STRUCTURE

1. INTRODUCTION

2. RESEARCH DESIGN
   Problem field
   Research Approach

3. THEORETICAL RESEARCH
   Generic & Theoretical Framework
   Models and Instruments Used

4. EMPIRICAL RESEARCH
   Case Studies
   Interviews

5. THE MODEL
   The Decision Support Model
   Validation of the Model

6. CONCLUSION
RESEARCH DESIGN

CH. 2
PROBLEM:
HIGH RATE OF VACANT OFFICE BUILDINGS
HEALTHY MARKET ± 5% VACANCY CURRENT SITUATION IN AMSTERDAM > 18% (DTZ-ZADELHOFF, 2015)

MAIN CAUSES OF THE CURRENT VACANCY:
- OVERSUPPLY
- PREFERRED LOCATIONS
- DECREASING DEMAND
- GENERAL DENIAL

POSSIBLE SOLUTIONS (INTERVENTION) FOR THE CURRENT VACANCY (OWNER):
- DEMOLITION & NEW BUILD
- SALE
- WAIT FOR BETTER TIMES
- RENOVATION
- TRANSFORMATION
PROBLEM:

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- DEMOLITION & NEW BUILD
- SALE
- WAIT FOR BETTER TIMES
- RENOVATION
- TRANSFORMATION
Alarming Vacancy Rate (18.4%)

A complex decision-making process

Too complex for non-developers

Too many specific models
**DECREASE OF THE VACANCY RATE**

**A DECISION SUPPORT MODEL**

**ACCESSIBLE AND USER-FRIENDLY**

**ONE COMPREHENSIVE MODEL**
To what extent can a decision support model, based on simplified and quantified critical aspects, help in the decision making process for intervention strategies of vacant office buildings in Amsterdam?

FOCUS ON

- Real Estate Market
- Intervention Strategies
- Decision-Making Process
- Determination & Quantification
Phase 1: Conceptual Research Model
- Exploratory Market Research
- Problem Statement
- Literature Selection
- Case Selection

Research Question

Phase 2: Theoretical Research
- Generic & Describing
  - Generic framework
  - Theoretical framework
- Models & Instruments
  - Financial models
  - Environmental model
  - Transformation potential
  - Renovation potential
  - Location and Context tool
- DSM
  Clarifications and definitions

Phase 3: Empirical Research
- Case Studies
  ± 5 case studies
- Interviews
  ± 10 with different stakeholders
  Supporting
- Field Research
  Internship

Phase 4: Creating
- Decision Support Model
  Testing & evaluating
  Merging

Concluding
- Conclusion Recommendation
Phase 1

Conceptual Research Model

- Exploratory Market Research
- Problem Statement
- Literature Selection
- Case Selection

Research Question

Phase 2

Theoretical Research

- Generic & Describing
  - Generic framework
  - Theoretical framework

- Models & Instruments
  - Financial models
  - Environmental model
  - Transformation potential
  - Renovation potential
  - Location and Context tool

- DSM
  - Clarifications and definitions

Phase 3

Empirical Research

- Case Studies
  - ± 5 case studies

- Interviews
  - ± 10 with different stakeholders

- Field Research

- Internship

Phase 4

Creating

- Decision Support Model

Concluding

- Conclusion Recommendation

Testing & Evaluating

Criteria

Template

Focus

Supporting

Supporting
Phase 1: Conceptual Research Model
- Exploratory Market Research
- Problem Statement
- Literature Selection
- Case Selection

Phase 2: Theoretical Research
- Generic & Describing
  - Generic framework
  - Theoretical framework
- Models & Instruments
  - Financial models
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  - Clarifications and definitions

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- Decision Support Model

Concluding
- Conclusion Recommendation
RESEARCH APPROACH

Phase 1: Conceptual Research Model
- Exploratory Market Research
- Problem Statement
- Literature Selection
- Case Selection
- Research Question

Phase 2: Theoretical Research
- Generic & Describing
  - Generic framework
  - Theoretical framework
- Models & Instruments
  - Financial models
  - Environmental model
  - Transformation potential
  - Renovation potential
  - Location and Context tool
- DSM Clarifications and definitions

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- Case Studies
  ± 5 case studies
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  ± 10 with different stakeholders
- Field Research
  Internship

Phase 4: Creating
- Decision Support Model
- Concluding
  Conclusion Recommendation

Testing & Evaluating
Criteria
Template
Focus
Supporting
Supporting
Merging

THEORETICAL RESEARCH

CH. 3
Consolidation  |  Sell  |  Renovation  |  Transformation  |  Demolish (& Build)
**Definition adaptive re-use:**

A process that changes a disused or ineffective item into a new item that can be used for a different purpose.

**Motives**

- Financial/Economical
- Sustainable
- Social
- Cultural

**Critical facets**

- Physical
- Location
- Legal & Social
- Occupant & owners
**Definition:** A market is the mechanism or arrangements through which goods and services are traded between market participants. Applying this concept to land and buildings, we can classify real estate transactions into real estate space markets or real estate asset markets. (Floyd & Allen, 2002)

**Real Estate Market**
**Space Market**
**Asset Market**

**Vacancy**
**Initial**
**Friction**
**Conjuncture**
**Structural**
**Shadow**

![Market Cycle Diagram](image-url)
DEFINITION DECISION SUPPORT MODEL:

A CONCEPTUAL FRAMEWORK FOR THE SYSTEMATIC TREATMENT OF UNCERTAINTY IN DECISION SUPPORT IN ORDER TO IMPROVE THE MANAGEMENT OF UNCERTAINTY IN DECISION-MAKING PROCESS.

MOTIVES

COMMUNICATION

IDENTIFICATION
MODELS & INSTRUMENTS USED

Interventions

Functions

Ambitions
**Vacancy Risk Meter** - Geraedts & van der Voordt
Function Potention | Veto & Gradual

**Transformation Potential Meter** - Geraedts & van der Voordt
Function Potention | Veto & Gradual

**Life Cycle Costing Model** - de Groot
Financial Profitability

**The Lifespan Accounting Model** - van Dobbelsteen
Environmental Sustainability

**S3 Model** - Jansz
Environmental Load
THE LOCATION OF STRUCTURAL VACANT OFFICES – van WINGERDEN
LOCATION ASPECTS

Accessibility
Facilities
Public Space
Functionality
Environmental
Building Characteristics
MODELS & INSTRUMENTS USED

Market Demand

Technical

Functional

Building Physics

Cultural

Financial

Legal

Sustainability
EMPIRICAL RESEARCH

CH. 4
Function
- Original function: offices
- New function different or extreme makeover of existing function.

Location
- Within the municipality of Amsterdam and Haarlemmermeer
- Not in only industrial area’s
- All other types of neighbourhoods

Building specifics
- GFA >4.000 sqm

Timing
- Realised or in construction.
- Time of original completion: after 1970
- Time of final completion: after 2007 but before 2016

Vacancy
- Years of structural vacancy: > 2 years.
- Current vacancy: < 30%

Data
- Sufficient available data
**Cases**

[Map of Amsterdam with marked locations]

**Interviews**

**Primarily Aspects**

[Icons representing various aspects]

**Secondarily Aspects**

[Icons representing various aspects]
THE MODEL

CH. 5
## Function Selection

<table>
<thead>
<tr>
<th>Function</th>
<th>Details</th>
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<tbody>
<tr>
<td>Office</td>
<td></td>
</tr>
<tr>
<td>Residential</td>
<td>Students, Starter (1 pers), Starters (2 pers), Family, Senior</td>
</tr>
<tr>
<td>Hotel</td>
<td></td>
</tr>
<tr>
<td>Retail, food &amp; Drinks</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
</tr>
</tbody>
</table>

Office

Residential
- Students
- Starter (1 pers)
- Starters (2 pers)
- Family
- Senior

Hotel

Retail, food & Drinks

Education
**Function potential**

### Function

- **Office**
- **Residential**
  - Students
  - Starter (1 pers)
  - Starters (2 pers)
  - Family
  - Senior
- **Hotel**
- **Retail, food & Drinks**
- **Education**

### Market Analysis

- **Students**
- **Starter (1 pers)**
- **Starters (2 pers)**
- **Family**
- **Senior**

### Location Analysis

- **Veto**
- **Gradual**

### Building Analysis

- **Veto**
- **Gradual**

---

**Note:**

- **DECISION SUPPORT MODEL**
- **BLUEPRINT FOR INTERVENTION | MWV Moritz**
**Expert Weight Factor**

**Function**
- Office
- Residential
  - Students
  - Starter (1 pers)
  - Starters (2 pers)
  - Family
  - Senior
- Hotel
- Retail, food & Drinks
- Education

**Market Analysis**
- Students
- Starter (1 pers)
- Starters (2 pers)
- Family
- Senior

**Location Analysis**
- Veto
- Gradual
- Students
- Starter (1 pers)
- Starters (2 pers)
- Family
- Senior

**Building Analysis**
- Veto
- Gradual
- Students
- Starter (1 pers)
- Starters (2 pers)
- Family
- Senior

**Market Potential**
- (Renov) (Trans) (D&B) X

**Location Potential**
- (Renov) (Trans) (D&B) X

**Building Potential**
- (Renov) (Trans) (D&B) X

**Weight**
Ambition weight factor
**BEST OPTIONS**

**Function**
- Office
- Residential
  - Students
  - Starter (1 pers)
  - Starters (2 pers)
  - Family
  - Senior
- Hotel
- Retail, food & Drinks
- Education

**Market Analysis**
- Students
- Starter (1 pers)
- Starters (2 pers)
- Family
- Senior

**Location Analysis**
- Veto
- Gradual

**Building Analysis**
- Veto
- Gradual

**Market Potential**
- Renov
- Trans
- D&B
- Weight

**Location Potential**
- Renov
- Trans
- D&B
- Weight

**Building Potential**
- Renov
- Trans
- D&B
- Weight

**Decision Support Model**
MARKET ANALYSIS

Prospect

Context

Income

Education
LOCATION ANALYSIS

Veto

Gradual
BUILDING ANALYSIS

VETO

GRADUAL
FUNCTION SELECTION
Market Analysis
Location Analysis
FUNCTION POTENTIAL

BUILDING ANALYSIS
FUNCTION POTENTIAL
Renovation
Transformation
Demolish & Build

Input User
Location Data

Market Database
Location Database

Criteria

Potential
### Specific Intervention

**Change Function**
- Upgrade Energy label
- New facade
- Extra levels (structure + zoning)

**Renovation Transformation**

**Demolish & Build**
- New building + high energy label + extra levels (zoning)
CONCLUSION

CH. 6
To what extent can a decision support model, based on simplified and quantified critical aspects, help in the decision making process for intervention strategies of vacant office buildings in Amsterdam?
“Architecture is too slow in its realisation to be a ‘problem solver’”
- Cedric Price
SPECIFICATION OF THIS STUDY

THE AMOUNT OF MODELS AND FACTORS IMPLEMENTED

THE AMOUNT OF CASES AND INTERVIEWS IMPLEMENTED

THE AMOUNT OF SCENARIOS & MIXED USE

TEMPORARY USE

MORE POSSIBILITIES TO SPECIFY
THE USABILITY AND GOAL OF AN ANALYSES OR MODEL

ONE INTEGRATED PROCESS

THE REAL ESTATE MARKET MECHANISM

DECREASE OF RISK

DETERMINATION OF POTENTIAL PROBLEMS

ACCEPTANCE OF LOSSES
‘Kantorentekort dreigt in Amsterdam’

De leegstand in Amsterdam daalt zo hard, dat er binnen twee jaar een tekort aan kantoren dreigt te ontstaan. Er moeten snel nieuwe kantoren worden gebouwd, anders zullen grote bedrijven Amsterdam links laten liggen en kunnen start-ups geen betaalbare ruimte vinden. Dat stelt Rudolf de Boer van vastgoedadviseur CBRE op basis van onderzoek.

Het is een opvallend geluid in de vastgoedsector, waar oplopende leegstand al jarenlang hét thema is. Ook in groot-Amsterdam is de leegstand nu nog 12,9%, maar dat is al flink minder dan de 17% uit 2014. Door de toegenomen bedrijvigheid in de hoofdstad en het grote aantal transformaties van zakelijke bedrijven is kantoorruimte vanaf een bepaalde omvang niet meer beschikbaar. Nieuw is dat al snel te kunnen merken in de vaak schaars geachte kantoren Zuidas.