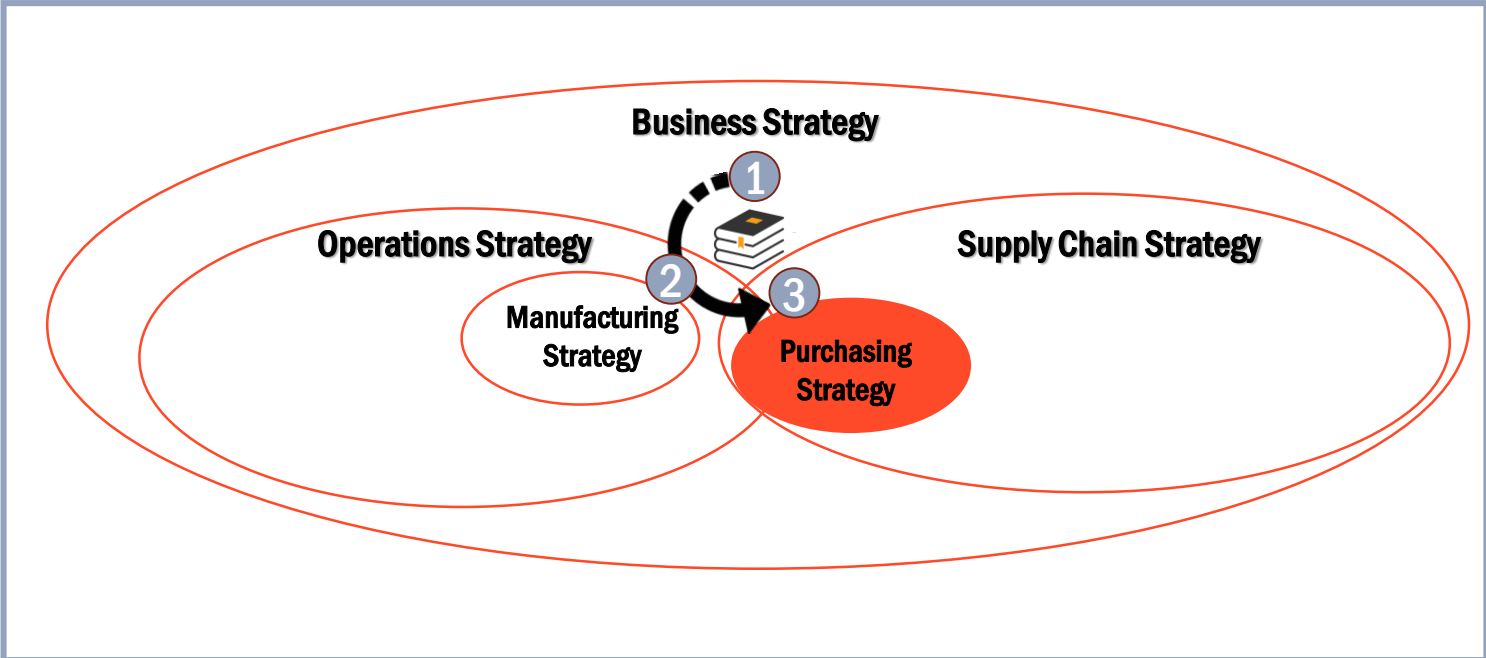
Figure based on (Ramsauer et al., 2017)

# 2. Literature review

**Guiding question**

Given the importance of the purchasing function to manufacturing organizations, **how should purchasing strategies be designed to cope with environmental volatility?**


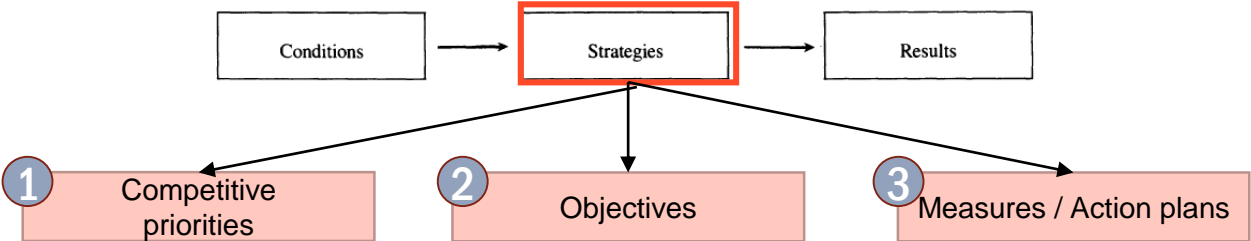
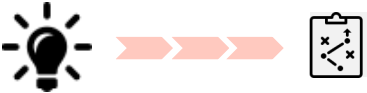
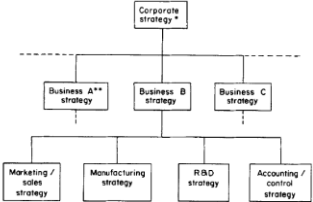
**Academic domains & Related constructs**



- 1 Business Strategy**
  - Definitions of strategy
  - Perspectives on strategy
  - Hierarchy of strategy
- 2 Manufacturing Strategy**
  - Definitions of manufacturing strategy
  - Content of manufacturing strategy
  - Hierarchy of manufacturing strategy
- 3 Purchasing Strategy**
  - Definitions of purchasing strategy
  - Content of purchasing strategy
  - Hierarchy of purchasing strategy

\*PSM - Purchasing and supply management is focusing on the upstream supply chain. (Schoenherr et al., 2012) "Supply chain management (SCM) involves a broader perspective than PSM." (Van Weele, 2014)

# 2. Literature review - Key insights ‘Strategy’

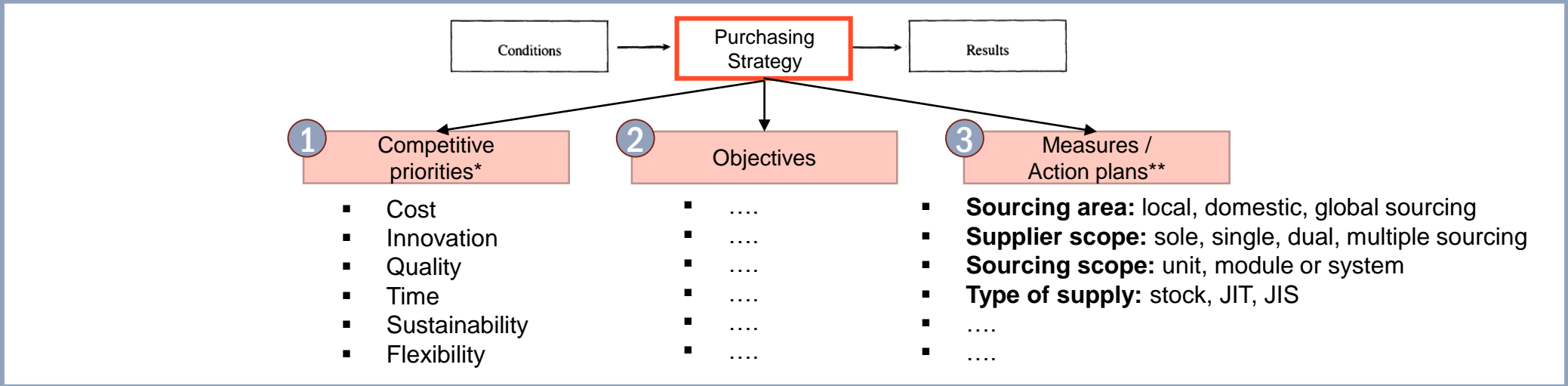
<p>Definitions</p>	<p><b>Strategy:</b> “the determination of the basic long-term goals and objectives of an enterprise, and the adoption of courses of action and the allocation of resources necessary for carrying out these goals.” (Chandler, 1962)</p>	
<p>Perspectives on strategy</p>	<p>Strategy content</p> 	<p>“Content focuses on the specifics of what was decided.” (Fahey &amp; Christensen, 1986)</p> 
	<p>Strategy process</p> 	<p>„Process addresses how such decisions are reached in an organizational setting.“ (Fahey &amp; Christensen, 1986)</p>
<p>Hierarchy of strategy</p>		<p>Three major levels of organizational strategy can be differentiated (Wheelwright, 1984):</p> <ol style="list-style-type: none"> <li>(1) corporate strategy</li> <li>(2) business strategy</li> <li>(3) functional strategy</li> </ol>

# 2. Literature review - Key insights ‘Purchasing Strategy’

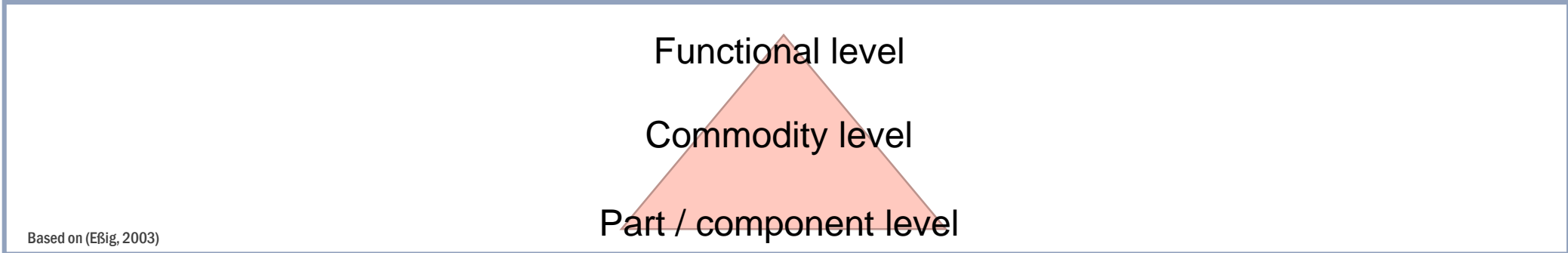
## Definition

“Purchasing strategy can be viewed as the pattern of decisions related to acquiring required materials and services to support operations activities that are consistent with the overall corporate competitive strategy. (Watts, 1992)

## Content of purchasing strategy

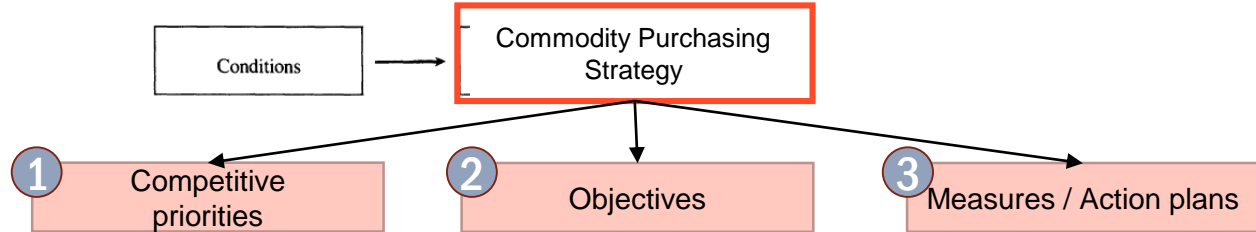


## Levels of purchasing strategy



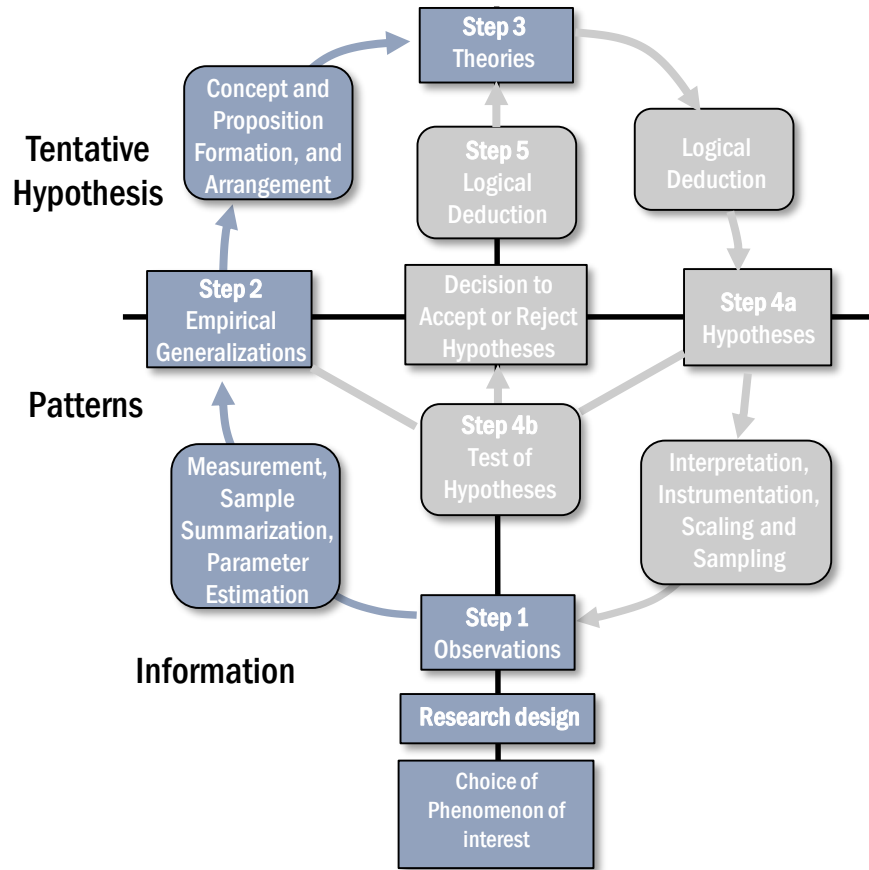
\*(Spina et al., 2013); \*\*(Eßig, 2003)

### 3. Research question & Expected contribution

<p>Research gap</p>	<ul style="list-style-type: none"> <li>▪ Linkages between environment conditions and (manufacturing) strategy are poorly investigated in terms of empirical studies (Swamidass &amp; Newell, 1987)</li> <li>▪ Existing body of literature is focusing on single competitive priorities which does not reflect the trade-offs in the real world (Spina et al., 2013)</li> </ul>
<p>Research question</p>	<p>Given the trade-off in terms of cost, quality, flexibility and innovation, <b>how should the purchasing strategy's content of automotive OEM commodity groups be designed in order to cope with the volatile environmental conditions?</b></p>  <pre> graph TD     Conditions[Conditions] --&gt; CPS[Commodity Purchasing Strategy]     CPS --&gt; CP1[1 Competitive priorities]     CPS --&gt; Obj2[2 Objectives]     CPS --&gt; MP3[3 Measures / Action plans]   </pre>
<p>Research objectives</p>	<ol style="list-style-type: none"> <li>1. <b>Objective:</b> Refine existing theory about the content of purchasing strategy by empirically investigating multiple competitive priorities as well as their linkages with the environmental conditions</li> <li>2. <b>Objective:</b> Support managerial decision-making in purchasing by providing a framework which links environmental conditions with suggestions in terms of strategy content (CP, Objectives, Measures)</li> </ol>
<p>Delimitation of research focus</p>	<ul style="list-style-type: none"> <li>▪ Purchasing strategy content research</li> <li>▪ Focus on purchasing strategies of an automotive OEM with a focus on direct goods</li> <li>▪ Consideration of competitive priorities of cost, quality, innovation and flexibility</li> </ul>

# 4. Methodological approach

## Empirical cycle - Inductive reasoning



Source: (Wallace, 1971); (De Groot, 1969)

## Case study research - CSR

What is CSR?

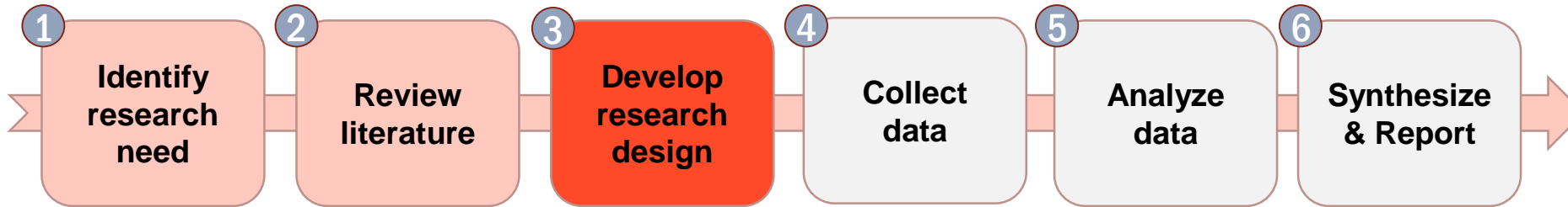
- *Case study research is one of several forms of social research<sup>1</sup>*
- **Both quantitative and qualitative methodologies are used to help understand phenomena<sup>2</sup>**
- **Boundaries of the phenomenon are not clearly evident and no experimental control or manipulation is used<sup>3</sup>**
- **Multiple sources of evidence/ data are used<sup>3</sup>**

Why CSR?

- Studying the **phenomenon in a natural setting**, one can learn about the state of the art, and **generate theories from practice<sup>3</sup>**
- **Allows the researcher to answer "how" and "why" questions, that is, to understand the nature and complexity of the processes taking place<sup>3</sup>**
- A case approach is **an appropriate way to research an area in which few previous studies have been carried out<sup>3</sup>**

Sources: <sup>1</sup>(Yin, 2014); <sup>2</sup>(Meredith, 1998); <sup>3</sup>(Benbasat et al., 1987)

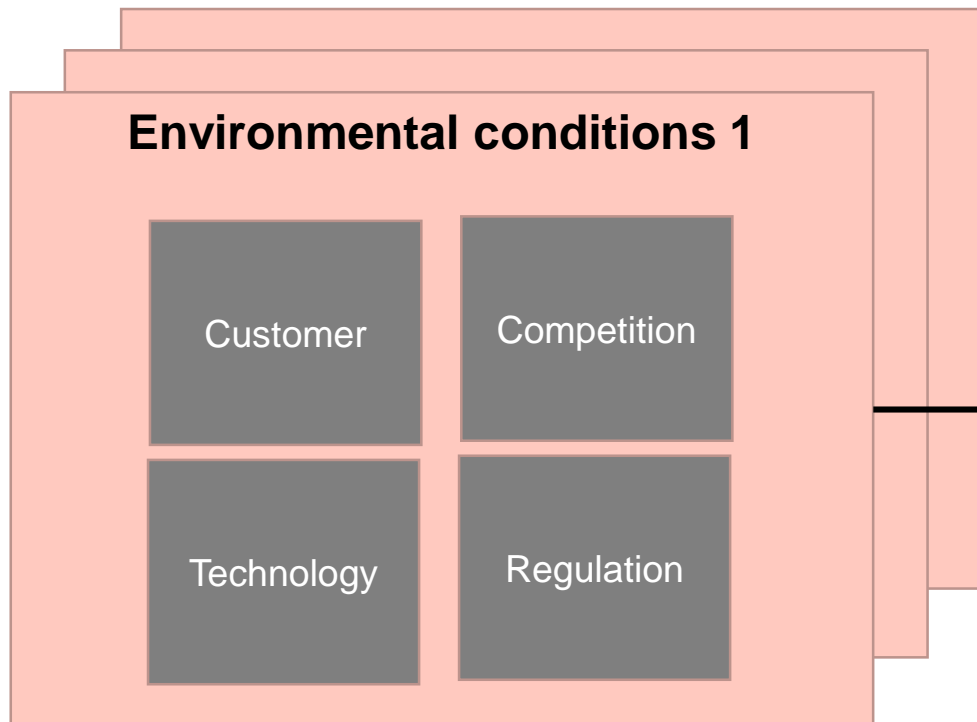
# 4. Methodological approach



- **What to look at?** → Unit of analysis
- **How to look at?** → Conceptual framework
- **Number of cases?** → Single or multiple case study design
- **Which cases to consider?** → Case sampling
- **Kind of data & how to collect?** → Data sources and collection methods

# 4. Methodological approach - Conceptual framework

## Contingency variable

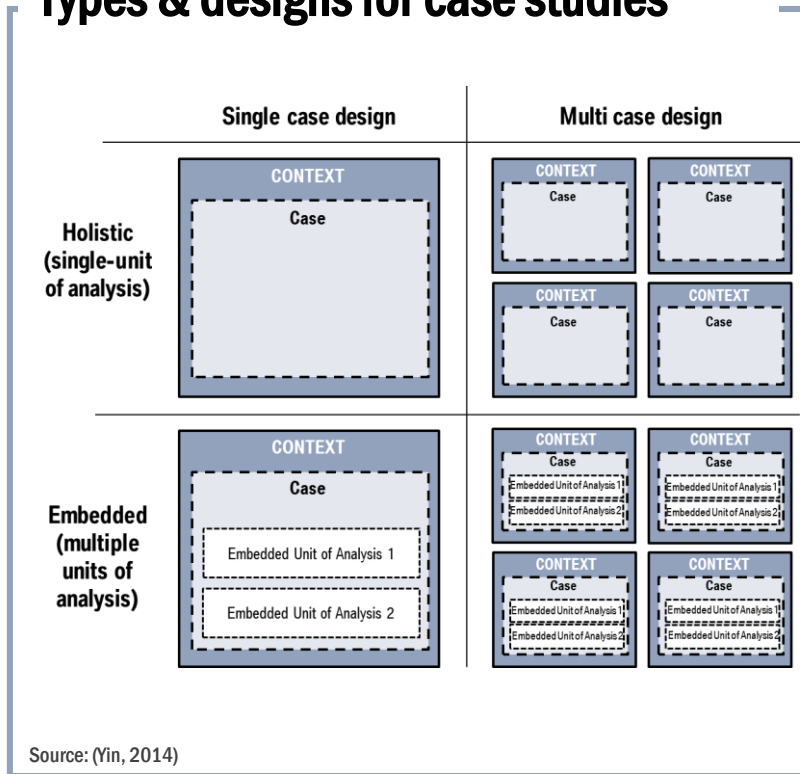


## Independent variable

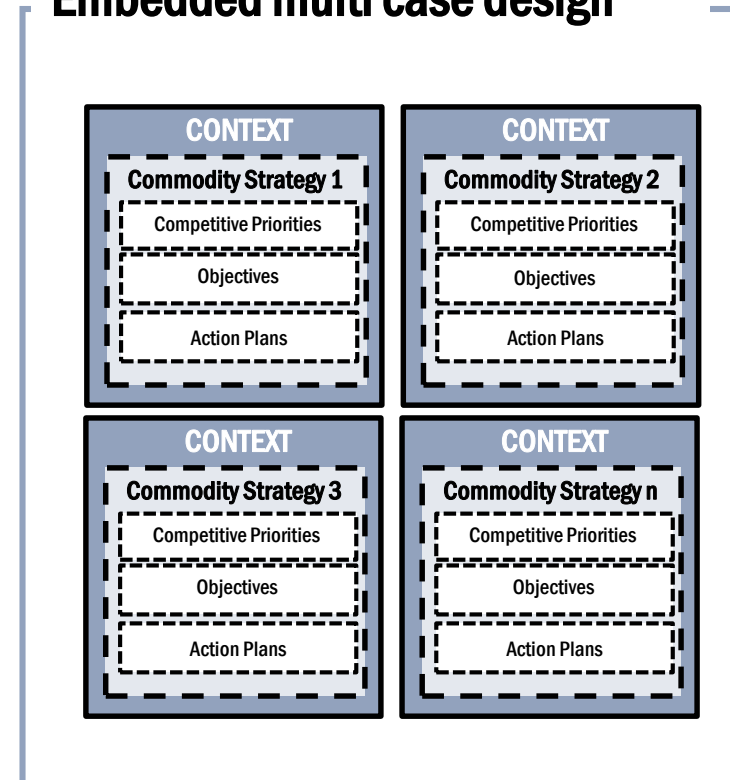


# 4. Methodological approach - Case study design

## Types & designs for case studies

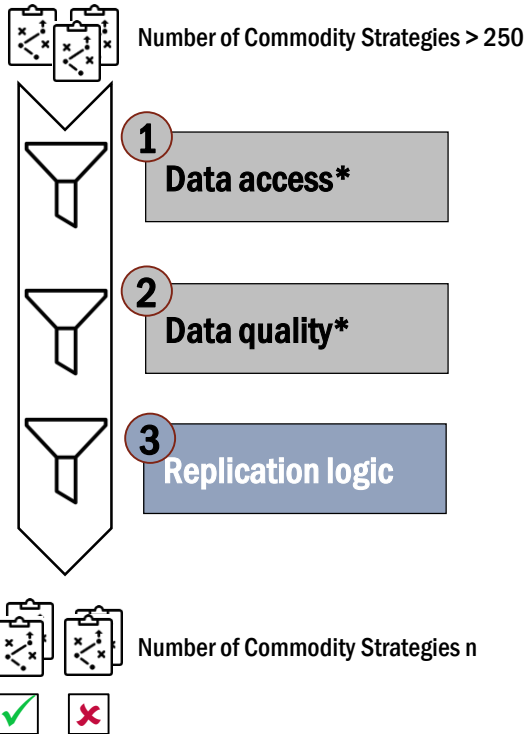


## Embedded multi case design



# 4. Methodological approach - Case sampling

## Case sampling process



## Replication logic

### Literal replication

The selection of two (or more) cases within a multiple-case study because the cases are predicted to produce similar findings.

### Theoretical replication

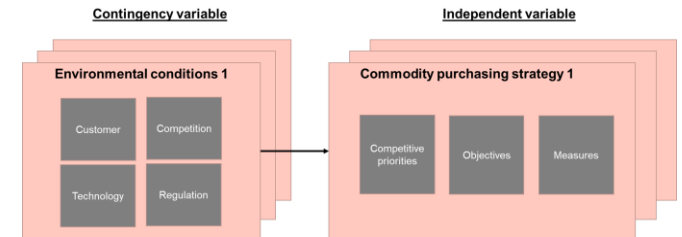
The selection of two (or more) cases within a multiple-case study because the cases are predicted to have contrasting findings, but for anticipatable reasons.

Source: (Yin, 2014)

## Sampling criteria

### Environmental conditions:

- Degree and time horizon of demand volatility
- Degree of demand uncertainty
- Dependence on regulatory issues
- Influence of technology innovations



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