Different Regions with Few Transaction
An Approach of Systematization

FIG Working Week 2017

Surveying the world of tomorrow –

From digitalisation to augmented reality

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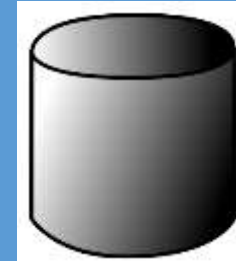Geodetic Institute, Technische Universität Dresden, Germany

Founded by **DFG** Deutsche Forschungsgemeinschaft

Introduction

- Valuation necessary in all markets (functional and spatial)

- Comparison approach (with purchase prices) not usable in all submarkets

- Other market data not available in those regions
  - No data available for income method (rates)
  - No information about market adjustment available for cost approach
  - Difficult to identify comparable regions for transregional investigations

- Alternative approaches necessary

  Are there different types of regions with few transactions?

Discussion in research context

- Mainly undeveloped plots in city centers are in research focus

- Direct comparison approach needs at least 10-15 purchase prices (stable mean)

- Statistical analysis for regression analysis needs at least 50-100 purchases (approx. 15 purchases per influencing parameter)

Aims and Methodological Approach

- **The focus of this research**
  - Detailed view and investigation on regions with few transactions

- **Aims of the evaluation process**
  - Get a better view on regions with few transactions
  - Develop approaches for specific categories
    - Available data
    - Possible strategies

Source: bennettca.co.nz

- **Methodological approach**
  - Grounded Theory Method (GTM)
  - Guided interviews

Grounded Theory Method

Research question
- Are there different regions?
- How to handle these regions?
- What kind of additional data is available?

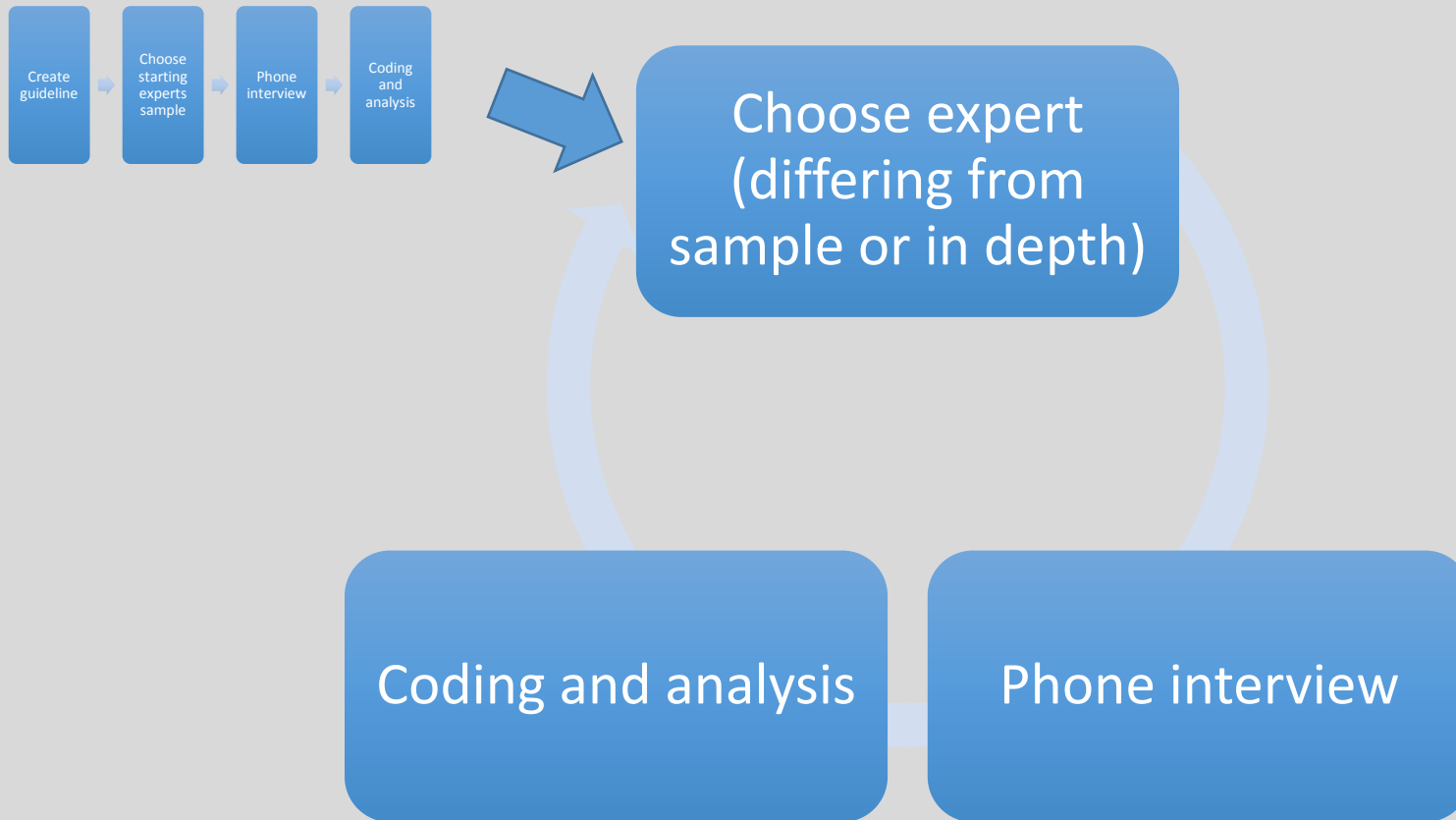| Create guideline interview | → | Choose starting experts sample | → | Phone interview | → | Coding and analysis |

Grounded Theory Method

Create guideline → Choose starting experts sample → Phone interview → Coding and analysis

Choose expert (differing from sample or in depth)

Coding and analysis

Phone interview

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Guided Interview on regions with few transactions

- Definition and characterisation
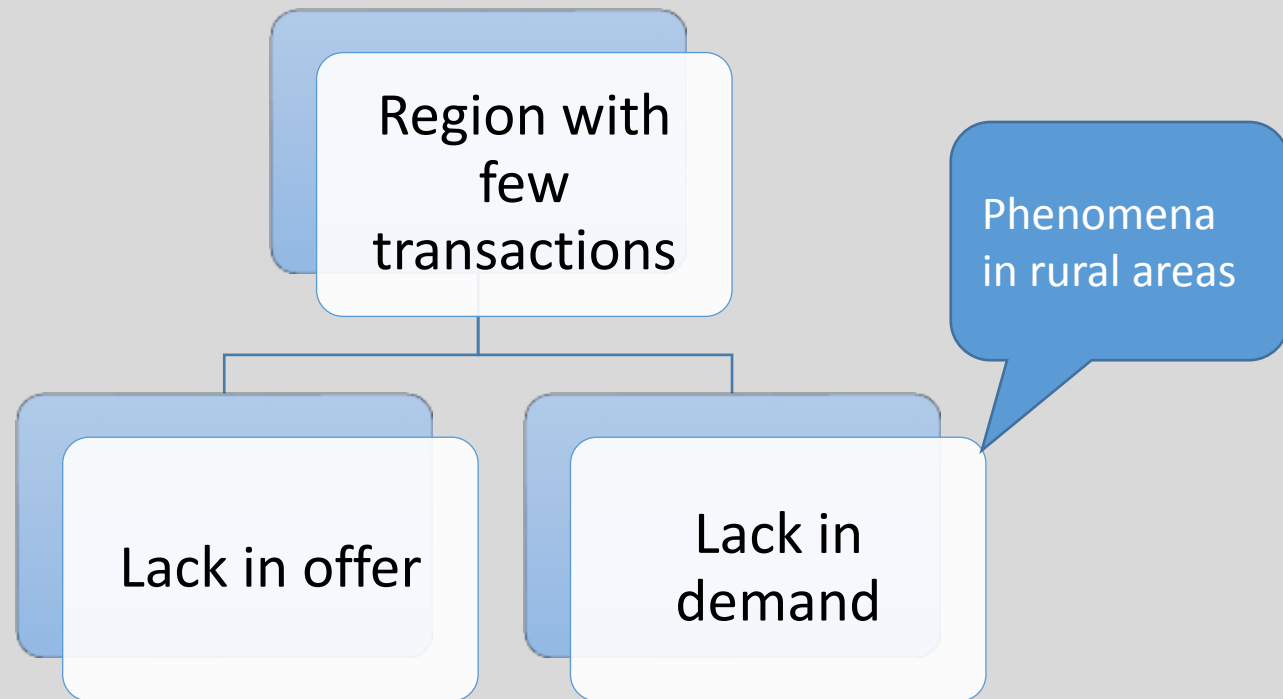- Appearance and causes
- Own experiences
- Alternative approaches and data

Choice of Experts & Coding

- Academic background

- Valuation experts

- Working in markets with few transactions

- Wide working radius and different markets

- 7 Experts from different areas

Results – Main categories

Region with few transactions

Phenomena in rural areas

Lack in offer

Lack in demand

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Results

	Derived Subcategories for Lack in Offer			
	Rare in its condition	Not available in special condition	Normal number but not sold in a time period	Unique
Example	Office building in rural areas	Undeveloped plot in city area	Owner occupied Buildings	A castle
Sample	Small population, small sample	Huge population but in a different (not comparable) condition	Huge population, but small sample in specific time period	Population = 1 Sample ≤1

Results

|	Derived Subcategory for Lack in Demand	
	Quality of offered real estates doesn't satisfy the demanded quality	Demographic reason
Example	Unusual size and shape of plots in city centers	Rural areas with decreasing number of inhabitants (peripheral rural areas)
Sample	Normal population, small sample	Huge population, small sample

Results

- Additional Data:
  - Experts knowledge
    - Reports
    - Experts surveys
    - Offer prices (marketing periods)
  - Rents
  - Regional indicators (purchase power, population development ect.)

Source: Immobilienscout24.de
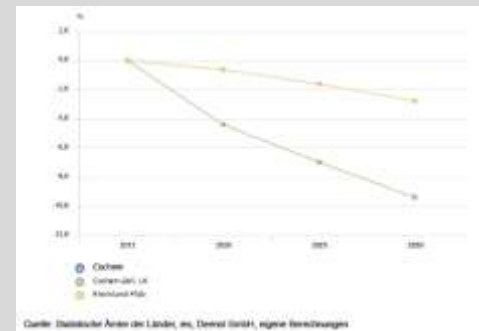
Findings

- There are different regions with few transactions (categorization is possible)

- Different regions = different additional data

- Categorization can be used to develop appropriate approaches for each region

Further work

- Further validation
  - Quantitative survey
  - Investigation on those regions
- Further investigation on the availability and quality of data
- Development and testing of approaches suitable for the specific region
  - Fusion of different data sources

Many thanks for your attention!

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