

# The Best Choice

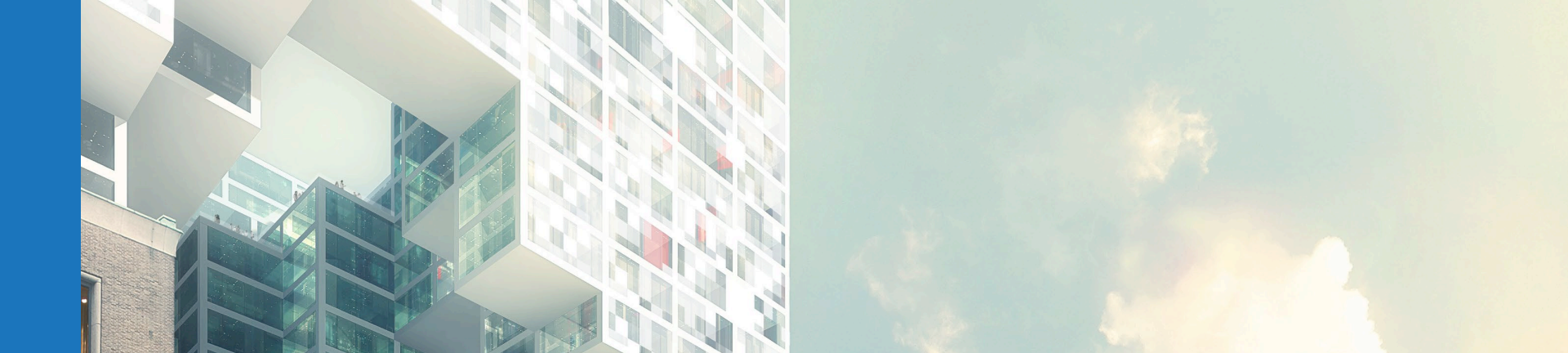
Translating consumers' choices for inner city shopping centres

Roemer Warners I 1177028 I P5 Presentation I Faculty of Architecture  
20-11-2023

# Welcome

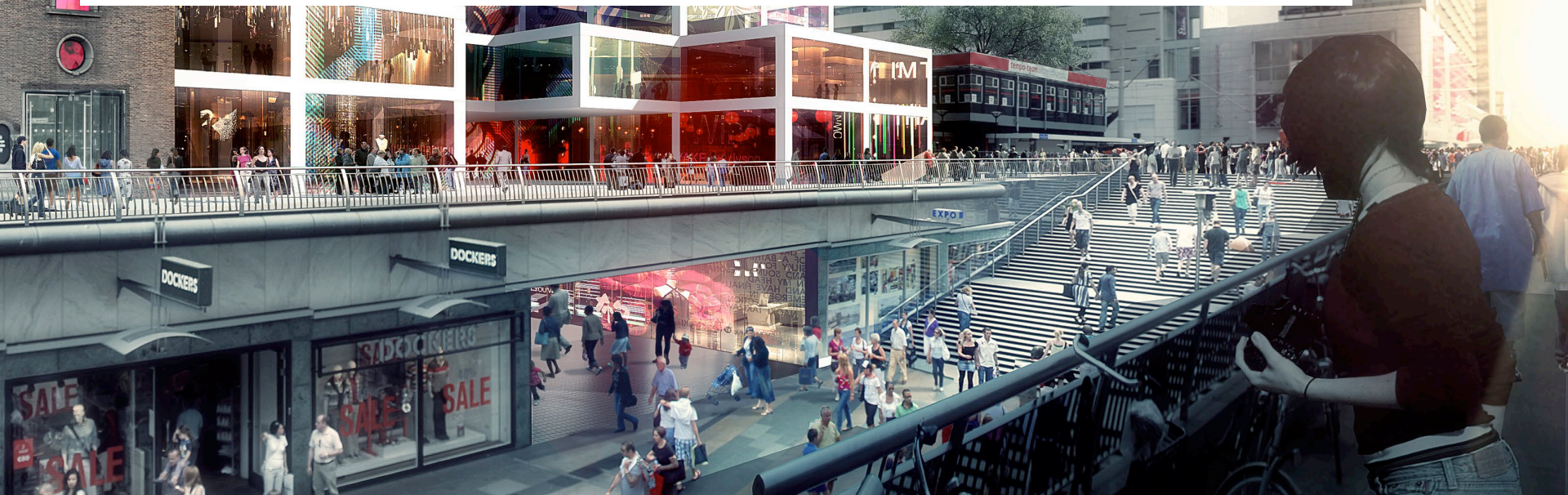
## Index

- Pre research
- Research method
- Survey
- Results
- Recommendations



# 1. Pre Research

Photo: The Cube, Rotterdam, The Netherlands



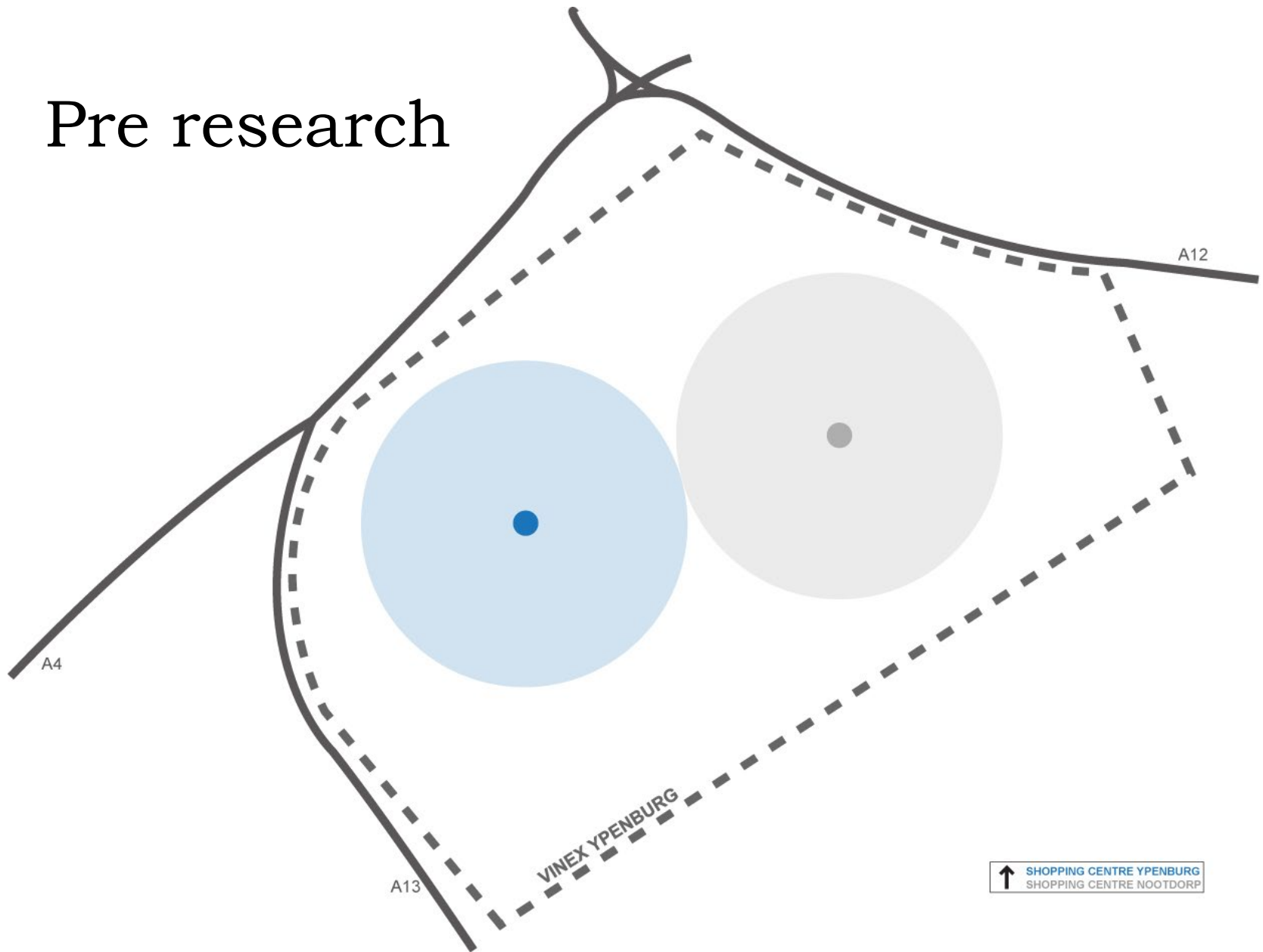
# Pre research

## Insight in consumers' preferences

- In a competitive market, insight in consumers' preferences is the key to a successful product or project [Verma 2008]
- “Insight in consumer preferences are becoming more important in order to stay ahead of the competition” [Heino Vink, Multi Vastgoed]



# Pre research



# Pre research



# Pre research

## The difficulty of measuring choices

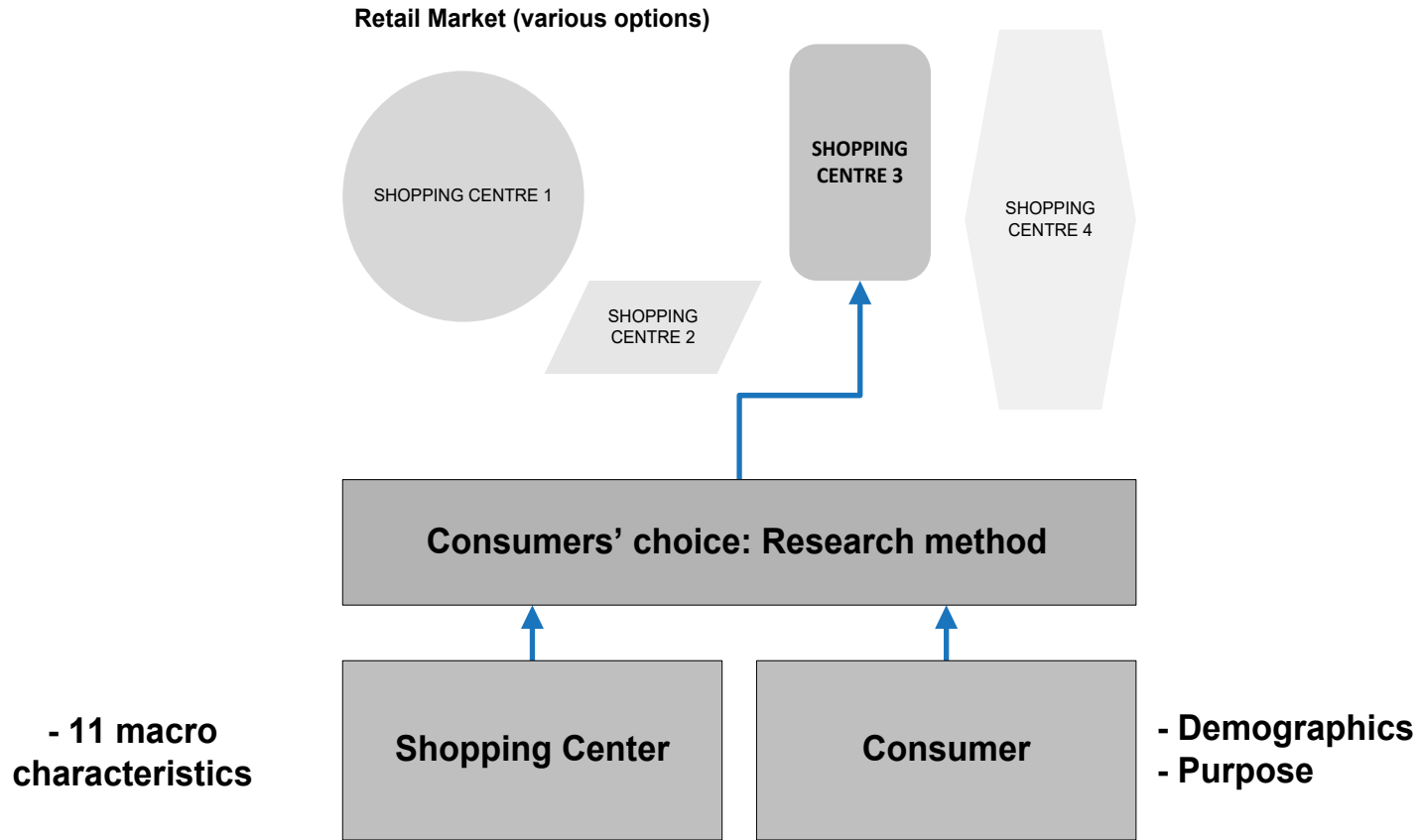


Source: Capgemini 2008

# Pre research

## Problem statement

- Insight in consumers' choices →
- Success of an inner city shopping centre →
- Choices are often complex and difficult to measure correctly →
- Improving insight preferences →
- Improving the research method for measure these preferences →
- Benefit for retail professionals and future studies

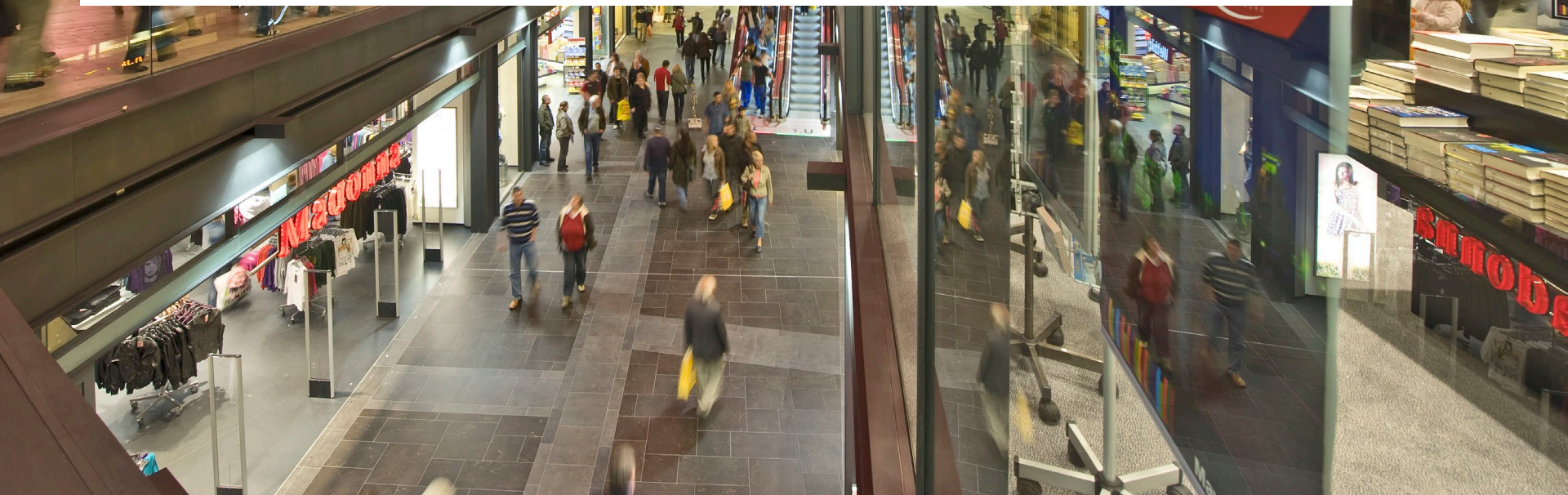






## 2. Research Method

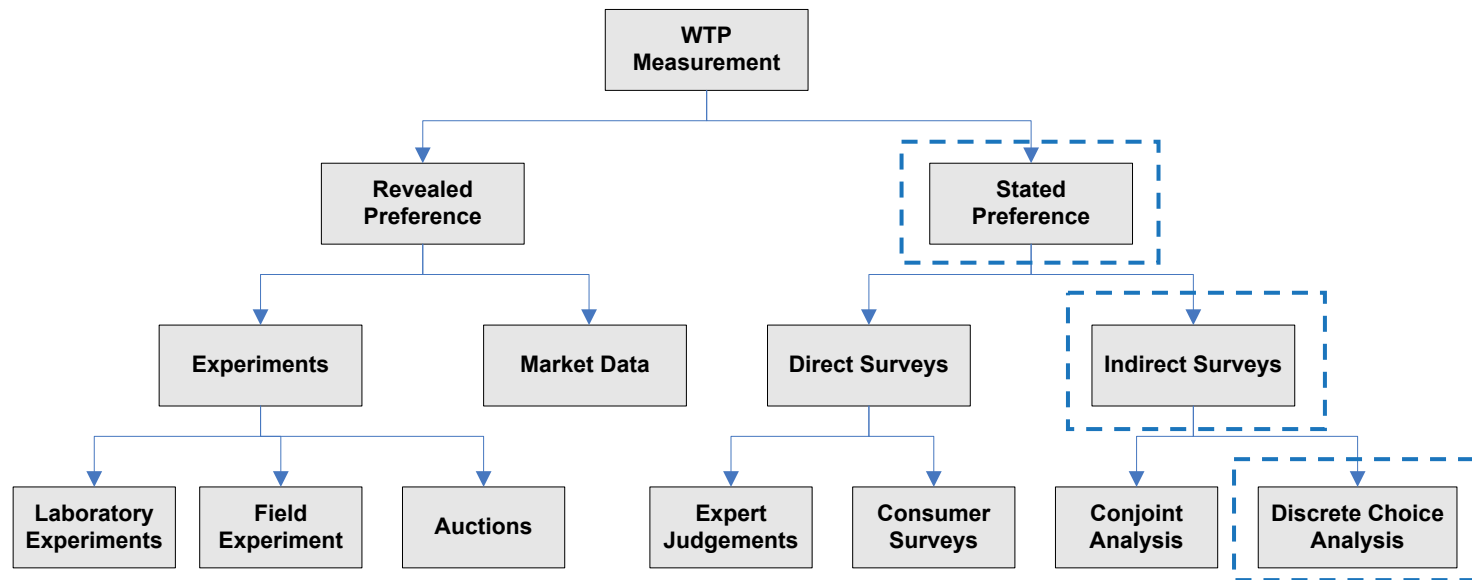
Photo: Forum Duisburg, Duisburg, Germany



# Research method

## Discrete Choice Analysis (DCA)

- Stated Preference
- Indirect survey
- DCA

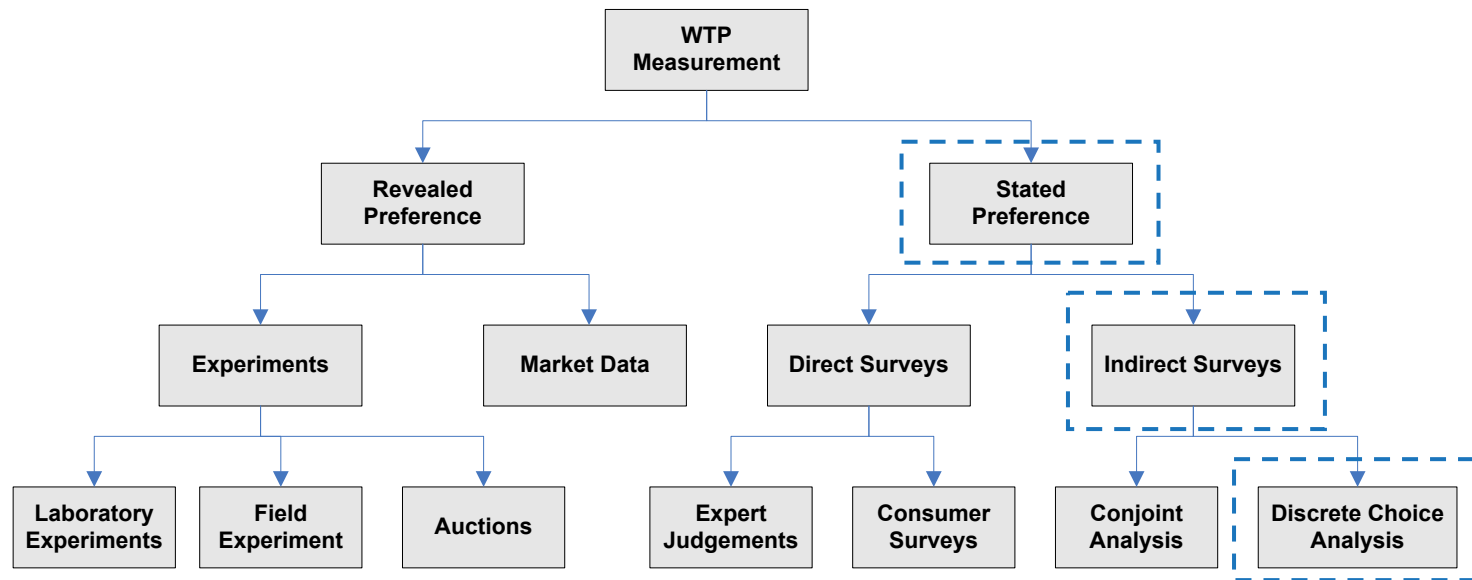


Source: Breidert 2006

# Research method

## Discrete Choice Analysis (DCA)

- Stated Preference
- Indirect survey
- DCA → Closest to measuring real life choices

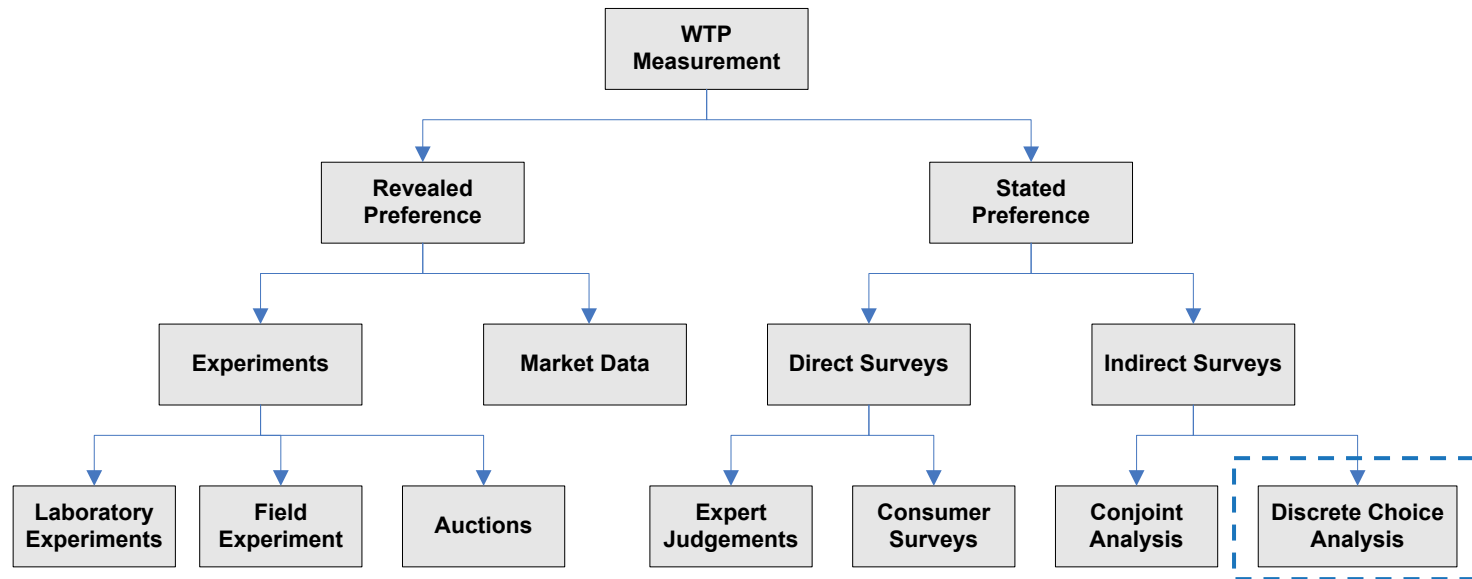


Source: Breidert 2006

# Research method

## Discrete Choice Analysis (DCA)

- Strategic answering
- Choosing is easy
- Measuring non-verbal aspects

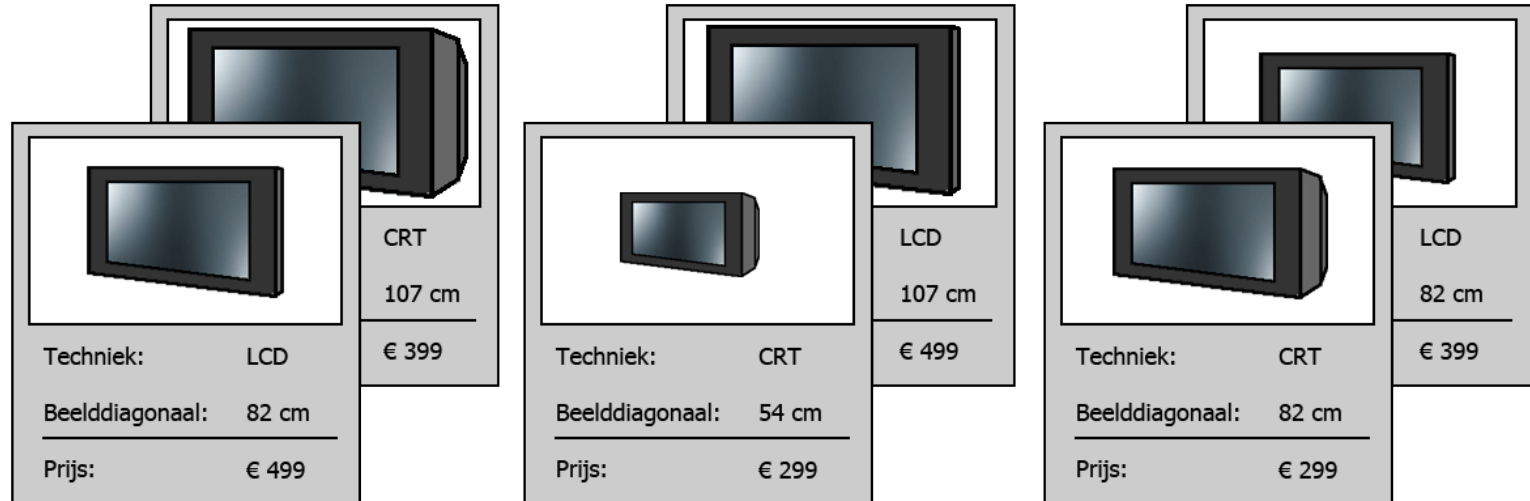


Source: Breidert 2006

# Discrete choice analysis

## Vignette, Main attribute, Attribute level

- Vignette (een set van 2 vignetten)
- Main attribute (Techniek, Beelddiagonaal, Prijs)
- Attribute level (LCD/CRT, 54cm/82cm, 299€/399€/499€)



Source: Snoei 2008



# Discrete choice analysis

## Vignette layout: Text - Symbol

- Lack of knowledge about the influence of the vignette layout on the preferences of the respondents



**Kantoorpand in de Binnenstad van Amsterdam**

**Flexibiliteit** ★★★★★  
Makkelijk aanpasbaar & veel opstellingsmogelijkheden

**Efficiëntie van het Ruimtegebruik** ★☆☆☆☆  
Basisniveau

**Energiezuinigheid** ★☆☆☆☆  
Energie label **F**  
Indicatie energiekosten € 23 /m<sup>2</sup> VVO

**Comfort** ★☆☆☆☆  
Binnenmilieu is af en toe onaangenaam

**Architectuur** ★★★★★  
Pand met een luxe en/of opvallende uitstraling

**Prijs (excl. BTW & servicekosten)**  
**€ 140 /m<sup>2</sup> VVO**

Simple payback time in years:  
 3-7     7-14     14-21

Inconvenience during work:  
 1 month in mess     1 month out of house

Dryer out

Zoning

2 floors expansion

Plaster work façade and insulated roof on the inside

Source: Van den Berkhof 2008 (left), Snoei 2008 (middle), Bogerd 2009





# 3. Main Attributes

Photo: Kalvertoren, Amsterdam, The Netherlands

# Main Attributes

## Long list (literature)

1. Accessibility (how easy is it to reach the centre)
2. Parking
3. Retail program
4. Size of the centre
5. Travel time (to the centre)
6. Atmosphere
7. Location
8. Design (Architecture)
9. Catering
10. Leisure
11. Service



# Main Attributes

Six main attributes included in the vignette

1. Architecture
2. Atmosphere
3. Catering
4. Parking
5. Size
6. Travel time





# 4. Attribute Levels

Find the 10 differences

Photo: Entre Deux, Maastricht, The Netherlands





# Attribute Levels

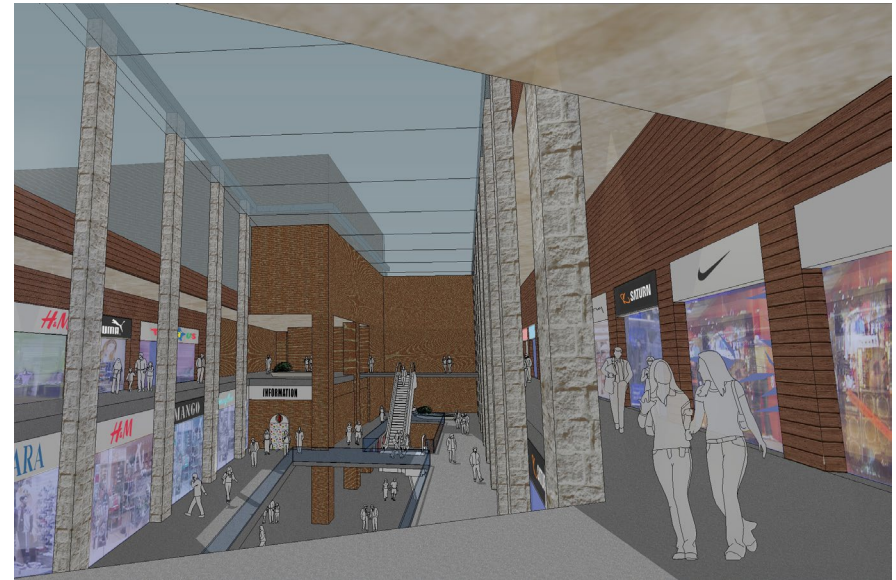
## Determine and design

- Three attribute levels
- Attribute levels based on existing inner city shopping centres selected on their diversity of the six main attributes
  - Entre Deux, Maastricht, The Netherlands
  - Lilien-Carré, Wiesbaden, Germany
  - Centrum Galerie, Dresden, Germany

# Attribute Levels

## Architecture

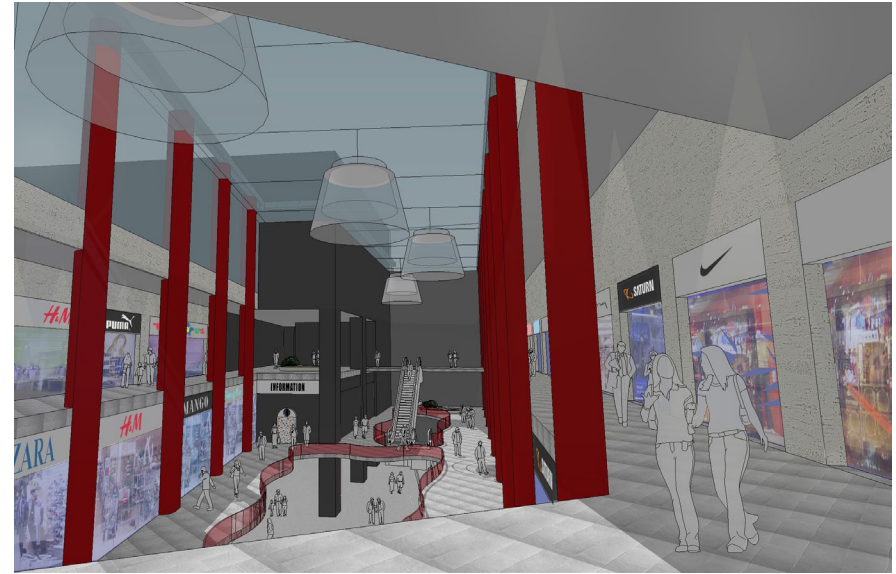
- Level 1: Conservative (Entre Deux)



# Attribute Levels

## Architecture

- Level 2: Medium (Lilien-Carré)





# Attribute Levels

## Architecture

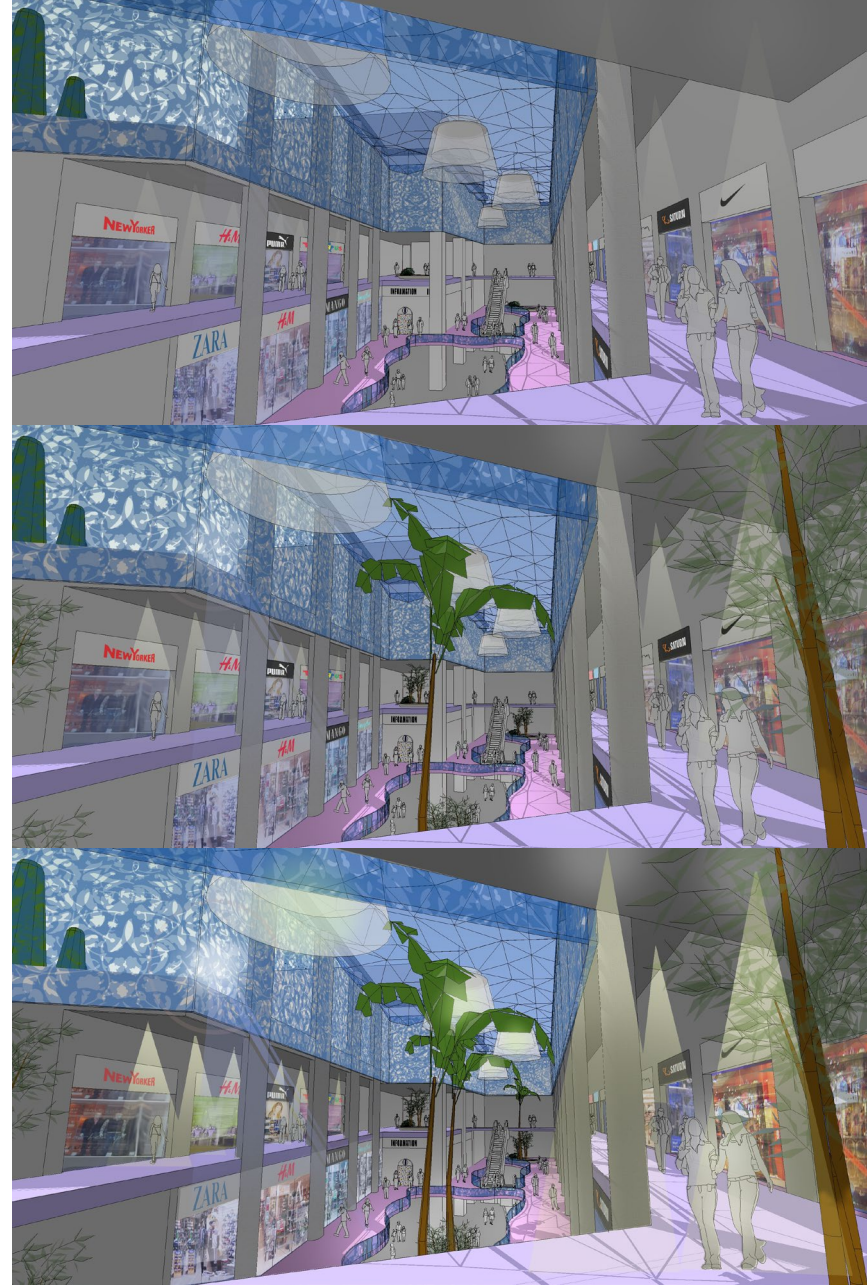
- Level 3: Modern (Centrum Galerie)



# Attribute Levels

## Atmosphere

- Level 1: Low atmosphere
- Level 2: Medium atmosphere
- Level 3: High atmosphere
  
- Based on previous studies
  - Green
  - Natural lighting
  - Artificial lighting
  - Decoration





# Attribute Levels

## Catering

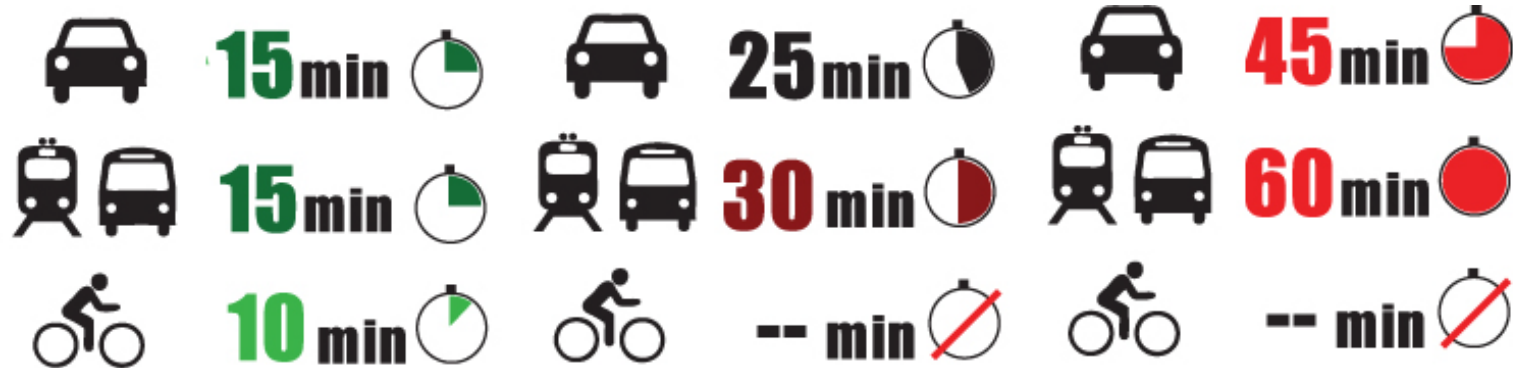
- Level 1: Fast food
- Level 2: Coffee & tea
- Level 3: Restaurant



# Attribute Levels

## Travel time (expert interviews)

- Level 1: 45 minutes
- Level 2: 30 minutes
- Level 3: 15 minutes



# Attribute Levels

## Size

- Level 1: <20 stores
- Level 2:  $\pm 40$  stores
- Level 3: >60 stores



# Attribute Levels

## Parking

- Level 1: No parking
- Level 2: Paid parking
- Level 3: Free parking



**No Parking**



**3€ / Hour**



**Free Parking**

# Attribute Levels

## Text and Symbol vignette



### **PARKEREN GRATIS**

(Gratis parkeergelegenheid binnen 't winkelcentrum)

### **REISTIJD KORT**


(Auto: 15 min / OV: 15 min / Fiets: 10 min)

### **WINKELAANBOD KLEIN**

(Minder dan 20 verschillende winkels)

### **HORECA RESTAURANT**

(Bijvoorbeeld La Place / Gauchos)



**15 min**



**15 min**



**10 min**



**Free Parking**





# 5. The Survey

Photo: Beurstraverse, Rotterdam, The Netherlands





# Survey

## Index

- Time, quantity and diversity → Online
- Dutch and German
- DCA in combination with:
  - Respondents' demographics
  - Consumers' purpose
    - Shopping is recreation
    - Target shopping



# Survey

## Respondents

- Dutch survey

Survey date	30 days (22nd of March 2010 until 22nd of April 2010)
Total number of respondents	720
<b>Finished surveys</b>	<b>526</b>
Dutch respondents	562
Belgium respondents	11
Rest	22

- German survey

Survey date	26 days (26th of March 2010 until 22nd of April 2010)
Total number of respondents	101
<b>Finished surveys</b>	<b>68</b>





# 6. Results

Photo: Stadsfeestzaal, Antwerp, Belgium



# Results

## Descriptive statistics (sample)

- Well spread in terms of age, education and gender

# Results

## Discrete choice questions

- Start: Influence of the vignette layout
  - All four differently displayed attributes, significantly influenced the preferences of the respondents.



# Results

## Discrete choice questions



### **PARKEREN GRATIS**

(Gratis parkeergelegenheid binnen 't winkelcentrum)

### **REISTIJD KORT**

(Auto: 15 min / OV: 15 min / Fiets: 10 min)

### **WINKELAANBOD KLEIN**

(Minder dan 20 verschillende winkels)

### **HORECA RESTAURANT**

(Bijvoorbeeld La Place / Gauchos)



**15 min**

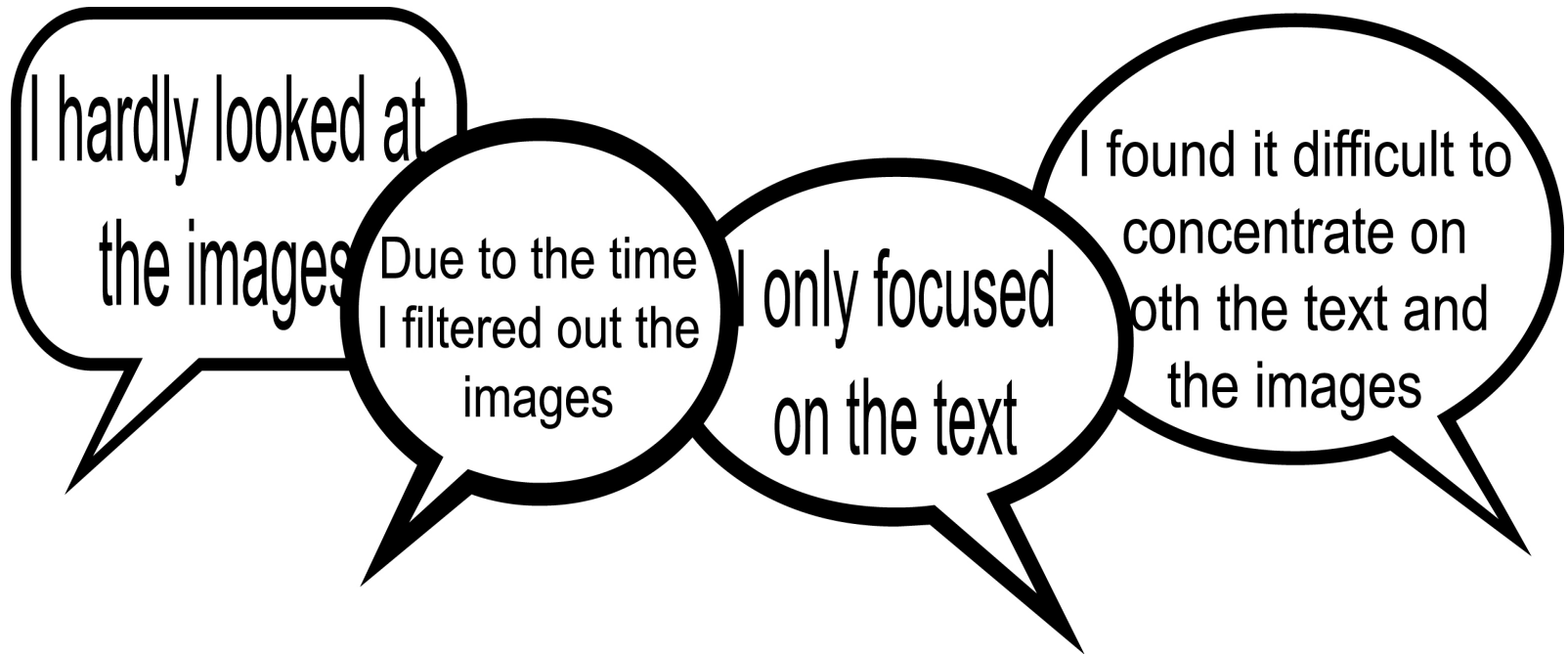
**15 min**

**10 min**

**P**  
**Free Parking**

# Results

## Discrete choice questions



# Results

## Discrete choice questions

Text				
Parameter	Estimate	Stn. Err.	Chi-Sq.	P(Chisq)
Intercept	-4.45	0,18	612.55	<.01
<b>Architect.</b>	<b>0.06</b>	0.03	2.79	<b>.09</b>
Atmosph.	0.15	0.03	18.55	<.01
Travel tm	0.80	0.03	517.59	<.01
Parking	0.59	0.03	287.39	<.01
Size	0.61	0.03	312.48	<.01
Catering	0.14	0.03	17.78	<.01



**PARKEREN GRATIS**  
(Gratis parkeergelegenheid)

**REISTIJD KORT**  
(Auto: 15 min / C

**WINKELAANBIEDING**  
(Minder dan 20 v

**HORECA RESTAURANT**  
(Bijvoorbeeld La Place / Gauchos)



**Free Parking**

**±40 Stores**

# Results

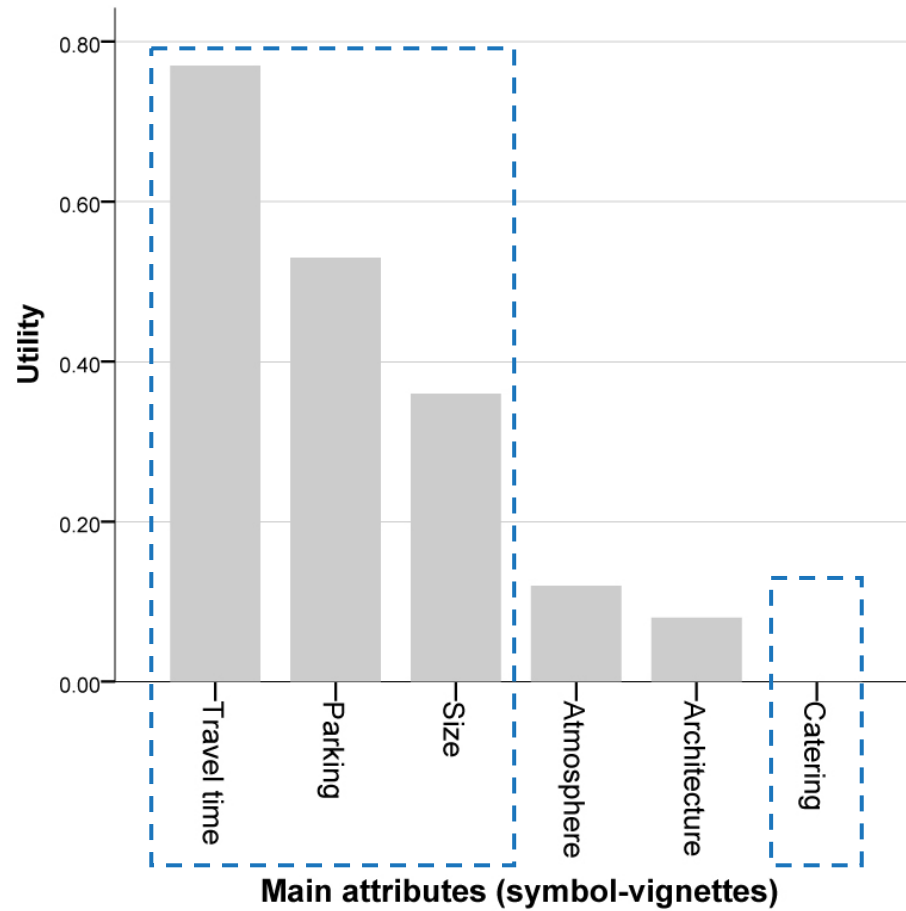
## Main attributes

- Significance level of 5%
- Based on  $14.328 / 2 = 7164$  observations



# Results

## Main attributes



# Results

## Attribute levels

1. Travel time
2. Parking
3. Size
4. Atmosphere
5. Architecture

  - Catering

Main Att.		Highest Att. Level		Middle Att. Level		Lowest Att. Level	
1. Travel time	0.77	15min by car	2.15	30min by car	1.05	45min by car	set to 0
2. Parking	0.53	Free parking	1.46	Paid parking	0.57	No parking	set to 0
3. Size	0.36	40 stores	0.13	20 stores	set to 0	60 stores	-0.63
4. Atmosphere	0.12	High	0.37	Medium	-	Low	set to 0
5. Architecture	0.08	Modern	0.09	Conservative	set to 0	Medium	-
Catering	-	Restaurant	-	Coffee & tea	-	Fast food	set to 0

# Results

'Best' and 'worst' choice



±40 Stores



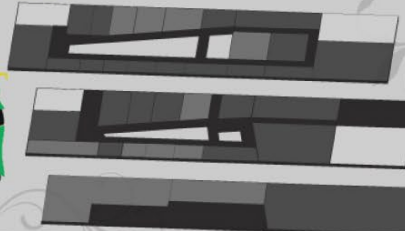
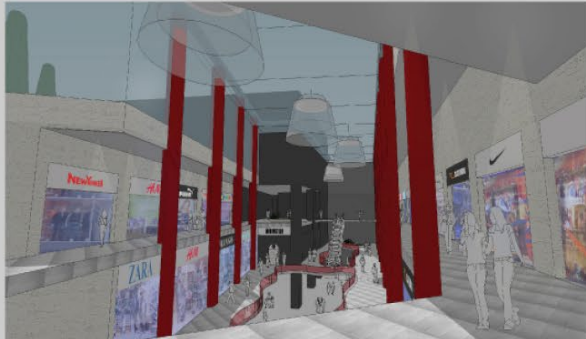
15 min




10 min



Free Parking




60 < Stores




45 min


60 min



-- min



No Parking





# Results

## Attribute levels

1. Travel time
2. Parking
3. **Size**
4. Atmosphere
5. Architecture

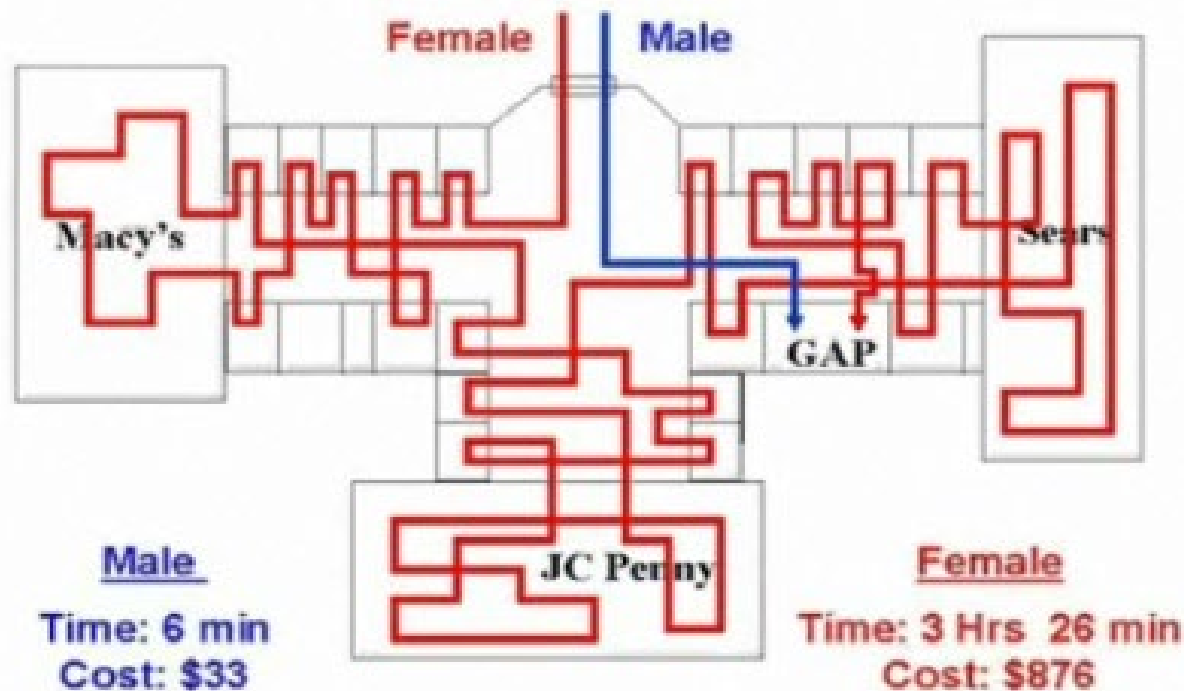
  - Catering

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Catering	-	Restaurant	-	Coffee & tea	-	Fast food	set to 0

# Results

## Interaction effects

### Mission: Go to Gap, Buy a Pair of Pants





# 7. Recommendations

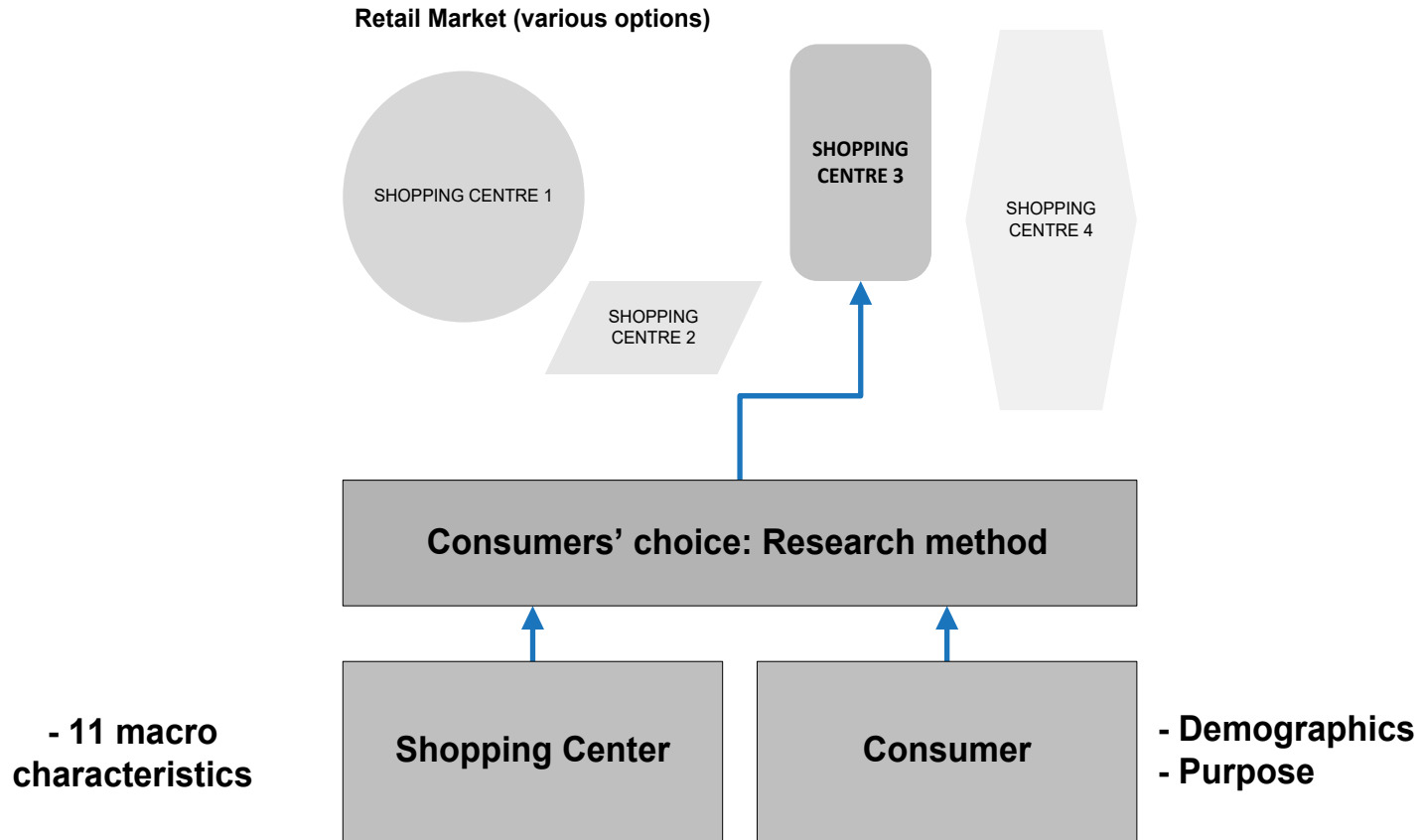
Photo: Centrum Galerie, Duisburg, Germany

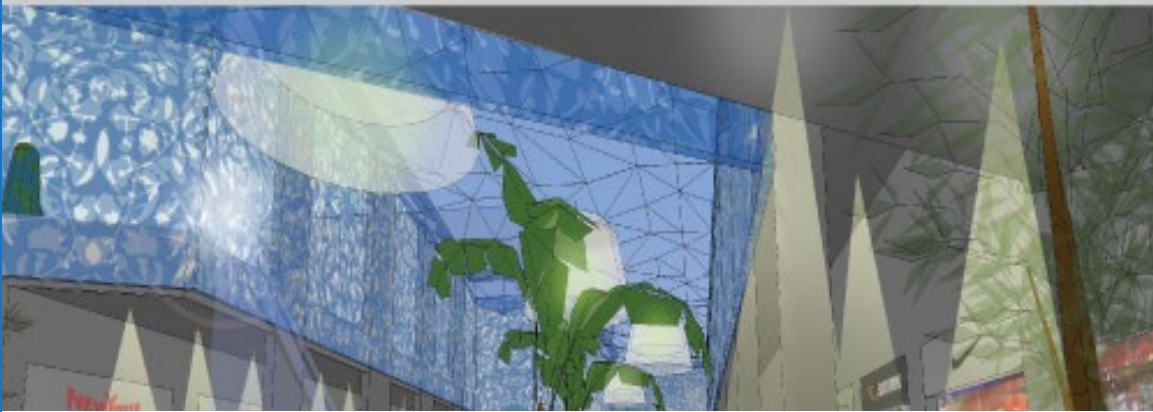


# Recommendations

- Text is dominant over images
- Travel time
- Parking
- Large shopping centres
- Catering
- Planting and light
- Phase of life
- Future discrete choice studies







# Questions?

Photo: 'The best choice'



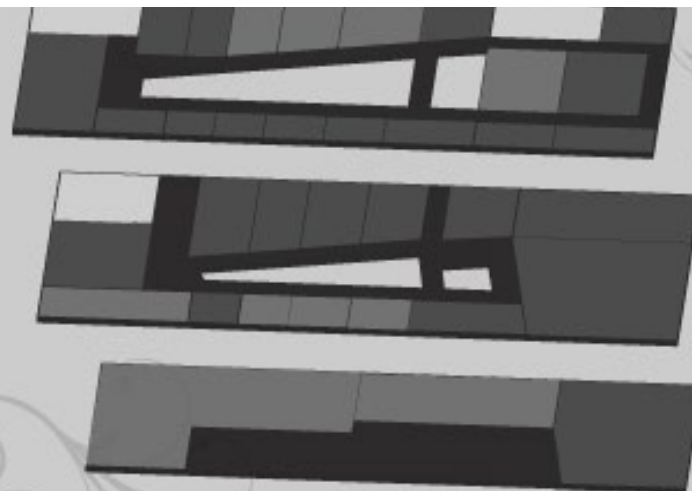
min 

min 

 10 min 



## Free Parking



±40 Stores



# Results

'Best' and 'worst' choice



±40 Stores



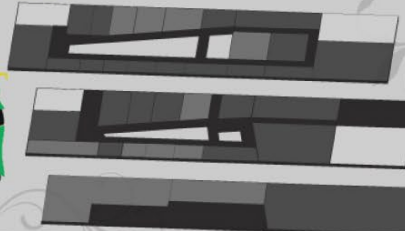
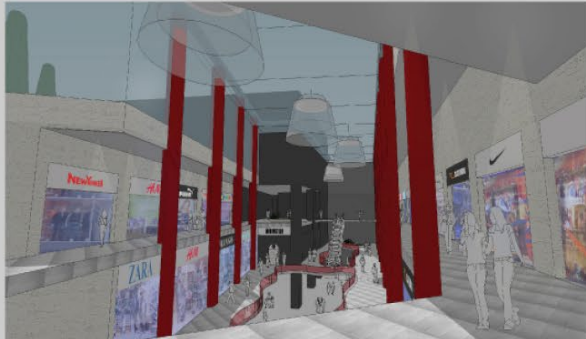
15 min




10 min



Free Parking




60 < Stores




45 min


60 min



-- min



No Parking



# Questions

## Research questions

- **Product:** What shopping centre characteristics influence the choice of the consumers and to what extent do these characteristics influence this choice?
- **Consumer:** What consumer characteristics influence the choice of the consumers and to what extent do these characteristics influence this choice?
- **Method:** When using a discrete choice analysis, what is the best way to measure a combination of verbal and non-verbal aspects in the same vignette?



# Questions

## Indirect vs. Direct method

### DCA

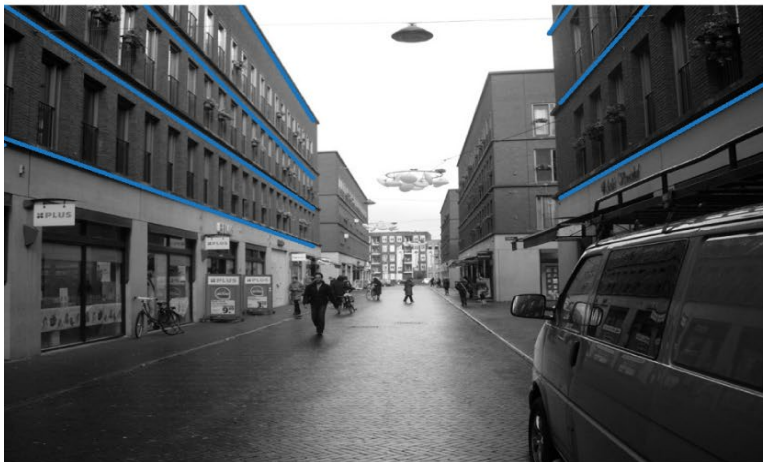
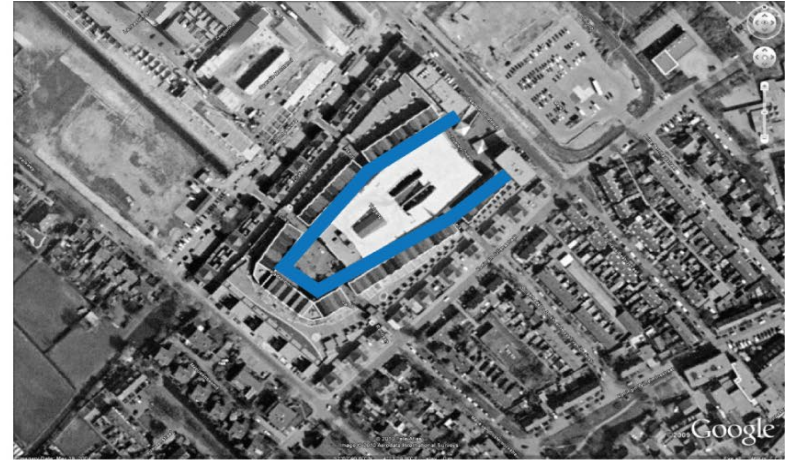
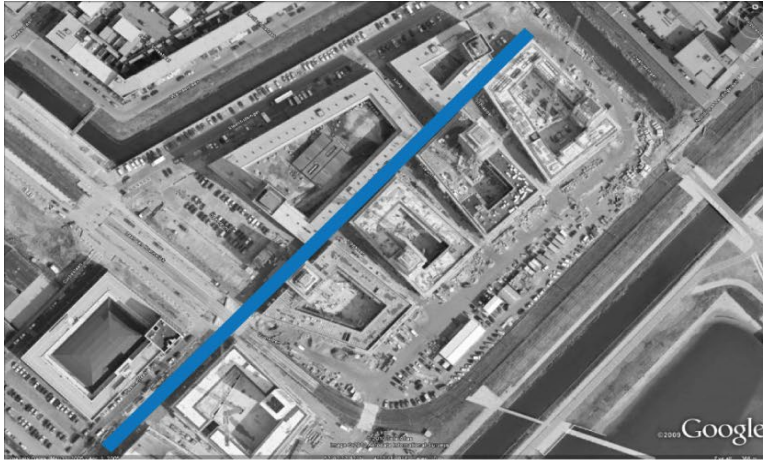
- Travel time
- Parking
- Size
- Atmosphere
- Architecture
- Catering

### Direct

Size  
Atmosphere  
Travel time  
Parking  
Catering  
Architecture

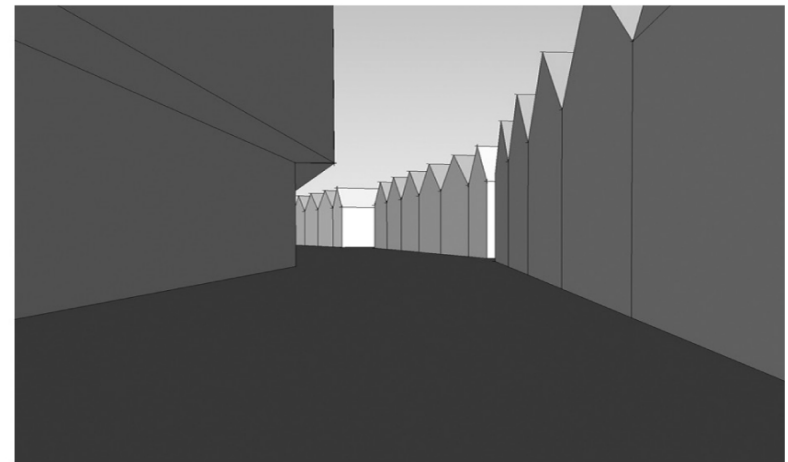
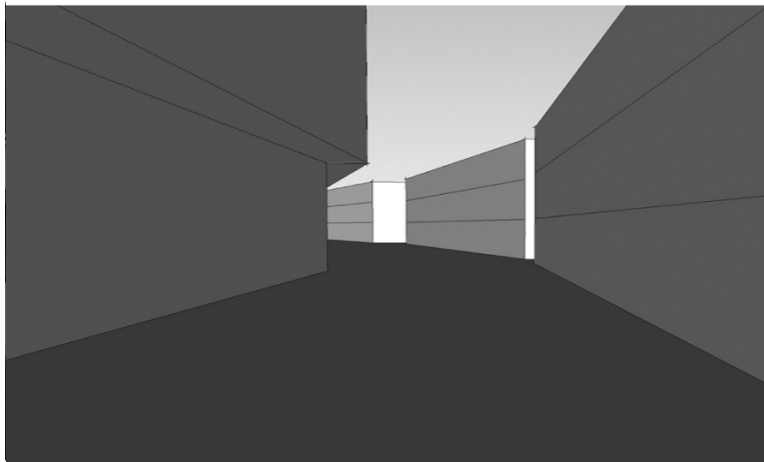
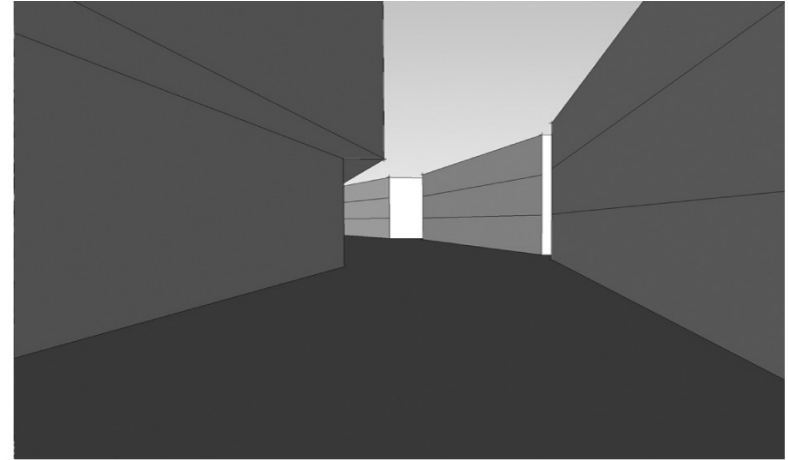
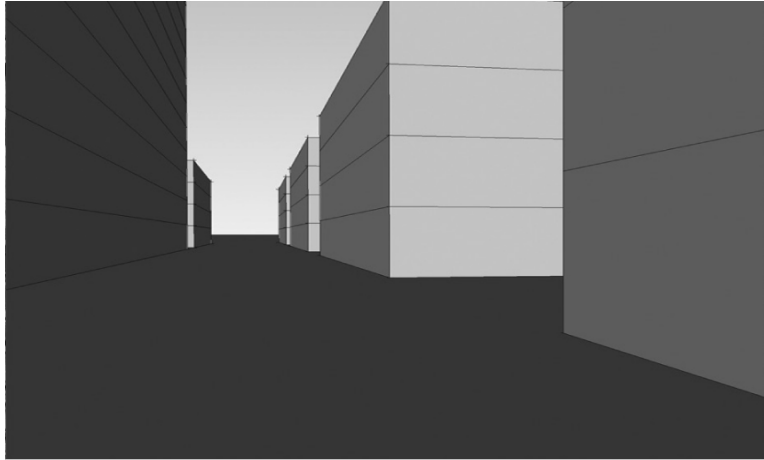
# Questions

## Urban structure



# Questions

## Urban structure



# Questions

## Urban structure

- 48% straight 53% curved
- Horizontal 25% vertical 75%
- Most men prefer the curved shopping street (66%) while most women prefer the straight shopping street (60%)
- 74% German students prefers the curved shopping street compared to 56% of the Dutch students.
- 52% of the German students prefers the vertical facades compared to 67% of the Dutch students and 75% of all Dutch respondents.



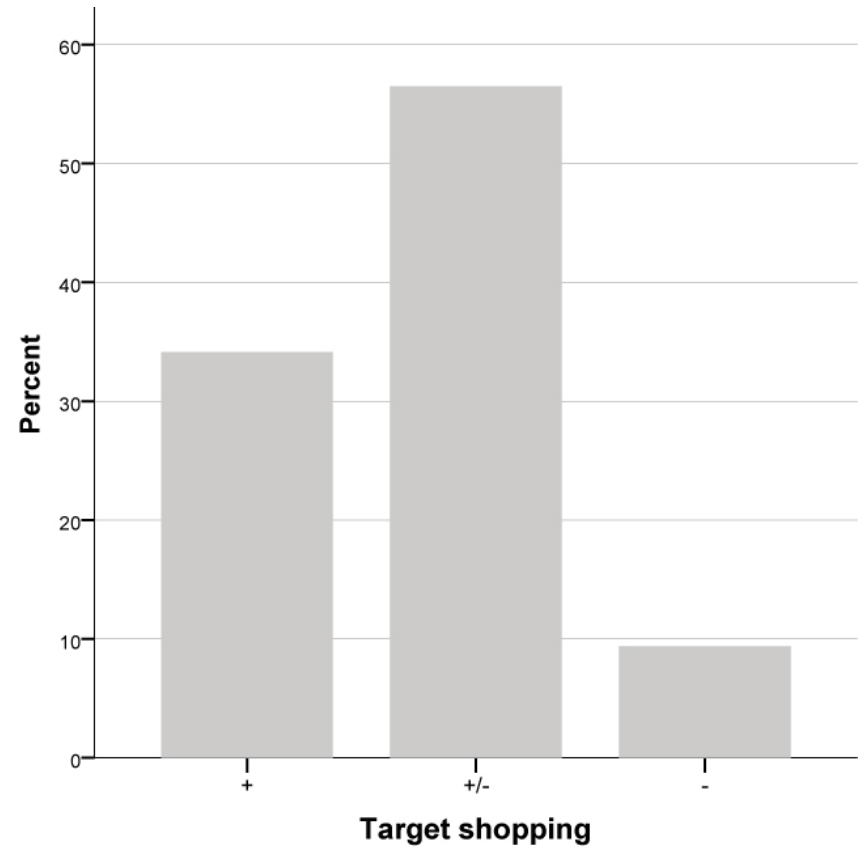
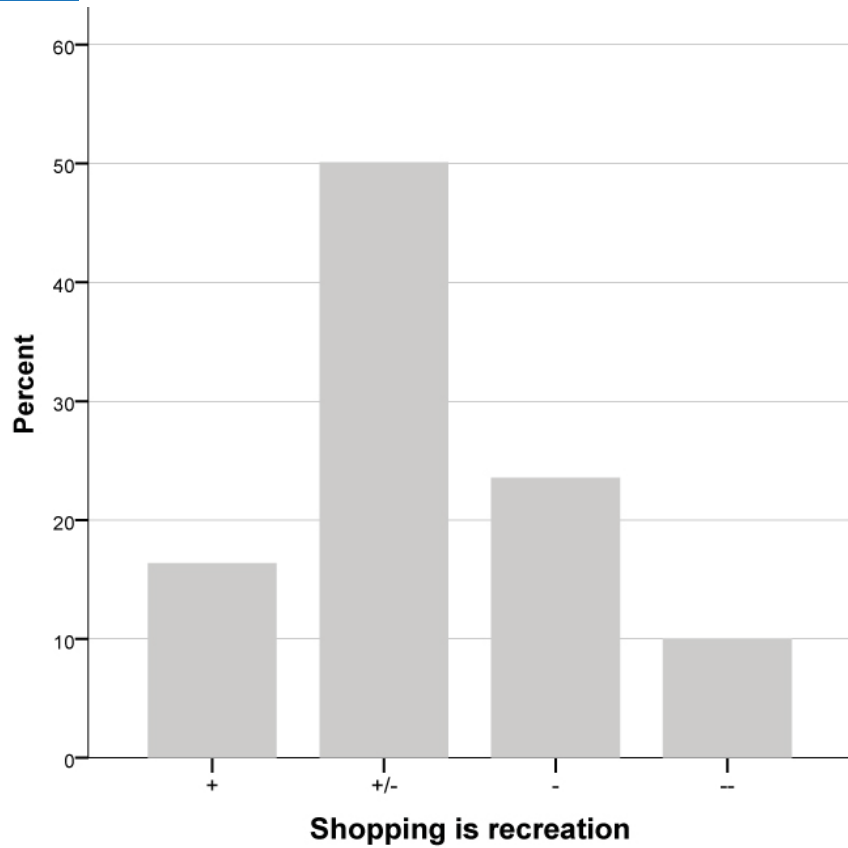
# Questions

## Consumers' characteristics

- Age - Travel time, Parking
- Income - Travel time
- Family - Size

# Questions

## Consumers' purpose



# Questions

-

# Questions

-



# Questions

-

# Questions

## iPod winner



- Jeroen van Sliedrecht, Laren, Groningen