

Multi-attribute products' utility: an approach to measuring for the real-estate market



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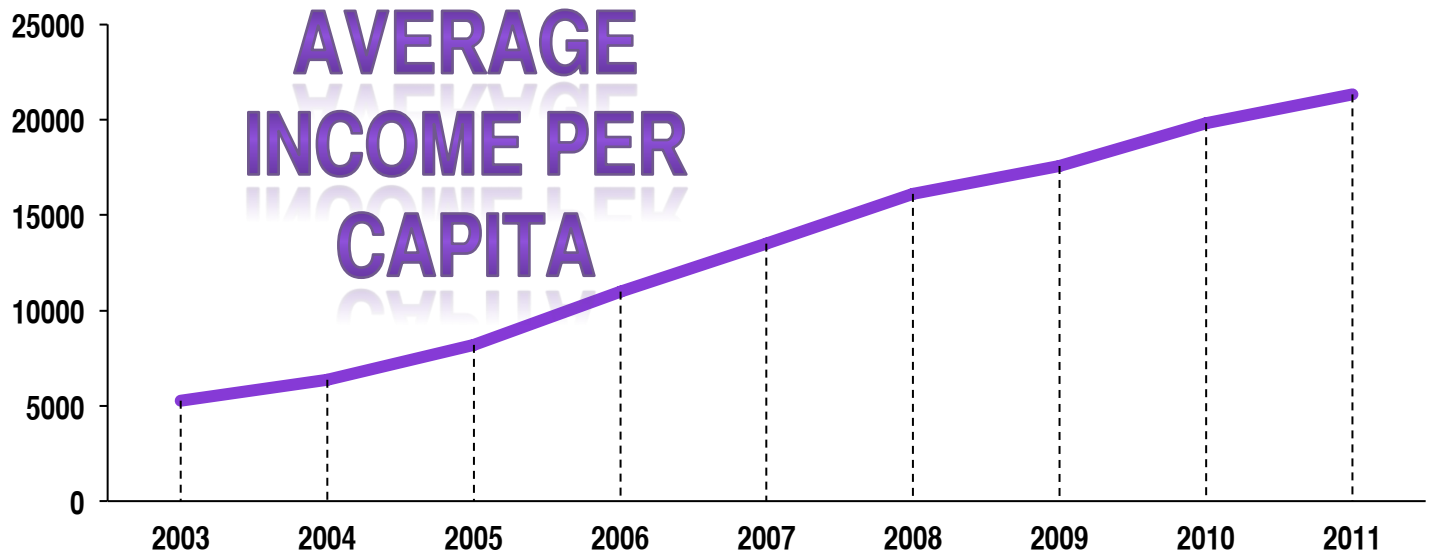
Higher School of Economics, Russia

Research motivation

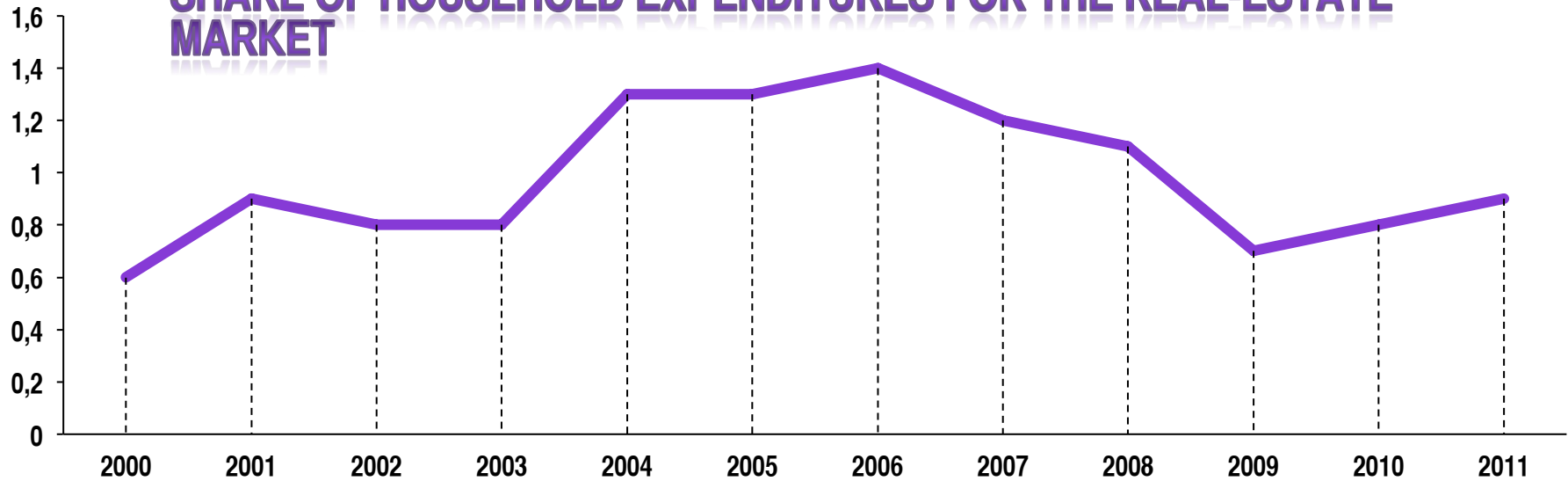
2011: regional housing market situation

- Sales decline (especially in a high-price segment)
- Non-price competition
- Attention to the additional attributes
- Demand for a “comfortable housing” in a high-price segment
- Large amount of unfinished properties

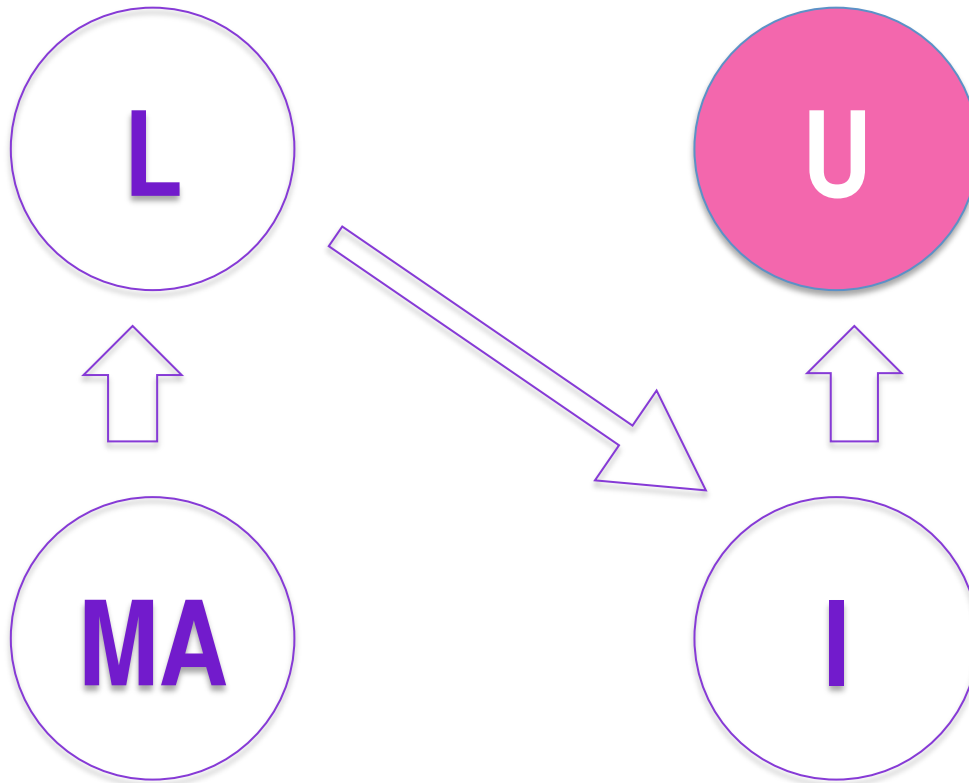
Regional
market



SHARE OF HOUSEHOLD EXPENDITURES FOR THE REAL-ESTATE MARKET



Consumer decision making process



Louviere and Timmermans, 1990

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Literature review

- ▶ Methods for measuring multi-attributive products' utility (Green & Srinivasan, 1990; Wittnik & Cattin, 1989; Lang, 2011).
- ▶ Residential real-estate choice decision making (Fiedler, 1972; Lehrman & Louviere, 1978; Levy, 1995).
- ▶ Product attributes of real-estate properties (Vande & Vijvere, 1998; Oppewal & Klabbers, 2003; Leishman, Aspinall, Munro and Warren, 2004; Oldham / Rochdale Partners, 2006; Hamid, Pieng, Gan 2008).

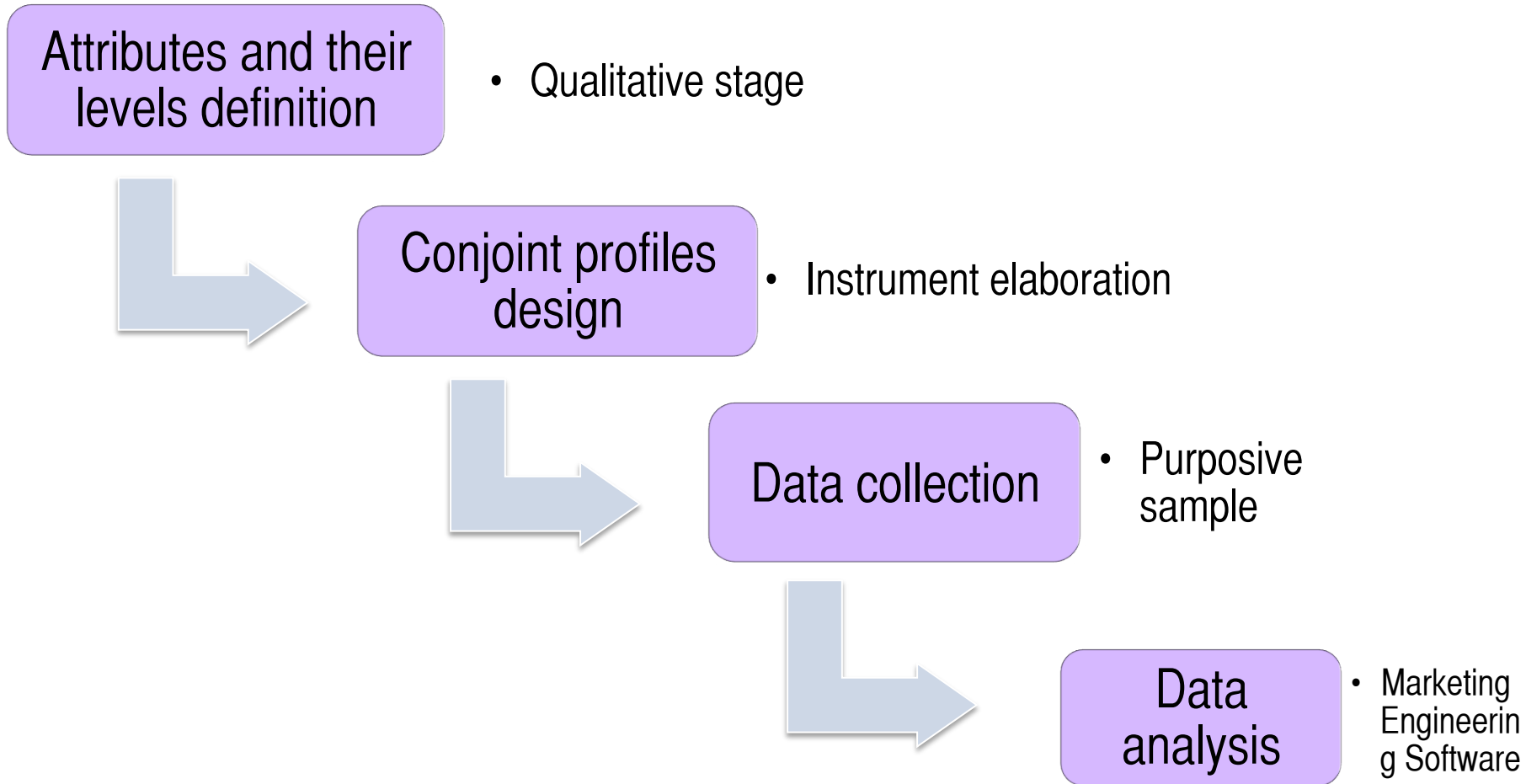
Research framework

METHOD: hierarchical information integration.

DECISION PROCESS: double staged decision making, consisting of decompositional stage and integration stage.

ATTRIBUTES: starting set of 25 attributes (price was excluded like in Orme, 1996, Voelckner, 2006).

Research methodology and procedure



Attributes and their levels

◎ SUBSET 1 – “Location”

- Proximity to the city centre
- Social infrastructure (school, kindergarten etc.)
- Public transport availability

◎ SUBSET 2 – “Apartment Block”

- Building technology
- Surroundings

◎ SUBSET 3 – “Apartment”

- Apartment area
- Kitchen area
- Design and finish

◎ SUBSET 4 – “Company”

- Construction company reputation
- Timeline
- Type of property contract
- Type of payment
- Construction stage

Conjoint profiles design and data collection

13 attributes with 3 or 4 rank levels – **too much** combinations

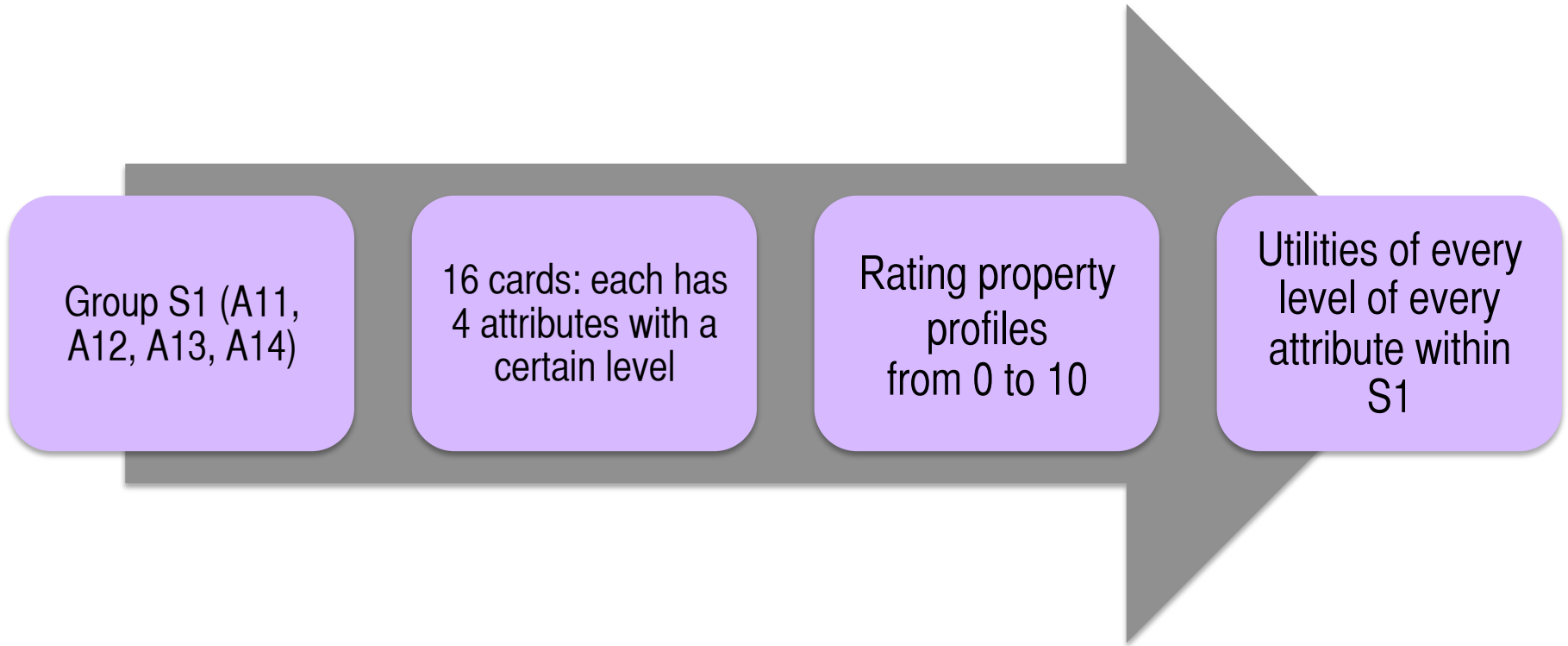
To reduce the number of combinations we:

1. Group them into 4 groups (S1, S2, S3, S4)
2. Use orthogonal design procedure (within groups)
3. Use hierarchical information integration (between groups)



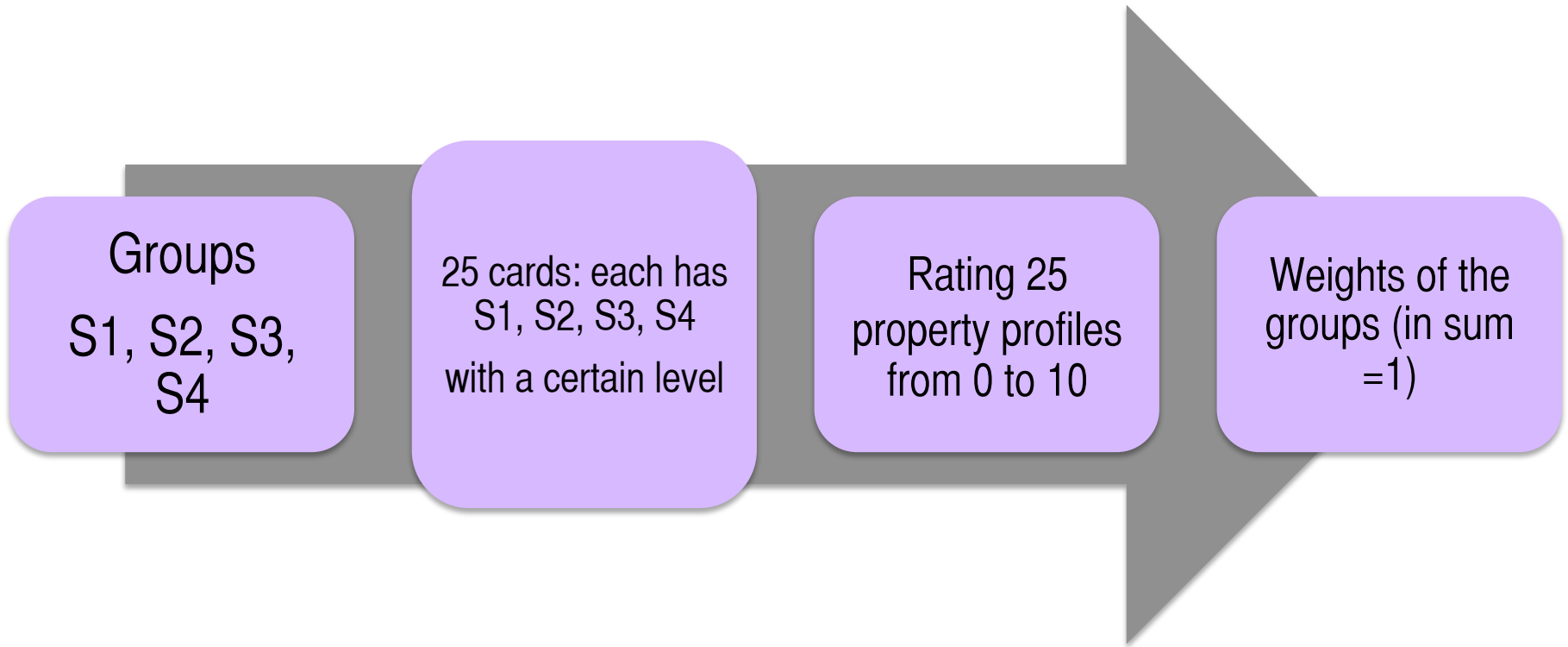
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Steps of hierarchical judgment process within subsets



Same procedure for S2, S3, S4.

Steps of hierarchical judgment process between subsets



Utility within the group*weight of the group =

UTILITY (Part-Worth) for every level of every attribute

Ideal housing concept at the high-price segment based on attributes with the max utility

Central location – 25
Plenty of social infrastructure – 5
High transport availability – 5

S1 – LOCATION

35

3+ rooms, >100 sq.m – 23
>12 sq.m. kitchen – 2
Individual design and full-finish – 9

S3 – APARTMENT

34

Brick building – 8
Spacious surroundings – 7

S2 – Apartment Block

15

Trustworthy company – 3
Just-in-time – 2
Share equity contract – 4
Partial compensation – 1
Finishing stage – 6

S4 – Construction company

16



83,5

- 10% sold
- (12 flats)



98,7

- 45% sold
- 67 flats



87,7

- 43% sold
- 85 flats

Further research application

- ▶ Problems of market positioning and marketing-mix adjustment.
- ▶ Accurate measures of consumer preferences for different segments.
- ▶ Estimation of multi-attribute product utility at different stages.

Questions and comments are welcome



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