

MASTER

Structural vacancy in office buildings

a study into the decision-making process of real estate investors when deciding about the future of a structurally vacant office building

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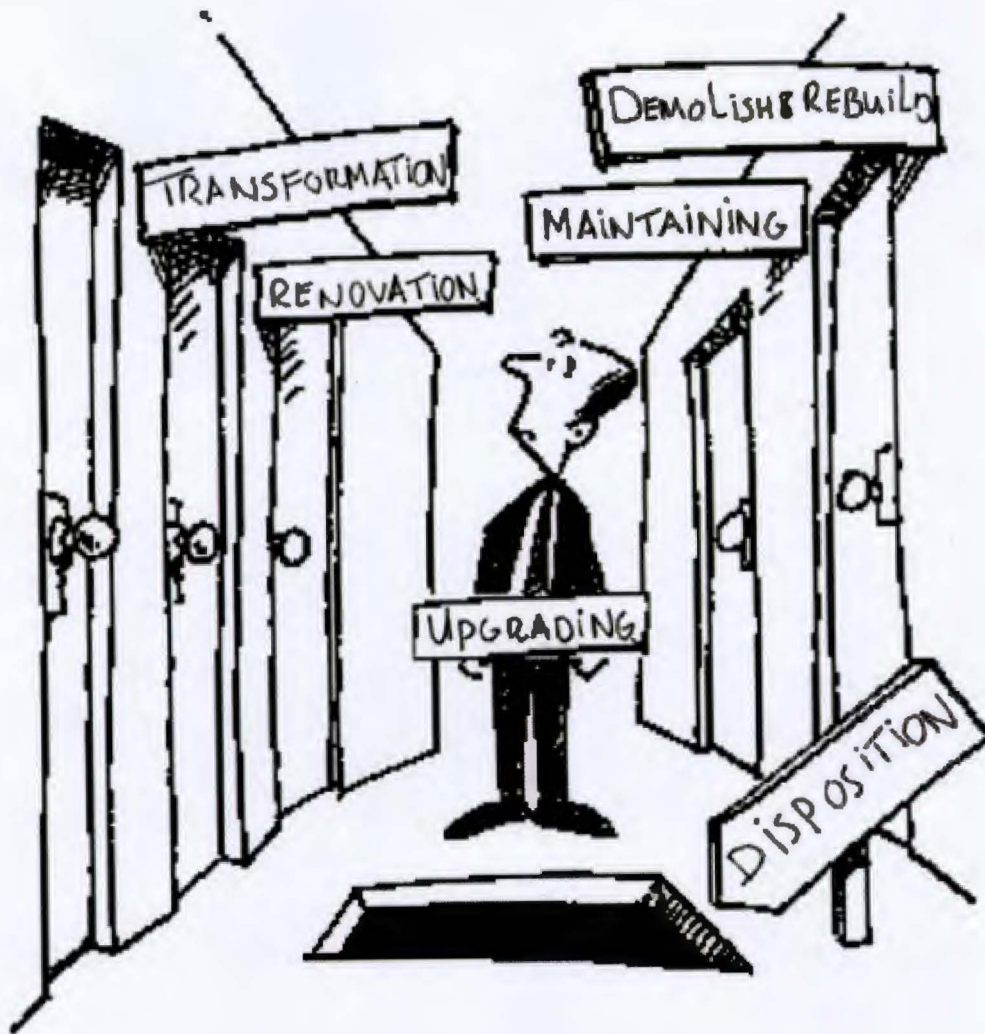
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Structural Vacancy in Office Buildings

A study into the decision-making process of real estate investors when deciding about the future of a structurally vacant office building




Master of Science Thesis

Tjibbe Teernstra

November 2007

TU/e

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LASALLE®

Master of Science Thesis

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Preface

This thesis is the end product of my study at the Eindhoven University of Technology. Only seven months ago, I could not imagine what spending a complete day of work on writing a thesis would be like. Now, after having spent over 150 days writing this thesis, I am fortunate to say I can. Working eight hour days in an office environment, I quickly came to realise how diligently I could work in this time and this was a new experience for me.

A study into the decision-making process of investors may not be something you would expect at a University of Technology. In my opinion though, the multi-disciplinary character of the study made the study more interesting and gave it an extra dimension. The results have 'revealed' interesting information about the current structural vacancy issue and the way investors deal with that. I hope the insight stated in my thesis regarding the decision-making process will be helpful for real estate advisors. It is my personal belief that the decision-making process of many investors can be made more rational. However, this thesis has not pointed out the consequences of irrational behaviour of investors. The question of whether or not a more rational process would result in a more profitable outcome remains unanswered for now.

I would like to thank my supervisors Gordon Brown, Robert Weisz and Caroline Rohling for their useful feedback and their role as professional 'sparring partners' during the process. I would also like to thank my parents for helping me make the right decisions in my personal decision-making process. More to the point, the encouragement my parents provided, when urging me to choose University rather than a higher career education, a little over six years ago. I am now convinced one should always try to maximize their performance and make the most of their opportunities. I also owe my girlfriend Kim a thank you for motivating me and helping me accelerate my thesis writing process. She challenged me in a 'competition' about who would finish their thesis first. A competition which I 'lost' by the way. Last but not least, I need to thank Jones Lang LaSalle for giving me the opportunity to execute this study. Jones Lang LaSalle truly is an inspiring and helpful environment and provided me with all the facilities and information I needed in order to finish this thesis successfully.

I hope you will enjoy reading this thesis!

Amsterdam, November 2007

Tjibbe Teernstra

Summary

Motivation

In 2001 the Dutch economy came into a phase of recession and the demand for office space dropped. Ever since this economic recession, the vacancy rate for office space is still enormously high. The office space supply at the moment is around five million square meters, which is approximately 10 percent of the total stock. In a situation of vacancy, the owners of the vacant space have a loss on revenue, continuing fixed costs and the invested money can not be used for something else. Despite the development of all kinds of tools, models and instruments in order to examine and/or execute a possible alternative to deal with vacancy, most investors kept waiting for a tenant instead of taking action. Investors seem to be very optimistic and think when the economy recovers, the demand for office space will restore and potential tenants will line up again to sign lease contracts.

However, this attitude is not realistic. The office market has been strong for three years now, yet a lot of vacant supply has still not been absorbed by the market. Macro economic forecast and demographic expectations, resulting from the ageing of society tell us it is not very likely that the working population will grow to a level that is required to absorb a substantial part of the vacant supply. In addition to this, new supply of office space is being added to the stock continuously. At the same time, the interest rate is increasing; meaning financing a situation of vacancy will become more financially painful for investors. Because of these reasons, the demand for consulting services concerning vacancy issues is expected to increase. This results in a need for real estate advisors to gain a better understanding into the decision making process of investors when confronted with structural vacancy.

This motivation resulted in the following problem definition:

What considerations do real estate investors take into account in the decision-making process about the future of a structurally vacant office building and to what extent is that process rational?

The alternatives an investor has in dealing with vacancy that are examined in this study are:

- Maintaining
- Disposition
- Upgrading
- Renovation
- Transformation
- Demolish & rebuild

This thesis' goal is to gain insight into the decision-making process of investors in relation to vacancy and to develop a decision-support tool that can be used to determine the best possible alternative to deal with structural vacancy in an office building. In order to get more insight in the way an investor considers the above mentioned alternatives in a situation of vacancy, qualitative exploratory research has been performed.

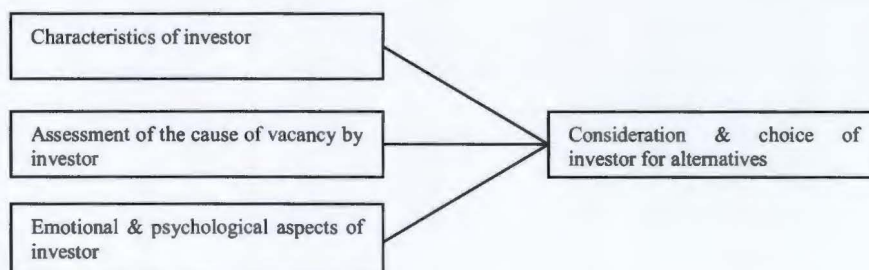
Survey on vacancy

To begin with, a survey on structural vacancy was done, based on the Jones Lang LaSalle office supply database. The reference date is the first quarter of 2007. The survey's goal is dual. First of all, the survey reveals data about structural vacancy in the Dutch agglomerations Amsterdam, Rotterdam, The Hague, Utrecht and Eindhoven (city including bordering municipalities). The results reveal the scope of structural vacancy in these agglomerations by discussing the number of objects, amount of square meters, typology of ownership, location typology and the nationality of the owners. The second goal of the survey is to select interesting cases for the case-study analysis. In order to find the most interesting cases, limiting conditions were set up. Offices in the study were required to have a floorspace of at least 1000 square meters. Offices that are marked as 'grade A' or 'new supply' according to Jones Lang LaSalle database categorization were left out. To conclude, an office must have been offered in the market for at least three years and the vacancy rate of the office building must have increased over those years. Because of these limiting conditions, the office supply is reduced by 37 percent and has dropped from 2.9 million square meters to 1.8 million square meters. Altogether, 116 offices show structural vacancy to some extent. These offices represent 460,000 square meters of office space. Finally, a selection of offices showing a vacancy rate of at least 85 percent was made and this forms the starting point of the results.

The most important conclusions that follow from the '>85% selection' are as follows. The cities Amsterdam and Utrecht relatively have the largest problems with structural vacancy. In both these cities, structural vacancy represents 2.5 percent of the total office stock. About 50 percent of all offices in the selection are owned by private investors. Approximately 70 percent of all owners have Dutch nationality and around 50 percent of all offices are located at a business park outside the city. Another interesting conclusion is the fact that 66 percent of all structurally vacant square meters is located in offices with at least 85 percent vacancy. This means the majority of structural vacancy is accumulated in a relatively small number of buildings instead of scattered over a lot of buildings.

Case-studies

When selecting cases for the case-study analysis, diversification criteria were used. First of all, a mix of different types of investors was created in order to find interesting differences in attitude between these types of investors. Also a mix between 'new owners' and 'old owners' was preferred. A 'new owner' is an investor who deliberately purchased a (partly) vacant office in the last three years. An 'old owner' has owned the office for over three years, meaning vacancy came by surprise. Taking the diversification criteria into account, the 30 most well known and representative investors in the '>85% selection' have been asked to participate in an interview. Out of 30 investors that have been approached for an interview, 13 investors agreed to cooperate. The interview focussed on the decision-making process in relation to vacancy in general and on the specific case in particular. More specifically, the relation between an investor's characteristics (1), his assessment of the cause of vacancy (2), emotional & psychological aspects (3) and his consideration & choice for alternatives (4) to deal with vacancy was studied. These variables and their relations can be seen in the conceptual model below.



Results

1: The relation between an investor's characteristics and the consideration & choice for alternatives.

The most important characteristics of an investor that affect the decision-making process are his attitude towards risk and the policy of the organization. Institutional investors for example are risk averse and tend to keep the portfolio rather young. Offices showing first signs of lettability issues are replaced by newer offices in an early stage. Some private investors on the other hand see opportunities in the offices that are turned down by institutional investors. Organization policy determines to what extent the decision-making process can be dynamic and decisive in relation to vacancy. Rules and restrictions following from organization policy slow down the decision-making process.

2: The relation between an investor's assessment of the cause of vacancy and the consideration & choice for alternatives.

According to the investors, the market situation is regarded by far as the most important factor in the cause of vacancy. After that, the lack of location quality is regarded as an important issue in the cause of vacancy. According to the investors, the quality of the office itself does not play a role in the problematic lettability. Taking a closer look at the assessment of vacancy, an interesting relation is seen between the degree in which an investor is able to affect the cause of vacancy and his assessment of the cause of vacancy. The more important the role of a particular cause of vacancy, the less influence the investor has on that cause of vacancy. After all, the main cause of vacancy, above all others, is the market situation, which is impossible to influence. The second most important cause of vacancy is the quality of the location, which is also hard to influence by an individual investor. In last position, investors believe the lack of quality of the office itself is important. In other words: investors feel they are not to blame for the vacancy as the office meets market demand standards and they did not have any grip on the market situation and the location quality. It is recommended to study the question of whether or not these investors are realistic and honest about the cause of vacancy. Is the main cause of vacancy really the current market situation or was the office and/or location looking back, also less qualitative than expected? Are investors really not to blame at all?

3: The relation between emotional & psychological factors and the consideration & choice for alternatives.

The results indicate one emotional factor and two psychological factors appear to be of significant importance in the decision-making process of investors when deciding about a structurally vacant office. Above all others, optimism amongst investors about the situation on the office market plays an important role when an investor chooses an alternative to deal with vacancy. This attitude results in investors 'waiting for the market', choosing to maintain the office. After that, overconfidence and the disposition effect appear to have most impact on the decision-making process. Investors are overconfident about their ability to creatively approach and solve vacancy. The disposition effect means investors believe selling the office in an earlier stage would have been better. This provides an interesting lead as it indicates investors are sometimes better off to take a loss in an early stage of lettability issues, instead of desperately continuing the office function. More study, especially into the consequences of this possible irrational behaviour, is recommended.

4: An investor's consideration & choice for alternatives.

Of all thirteen cases, nine investors chose to maintain the office in its current condition. One investor chose to give the office an upgrade and three investors renovated the office. The results resemble the reserved, risk-avoiding attitude of investors in practice. Also, the strong preference to maintain the office function and to prevent making an additional investment to improve an office's quality is emphasized by these results. The specific choice of investors in these cases is also a reflection of the average choice for alternatives in general. Of all choices relating vacancy in the past, the alternatives maintaining, upgrading and renovation (thus, continuing the office function) represent 79 percent on average.

Decision support tool

The results of the interviews formed the foundation for the developed decision support tool. The best possible alternative to deal with vacancy is determined to a large extent by four factors. The most important factors for choosing an alternative are the quality of the location and the quality of the building. The alternatives have different consequences for an investor. The most important consequences of the different alternatives are the question of whether or not an investor is willing to make an additional investment and whether or not the investor is willing to take a loss on book value. In the tool, these two questions follow the questions about location quality and building quality. Based on these four factors of input, the tool provides advice about the (theoretically) best possible alternative to deal with vacancy. In order to create a link with the practical matters which have been outlined by investors during the interviews, a list of critical factors of success for each alternative is presented in the tool. These critical factors of success should be taken into consideration by an investor before definitively choosing an alternative. The tool's practicability was tested by several colleagues of Jones Lang LaSalle. Furthermore, the usefulness of the tool was tested by using the tool for two additional vacancy cases. The tool was tested successfully on both usefulness and practicability, meaning this thesis' objective has been achieved.

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1 Introduction

1.1 **Motivation**

Ever since the economic recession in the year 2001, the vacancy rate for office space is still enormously high. The office space supply is at the moment around five million square meters (Dynamis 2007). The main reason for vacancy is the fact that there is a mismatch between supply and demand in the market in both quantitative and qualitative terms. This is what one currently notices in the office market. The quantitative mismatch is caused by the development of demand and supply. The office supply is currently larger than the market can absorb. The qualitative mismatch is caused by the changing requirements set by occupiers of office space and occurs on both building and location level. Because of these changing standards, a large part of the office supply has become functionally obsolete.

Professional real estate consultancy firms claim around 20% of the total office supply is unlettable real estate (DTZ Zadelhoff 2007, Dynamis 2007 and NVB 2006). This equals approximately one million square meter of office space. However, many investors do not seem to realize their asset is actually part of the so-called unlettable real estate¹. Although investors have a loss on revenue, continuing fixed costs and the invested money can not be used for something else, many investors have kept waiting for a tenant. Investors seem to be very optimistic and think when the economy recovers, the demand for office space will restore and potential tenants will line up again to sign lease contracts.

Is this attitude realistic? In the last couple of years the economy has gone through a phase of recovery. According to Jones Lang LaSalle (2007), the occupier market has been showing signs of a strong improvement. Following the recovery in the economy that started in 2004, the demand side of the market has been showing positive signs. Absorption has been on a high level for three years and for the first time in five years the total office supply decreased in 2006. (See figure 1). Yet, a lot of supply has remained vacant. Occupiers of office space have shown strong preference for the qualitative newer buildings on modern multifunctional locations. The persisting demand for qualitative office space on multi functional locations will accelerate the visibility of structurally unlettable real estate in the qualitative lower regions of the market. After all, real estate which is not rented out in a long period of time, even in a phase of a recovering economy can be considered as unlettable real estate.

The understanding of the fact that a large part of the current supply will not be leased in its current use and/or condition will, in the long run, also become clear to investors that own these offices. According to the Dutch association for builders and developers (NVB), this awareness process could take another two years. For these investors, sooner or later, a decision has to be made about the future of their properties.

Also financing a structurally vacant asset has not been financially painful due to the low interest rate in last years. At the same time, an office building that was not doing very well could easily be covered up by another well performing asset in the portfolio. With the interest rates going up, financing this vacancy will become more expensive, if not impossible for some investors.

¹ Rietdijk, N. chairman of NVB, the Dutch association for builders and developers on www.vastgoedjournaal.nl

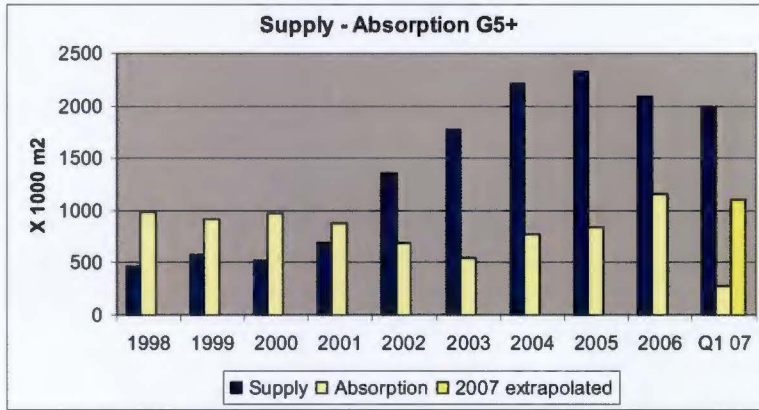


Figure 1: Supply and absorption in the five largest agglomerations in the Netherlands. Source: Jones Lang LaSalle (2007)

Because of the reasons mentioned, the demand for options to deal with structurally vacant real estate will probably increase in the future. More investors will realize something needs to be done about their structurally vacant assets. Therefore it is interesting to zoom in to the structurally vacant offices in the five largest cities² in the Netherlands. Who owns these offices and what type of investor has most structurally vacant offices in his portfolio? What is the attitude of these investors in relation to the alternatives to deal with structural vacancy?

This study will help make the structural vacancy problem more visible and the real estate industry more transparent. The study aims to find out which considerations an investor takes into account when deciding about the future of a structurally vacant office building. In other words: the decision-making process of an investor. The most important definitions of specific terms used in this thesis are found in paragraph 1.7 of this chapter.



² Amsterdam, Rotterdam, The Hague, Utrecht and Eindhoven. When one of these cities is mentioned in this thesis, the whole agglomeration (city including bordering municipalities) is referred to. See appendix VI

1.2 Problem outline

In the last decennia, the Dutch office market has been characterized as growth market. The working population has shown a structural growth trend. Also, the increased importance of the services sector compared to the agricultural and industrial sectors has given office demand a boost. This can be seen in figure 2. Demand and supply of office space have grown accordingly.

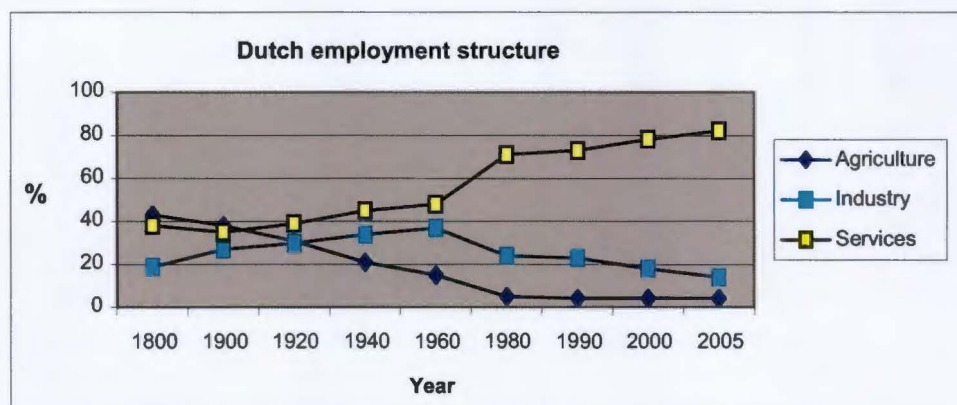


Figure 2: Dutch employment structure. Source CBS (2006)

In 2001 the economy came in a phase of recession and the demand for office space dropped. All office market crises of the past, usually caused by a temporary mismatch between demand and supply of office space, have been ended by the above mentioned seemingly unstoppable force of demographics (Brounen and Eicholtz 2004a). At the moment however, the office market is characterized as a relocation market, rather than a growth market. This means, most demand for office space comes from organizations moving from one office to the other. These organizations leave office space of lesser quality behind, instead of absorbing new office space.

The relocation market of the last several years has led to a clear dichotomy on the supply side of the office market. There is a large difference between new office buildings and office buildings that are more outdated, in which the more outdated buildings seem to be out of favour structurally (DTZ Zadelhoff 2007). As supply is bigger than demand the less appreciated existing office buildings have remained vacant. The growing difference between new vacant supply and existing vacant supply can be seen in figure 3. (for an explanation consult paragraph 3.4 'limiting conditions') For this reason the real estate industry currently faces an unnatural high average vacancy rate in the office market of approximately 10% of the total stock (Dynamis 2007). A 'normal' vacancy rate, the so-called frictional vacancy rate has a range between 5% and 7% and is necessary for a well functioning and dynamic office market. In this thesis, structural vacancy is referred to when an office building has been vacant for three years or more.

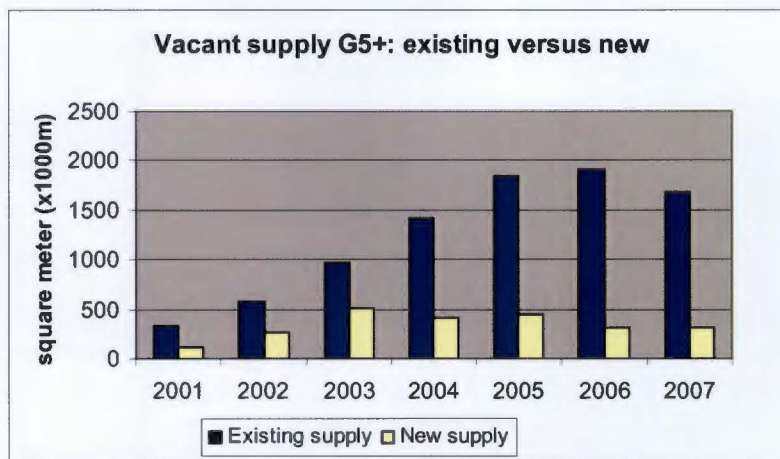


Figure 3: Existing versus new supply in the five largest agglomerations in the Netherlands. Source: Jones Lang LaSalle (2007)

Optimists regard the current office market situation, with high vacancy rates, as just another temporary phenomenon. According to them, the office market will rise again, now that the economy recovers, and job creation will go on as before. After all, that was the case last time, so it is likely to be the case again. Brounen and Eicholtz (2004b) argue this is not a very realistic scenario as the current office market crisis probably is more structural than that.

Although some people are optimistic, there seems to be consensus about the fact that structural vacancy is a serious issue at the moment. As mentioned before, professional real estate consultancy companies claim somewhere around one million square meters of office space is structurally unlettable. According to the Ministry of Housing, Spatial Planning and Environment, between half a million and one million square meters of office space has to be taken out of the market or improved drastically to make the office market more healthy and in balance.

A question that has been a topic of interest for many years is how to deal with the structural vacancy issue? One of the most important factors in real estate appreciation is location. As real estate has per definition a fixed location, one has to look for different ways to get a vacant office back in the market. Many studies have been performed in order to find ways to deal with structurally vacant real estate. An investor has different alternatives to choose from when he is confronted with structural vacancy in his portfolio. The alternatives presented and studied in this thesis will be discussed in chapter two.

As said before, investors have not taken action so far but waited for the market to recover. The office market has been strong for three years now, yet still a lot of structurally vacant supply has not been absorbed by the market. For this reason, the demand for consulting services concerning vacancy issues is expected to increase. This causes a need for real estate advisors to better understand the decision-making process of investors when confronted with structural vacancy.

1.3 Problem definition

The motivation and problem outline have lead to the following problem definition.

What considerations do real estate investors take into account in the decision-making process about the future of a structurally vacant office building and to what extent is that process rational?

1.4 Sub-questions

In order to make the problem definition more tangible and understandable, it has been divided into two parts: literature review and practical analysis. Each part will answer the following sub-questions;

Literature review

- What is structural vacancy, what are its causes and when does vacancy become an issue?
- What are the most important building and location characteristics in relation to the lettability of offices?
- What different types of investors can be distinguished in the Netherlands?
- What alternatives to deal with structural vacancy can be distinguished?
- What factors influence the consideration and choice of an investor for the different alternatives?

Practical analysis

- What is the relationship between an investor's characteristics and his consideration & choice for alternatives?
- What is the relationship between an investor's assessment of the cause of vacancy and his consideration & choice for alternatives?
- What is the relationship between the emotional and psychological aspects of an investor and his consideration & choice for alternatives?

1.5 Objective definition

This thesis' main goal has been formulated in the following objective definition.

Developing a decision-support tool, that can be used to determine the best possible alternative for a real estate investor to deal with structural vacancy in an office building.

1.6 Positioning of thesis

The last several years, due to enormously increasing and persisting numbers of vacancy, many studies have been done in the research field of vacancy. Most studies are positioned somewhere in the decision-making process of an investor when deciding about a structurally vacant asset. All kinds of tools, models and instruments have been developed in order to

examine or execute a possible alternative. Studies try to examine market potential, legal possibilities, transformation potential, new-use possibilities and financial feasibility. This study has a different focus. This study's goal is to find out an investors attitude in relation to the different alternatives that are available to deal with structural vacancy. This means, this study does not have a specific position in the process; it is about the decision-making process itself. The schematic structure and positioning of this thesis can be seen in figure 4.

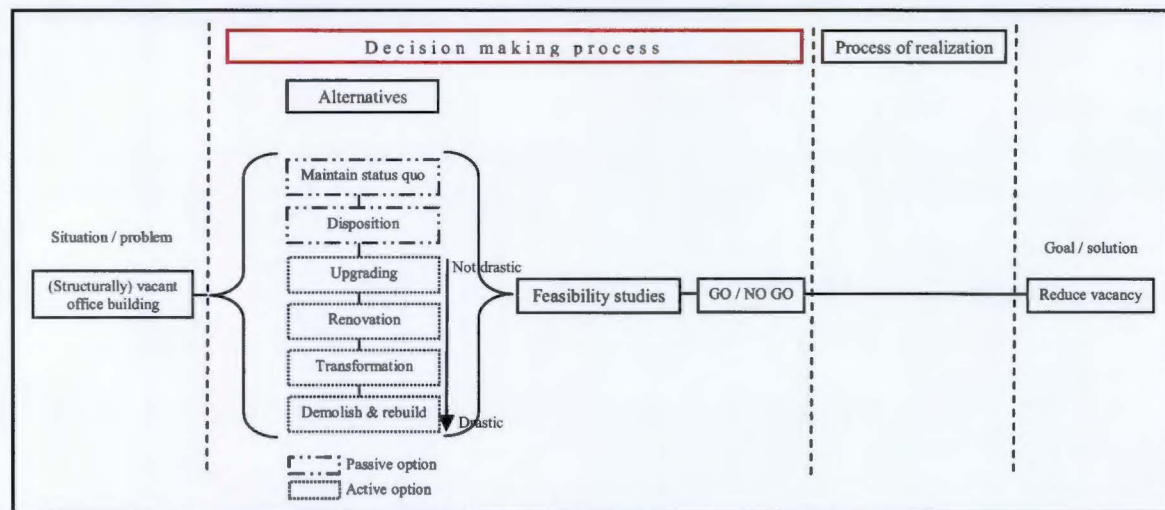


Figure 4: Positioning of thesis

1.7 Definitions of terms

It is very important to make clear what exactly is meant by a specific term. Especially, as interpretations of terms in practice can vary from one person, company or university to another. The most important terms and accompanying definitions in this study are defined in this paragraph.

Office building: a real estate asset which is completely or at least for the majority, used for desk-related activities (Keeris 2001).

Office organization: companies that have a need for office space in order to be able to execute their business activities (Keeris 2001).

Real estate investor: a natural person, or legal entity who invests capital in real estate in order to generate a future return on investment (Van Gool, Jager and Weisz 2001).

Private investor: a natural person or group of natural persons organized in a legal entity who invests private money in order to establish a certain return on their investment in the future (Van Gool, Jager and Weisz 2001).

Institutional investor: a professional financial organization that manages capital of its participants in order to be able to do future payments to these participants (Keeris 2001). For example: pension funds and insurance companies.

Investing in real estate: allocating capital in real estate, either directly (stones) or indirectly (shares), by means to generate future revenue during the operating period of the real estate (Van Gool, Jager and Weisz 2001).

Obsolescence: the diminishing usefulness and/or attractiveness of a building and/or location with respect to the function for which the building was designed or used for a long time (Korteweg 2002).

Structural obsolescence: physical deterioration of a building whereby the building's features change in absolute terms (Korteweg 2002).

Economic obsolescence: obsolescence which is the result of developments on the demand and supply side of the office market and as a result of the changing structures of cities (Korteweg 2002).

Functional obsolescence: obsolescence which is the result of changing requirements of users of office space and /or the changing legal framework for safety and working conditions (Korteweg 2002).

Vacancy: completed office floorspace offered on the open market for leasing or sale, vacant for immediate occupation on the survey date (normally at the end of each quarter period), within a market (Jones Lang LaSalle 2000). This includes all vacant accommodation irrespective of the quality of office space or the terms on which it is offered.

Vacancy rate: immediately vacant office floorspace in all completed buildings within a market as represented at the survey date (normally at the end of each quarter period), expressed as a percentage of the total office stock (Jones Lang LaSalle 2000).

Structural vacancy: vacant office floorspace, available for the market, which has been offered in the market for at least three years or more (Jones Lang LaSalle 2000).

1.8 Structure of report

The central question in this thesis is: what considerations do real estate investors take into account in the decision-making process about the future of a structurally vacant office building and to what extent is that process rational?

To answer the central question, the thesis has been divided into a literature review part and a practical part. In the literature review, a theoretical background is given of types of investors, structural vacancy and the different alternatives an investor can choose from when dealing with structurally vacant real estate. Also the relation between the alternatives and the type of investor and the cause of vacancy is discussed.

In the practical part of the thesis, the scope of the structural vacancy problem and the typology of ownership are examined. This is done in order to select case-studies. After the selection of cases was made, the investors belonging to these cases were interviewed. This was done in order to better understand the decision-making process of different types of investors. The interviews have been analyzed and the results will be processed into a tool that –combined with specific market knowledge- can be used to determine the best possible option for an investor to deal with structural vacancy. In the last chapter the most important

conclusions are drawn and recommendations for further research are given. Every chapter ends with a brief conclusion, summarizing the most important information of the chapter. The structure of this report can be seen in the following schematic chapter set up:

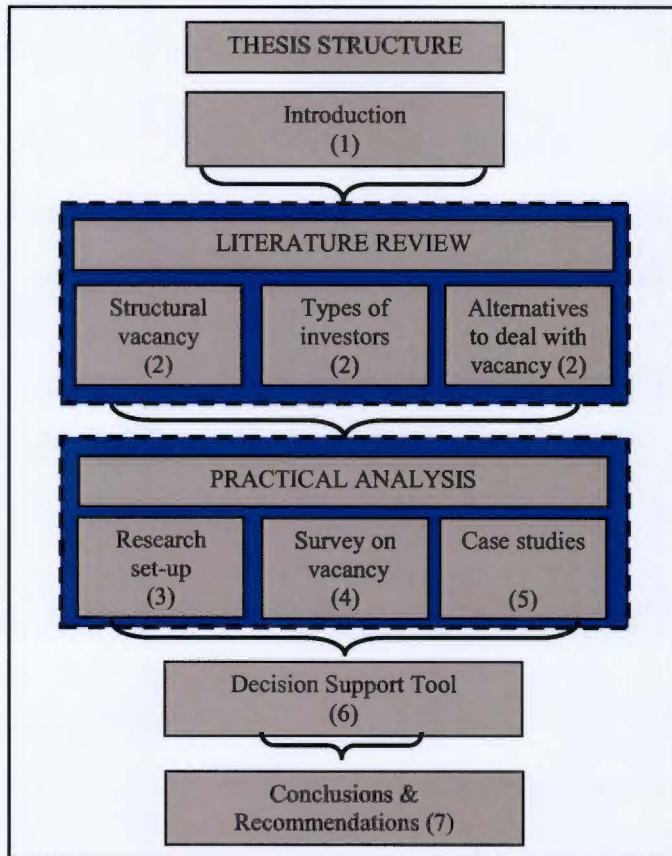


Figure 5: Structure of report

1.9 Jones Lang LaSalle

This study has been carried out at Jones Lang LaSalle (JLL) in Amsterdam, at the Research & Consultancy department. Jones Lang LaSalle is one of the worlds leading companies in the industry of real estate services and provides strategic and fully integrated services to property -owners, -occupiers and -investors. Jones Lang LaSalle has over 125 offices worldwide and operates in over 450 cities in 50 countries. (www.jll.com)

2 Theoretical background

2.1 Introduction

This chapter provides a theoretical background of the thesis. The most important topics related to the central question are discussed in order to find interesting leads for further research. The chapter starts by discussing vacancy and its causes. Also types of vacancy and the consequences vacancy has are briefly discussed. Also the different alternatives an investor has when he is confronted with vacancy are presented. The different types of investors in the Netherlands are distinguished and their most important differences in relation to the alternatives are discussed. Lastly, the cause of vacancy in relation to the different alternatives is discussed.

2.2 Vacancy

This paragraph explores the first two research questions. In this paragraph, vacancy, its causes and the type of vacancy that is problematic for an investor are discussed. Also the most important building and location characteristics that affect an office's lettable are discussed.

2.2.1 What is vacancy?

The definition for vacancy used in this thesis is: *completed office floorspace offered on the open market for leasing or sale, vacant for immediate occupation on the survey date, within in a market* (Jones Lang LaSalle 2000). The vacancy that is known off is the office supply which is offered in the market. Obviously, there is more vacant office space, as not all vacant space is actually offered in the market. These square meters are thus invisible. A certain level of vacancy, the so-called frictional vacancy, is desirable and normally lies around 6 percent. This level of vacancy is necessary for a 'normal' functioning and dynamic office market. For example, it enables organizations to move efficiently. As said before, the current situation in the office market is far from healthy which can be seen in figure 6. Only The Hague and Rotterdam show a more or less natural vacancy rate. A low vacancy rate does not mean there are no structurally vacant office buildings in a city. Amsterdam currently has the worst market situation and faces a vacancy rate of 14 percent.

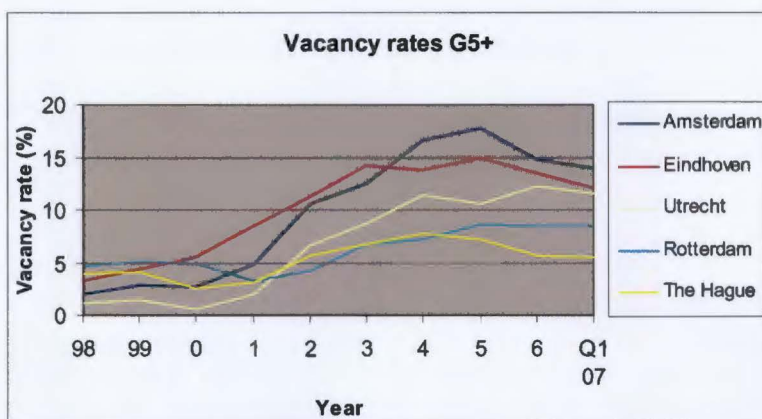


Figure 6: Vacancy rates in the five largest agglomerations in the Netherlands. Source: Jones Lang LaSalle (2007)

The vacancy rate depends on the situation on the office market. Since the recession that began in 2001, occupier markets have been facing a significant decline in demand for real estate.

This trend was seen in virtually all office segments, resulting in a fall in rents and an increase in incentives like rent free periods and fit out allowances.

2.2.2 Causes of vacancy

Office buildings can become less useful or less attractive to office firms through absolute changes in the characteristics of the building and/or location but also through changes in the requirements that firms apply to a building and its location. In practice, organizations will move to qualitative better offices and locations. Obviously, the less appreciated offices and locations remain vacant. What are the practical reasons for vacancy? Geraedts and van der Voordt (2003) distinguish three main groups of reasons for vacancy. These groups of reasons are: the *economic trend*, *location characteristics* and *building characteristics*. In general, reasons for vacancy can be classified into one of these three groups.

Economic trend

As the real estate market is strongly related to the business cycle, the demand for office space follows the business cycle, however, because of construction time with a certain delay. When the economy is going up, more businesses are started, existing companies expand and the employment rate goes up. In the Netherlands, a large part of the employment will be in the services industry. This results in an increasing demand for office space. Expanding businesses will search for larger offices that have more quality and are located at good locations. However, when the economy is in a declining trend and is going into a phase of recession, these processes will be the other way around. People will be discharged and businesses will decline or even go bankrupt. This will result in a (strong) fall in demand for office space. When lease agreements expire, many businesses will use less office space and move to a smaller office or an office that has a better price/quality ratio.

Location characteristics

One of the most important factors in real estate appreciation is location. For a business, when deciding where to settle down, many important aspects are strongly related to the location. Obviously, location characteristics play an important role in the lettability of an office. The functional obsolescence of locations results in office locations becoming obsolete premature. This is due to an oversupply of alternative office locations and changing criteria office firms apply to locations.

What are important location characteristics that affect the lettability of an office? Real estate consultant Dynamis did a survey in order to find the location and building characteristics of the vacant office supply (Dynamis 2006). The survey is based on the Dynamis brokerage network and covers 75% of the Dutch office market supply. The survey shows that the most important negative location aspect is the bad image & looks of the area and surrounding buildings. Also, the visibility of the office from the highway, the car accessibility and accessibility by public transport are considered as very important for the lettability of an office. Another study into lettability of offices is the 'Real Estate Norm' (REN). REN is a method for measuring the quality of office locations and office buildings (Real Estate Norm Netherlands Foundation 1992). According to REN the most important location characteristics are representativeness, accessibility, facilities, visibility and safety. In a study done by the Dutch association for builders and developers (NVB 2006) and advisory firm Twynstra Gudde (2004), the aspects accessibility, image & looks and facilities are also listed as the most important location aspects. Geraedts & van der Voordt (2007) have developed a tool to measure the risk an office has to become vacant. A location aspect distinguished in the so-

called 'leegstandrisicometer' is a mono-functional non representative area. This however can be considered as similar to 'image & looks'.

Building characteristics

Besides location characteristics, building characteristics have a critical role in the way an office building is appreciated in the market. Also on a building level functional obsolescence plays an important role. The functional obsolescence of buildings results in offices becoming obsolete premature. The functional obsolescence of offices is due to the changing criteria office firms apply to offices and because of the changing legal framework for working conditions and safety. Also, new supply added to the stock will lead to relative obsolescence. Especially when there is ample supply of new office space this leads to obsolescence of existing buildings.

What are important building characteristics that affect the lettability of an office? In the survey done by Dynamis (2006), the most important building aspects appear to be the bad image and looks of the building and parking space. Twynstra and Gudde (2004) also mention the image & looks of the office building as an important quality aspect. Apparently, image and looks are important aspects for the lettability of an office on both location and building level. Other important building aspects that negatively affect an office's lettability are the quality of building specifications such as lack of flexibility, lack of ict-services and poor climate control. According to the Real Estate Norm, the most important building characteristics are the level of flexibility, the looks of the main entrance, transportation possibilities (for people: routing in the building, sense of direction, lifts, staircases and walking comfort. For goods: access to the building and vertical movement) and communication (possibility and visibility of company sign, flexibility and movability of communication facilities.) The 'leegstandsrisicometer' also distinguishes the office's technical quality (façade, construction, specifications and installations) and the year of construction. Office buildings that were built between 1960 and 1980 appear to have a high vacancy risk because they often lack certain building qualities. The rent level of an office appears not to be an issue, which seems remarkable. However, in practice, the rent is automatically adjusted to the lettability of an office and the market situation and will therefore be in line with its quality. On the other hand, organizations apparently are willing to pay high(er) rents as long as the rent is in line with the buildings quality.

Summarizing

Based on the different studies mentioned, a list of the most important location aspects and building aspects that affect an office's lettability was made (figure 7). This list has been set up in dialogue with Jones Lang LaSalle employees of the Office Agency department. The final list of aspects is a combination of the aspects discovered in literature/studies and the practical experience of the Jones Lang LaSalle office agency consultants. Although some aspects are considered more important than others, it is not the case that one aspect will be decisive. Overall, it is a combination of different negative aspects that results in an office building that is practically unlettable. The different quality factors are explained more extensively in appendix I. The next two pages present a collage of examples of bad and good offices and locations.

Location	Building
Image & looks	Image & looks
Accessability by car	Flexibility
Accessability by public transport	Technical specifications
Facilities in the area	Parking space

Figure 7: the most important location- and building qualities.
Source: author

Examples of qualitative bad offices and locations



Examples of qualitative good offices and locations



2.2.3 Types of vacancy

Real estate vacancy is not one of a kind. In the market, different types of vacancy can be distinguished. According to Hulsman & Knoop (1998) vacancy can be divided into four major types.

Initial vacancy: vacancy just after an office building has been completed and is added to the market.

Frictional vacancy: vacant office supply under normal market conditions, which is needed for the market to allow efficient movements; bandwidth 5-7 percent.

Economic vacancy: vacant office supply due to economic conditions in the market. When the economic trend changes positively, this vacancy will be absorbed by increasing demand.

Structural vacancy: vacant office supply that has been vacant for over three years due to building and/or location characteristics.

Although vacancy is per definition a loss on revenue for an investor, vacancy is not in all aspects problematic. Under normal market conditions, a frictional vacancy rate of around 6% is even desirable. In the scope of this thesis only the types of vacancy that cause serious financial problems for an investor are interesting. If vacancy does not cause serious financial problems for an investor, there is no incentive at all to consider an alternative for his vacant asset. Structural vacancy is the type of vacancy that has most negative consequences.

Prof. ir. W. Keeris (2007) makes a distinction between four categories of vacancy, based on its level of negative influence. These categories are: *accepted vacancy*, *problematic vacancy*, *dramatic vacancy* and *administrative vacancy*. Again, only vacancy that causes serious financial problems for an investor is interesting in the scope of this thesis, so a closer look is taken on *dramatic vacancy* only.

According to Keeris (2007), in the category *dramatic vacancy* there are three levels of gradation. The first level is real estate that still has perspective to a future tenant. The second level is real estate that has been structurally vacant for over two years and is totally unlettable. This means there is no perspective at all to find a future tenant for the building. The building does not meet the market demand requirements due to lack of qualitative building characteristics. The third level Keeris (2007) distinguishes, is structurally vacant real estate that does not meet the market demand requirements due to lack of qualitative location characteristics.

Concluding, structurally vacant offices that have been vacant -due to location and/or building characteristics- for two years or more and have no perspective to a future tenant are the most problematic and therefore most interesting for this survey.

2.2.4 Consequences of vacancy

Huizinga (2006) divides the consequences of structural vacancy into *social consequences* and *financial consequences*. Social consequences have impact on society and financial consequences have impact on the investor.

Social consequences

The consequences structural vacancy has for society are diverse. First of all, vacancy is a waste of scarce space and land. For society it is rather frustrating to notice so many office space is vacant on the one hand, and there is such a shortage for affordable housing on the other hand. Also, vacant office buildings give an area a bad image and that harms its surrounding areas. Vacant real estate often leads to the degeneration of the area as it is usually not well maintained and has a miserable look. Some consequences are more positive. According to the Ministry of Housing, Spatial Planning and Environment (2007), a municipality benefits to some extent of a large supply of office space. This is because rents will be rather low and companies can choose between many offices and locations. For as far as these aspects are concerned, a municipality is rather attractive for a company to locate itself. When there is sufficient office space in a city, companies will not have to leave the city when they expand and that keeps employment within the local community.

Financial consequences

The financial consequences of structurally vacant real estate come down to the owner of the office. In practice, this will mostly be an investor. Vacancy means per definition a loss on revenue and so harms an investor inherently. When an office building is vacant, there is no monthly rental income but the fixed costs like interest and taxes of the office continue anyway. This means an investor's return goals come under pressure. The longer an office remains vacant, the worse its perspective for a future tenant will be. As the value of an office is determined by its rental cash flows and potential rental growth, the value of an office will decline when it is vacant. However, the financial losses have apparently not been too dramatic so far, as not many investors have chosen to look for different alternatives. Although not a direct financial consequence, it is important to mention an investor's image can also be harmed because of vacancy. This can have negative effects in the long run.

2.3 Investors

This paragraph discusses the third research question of the thesis about types of investors. Investors are generally divided into institutional investors, private investors and real estate funds. These investors have different characteristics and goals and therefore their acting on the office market is different. Also their attitude towards risk and their fiscal rights differ. For a more specific overview of types of investors distinguished by Jones Lang LaSalle is referred to appendix II.

2.3.1 Institutional investors

An institutional investor is a professional organization that manages capital of its participants in order to be able to do future payments to these participants (Van Gool, Jager and Weisz 2001). In general, two types of institutional investors are distinguished: pension funds and insurance companies. The two largest pension funds in the Netherlands are ABP (civil servants) and PGGM (social service sector). Well known insurance companies are, for instance, Fortis, Delta Lloyd and Interpolis.

Pension funds and insurance companies invest the savings and premiums of their participants. The obligation of pension funds and insurance companies is to be able to do future payments to the participants. Most pension funds have fixed financial obligations in the form of a pension. For this reason especially inflation is risky for a pension fund. An insurance company does not have fixed financial obligations, so the inflation risk is perceived as less

important. Because of the similar nature of pension funds and insurance companies these types of investors are often considered as one group. Both organizations act rather risk defensive. This is the reason why pension funds and insurance companies in general are less leveraged³ than more speculative investment organizations.

Unlike insurance companies, pension funds do not have to turn over corporate tax. However, in practice, insurance companies usually invest in real estate using a special fiscal construction: 'fbi'⁴ (fiscal investment institution). An 'fbi' is also exempted from corporate tax, although restricted to certain conditions. The activities of the 'fbi' must be investing capital exclusively, in for example, real estate. Also the distribution of profits (dividends) amongst shareholders within 8 months after the fiscal year is an important precondition. The distribution of dividend is subject to tax. When investing in real estate an 'fbi' is limited to a maximum of 60% leverage.

2.3.2 Private investors

A private investor is a natural person or group of natural persons organized in a legal entity who invest private money in real estate in order to establish a certain return on their investment in the future. Examples of well-known private investors are: Uni-Invest, De Groene Groep, Cortona, Hilders and White Estate. An important difference with institutional investors is the fact private investors invest private money rather than savings (pension fund) and premiums (insurance company) of participants. Investing partnerships, contractors and developers are also considered private investors. Private investors are submitted to corporate tax over their profits. The capital gain of the real estate property however, is free of tax.

2.3.3 Real estate funds

An investment fund is an organization that has as core business to invest money in order to get an as high as possible return for their shareholders. An investment fund often uses as much leverage as possible when investing in real estate. An investment organization also has to turn over corporate tax. Some investment organizations invest in real estate only, others also invest in shares and bonds. An investment organization can be listed at the stock exchange. These organizations are called listed funds. Examples of listed funds are: Nieuwe Steen Investments, VastNed, Rodamco and Wereldhave. Investment organizations that are not listed most often use a special fiscal construction 'fbi' (fiscal investment institution, comparable to so-called REIT's.) A real estate investment fund can be either an open-end fund or a closed-end fund. An open-end fund is a collective investment which can issue and redeem shares at any time. In the Netherlands, no open-end funds exist. A closed-end fund is a collective investment scheme with a limited number of shares. This means during the operating period participants are not free to step out the fund without the permission of all other participants. Lastly, fund managers are distinguished. A fund manager is a firm that provides investment management services to clients. Examples of fund managers are: Lancelot Land, Halverton, ProLogis and ING REIM.

³ Leverage is referred to as the financial construction in which investors use more loan capital than equity capital in order to 'leverage' the return of equity capital. The more an investment is leveraged the higher its risk will be.

⁴ 'Fiscal investment institution' special tax-regime, comparable with so-called REIT's

2.4 Possible alternatives for an investor

This paragraph discusses the fourth research question about the possible alternatives an investor has in order to deal with vacancy.

When a building becomes vacant, there are different possibilities for an investor to deal with that (Priem 2005 and Houtveen 2002). The alternatives are shown in figure 8. Alternatives to deal with vacancy are very alive lately. Transformation for example, is a hot issue. Based on the recently erected 'transformation platform'⁵ and increasing reports in newspapers, magazines and real estate journals, one can conclude transformation, for example, has a large social basis at the moment. Only recently it has become allowed for institutional investors to develop and redevelop within their portfolio. The government recently passed a law that creates a possibility for institutional investors using the fiscal 'fbi' construction to develop and redevelop. This law makes the options 'transformation' and 'demolish & rebuild' theoretically possible for these investors. The alternatives presented in this study can be separated into active alternatives and passive alternatives as seen in figure 8. The passive alternatives are *maintaining* the office in its current condition and *disposing* the office in its current condition. The active alternatives represent a physical action and can be separated into gradations. From top to bottom, the one active option is more drastic than the other. The active alternatives are *upgrading*, *renovation*, *transformation* and *demolish & rebuild*. It must be stated here, that these alternatives are options for the investor, rather than actual solutions for the problem. When an investor, for instance, sells his structurally vacant asset the problem is not solved but shifted to a new owner. The alternatives have the following definitions.

Maintaining: continuing the asset in its current function, without doing additional investments in order to improve the buildings technical, visual and functional quality.

Disposition: selling the asset to another party in its current function, without doing additional investments in order to improve the buildings technical, visual and functional quality.

Upgrading: continuing the asset in its current function, and doing small additional investments in order to improve the buildings visual and functional quality. Upgrading is often considered as a cosmetic improvement of a building.

Renovation: continuing the asset in its current function and doing large additional investments in order to improve the buildings technical, visual and functional quality. Despite the difference in gradation between upgrading and renovation, it is hard to draw a specific line.

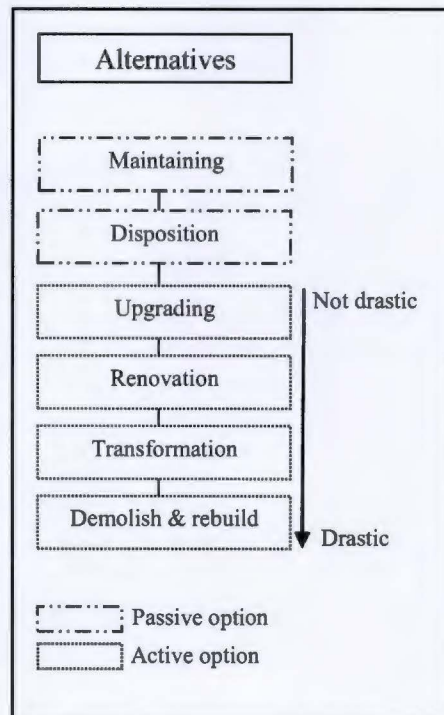


Figure 8: Alternatives to deal with vacancy. Source: author

⁵ Transformatieplatform: committee existing of market parties, local authorities and the Delft University of technology that has as goal to encourage transformation. (www.woneninkantoren.nl)

Unlike upgrading, renovation is considered as an integral plan to improve the buildings quality.

Transformation: the entirety of measures that has to be taken in order to bring an existing building into a technical condition so that it can accommodate a new technical program of requirements, assuming its existing function will be changed (Hek, Kamstra and Geraedts 2004). Transformation can be both temporarily and permanently. In this thesis only permanent transformation is discussed.

Demolish & rebuild: tearing down the asset and develop and build a new real estate object on the free land in order to establish the ‘highest and best use’ for the particular location.

The one alternative has different consequences for an investor than the other. Figure 9 shows the different alternatives and the most important consequences for the investor. It is important to know whether or not an additional investment has to be made. Also the fact whether or not the investor has to take a loss and write off book value is important. Vertically the different alternatives are summed up. Horizontally the consequences are listed. For the alternative *transformation* a distinction is made between executing the transformation process in cooperation or by the investor himself. Also a distinction between selling the property directly after transformation and keeping it in portfolio is made. The same distinctions are made for the alternative *demolish & rebuild*. For the amount of the additional investment a 5-point scale (low, low-medium, medium, medium-high, high) is used in order to be able to differentiate between the alternatives.

ALTERNATIVE	Additional investment YES/NO (5-point scale)	Taking loss YES / NO
Maintaining	NO	NO
Disposition	NO	YES
Upgrading	YES - Low	NO
Renovation	YES - Low-medium	NO
Transformation		
1a) self - sell directly	YES - Medium high	YES
1b) self - in portfolio	YES - Medium high	YES
2a) cooperation - sell directly	YES - Medium	YES
2b) cooperation - in portfolio	YES - Medium	YES
Demolish & rebuild		
1a) self - sell directly	YES - High	YES
1b) self - in portfolio	YES - High	YES
2a) cooperation - sell directly	YES - Medium High	YES
2b) cooperation - in portfolio	YES - Medium High	YES

Figure 9: Alternatives & consequences.
Source: author

The most important conclusions are as follows. All the active alternatives inherently mean an additional investment for the investor. This partly explains why investors rather wait for the market to recover than to take action. When an investor does not want to take his loss and write off on the asset, the only remaining alternatives are *maintaining*, *upgrading* and *renovation*. This is probably an important explanation for the fact that hardly any vacant office is transformed or demolished and rebuild.

2.5 Factors of influence in the decision making process

This paragraph discusses the last research question of the literature review. The possible factors that influence the choice and consideration of an investor for an alternative are explored and discussed.

2.5.1 Characteristics of investor

The differences between private investors and institutional investors are diverse. When looking at the characteristics of private and institutional investors in relation to the possible alternatives, the following can be stated.

Private investors

The more opportunistic attitude of private investors has the following practical consequences. Private investors, in general, use much more leverage when investing in real estate. They do this to leverage the return on private money as much as possible. The opportunistic attitude of private investors makes them more likely to consider more drastic alternatives. Also investing in a structurally vacant office building is more likely for a private investor when the investor sees opportunities for a specific asset. Especially as private investors often invest using common sense and take advantage of special niche-opportunities they detect in the market (Nijmeijer 2005). When an investor chooses for an active alternative this means an additional investment has to be made. Some private investors do not have the possibility to do so because of unwilling shareholders. The investment volume of private investors is much lower on average compared to institutional investors. This means it is financially more difficult for a private investor to make large additional investments. On the other hand, private investors have fewer restrictions due to organization policy and can thus be more decisive in the decision making process. Private investors are exempted from tax on capital gain of the real estate property. As capital gain is an important aspect in several alternatives, this is a large advantage for private investors. Especially as private investors tend to keep real estate assets in portfolio rather long compared to institutional investors they can wait for the value to grow. This does not hold for private investors that try to make profit by means of trading real estate assets.

Institutional investors

Taking the risk-averse attitude of institutional investors in account it is not very likely to choose for drastic alternatives as it means higher risk. When an investor chooses for an active alternative this means an additional investment has to be made. Some institutional investors do not have the possibility to do so because of unwilling shareholders. Also investment policy (portfolio management) of investors will sometimes not allow an additional investment. In practice, this will mean an investor either waits to find a tenant, which is very often not realistic, or sells the asset. Fact of the matter is selling will inherently means an investor will have to take a loss as another investor or market player will not pay more than current market value or residual value. Some institutional investors prefer to have only 'grade A' quality

assets in portfolio. These investors will choose to either improve the quality in an early stage or sell an office that is showing signs of decreasing lettability. According to Van Gool, Jager and Weisz (2001) many institutional investors use analysis tools and acquisition- and disposition-policy when deciding about investments. Therefore, one would expect the decision making process about structural vacancy to be more rational for institutional investors.

2.5.2 Cause of vacancy

The best option for an investor to deal with structural vacancy depends on the cause of vacancy to a large extent. When looking at the cause of vacancy in relation to the different alternatives the following can be stated.

Economic trend

An investor's decision depends on the future rental perspective and thus the development of the market for office space. These aspects however, are unpredictable. Should the investor maintain the existing office function or should he consider a different function? An office building has most value in its original function, provided that it is fully let. However, when a structurally vacant office building will never be leased again, a different use could be financially more attractive in the long run. Changing the function of the office inherently means the investor has to make an additional investment. The office market expectation on the one hand and the risk and return of the additional investment on the other hand, creates an area of tension. In this area of tension, an investor has to make many hard decisions under all kind of uncertainties.

As mentioned before, vacancy is not very dramatic when an office more or less meets market demand requirements concerning building quality and location quality. Finding a tenant in this situation is, according to F.P. Daemen, general manager at FGH Asset Management⁶ also a matter of luck to a large extent. When market conditions get better, these types of offices will be leased again rather quickly. When the economic trend is the main cause of vacancy, there is no need to change the current office function. When the market is in a downward trend, an investor must either wait for the market to recover or give away rent free periods or other incentives in order to attract a tenant.

Another option is to improve the building quality. The possible alternatives to improve the quality in this situation are upgrading and renovation. Renovation is a more drastic and integral alternative than upgrading and therefore more costly. Every alternative to improve the buildings quality inherently means an additional investment. When an investor invests in the office, the market rent at that time can not be in line with that investment. If that is the case, an investor will not do the investment, as this is not financially realistic (Korteweg, 2002). The best possible alternative is very dependant on the situation on the office market. Generally speaking, the worse market conditions are the more effort for an investor to find a new tenant for his vacant office.

Location characteristics

When an office building is not only vacant because of temporary market conditions but also because it lacks certain location qualities, vacancy is a more serious problem. In this case, the investor will have to put in even more effort in order to find a tenant. As the location of a real

⁶ Mister F.P. Daemen cooperated in a test-interview

estate asset is fixed, it is really hard, if not impossible, to affect the location characteristics. Basically, location characteristics can only be improved substantially when a whole area is being improved. This requires cooperation of all the owners in the area, which makes it a very hard and slow process which can take many years. In practice, this is hardly done because of the reasons mentioned.

According to Korteweg (2002), when location obsolescence is the main reason for structural vacancy of an office an investor should not aim to continue the office function. Apparently, the office function is not the best possible function on the location anymore. Other functions probably represent a better and higher use on that particular location. In this situation an investor should look for possibilities to give the building a new use through transformation or even demolition. Many investors do not have the specific competences and possibilities to do so themselves. In practice, selling the office to a developer or housing association happens more frequently than a situation where an investor executes a transformation or redevelopment himself.

Building characteristics

When an office building is not only vacant because of market conditions but also because it lacks certain building qualities, vacancy is a more serious problem. However, building obsolescence can, in contrary to location obsolescence, be tackled more easily. On a building level it is the investor himself who chooses to improve the building quality or not. This means an investor is much less dependant on other parties and can act more quickly. In this situation an investor can either choose to wait for the market to recover and give away rent free periods or other incentives in order to attract a tenant or improve the building quality. The best possible alternatives to improve the quality in this situation are upgrading and renovation.

In the figure 10 below, an indication of a possible alternative is given for combinations of location obsolescence and building obsolescence as reason for vacancy.

		Location	
		Not Obsolete	Obsolete
Office	Not Obsolete	Maintaining	Transformation
	Obsolete	Improvement possible Improvement impossible	Upgrading / Renovation Demolish & rebuild

Figure 10: indication of alternatives. Source: Korteweg (2002) Adapted by author

2.5.3 Emotional aspects

Vacancy and especially structural vacancy is not something an investor chooses for. Unless a vacant office building is bought deliberately by an opportunistic investor or when it was bought as part of a portfolio transaction one could say an investor is unwillingly confronted with vacancy. Because of the various negative consequences, vacancy is a rather sensitive subject for most investors. The crux of the problem is the large difference between book value and market value of structurally vacant offices. Market players –apart from investors- claim, investors are not being realistic about the value of their property and for that reason it is impossible to come to a purchase agreement (Hermans 2004). Next, some emotional aspects that possibly affect an investor's decision making process about vacancy will be discussed.

Image, optimism and personal ego

The choice of an investor for an alternative to deal with vacancy is likely to be affected by factors like image, optimism and personal ego to some extent. According to Hermans (2004) many investors only invest in one or two real estate categories and consider for instance residential real estate as 'not chic'. This means, for example, transformation can be considered not to be an option in the first place. Residential real estate does not match their image. When selling an office building, an investor admits the current book value is not realistic and takes his loss. Rietdijk (2004) claims that although this could be the most realistic and rational decision in the long run, this is still considered as a personal failure by some investors. In fact, the investor admits an investment decision made in the past was not a very good one, which is hard to do. By staying optimistic an investor is able to put off a hard and probably (financially) painful decision. This explains why many investors rather choose for being optimistic about the future of their structurally vacant property. Amongst investors, optimism about finding a tenant in the future dominates. They expect the economy and the office market to recover. This implies an investor will not devalue and not sell his asset for market value.

Different perspectives

Investors and developers have a different perspective when looking at a structurally vacant office building. An investor regards his structurally vacant property still as an office building which will be rented out sooner or later. A developer or housing association will change the current office function into a new use for which they think there is demand in the market. When it comes to the valuation of a structurally vacant office, these different perspectives become visible. Simply stated, investors calculate the value of their property by multiplying the total rent (based on leased condition) by an x number of times and subtract a discount because of the vacancy. A developer however makes a different calculation in order to find the maximum price he is willing to pay for the property. A developer calculates the so-called residual value of his development. In other words: the amount of money that is left after taking his total investment including profit out of the selling price. In practice there is a large gap between the residual value a developer calculates and the book-value of a vacant office. As the investor 'overrates' the value of his property, it is usually impossible to make an agreement with a market party.

2.5.4 Psychological aspects: behavioral finance

Internet encyclopedia wikipedia⁷ describes behavioral finance and behavioral economics as closely related fields which apply scientific research on human and social cognitive and emotional biases to better understand economic decisions and how they affect market prices, returns and the allocation of resources. Behavioral finance drops the traditional assumptions of expected utility theory with rational investors in efficient markets. The fields are primarily concerned with the rationality, or lack thereof, of economic agents. Behavioral models typically integrate insights from psychology with neo-classical economic theory. According to Ritter (2003) the two building blocks of behavioral finance are the way people think (psychology) and the limits to arbitrage (when markets will be inefficient). Studies of consumer behavior and behavioral finance have shown many times that irrational behavior can bring negative outcomes. Hardly any research has been done to behavioral finance in relation to real estate investments, let alone research focused on decisions concerning structural vacancy.

⁷ www.wikipedia.org

To what extent are these so-called cognitive biases, as discovered and scientifically proven in the research field of behavioral finance, applicable to real estate investors? Recently, a study was done in order to find out to what extent Dutch private investors make irrational decisions when directly investing in real estate. Petit (2007) conducted a survey to find out whether or not Dutch private investors think they make irrational decisions when directly investing in Dutch real estate and which negative consequences they expect of that possible irrational behavior. The results indicate most investors do think they sometimes make certain irrational decisions. The question however is, whether or not such a decision has negative consequences. In the study, a cognitive bias was first presented to an investor by means of a small example. After that, investors were asked whether or not they thought they would ever manifest that specific irrational behavior. The fact investors were just asked whether or not they thought they would manifest a particular cognitive bias in general, rather than using a more specific situation or an actual experiment to find out an investor's behavior is the largest drawback of the study. A better option would be to conduct an experiment or to find more realistic and concrete situations. What role do psychological and behavioral issues of investors play in the structural vacancy discussion on the Dutch office market? Below is a list of interesting cognitive biases. These cognitive biases have been selected as they show very interesting similarities with the behaviour of investors in relation to the vacancy issue.

Loss aversion

Loss aversion refers to the tendency for people to prefer avoiding losses over acquiring gains. Some studies suggest that losses are as much as twice as psychologically powerful as gains (Kahneman and Tversky 1979). As a loss is more psychologically powerful than a gain, it is no wonder owners of structurally vacant real estate do not want to transform, demolish & rebuild or sell their office, as this will implicitly mean they accept their loss on book value. Although it doesn't look realistic, they rather wait and hope for a possible new tenant than accept a loss in an early stage.

Disposition effect

The disposition effect relates to the tendency of investors to sell shares whose price is increasing too quickly, while keeping assets that have dropped in value too long (Odean 1998). Owners of structurally vacant real estate seem to be waiting for the values of their assets to increase again, as most of them do not take action. The majority seems so think they will sooner or later rent out their asset, which is often rather unrealistic. So instead of taking their marginal loss in an early stage, investors keep hoping for better economic tide.

Conservatism

Conservatism amongst investors, also known as the 'status quo bias' is a cognitive bias for the tendency of people to be slow on picking up changes. In other words: people like things to stay relatively the same and anchor to the way things have normally been (Ritter 2003). Owners of structurally vacant real estate seem to have strong resistance to taking action. They could be unfamiliar with some alternatives, let alone they have experience with those alternatives. In practice, investors seem to rather keep things the same.

Endowment effect

The endowment effect is a hypothesis that people value a good or service more once their property right to it has been established. In other words, people place a higher value on objects they own relative to objects they do not (Lowenstein, George and Kahneman 1991).

Most owners of structurally vacant real estate admit the current amount of stock will never totally be rented out again. This means they admit a substantial number of square meters are unlettable. However, almost none of them seem to think it is actually their office that is completely unlettable which indicates they overrate the value of their property. The endowment effect is at first sight a good explanation for this.

Overconfidence

According to Ritter (2003) people are overconfident about their abilities. People have the tendency to think their knowledge and ability to do well on tasks is better than that of others. Real estate investors can be overconfident when confronted with vacancy. The possible overconfidence will strengthen their positive thought about the future of the office. In practice, this results in an investor who will not take action. After all, in this situation the investor is convinced of the quality of the office and his ability to find a tenant.

2.6 Summary

Vacancy is available office space in the market. The causes of vacancy can be separated into causes due to lack of building characteristics, causes due to lack of location characteristics and causes related to the economic situation. The so-called functional obsolescence of offices and/or locations is the result of relative changes of its usefulness to office firms. The diminishing usefulness is connected to changes in supply and demand of office space and to the changing requirements users of office space apply to offices and locations.

There are different types of vacancy of which structural vacancy is most harmful. Especially when an office building is vacant due to location- and/or building characteristics rather than the economic situation there is reason to worry for an investor. The consequences vacancy has are socially as well as financially.

In the investment market different investors can be distinguished. These investors can roughly be divided into institutional investors, private investors and real estate funds. Institutional investors are large investing entities like pension funds and insurance companies. Private investors are natural person(s) organized in a legal entity who invest private money. Real estate funds are organizations that have as core business to invest money in order to get an as high as possible return for their shareholders. Institutional investors are more risk defensive than private investors.

When a building becomes vacant, there are different possibilities for an investor to deal with that vacancy. The alternatives presented in this study can be separated into active alternatives and passive alternatives. The passive alternatives are *maintaining* the office in its current condition and *selling* the office in its current condition. The active alternatives are *upgrading*, *renovation*, *transformation* and *demolish & rebuild*.

As different investors have different characteristics also their attitude towards the alternatives is different. The assessment of the cause of vacancy plays an important role in relation to the best possible alternative. When an investor has to decide about a possible alternative to deal with vacancy this means he either has to make an additional investment to improve the office's quality, take a loss or do nothing and wait for the market to recover.

Emotional and psychological aspects are also expected to affect the decision-making process about vacancy. The so-called cognitive biases, as discovered in the research field of behavioral finance are also taken into account in the research.

2.7 Conclusion

This chapter has discussed the theoretical background of the thesis. The first five research questions have been explored. This has given insight in the theoretical background of the problem and the factors that affect the consideration & choice of an investor for the alternatives. The relationship between these factors and the consideration & choice of alternatives by investors will be operationalized in the next chapter.

3 Research set-up

3.1 Introduction

In the practical part of the thesis, a research has been executed to the decision making process of investors when deciding about a structural vacant office building. In this chapter the framework for the research is presented. The literature review, as discussed in chapter two, forms the basis for the study and is translated into a conceptual model. This conceptual model, the research methodology, as well as the research subjects are discussed. The factors that influence the consideration and choice for an alternative by an investor will be operationalized and processed into interview questions.

3.2 Research methodology & conceptual model

The type of research that has been chosen for the study is qualitative exploratory research. This is a type of primary research aiming to set up a hypothesis and/or theory as there is no existing model to start the research with. As exploring indicates, the problem is first explored by literature review and after that by other forms of data collection. This type of research helps to better understand complex problems and to find relations between factors of influence. For this reason, this type of research matches well with the problem of structural vacancy and the way investors deal with that.

Baarda, de Goede and Teunissen (2005) distinguish three main types of research methodologies for qualitative research: the case-study, survey research and field experiment. The research methodology which is used in this research is the case-study. This methodology is used for in depth study of complex problems. A special type of case-study is used: the multiple case-study. This was chosen for because a single case study will not provide representative information for different investors. Several cases concerning structural vacancy have been analyzed. The chosen cases provide a representative cross section of investors dealing with structural vacancy and form the foundation for the tool.

In the decision-making process about vacancy there are many different actors. Obviously, investors, as owners of the offices, have a key-role in that process. It is the investor who in the end makes the decision whether or not something will be done to reduce vacancy in a specific office. For this reason the investor is chosen as research unit for the study.

More specifically, two types of investors are interesting to look at in this study:

- Investors who have owned a structurally vacant office for at least three years. These owners will hereafter be referred to as 'old owners'
- Investors who have purchased a structurally vacant office building within the last three years, probably in order to take specific action to reduce vacancy in that office. These owners will hereafter be referred to as 'new owners'.

The literature review discussed in chapter two forms the basis for setting up the conceptual model. The different aspects that were discussed and probably influence the way investors consider, and in the end choose for an alternative form the independent variables in the conceptual model. As we have seen in the literature review, three different factors will

probably play an important role in the decision-making process: the *characteristics of an investor*, the *assessment of the cause of vacancy by the investor* and *emotional & psychological aspects of the investor*. The aspects that influence the decision making process of an investor will be outlined more extensively in the next paragraph.

In the conceptual model, *the consideration about and choice for an alternative* to deal with vacancy is the dependant variable.

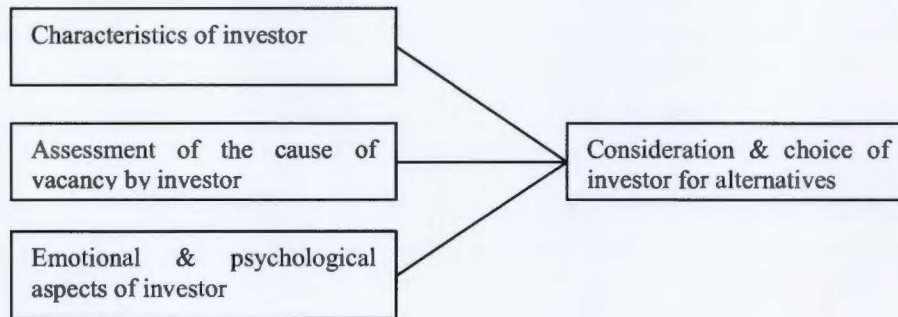


Figure 11: Conceptual model

The independent variables originate from the literature review of chapter two. The conceptual model can be processed into the following research questions about the relation between the variables:

- What is the relationship between an investor's characteristics and his consideration & choice for alternatives?
- What is the relationship between an investor's assessment of the cause of vacancy and his consideration & choice for alternatives?
- What is the relationship between the emotional and psychological aspects of an investor and his consideration & choice for alternatives?

Next step is studying the relation between these variables. These research questions will be operationalized in the next paragraph.

3.3 Operationalization

In this paragraph, the research questions are written out more extensively. The factors are split up into variables and the possible relationship with an investor's consideration & choice for an alternative is discussed.

3.3.1 Characteristics of investor

The characteristics of an investor that are important in the decision-making process are the type of legal entity of an investor, the portfolio management and the asset management of the investor.

The legal entity of an investor can have implications on the theoretical possibility of alternatives. Also differences in tax-regime can cause alternatives to become practically impossible due to financial feasibility.

Portfolio management is the way an investor manages his real estate assets on a portfolio level. Portfolio management comprises several aspects that can affect an investor's decision-making process. First of all, the size of the portfolio can have impact on the way an investor deals with vacancy on building level. When a portfolio is large an investor possibly doesn't regard one structurally vacant office building as a serious problem. Also the management of the portfolio concerning different real estate categories and qualities has impact on decisions relating vacancy. For instance, an investor with only offices and retail in portfolio will not choose for transformation of his office into housing or industrial real estate. Only when selling directly after transformation this might be an option. The same holds for the risk attitude of an investor, as the one alternative inherently comes with a greater risk than others. As mentioned before, risk defensive investors are not likely to choose for a drastic alternative as those alternatives are more risky.

Asset management, the way an investor manages his property on a building level, can affect the decision-making process as well. The one investor will, when confronted with persisting vacancy, sell the asset before the value drops drastically. Other investors might always prefer to give vacant objects a quality improvement by means of upgrading or renovation. These decisions are related to the performance measurement of objects. An example of this is the so-called 'hold-sell analysis'. Does an investor make a balanced weighing between the different alternatives and chooses the best option or does an investor have a certain order in which he prefers options? Does an investor use a special procedure or protocol when confronted with vacancy or are decisions made more intuitively? Which alternatives are chosen in practice and how often?

3.3.2 Assessment of the cause of vacancy

As discussed in chapter two, the cause of vacancy is a very important aspect in the decision making process. As the feasibility of alternatives is related to the cause of vacancy, the cause of vacancy is also an indicator for the direction of the best possible alternatives to reduce vacancy.

Causes of vacancy can generally be divided into three groups: reasons due to lack of building qualities, reasons due to location qualities and reasons due to current market conditions. The most important location aspects that were selected in chapter two are: *image & looks*, *car accessibility*, *accessibility by public transport* and *facilities*. The most important building aspects that were selected in chapter two are: *image & looks*, *flexibility*, *technical specifications* and *parking space*. The different quality factors are explained more extensively in appendix I.

The building quality and location quality is measured relatively to other available offices and locations. This relative obsolescence is called economical obsolescence and has been discussed in chapter two. As the market for office space is related to the business cycle, the market for office space is cyclic as well. However, the market is very hard, if not impossible to predict and no one exactly knows in what phase of the cycle the market is at a specific moment. So, in practice, it is the investor's perception of the cause of vacancy that plays a role in the decision-making process about vacancy. The perception an investor has of the market will affect his willingness to invest in the office. When the investor expects to be able to establish a decent rent level which is in line with the additional investment, he will probably invest. If the current rent level is too low compared to the additional investment, an investor will not re-invest.

3.3.3 Emotional & psychological aspects of the investor

In chapter two, alleged emotional & psychological factors amongst investors, as mentioned in literature, have been discussed. These studies describe the behaviour of investors in the shares market. However, it is expected these factors play an important role when a real estate investor decides on the future of a structurally vacant office as well.

The question is this: is a situation of an investor dealing with structural vacancy a real market problem caused by temporary imperfections between supply and demand? Or is the problem caused by the wrong perception that an investor had of the market or a combination of these two factors? In other words: has the investor made an unfortunate choice considering the market situation at that time or has he made a miscalculation because of a cognitive bias? If the first is the case, it was something which was hard to foresee. If the last is the case, an investor should try to prevent that from happening again in the future. The most important emotional and psychological aspects have been discussed in chapter two. During the interviews, it is interesting to find out to what extent there is a relationship between these aspects and an investor's consideration and choice for an alternative in practice. When an office building lacks location qualities and/or building qualities it is more likely the miscalculation is partly due to cognitive biases. When an office meets market standards concerning location- and building quality is it more likely the miscalculation was caused by the market situation and the investor was unlucky in a way.

The best way of proving whether or not these cognitive biases occur when an investor has to decide about vacancy is by doing an experiment. However, due to practical limitations of this thesis, conducting a proper experiment appeared to be impossible. Using the right experimental design and a sufficient number of respondents would have been too time consuming for the scope of this thesis. Nevertheless, during the interviews it is interesting to have a closer look at the possible irrational behavior of investors, caused by emotional and psychological aspects. When an investor has decided about a structurally vacant office building, it was a concrete situation, rather than a fictive example. Asking an investor about possible occurred cognitive biases in this specific situation is more realistic and thus reliable than asking about a general fictive situation. Doing so, this might provide interesting leads for further study about this subject. Again, it must be stated that vacancy is a sensitive topic as it is inherently connected to financial losses. Therefore it is doubtful to what extent answers to specific sensitive questions will be reliable, rather than (unconscious) socially desirable.

3.3.4 Operationalization schedule

All different variables and factors have been put together in an operationalization schedule. The schedule shows the different variables and factors, the level of measurement, the way of measurement and a description of answer alternatives for every question. Factors have been split up as much as possible into measurable variables. In order to establish a higher level of measurement, a five-point answer scale was used as much as possible. The operationalization schedule forms the basis for the interview questions. The schedule is found in appendix III.

3.4 Interviews

The interview is based on the operationalization schedule. Every question in the interview represents a factor in the schedule. The first set up was discussed with colleagues of Jones Lang LaSalle and after that with a Delft University professor⁸. After that, two test-interviews were held with professional portfolio managers. One interview was held with a private investor⁹ and one was held with an institutional investor¹⁰. One of the interviewees had a lot of experience in real estate and the other interviewee had little experience in the real estate industry. This was deliberately chosen for. First of all, someone with little experience and someone with many years of experience will have different perspectives. These different perspectives can lead to interesting different insights into the subject. Secondly, a private investor and institutional investor might come up with different opinions of what they think is important in the decision making process about structural vacancy. The interview changed several times during this process, especially the order of questions and the structure of the interview. Also some additional control-questions were added in which the respondent can mark a certain variable. For a brief report of these test-interviews consult appendix IV. The interview was held by using an interview guide, which is found in appendix V.

3.5 Conclusion

The literature review of chapter two has been used as foundation for the conceptual model which is presented in this chapter. The most important factors that possibly affect an investor's consideration & choice for an alternative are the independent variables in the conceptual model. These variables are: the *characteristics of an investor*, the *assessment of the cause of vacancy by the investor* and *emotional & psychological aspects of the investor*. The *consideration & choice for an alternative by the investor* is the dependant variable in the model. The research questions regarding the relationships between the factors in the conceptual model must be answered. Finding these answers will be done by means of a multiple case-study of structurally vacant offices. Data will be collected by doing interviews amongst investors that own a structurally vacant office. These cases and accompanying investors follow from the survey on vacancy which is discussed in the next chapter.

⁸ Dr. ir. T. Van Der Voordt. co-author and editor of the book: *Transformatie van kantoorgebouwen. Thema's instrumenten en projecten*. Mr van der Voordt is specialized in vacancy and transformation.

⁹ H. Van Norren Msc (Cortona Investments)

¹⁰ F.P. Daemen Drs (FGH Asset Management)

4 Survey on vacancy

4.1 Introduction

This chapter discusses the scope of structural vacancy in the Netherlands. The information is based on a survey on structural vacancy. The survey was done in order to select practical cases and accompanying investors to interview and has retrieved information about vacancy in the Dutch cities Amsterdam, Rotterdam, The Hague, Utrecht and Eindhoven. The survey reveals which buildings show structural vacancy in the five largest agglomerations in the Netherlands and, following from that, who owns these offices.

4.2 Practical accounting

The survey focuses on structurally vacant offices in the five largest agglomerations in the Netherlands. These five agglomerations are referred to as 'G5+'. An agglomeration is a central city including bordering municipalities. These five cities are: Amsterdam, Rotterdam, The Hague, Utrecht and Eindhoven. For a precise overview of these cities and its bordering municipalities consult the maps in appendix VI. Jones Lang LaSalle mainly operates in these five cities and bordering municipalities and has an office in each of these cities. Therefore, the Jones Lang LaSalle database covers these agglomerations. The database contains detailed and up to date quarterly information about the office markets in these five cities. This data provides a good foundation for the study. The representativeness of the study does not suffer from the G5+ limitation, as these agglomerations together cover approximately 65% of the total Dutch office stock (Hek, Kamstra and Gereadts 2004). Besides, the office market in the so-called 'Randstad' is most dynamic and therefore most interesting to study.

4.3 Limiting conditions

The research has been done on a building level and the following limiting conditions were used. The reference date of the survey is the end of the first quarter of 2007.

Office size > 1000 m² - In order for more drastic alternatives to be successful, a certain critical development mass is needed. Choosing a drastic alternative for a rather small project is mostly not interesting. Such projects can not be financially feasible due to cost of overhead. Based on experience and estimations of several Jones Lang LaSalle professionals the minimal size of an office is limited to 1.000m². Only offices that are larger than 1.000m² are considered interesting for further study.

Grade B/C- Jones Lang LaSalle (2000) makes a distinction in office supply between grades A, B and C quality of buildings. Grade A buildings have asking rents above average and have high quality standard finishes, state-of-the-art-systems and good accessibility. These buildings and accompanying investors are considered not suitable for the survey as more drastic alternatives are not an option. Grade B buildings have rents in the average range of rents for the area. Building finishes are fair to good for the area and systems are adequate, but the building can no longer compete with Grade A at the same price. Grade C represents

floorspace in buildings with functional space at rents below the average for the area. Grade B and grade C are considered interesting for further study.

Existing supply – Jones Lang LaSalle (2000) makes a distinction between new supply and existing supply. New supply represents floorspace in new (less than five years after completion) or substantially refurbished buildings that have never been physically occupied. New supply is considered not suitable for more drastic alternatives and is filtered out of the selection.

Vacant for > 3 years – It takes time before an investor decides to take action and to do something about vacancy. As some alternatives are rather drastic, in practice only structurally vacant offices are suitable for these alternatives. This study uses a limiting condition of at least three years of vacancy. To find the structurally vacant supply a match will be made between the Jones Lang LaSalle databases supply Q1-2007 and supply Q1-2004.

Equal supply or more – The supply in 2007 has to be at least equal in size or larger than the supply in 2004 (unless the change in supply is $<100\text{m}^2$, as this can be a registration error.) If this is not the case, it is assumed a new lease agreement has been established in the building in the last three years which makes the office building and accompanying investor not suitable for the interview.

The specific procedure that was used to apply these filters in the database during the survey is written out in appendix VII. In this appendix also the chosen typology of investors and the chosen location typology are discussed.

4.4 Results

This paragraph briefly shows the results of the survey on structural vacancy. First, the effects the limiting conditions had on the total supply of office space are discussed. After that, the total structural vacancy is discussed. Lastly, the selection of offices with at least 85% vacancy is discussed more thoroughly.

4.4.1 Effect of limiting conditions

Based on the results of the survey, the total supply of office space in the G5+ is 2.89 million square meters. After filtering the supply, by using the limiting conditions ($>1,000\text{m}^2$, grade B/C, existing supply) the supply of offices comes down to 1.81 million square meters. The supply has dropped by 1.08 square meters which is 37% of the total supply. This is shown in the figure 12.

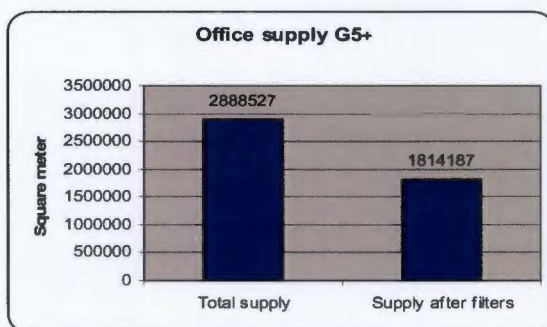


Figure 12: Total office supply in the G5+ and the total effect of the used filters.

When looking at the effects the different limiting conditions have on the office supply in the G5+, the following can be concluded. Most offices are filtered out of the supply because the office is still considered 'grade A' quality. The total number of filtered out 'grade A' square meters is 620,000 square meters of office space. The amount of square meters that is taken out of the supply because it is smaller than 1,000 square meters or considered 'new supply' is almost the same: 430,000 square meters. This can be seen in figure 13.

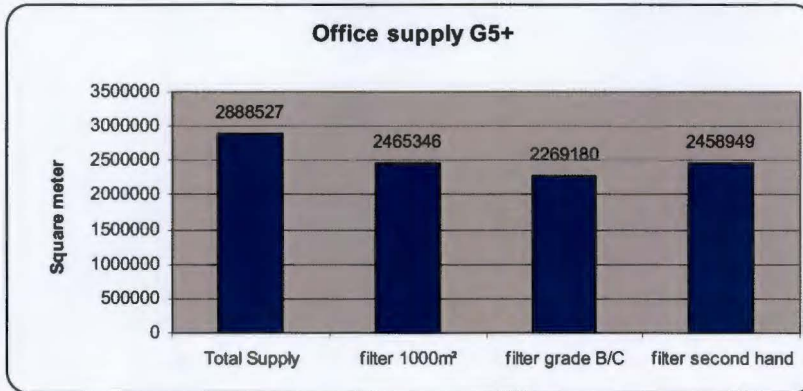


Figure 13: Total office supply in the G5+ and the effect of the used filters.

If a closer look is taken on a city level, the same effect is seen in Amsterdam, The Hague and Rotterdam. Apparently these cities have more 'grade A' quality buildings in the supply than Utrecht and Eindhoven. In Eindhoven as well as Utrecht most buildings were filtered out of the supply because the total surface of the office was less than 1,000 square meters. This can be seen in figure 14. These cities apparently have relatively many small offices. The fact Eindhoven and Utrecht are the smallest cities by far (the third largest city, The Hague, is almost twice the size of Utrecht) could be an explanation for the large number of relatively small offices in these cities.

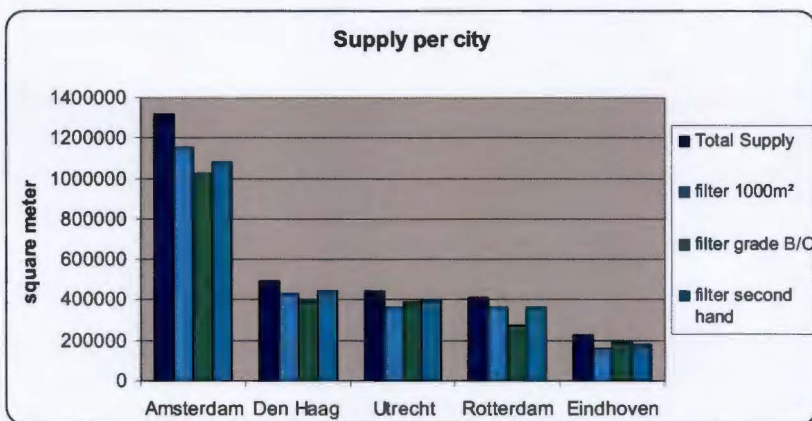


Figure 14: Total office supply per city and the effect of the used filters.

4.4.2 Structural vacancy

The total amount of structurally vacant square meters at the reference date is 463,000 m². This equals 16% of the total vacant supply in the G5+. In total, 116 offices show structural vacancy to some extent. This means a certain amount of square meters in a particular office building has been offered in the market for at least three years. With 52 offices, Amsterdam represents almost half of all these objects, which is not surprising as Amsterdam has the largest office stock.

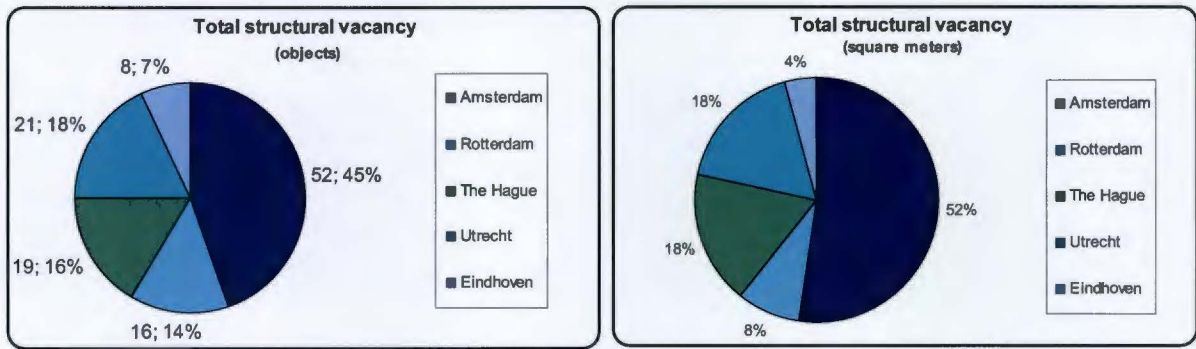


Figure 15: Total structural vacancy in the G5+ per city, expressed in number of objects and square meters

When comparing the total number of objects with the total number of square meters in terms of percentage, The Hague and Utrecht represent relatively the same share in both graphs. (see figure 15) Amsterdam, Eindhoven and Rotterdam however, show a different pattern. Amsterdam's representation increases from 45% up to 52%. Eindhoven falls back from 7% in the total number of objects to 4% in the total number of square meters. Rotterdam shows relatively the same regression in terms of percentage and falls back from 14% in total number of objects to 8% in total number of square meters. This means both Eindhoven and Rotterdam have relatively a lot of objects with some level of structural vacancy, whereas these offices represent a relatively small percentage in the total number of square meters. This means the offices in Eindhoven and Rotterdam will on average have rather small numbers of floorspace and offices in Amsterdam have rather large numbers of floorspace. This becomes visible if we look at the average number of square meters per object in each city. Amsterdam is on top of the list with 4,650 m² per object. The Hague and Utrecht come after that with respectively 4,300 m² and 3,900 m² per object. Rotterdam and Eindhoven both have 2,400 m² per structurally vacant object on average. This is seen in figure 15.

When we take the vacancy rate of office buildings into account, an interesting conclusion can be drawn. Expressed in number of objects, 57% of all objects are at least 85% vacant. Expressed in square meters, 66% of all structurally vacant square meters are located in office buildings with at least 85% vacancy. This can be seen in figure 16. The difference between the two figures can be explained by the, on average, larger floorspace of structurally vacant office buildings with at least 85% vacancy rate. These facts indicate structural vacancy is accumulated to a large extent in specific office buildings with lettability issues. These figures show structural vacancy is not scattered over a lot of buildings, which is often heard of in the media.

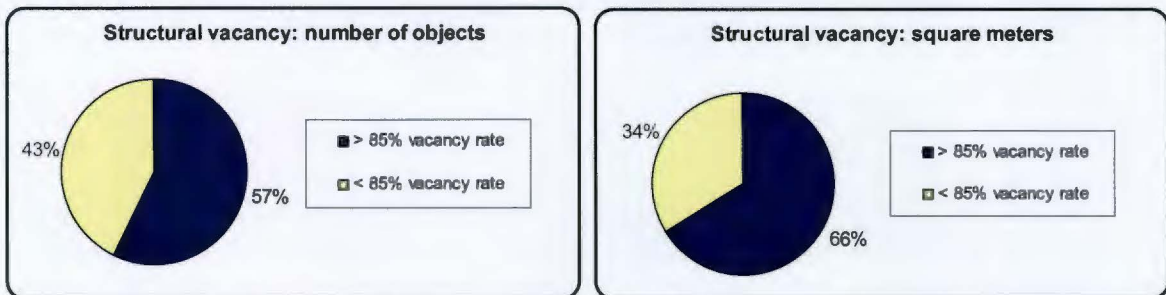


Figure 16: Total structural vacancy divided into more and less than 85% vacancy rate, expressed in number of objects and square meters.

If a closer look is taken on a city level, the differences between cities become visible. Especially in The Hague and Eindhoven structural vacancy is accumulated in a relatively small number of buildings. In The Hague 79% (15 out of 19) and in Eindhoven 88% (7 out of 8) of all buildings with structural vacancy to some extent are offices with at least 85% vacancy. The percentages in Utrecht, Rotterdam and Amsterdam are respectively 71% (15 out of 21), 63% (10 out of 16), and 56% (29 out of 52). Comparing the percentages expressed in number of objects and expressed in square meters no remarkable changes occur.

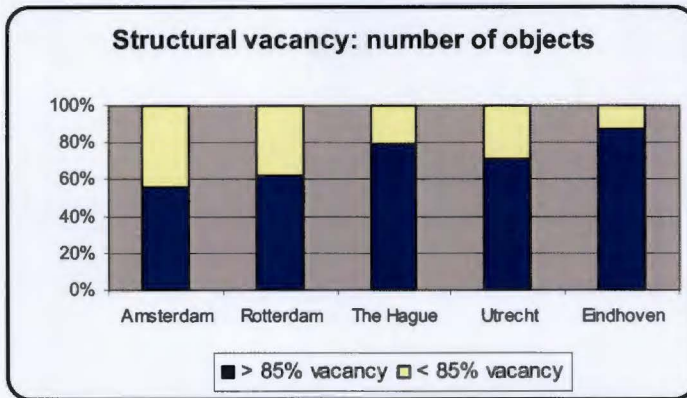


Figure 17: Total structural vacancy per city, divided into more and less than 85% vacancy rate per building, expressed in number of objects.

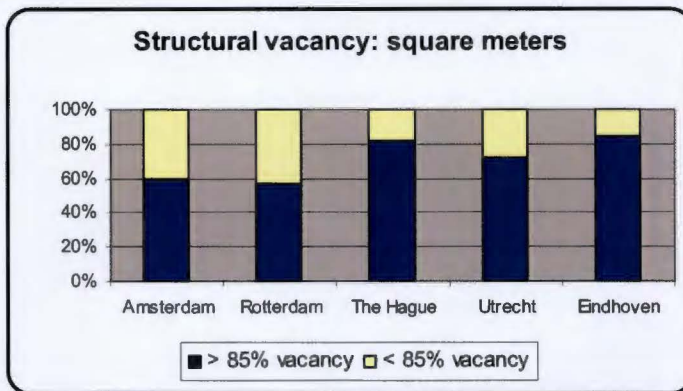


Figure 18: Total structural vacancy per city, divided into more and less than 85% vacancy rate per building, expressed in square meters.

4.5 Results > 85% vacancy selection

A selection of offices with at least 85% vacancy was made. This paragraph discusses the results of the survey for the > 85% selection in more depth. In these results, again a distinction between figures expressing structural vacancy in number of objects and figures expressing structural vacancy in square meters was made.

4.5.1 Structural vacancy

In the selection, Amsterdam represents 38% of all offices. The cities The Hague and Utrecht both represent 20% of all offices in this selection. Rotterdam represents 13% and Eindhoven is the least represented with 9%. This can be seen in figure 19.

If we express structural vacancy in the number of square meters, for some cities the percentages shift. Amsterdam goes up from 38% in the number of objects to 48% in the number of square meters. An explanation for this is the fact that Amsterdam has a fair number of large structurally vacant offices. The cities Rotterdam and Eindhoven show the same

regression as in the total structural vacancy and respectively fall back from 9% to 5% and from 13% to 7%. Again, this is due to the fact that both these cities have a relatively large number of offices with a relatively small number of square meters. The cities The Hague and Utrecht show no significant differences.

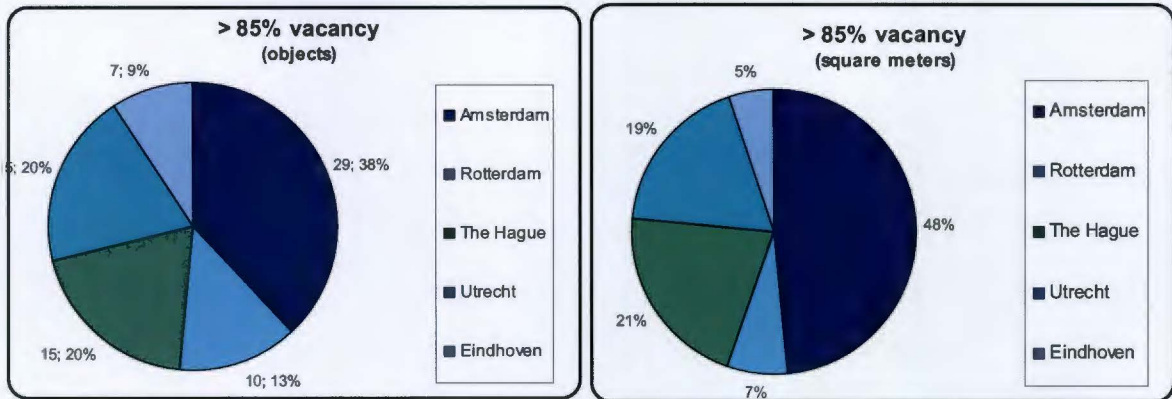


Figure 19: Structural vacancy in the > 85% selection, expressed in number of objects and square meters

When the amount of square meters in the > 85% vacancy rate selection is expressed as a percentage of the total stock the following picture can be sketched. Amsterdam and Utrecht have the highest percentage with respectively 2.6 and 2.5 percent of the total office stock. This shows structural vacancy (> 85% vacancy rate) compared to the total office stock is relatively the largest in Amsterdam and Utrecht. After that, the cities The Hague, Eindhoven and Rotterdam follow with respectively 1.8%, 1.2% and 0.7% of the total stock.

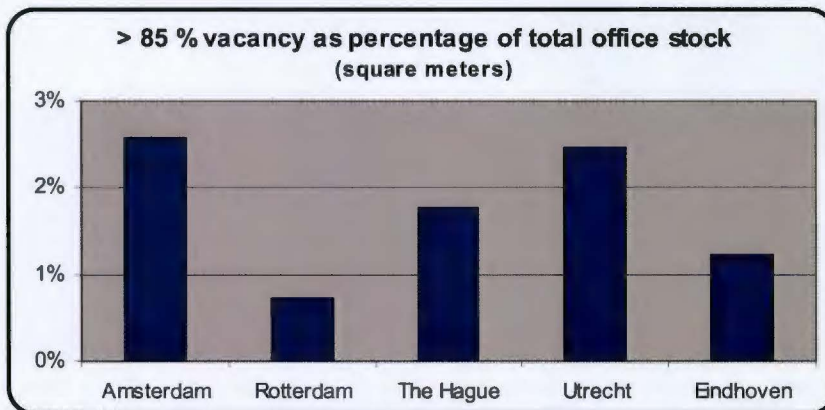


Figure 20: Structural vacancy in the > 85% selection expressed as a percentage of the total office stock, per city.

4.5.2 Typology of ownership

Looking at the number of structurally vacant objects, in total, 39 (59%) of all structurally vacant offices are owned by private investors. It must be stated that a large number of owners in this group can not be characterized as professional investors. The group also consists of some private owners and many (probably former) owner-occupiers and very small investors. All in all, one can conclude more private investors than institutional investors own structurally vacant offices. Explanations for this can be found in the risk aversion of institutional investors on the one hand and the more opportunistic attitude of private investors on the other hand. Real estate funds represent 14% of all offices in the selection. This is mainly due to some German real estate funds which own quite a number of vacant offices. If

the number of objects is compared with the number of square meters, the percentage of private investors has decreased to 47%. The explanation for this is the fact private investors generally own rather small offices, so they represent a smaller percentage in the amount of square meters. On the other hand, the percentage of institutional investors has increased from 8% to 12%, probably because institutional investors generally own larger offices. Also the real estate funds represent a larger percentage in the graph expressed in square meters. Apparently real estate funds own relatively large vacant offices.

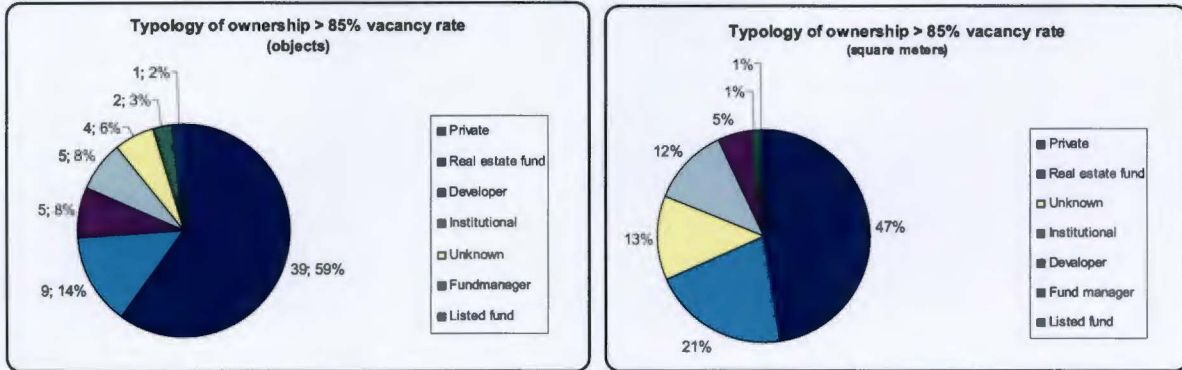


Figure 21: Typology of ownership in the > 85% selection, expressed in number of objects and square meters

4.5.3 Nationality

The vast majority of the investors that own structural vacant offices have the Dutch nationality. Also some German, Swedish and British investors are in the selection. In total, 51 (77%) of all offices in the selection are owned by Dutch investors. Expressed in the amount of square meters, this percentage has decreased to 62%. The German funds represent a percentage of 11% in the number of objects and 19% in the amount of square meters. This, again, can be explained by a number of completely vacant rather large offices which are owned by German real estate funds. Only one office is owned by a Swedish investor. Also one office in the selection is owned by a British investor. These last two foreign investors represent no more than 1% each in the total amount of square meters.

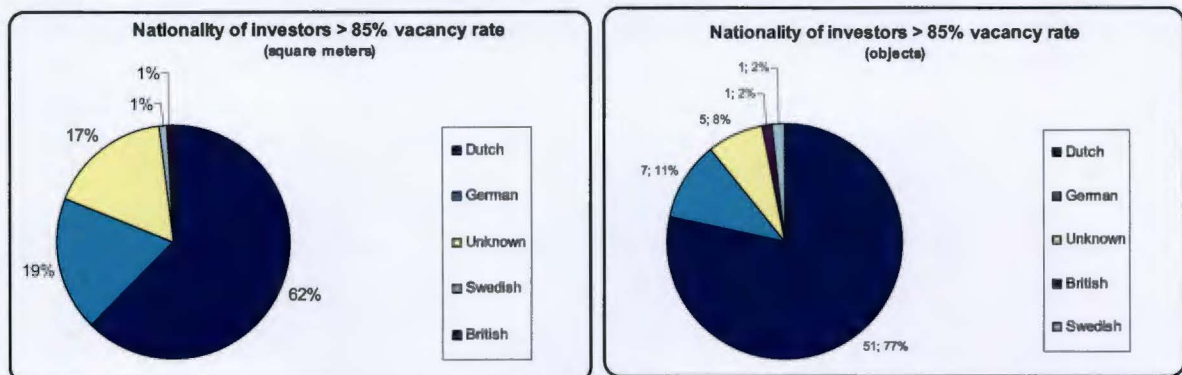


Figure 22: Nationality of investors in the > 85% selection, expressed in number of objects and square meters

4.5.4 Location typology

When looking at the selection of offices with at least 85% vacancy, 30 objects (46%) are located at business parks outside the city. These business parks often suffer from a large oversupply of office space and issues concerning image & looks. Another 28 offices (43%) are located at inner city locations. These locations often lack good car accessibility and are therefore not appreciated. Only 7 offices (11%) are located at business parks within the city. This type of business park has shifted to locations outside the city over the years, due to government policy.

When structural vacancy is expressed in the total amount of square meters, one sees a slightly different pattern. Business parks outside the city have increased from 46% to 53% at the expense of inner city locations. An explanation for this can be found in the fact offices on business parks outside the city are generally larger in size than offices on inner city locations. The percentage of business parks within the city has increased from 11% to 16%, also at the expense of inner city locations. This is probably due to the same reason: offices on inner city locations are smaller on average than offices on business parks within the city.

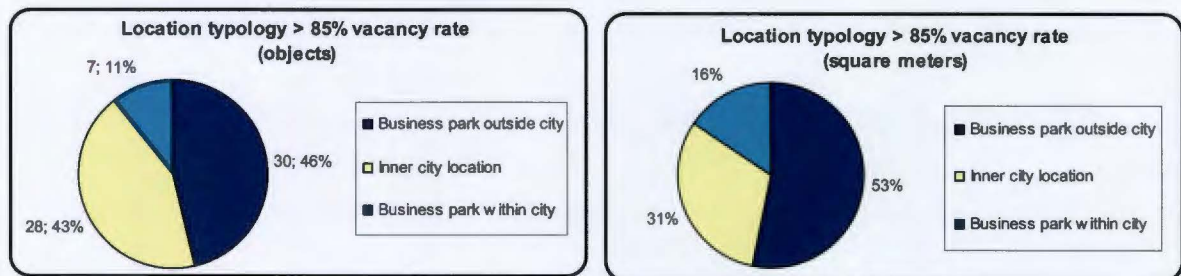


Figure 23: Location typology in the > 85% selection expressed in number of objects and square meters

On a city level, the location typology differs from the one city to the other. Based on the number of objects, Amsterdam has most offices (65%) located at business parks outside the city. In the cities Rotterdam, The Hague and Eindhoven around 40% of all objects in the selection are located at a business park outside the city. The city of Utrecht has only a little over 20% of the structurally vacant offices on business parks outside the city. The cities Utrecht and Eindhoven both have over 65% of the structurally vacant offices on inner city locations, whereas in Rotterdam, Amsterdam and The Hague respectively 40%, 35% and 20% of the structurally vacant offices are located at inner city locations. In The Hague, 30% of the structurally vacant offices are located at a business park within the city, in Rotterdam 20% and in Utrecht 5%. Amsterdam and Eindhoven have no offices on business parks within the city at all. The large percentage of offices on a business park within the city in The Hague is due to a large business park (Binckhorst) that has become surrounded by the growing city over the years.

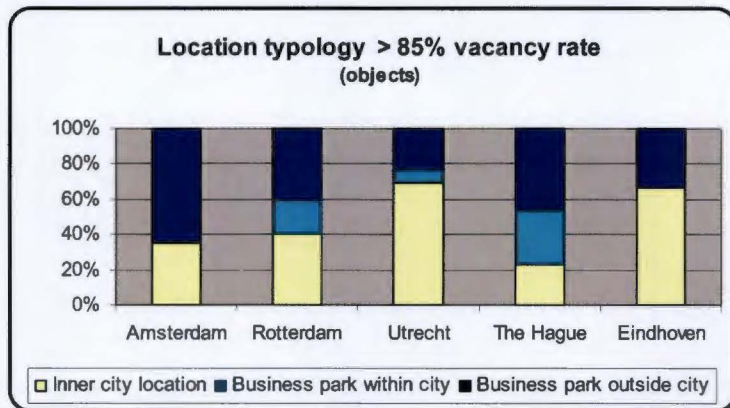


Figure 24: Relative location typology per city, expressed in number of objects.

Comparing the number of offices to the amount of square meters, some shifts in relative representation of locations occur. In Amsterdam, the percentage of business parks outside the city has increased to over 80%, meaning large structurally vacant offices in Amsterdam are located at business parks outside the city. In Rotterdam, the percentage of business parks outside the city has slightly increased to 45% at the expense of inner city locations. In both Eindhoven and Utrecht the percentage of inner city location has increased to almost 80% at the expense of business parks outside the city. Apparently, some large structurally vacant offices in these cities are located within the city. The city of The Hague shows a remarkable increase in the percentage of square meters located at a business park within the city at the expense of both inner city locations and business parks outside the city. Again, the explanation for this can be found in some large offices that are located at a business park that has become surrounded by the city over the years.

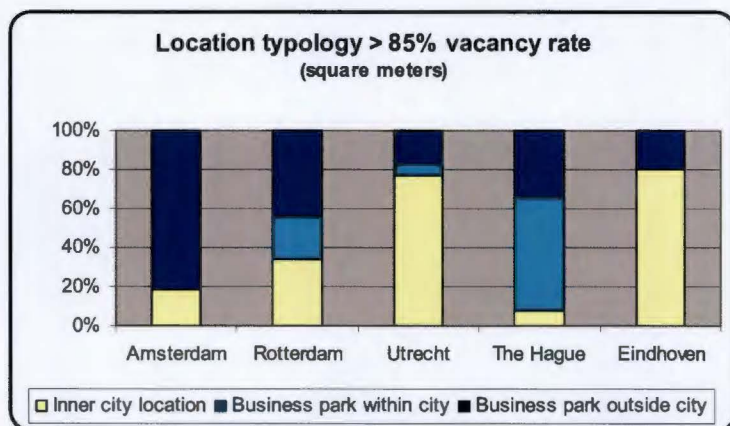


Figure 25: Relative location typology per city, expressed in square meters.

4.6 Conclusion

This chapter has described the survey on structural vacancy. The survey's goal is dual. First of all, the survey reveals data about structural vacancy in the G5+. In the results, the scope of structural vacancy is discussed. The results discuss the typology of ownership, location typology and the nationality of the owners. The second goal of the survey is to select interesting cases for the case-study analysis in the next part of the thesis. The 30 most well known and representative investors that own a structurally vacant office in the >85% selection have been asked to cooperate by participating in an interview. The results of these interviews are discussed in the next chapter.

5 Case studies

5.1 Introduction

This chapter starts by describing the way cases and respondents have been selected. After that, the response and non-response for the interview requests is discussed briefly. Next, the interview results are presented and discussed by means of within-case analysis and cross-case analysis. Whenever possible, the results have been made more clear and lively by means of a practical example or quote.

5.2 Case selection

All investors that own a structurally vacant office building that meets the selection criteria form the total population of research subjects. It is impossible to study the whole population, so a selection of investors was made. Only the offices with high vacancy rates are interesting for further study. After all, a certain level of vacancy is acceptable for an investor. When selecting cases, also more drastic alternatives should be worth considering for a particular investor. When one or more tenants still occupy an office building it is practically impossible to get them out voluntarily. Getting out sitting tenants involuntarily comes with high legal costs, long procedures and compensation money for the tenant. For these reasons, the higher the vacancy rate, the more likely a drastic alternative is chosen and the more interesting the case for the study.

Although in total 66 offices were at least 95% vacant it was not possible to set the lower limit on this level because of diversification criteria. A certain mix between different types of investors was preferred in order to find differences between investors. Also a mix between 'old owners' and 'new owners' was sought for. Amongst the owners in the list were a lot of developers, foundations, natural persons and (former) owner-occupiers. These owners are considered to be not a professional investor and thus not interesting for an interview. Because of diversification criteria, the highest possible lower limit came down to 85% vacancy rate. Because of practical reasons the number of interviews had to be limited. Taking the time limitation of the thesis into account, somewhere around 15 investors could be interviewed. Taking a non-response of fifty percent in consideration a total number of 30 investors was selected. When several investors met the diversification criteria, the largest and/or most well-known investors were chosen for, assuming these will be most interesting and representative.

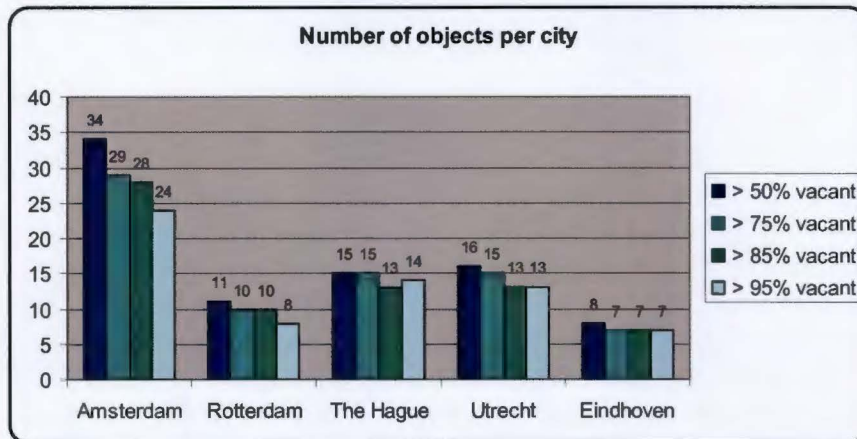


Figure 26: Number of objects showing structural vacancy per city.

In total, 15 private investors, 4 institutional investors, 7 real estate funds, 2 fund managers, 1 listed fund and 1 developer/investor are in the selection. Of this selection 10 investors are 'new owners' and 20 investors are 'old owners' For a complete overview of the owners that are in the selection see appendix VIII. The preferred person to actually interview is the asset-manager that is responsible for the specific vacant office. The asset-manager is in practice the 'specialist' and knows the ins and outs of the office building. The asset-manager will in practice not be the person that has the power of decision. Nevertheless, the asset-manager will know all about the decision making process.

To retrieve the owners of the different offices and to find out the year of purchase, the Dutch land register¹¹ was consulted. The land register provides on-line data about real estate property. In a property-certificate the legal owner(s) of a property, the year of purchase, purchase price and possible easements on the property are reported. For an example of a land register certificate please see appendix IX. Some owners could not be retrieved in the land register. A possible explanation for this could be that some details in the database might have been wrong, causing a building and its owner could not be found in the land register.

5.3 Response

All selected investors were approached by using internal Jones Lang LaSalle references as much as possible. This is done in order to improve the willingness for cooperation amongst investors. Especially for 'old owners', the subject can be sensitive and will probably not be something they talk about with pleasure. First, an investor was given a call and the responsible asset manager was sought for. When an investor agreed to cooperate, an appointment was made. An e-mail with an additional explanation of the research was sent to the investor so that the investor was able to read more about the study and prepare himself. The research explanation that was sent to investors can be found in appendix X. Out of 30 investors that were approached for an interview, 13 agreed to cooperate.

In total, 11 investors were not willing to cooperate in the study. Reasons for not cooperating in the study were diverse. Five investors claimed they were very busy and thought the interview was too time-consuming. Two organizations claimed they were urged to carry out a non-cooperation policy for students in general and four investors refused to cooperate due to reasons in relation to privacy issues concerning their clients and working methods. Another six investors could not be reached due to several reasons. One investor never answered the

¹¹ Dutch land register: 'Het kadaster' www.kadaster.nl

phone and three investors were untraceable. The last two investors did not have time for an interview but did promise to fill out the questions and send it back, but eventually did not do this.

The selection criteria for investors were 'old owners' and 'new owners' and different types of investors. The results of the selection criteria within these thirteen respondents, is seen in figure 27 below. The group of interviewed investors consists of four institutional investors, six private investors, one real estate fund, one listed real estate fund, one fund manager and an investment company specialized in issuing closed-end funds in a 'limited partnership'¹². In total five respondents met the criteria for 'new owner' and nine investors are considered 'old owner'. Out of the five 'new owners', only one of the investors appeared to be useful for the study. First of all, one of these investors was a real estate trader. The core business of this investor was to buy and sell real estate properties. This investor never executed any physical action in order to improve an office' lettability, let alone he considered other alternatives like *demolish & rebuild* and *transformation*. Secondly, the main reason for making a distinction between 'new owners' and 'old owners' was to find differences in the decision making process between owners that deliberately bought vacancy and owners for which vacancy came by surprise. However, during the interviews it became clear only one investor deliberately bought the vacant office. One investor claimed the office was bought in a fully leased condition and another claimed the office was purchased in a 70% leased condition. The most likely explanation for this 'mismatch' is the time between the reference date of the data analysis (end of March 2007) and the reference date of the date of purchase (end of June 2007) according to the land register. The office was probably bought by the investor in the three months between these two random indications of given moments. It could also be explained by possibility of the fact an office is rented out, comes through to the used source with a certain delay.

Investor	Type of investor	New / Old	Remark
De Groene Groep beleggingen	Private	New	70 % leased
Jovi Investments	Private	New	-
Lancelot Land BV	Fundmanager	New	Part of complex
Van Boom en Slettenhaar	Private	New	100 % leased
Weslo Beleggingen	Private	New	Trading only
Fortis Vastgoed	Institutional	Old	-
Stena Realty	Real estate fund	Old	-
Kroonenberg	Private	Old	-
Nieuwe Steen Investments	Listed fund	Old	-
Altera Vastgoed	Institutional	Old	-
Fortress	Private	Old	-
Achmea Vastgoed	Institutional	Old	-
ING Real Estate	Institutional	Old	-

Figure 27: List of interviewed investors and important diversification criteria.

The last investor purchased the office as a unit of an office complex, yet all units having a different address. In the study, this resulted in 100% vacancy rate for the specific address, however only a small vacancy rate for the complex as a whole. Because only one investor

¹² Commanditaire Vennootschap, (C.V.) The C.V. is a special Dutch legal entity which is often used for closed-end investment funds.

bought a structurally vacant office deliberately it is not possible to make proper comparisons between these groups and to draw conclusions. For this reason, there will be no specific focus on differences between 'new owners' and 'old owners'. If possible, remarkable differences will be mentioned between different types of investors.

5.4 Results: within case analysis

The interviews have taken place between the 15th of August 2007 and the 24th of September 2007. The interview agenda can be seen in figure 28 below. Respondents showed great interest in the subject and admitted the seriousness of the vacancy issue. Also, many respondents emphasized the need for tackling the structural vacancy issue and preventing the problem to grow as big as it is today again in the future. Because of these reasons, in almost all interviews a trustworthy and nice atmosphere was created and respondents talked freely. In one interview the respondent appeared to be not the best person to talk to. This respondent had little working experience and had only been responsible for the vacant office for a short period of time. This meant the respondent was not completely aware of the decision making process of the last three years and therefore not all questions could be answered.

Date	Investor
15-aug	De Groene Groep beleggingen
20-aug	Nieuwe Steen Investments
20-aug	Lancelot Land BV
21-aug	Fortis Vastgoed
24-aug	Jovi Investments
27-aug	Weslo Beleggingen
28-aug	Stena Realty
29-aug	Kroonenberg
3-sep	Van Boom en Slettenhaar
4-sep	Altera Vastgoed
5-sep	Fortress
6-sep	Achmea Vastgoed
24-sep	ING Real Estate

Figure 28: Interview agenda and logos of investors

All interviews have been recorded using a voice-recorder. By using a voice-recorder, during the interviews only small notes and comments had to be made. This created the possibility to focus on the answers and continue to ask questions if an answer was not clear or satisfactory. Each interview was listened to again afterwards. The answers to open questions were written out digitally and interesting quotes were noted down. The written out answers per individual case, form the starting point of the analysis of the open questions. The questions using a five-point answer scale are made quantitative and have been processed into Excel. In this way it is possible to calculate frequencies and averages of answers to specific questions.

The thirteen investors and specific cases are shown in figure 29. For each case, the address and city is shown. Also the type of location, the total floorspace of the office, the vacancy rate and the year of purchase are shown in the figure.

Investor	Case	City	Type of location	Floorspace m2	Vacancy rate	Year of purchase
De Groene Groep beleggingen	Karspeldreef 16	Amsterdam - South East	Business park outside city	4308	100%	2007
Nieuwe Steen Investments	Rivium Boulevard 82-100	Rotterdam - Cappelle	Business park outside city	1875	100%	2000
Lancelot Land BV	Kanaalweg 19G	Utrecht - Kanaleneiland	Business park within city	2155	100%	2005
Fortis Vastgoed	Wamberg 35-37	Amsterdam - Buitenveldert	Inner city location	1348	89%	2003
Jovi Investments	Polakweg 10-11	The Hague - Rijswijk	Business park outside city	4763	100%	2006
Weslo Beleggingen	Gageldijk 103	Utrecht - Houten	Business park outside city	2215	100%	2007
Stena Realty	Polakweg 13	The Hague - Rijswijk	Business park outside city	4204	100%	1996
Kroonenberg	Rokin 69	Amsterdam - Centre	Inner city location	1270	100%	2001
Van Boom en Slettenhaar	Fokkerweg 300	Amsterdam - Schiphol	Business park outside city	3000	100%	2006
Altera Vastgoed	Beukenlaan 77	Eindhoven - Adjacent centre	Inner city location	4826	100%	2000
Fortress	Zichtenburglaan 31	The Hague	Business park within city	4075	100%	2003
Achmea Vastgoed	Nicolaas Beetsstraat 218	Utrecht - Old inner city	Inner city location	1415	86%	1998
ING Real Estate	Binckhorstlaan 117-119	The Hague	Business park within city	21000	100%	1998

Figure 29: Overview of cases and important characteristics

5.5 Results: cross case analysis

In this paragraph, the results of all interviews are compared and written out. The presentation of the results uses the same set-up and order as the conceptual model. First of all, the extent to which diversification criteria are met is discussed. After that, the results about an investor's characteristics, his assessment of the cause of vacancy and the influence of emotional and psychological factors in the decision-making process is presented. Lastly, the way investors consider alternatives and the actual choices they make in practice is discussed. The results are made livelier and more expressive with specific quotes of investors made during the interviews.

5.5.1 Characteristics of investor

This paragraph discusses the interview questions that dealt with the legal entity, portfolio details and risk profile of the investors. The results focus on the possible relation between an investor's characteristics and the choice for alternatives in general and in the specific case in particular. After every sub-paragraph the most important conclusions are drawn.

Legal entity

The total amount of interviews held is thirteen. Of these investors, nine act in the market by using the legal entity of 'private limited company' and four investors act in the market using the entity of 'public limited company'. More opportunistic investors sometimes erect a separate subsidiary company when investing in a large and rather risky asset. The main difference between these types of legal entities is the fact a private limited company can not issue shares on the free market. The shareholders of a private limited company must all be registered. The shares of a public limited company can be traded freely on the market. The larger the total value of investment the more likely a company uses the 'public limited company' construction. The large institutional investors and the listed fund therefore have this legal entity. An exemption is institutional investor Achmea Vastgoed, as this investor operates as asset-manager for clients and does not own real estate on their own.

Based on the interview results, for investors having the legal entity of private limited company, theoretically, all distinguished alternatives in this study are possible options in order to reduce vacancy. Some investors (asset-managers) will not have direct decision-making power, but will have to discuss a plan of action with the actual owner. For investors having the legal entity of public limited company, two alternatives are impossible to execute.

For these investors it is not allowed to execute activities that are considered project development. When an investment exceeds 30% of the value of the property, it is considered project development rather than quality improvement. For this reason, the alternatives *transformation* and *demolish & rebuild* are considered project development and are not allowed for public limited companies. The same holds for *renovation* when the investment exceeds 30% of the value of the real estate property. These alternatives can be executed by these investors under the condition the execution is done by a taxable daughter company. The interview has not gone into much depth about the possible consequences of differences in tax-regime between different legal entities.

Conclusions

- ‘private limited companies’ can theoretically execute all alternatives
 - Asset-managers must discuss a plan of action with actual owner
- ‘public limited companies’ can theoretically execute all alternatives
 - Under the condition an additional investment does not exceed 30% of the value of the property.
 - Under the condition when an additional investment does exceed 30% of the value of the property it is executed by a taxable daughter company.

Portfolio characteristics

Not every investor was willing to provide portfolio details. Especially some private investors chose not to share their specific portfolio details for privacy reasons. Out of the investors that did share their portfolio details, one can conclude the portfolio characteristics of the interviewed investors are diverse. The smallest portfolio contains 320 million euro of invested capital. In number of offices, the smallest portfolio contains 30 objects. On the other hand, the largest investment volume of an investor’s portfolio is 8.5 billion euro. The largest number of offices in portfolio is 168 objects.

All investors have some kind of mix of office, retail and industrial real estate in portfolio, sometimes combined with residential real estate. Five out of thirteen investors mainly invest in offices, combined with one or two other real estate categories. One investor mainly invests in retail and one mainly in industrial real estate. Two investors have a more or less equal mix of real estate categories in portfolio. Five investors did not provide specific portfolio details. Real estate qualities are also diverse. All in all, the portfolio characteristics of all investors together provide sufficient diversification for a proper cross-section.

It has not been possible to draw hard conclusions about the relation between an investor’s portfolio and the choice for alternatives to deal with vacancy in practice. Yet, the results of the interviews show the investment-value of institutional investors is much larger than the investment value of private investors. Institutional investors invest more in new qualitative office buildings than private investors. These investors have a strong drive to keep the portfolio ‘young’ in order to avoid vacancy and drastic measures to deal with vacancy.

“In order to prevent drastic alternatives to deal with vacancy, we try to sell an asset just before lettability issues come up.”

In practice, when vacancy comes into play, it takes more effort to find a tenant for older buildings as they will be less qualitative. This means private investors will have to choose for more drastic alternatives more quickly. At the same time, for relatively new buildings, drastic alternatives are not likely to be chosen, even when vacancy persists for a longer time, as the office still meets market demand standards.

Conclusions

- No hard relations between an investor's portfolio details and the choice for alternatives were found
- Investment value of institutional investors is high compared to private investors
- Institutional investors own more relatively new and qualitative offices than private investors
 - For a young portfolio, alternatives to deal with vacancy are more likely to be *maintaining* and *upgrading*
 - More drastic alternatives are more likely for owners of obsolete buildings

Risk profile

The risk profile of the interviewed investors is, just like the portfolio details, very diverse. It is impossible to clearly indicate specific borders of risk profiles in relation to types of investors. Most investors create a mix of risk profiles in portfolio. In this mix, one could say private investors tend to be less risk-averse than institutional investors and real estate funds. This means, for private investors it is more likely to 'have a go' with a vacant or partly vacant office. Especially investors who are dealing with shareholders are very risk-averse and mainly make core investments with as little risk as possible. For instance, the listed fund and the investor specialized in issuing closed end funds both only made core investments. Direct return on investment is most important for these investors, so waiting to find a tenant is too risky. One could say only investors with a less risk-averse attitude will deliberately buy vacancy in practice.

"The offices institutional investors take out of portfolio, as they start showing signs of lettability difficulties, are the offices in which we see our opportunities."

In this situation, an attractive price that offers opportunities for the investor is decisive. When an office is purchased for a low price, an investor can strive for two different situations in order to create a satisfying return on investment. The investor can either lower the rental price per square meter below market rent in order to attract a tenant or only rent out a part of the office for market rent.

Conclusions

- Private investors are less risk-averse than other investors
 - Choosing for more drastic alternatives is more likely for a private investor
- Deliberately investing in a (partly) vacant office is only done by investors who are at least not risk-averse.
- In that case the investor has two options in order to create a satisfying return on investment:
 - Lease the complete office below market rent
 - Lease the office partly for market rent
- Investors with shareholders (listed fund, closed end funds and institutional investors) are most risk-averse
 - Any additional investment must be discussed with shareholders
 - Direct return on investment is most important, so waiting for a tenant is not an option.

5.5.2 Assessment of vacancy

This paragraph describes the cause of vacancy of the individual cases in the study from the perspective of the investor. During the interviews, the investor was asked to judge the four most important location qualities and the four most important building qualities of the office on a five-point scale varying from 'very good' to 'very bad'. Also the investor's perception of the influence of the location quality and building quality on the lettability of the office was asked. The investor's perception of the market situation of the last three years and how it affected the lettability of the office was questioned as well. The results are based on the data of 10 respondents as the questions about the assessment of vacancy were not relevant for 3 investors that bought the office in leased condition.

Assessment of location quality

Image & looks

The image and looks of the location of the structurally vacant offices in the study is judged relatively bad. With an average score of 2.5, investors judge this factor between neutral and bad. Although the individual scores differ, one could say this factor probably plays a large role in the cause of vacancy.

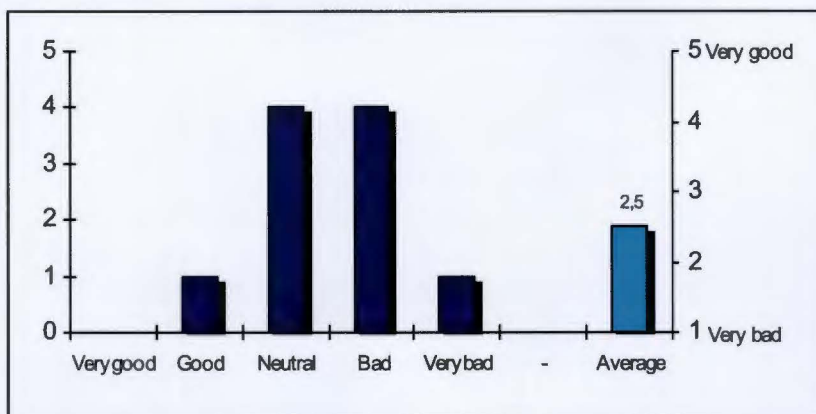


Figure 30: Frequencies and average of location quality "Image & looks"

Accessibility by car

The accessibility by car of the location of the structurally vacant offices in the study is judged relatively good. With an average score of 3.9, investors judge this factor slightly under good. None of the respondents judged the accessibility by car bad or very bad. Apparently, investors believe the accessibility by car of their offices is not a serious issue in the lettable difficulties of those offices.

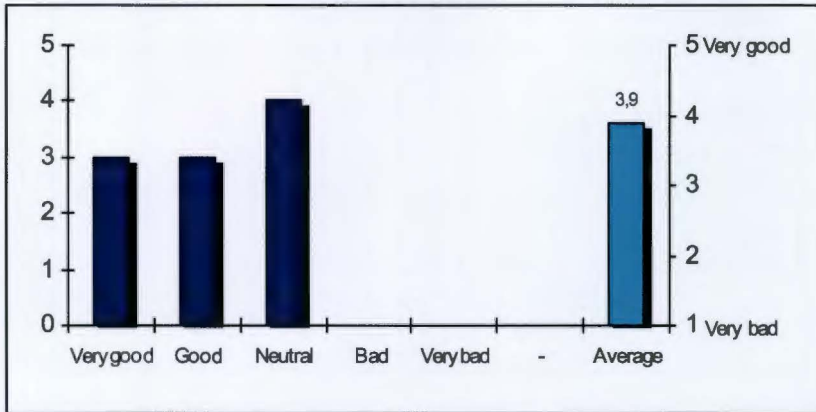


Figure 31: Frequencies and average of location quality "Accessibility by car"

Accessibility by public transport

The accessibility by public transport of the location of the structurally vacant offices in the study is also judged relatively good. With an average score of 3.9, investors judge this factor slightly under good. None of the respondents judged the accessibility by public transport bad or very bad. Apparently, the accessibility of the offices by public transport is not seen as an issue in the cause of vacancy according to the investors.

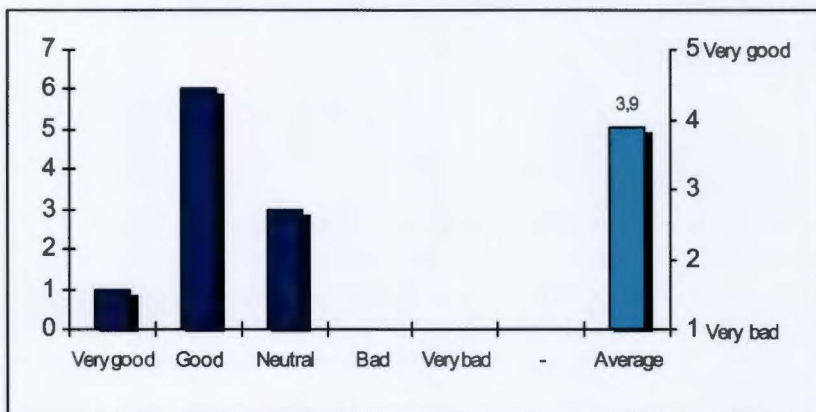


Figure 32: Frequencies and average of location quality "Accessibility by public transport"

Facilities in the area

The presence of facilities in the area of the structurally vacant offices in the study is judged relatively neutral. With an average score of 3.2, investors judge this factor little over neutral. Respondents are less unanimous in the judgement of this factor as the scores are distributed more equally. Apparently this factor plays on average a more or less neutral role in the assessment of the cause of vacancy by investors.

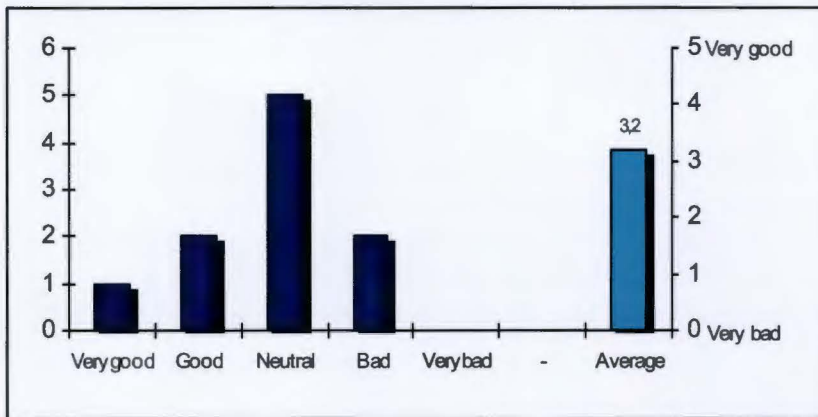


Figure 33: Frequencies and average of location quality "presence of facilities in the area"

Influence of location quality on lettability

The influence of the location quality of the structurally vacant offices in the study on the lettability of the office is judged slightly below neutral with an average score of 2.7. Respondents are not very unanimous in the judgement of this factor. Four investors think the influence is negative and one very negative. Two investors think the influence is neutral and three think the location quality has a positive influence on the office's lettability. Apparently the perception of the location's influence on the lettability is rather divided, with a tendency to the negative side.

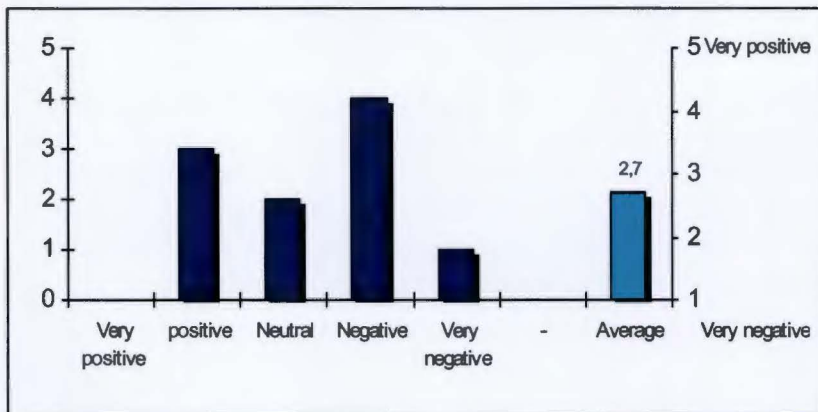


Figure 34: Frequencies and average of the influence of the location quality on the lettability of the office.

Conclusion

Some location qualities score positive and others score negative. The factor that seems to have an important role in the fact the offices in the study remain vacant is the image & looks (2.5) of the location. After that, the relatively low score of the amount of facilities in the area (3.2) of the office is remarkable. Both these factors score rather low compared to the other factors in the study. Remarkably, the accessibility by car (3.9), as well as by public transport (3.9) are judged rather good unanimously by investors. Overall, one could conclude investors believe the offices mainly suffer from the lack of facilities in the area and the bad image and looks of the location. Overall, the location quality has a small negative effect (2.7) on the lettability of the offices, according to the investors.

Assessment of building quality

Image & looks

The image and looks of the structurally vacant offices in the study is, on average, neither judged good nor bad. The average score is 3.2, meaning the average image and looks of the offices in the study is little over neutral. A few respondents deviate from this average impression: 2 offices were judged bad, 2 offices were judged good and one office very good. Apparently investors feel the image and looks of their vacant assets does not play a significant role in the cause of vacancy.

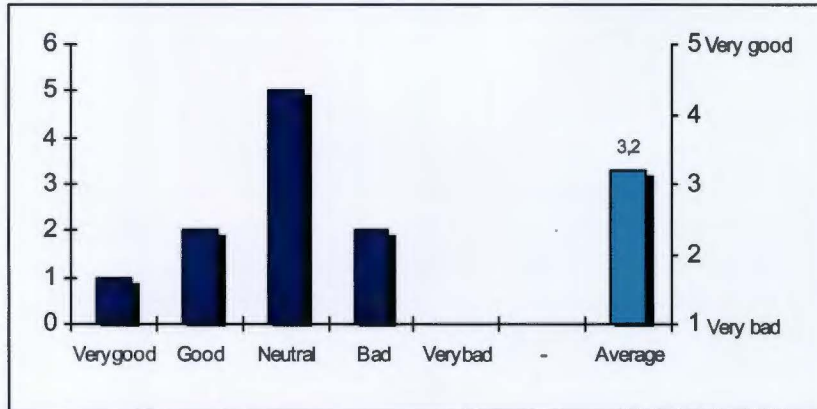


Figure 35: Frequencies and average of building quality "Image & looks"

Flexibility

With only 1 respondent judging the flexibility bad instead of good there is little dissonance in this factor. The great unanimity amongst respondents leads to an average judgement of the flexibility of the offices in the study of 3.8, which is little under good. The only exception is caused by an office that has the largest floorspace of all offices by far, resulting in poor flexibility. Overall, one could say, the lack of flexibility of the offices in the study is not an important issue in the cause of vacancy, according to the investors.

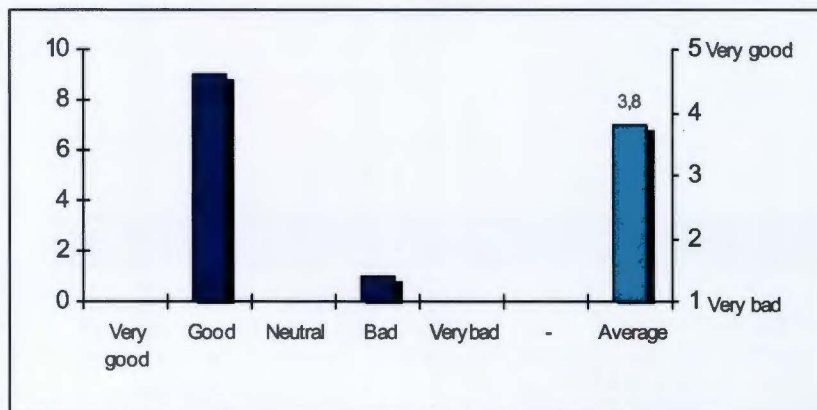


Figure 36: Frequencies and average of building quality "Flexibility"

Technical specifications

The respondents judged the technical specifications of the offices as relatively good. The average score of the factor is 3.4 which means the technical specification of the offices is regarded as in between neutral and good. Only one investor judged the technical specifications of his office as bad. However, this investor regarded the ownership of the office

as a speculation on the land, rather than a profitable exploitation of the building. The range of answers is in between bad and very good meaning the respondents are not very unanimous in their answers. Based on these scores, one could conclude the technical specifications of the offices do not play a large role in the cause of vacancy for most offices, according to the investors.

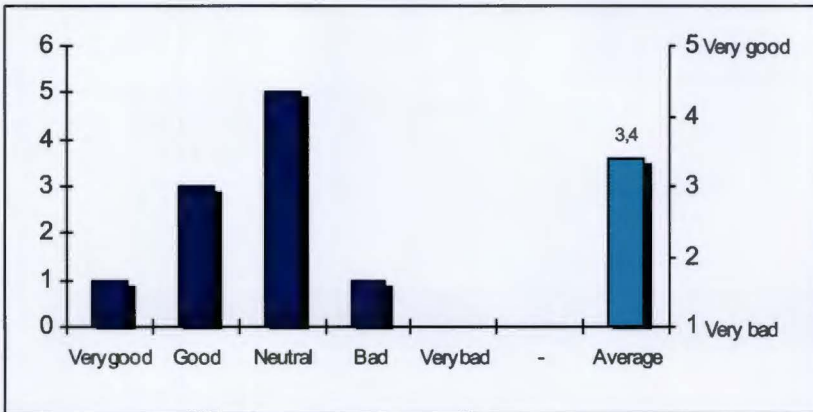


Figure 37: Frequencies and average of building quality "Technical specifications"

Parking space

In the assessment of the quality of parking space a remarkable split is seen in the results. There is a clear split in judgement of the quality of the parking space between either bad/very bad or good/very good. The majority of respondents judged the quality of parking space good or very good which leads to an average score of 3.6. One could conclude for some offices the lack of parking space will probably be a serious issue in the cause of vacancy, whereas for most offices parking space is not an issue at all according to the investors.

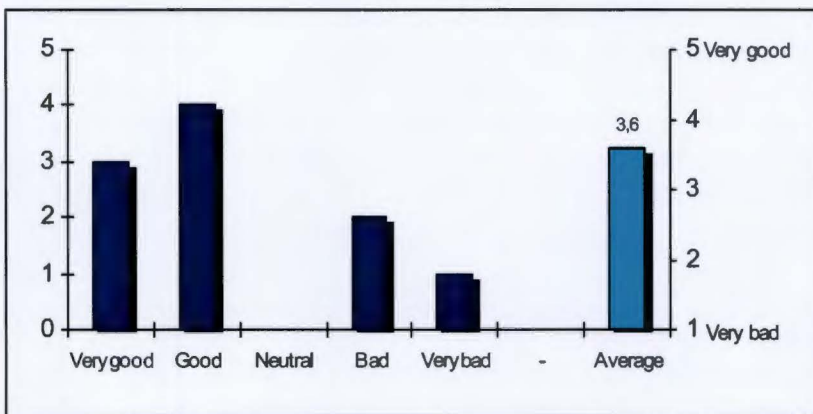


Figure 38: Frequencies and average of building quality "Parking space"

Influence of building quality on lettability

The influence of the quality of the structurally vacant offices on the lettability of the office is judged little above neutral with an average score of 3.3. Respondents are not very unanimous in the judgement of this factor, yet also not very far apart as all respondent have answered negative, neutral or positive. Apparently the perception of the influence of the building quality on the lettability differs from one respondent to another with a tendency to the positive side.

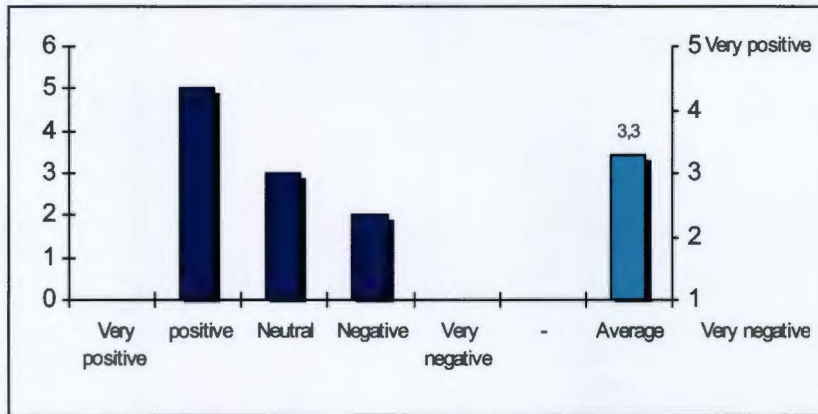


Figure 39: Frequencies and average of the influence of the building quality on the lettability of the office.

Conclusion

All building qualities in the study score above neutral. Especially the factors flexibility (3.8) and parking space (3.6) show high average scores indicating these factors have little influence on the cause of vacancy of the offices. The factor image and looks (3.2) and technical specifications (3.4) score slightly lower, yet still positive. Apparently, the building quality of the offices is relatively good according to the investors and has a moderate positive influence (3.3) on the lettability of the offices.

Assessment of market situation

Out of four questions that had been set up to measure an investor's assessment of the market situation in relation to the cause of vacancy, three appeared to be not useful. The basis for these questions was the assumption that the willingness of an investor to invest depends on his assessment of the market situation. During the interviews, it became clear that this is not the case. In practice, the willingness to invest depends on whether or not an investor has found a tenant for the office, regardless from the market situation. For this reason, these questions are left out and the assessment of the market situation is measured by the remaining question about the influence of the market situation on the lettability of the office. The results are based on the answers 10 respondents.

Influence of market situation on lettability

Amongst respondents, there was unanimity about the influence of the market situation on the lettability of the office to a large extent. With an average score of 2.1 the influence of the market situation is considered negative by the respondents. Three respondents judge the market situation neutral, five negative and two respondents judge the market situation very negative. The conclusion that can be drawn from these results is that the market situation negatively affected the lettability of the offices to a large extent, according to the investors.

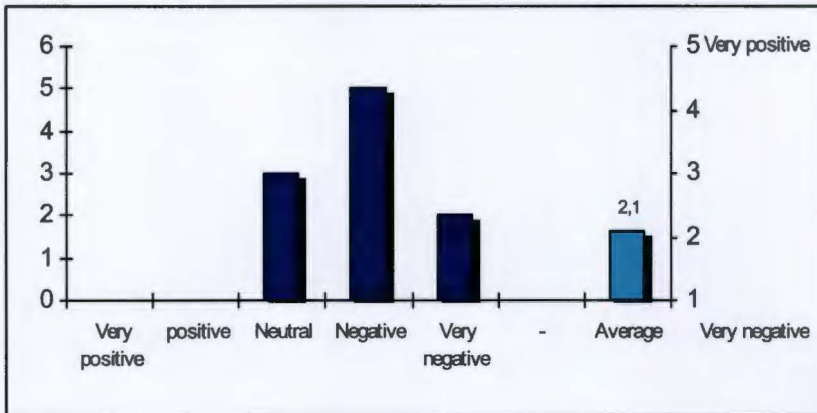


Figure 40: Frequencies and average of the influence of the market situation on the lettability of the office.

Overall conclusion

Taking the overall average scores of the assessment of vacancy into account, the following conclusion about the assessment of the cause of vacancy can be drawn. The market situation (2.1) is regarded as the most important factor in the cause of vacancy by far. After that, the location quality (3.2) is regarded as an important issue in the cause of vacancy, yet on average still positive. According to the investors, the quality of the office itself (3.5) does not play a role in the lettability difficulties as all individual aspects are judged positively. These results are discussed further in paragraph 5.6 'discussion'.

5.5.3 Emotional & psychological aspects

This paragraph discusses the interview results for the examined emotional and psychological aspects and their possible role in the decision-making process in relation to vacancy. All the emotional aspects and cognitive biases, as described in chapter 2, have been formulated in a proposition during the interviews in order to examine their possible influence. Investors were asked to judge the proposition on a five-point scale varying from 'totally agree' to 'totally disagree'. The frequencies and average score of every proposition are presented and discussed. A discussion about these results while making a link with the expectations in the literature review is found in paragraph 5.6 'discussion'.

Emotional aspects

"The image of our organization affects the choice for an alternative"

The interviews show eight investors do not believe the image of the organization has any influence on the choice for an alternative, three investors do agree on this proposition and one investor's opinion is neutral. The average score for this proposition is 2.6 which means investors on average slightly disagree on the proposition. One could say most investors believe their organization chooses an alternative, regardless from any issues relating their image.

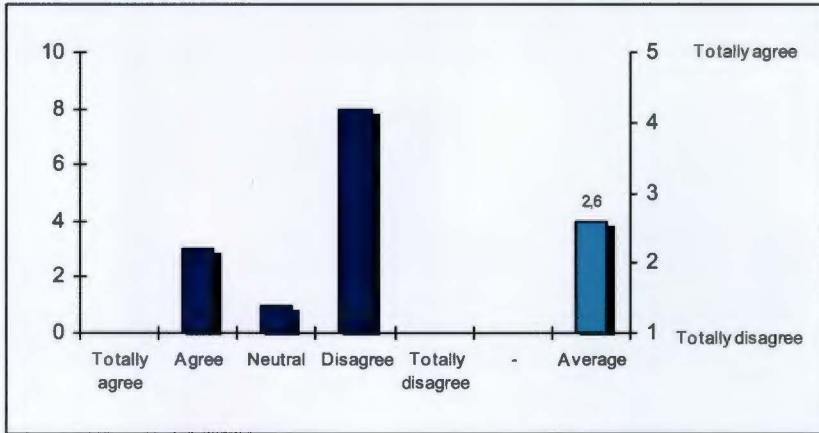


Figure 41: Frequencies and average of proposition “The image of our organization affects the choice for an alternative”

“Optimism about the office market situation affects the choice for an alternative”

The optimistic view on the office market situation has influence on the choice for an alternative according to 11 respondents. No more than one respondent claimed optimism does not affect the choice for an alternative. The average score of this proposition is 3.9, meaning the majority of respondents agrees with the proposition.

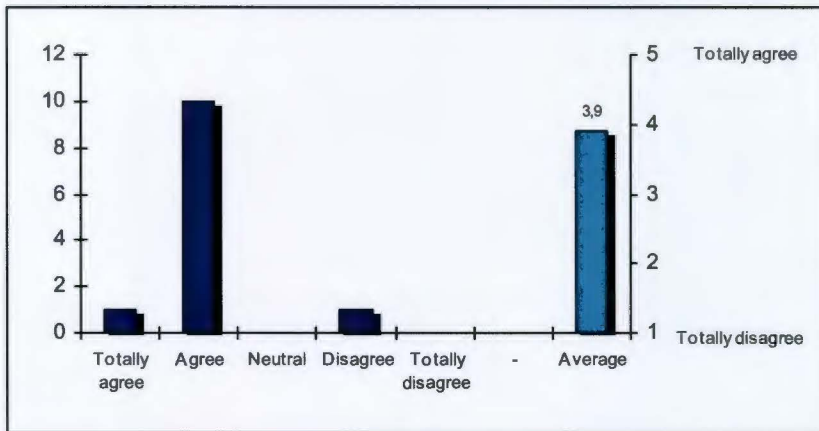


Figure 42: Frequencies and average of proposition “Optimism about the office market situation affects the choice for an alternative”

“When it comes to taking a loss, my personal ego affects the choice for an alternative”

A majority of eight respondents disagrees with the proposition and one totally disagrees. One respondent agrees and two have a neutral position. Almost unanimous, respondents claimed there is no relation between their personal ego and the choice for an alternative. This is seen in the average score of 2.3 for this proposition.

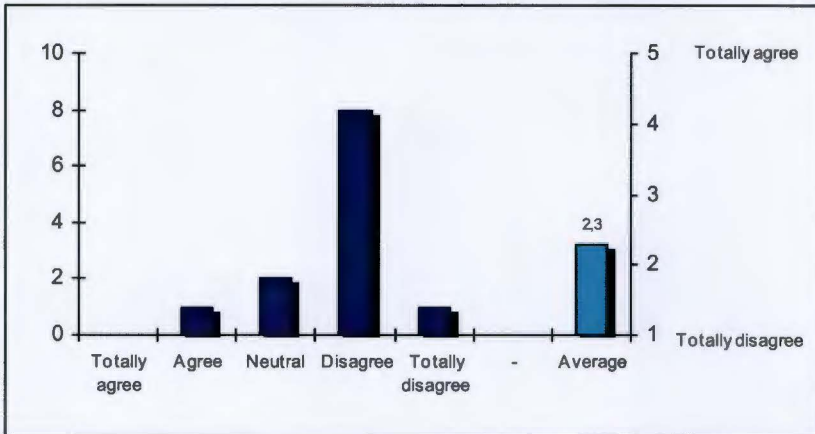


Figure 43: Frequencies and average of proposition “When it comes to taking a loss, my personal ego affects the choice for an alternative”

Psychological aspects

“The value of a structurally vacant office is overrated in our organization”

The judgement of the proposition about overrating the value of a structurally vacant office is rather divided. A clear difference between respondents that do agree and respondents that do not agree on the proposition is seen. Six respondents agree, four disagree, one totally disagrees and one respondent has a neutral opinion. The average score is 3.0 meaning respondents have a neutral opinion on average and no hard conclusions can be drawn.

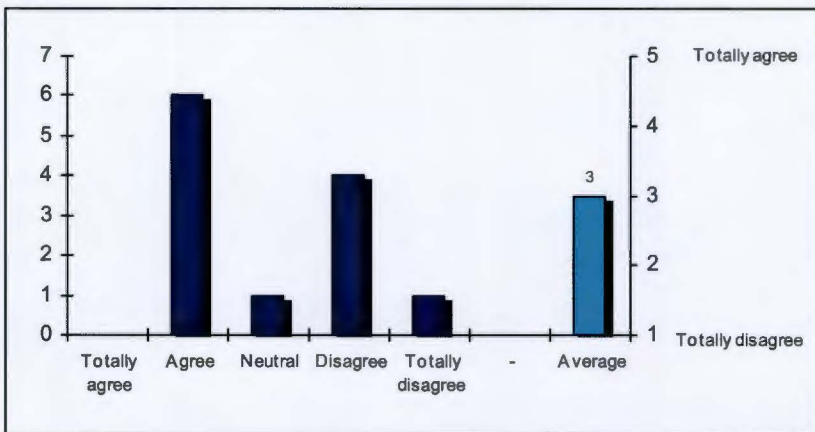


Figure 44: Frequencies and average of proposition “The value of a structurally vacant office is overrated in our organization”

“The aversion against taking a loss affects the choice for an alternative”

In total, eight respondents claim the aversion against loss does not affect the choice for an alternative. Two respondents have a neutral opinion and two do agree on the proposition. On average, the proposition is judged with 2.5, meaning respondents disagree with the proposition.

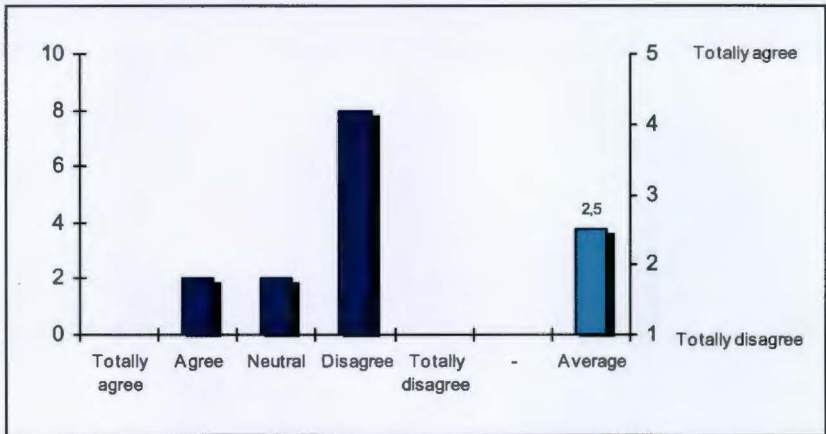


Figure 45: Frequencies and average of proposition “The aversion against taking a loss affects the choice for an alternative”

“Selling in an earlier stage would have been better, as the loss would have been limited”

Most respondents (7) have a neutral opinion, three agree, one totally agrees and one disagrees on the proposition. The average score of 3.3 means the respondents judge this proposition little over neutral. Although there is little unanimity, there is a tendency to believe it would have been better to sell the office in an earlier stage.

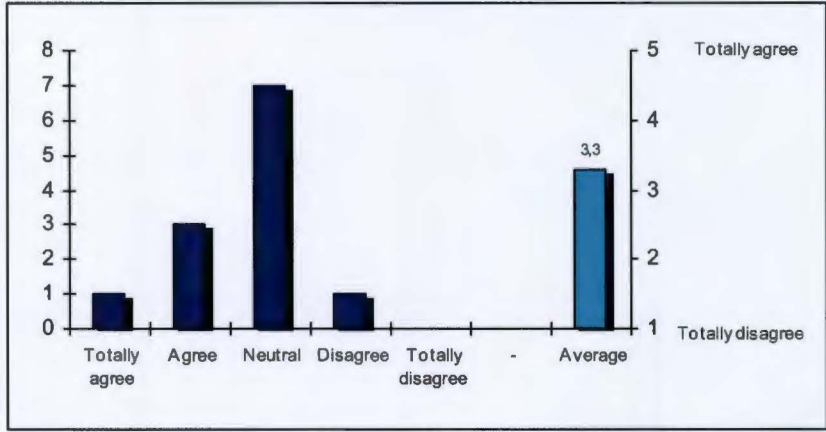


Figure 46: Frequencies and average of proposition “Selling the office in an earlier stage would have been better as the loss would have been limited”

“Conservatism within our organization affects the choice for an alternative”

With an average score of 2.5 the majority of respondents do not agree on the proposition that conservatism within the organization affects the choice for an alternative. Only two respondents agree and one respondent totally agrees. Apparently there is a clear distinction between respondents that do agree and respondents that do not agree in which the respondents disagreeing have a majority.

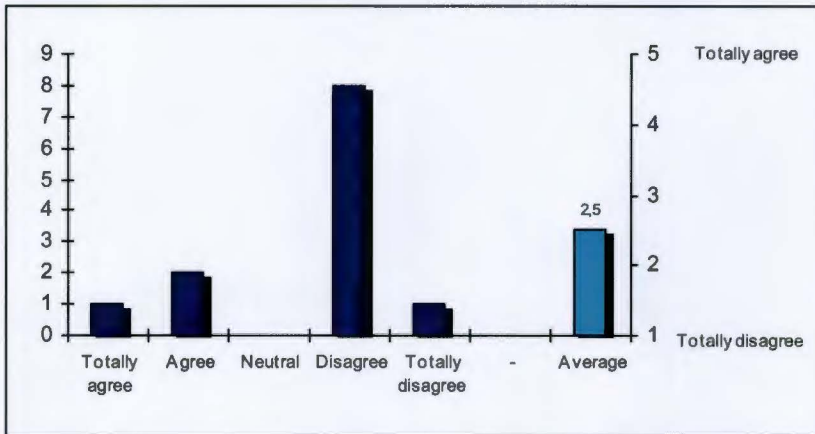


Figure 47: Frequencies and average of proposition “Conservatism within our organization affects the choice for an alternative”

“The unfamiliarity with alternatives affects the choice for an alternative”

Respondents showed large unanimity about the proposition that unfamiliarity with alternatives affects the choice for an alternative. Only one investor did agree on this proposition. With an average score of 2.2 one can conclude investors believe there is no relation between unfamiliarity with alternatives and the choice for alternatives.

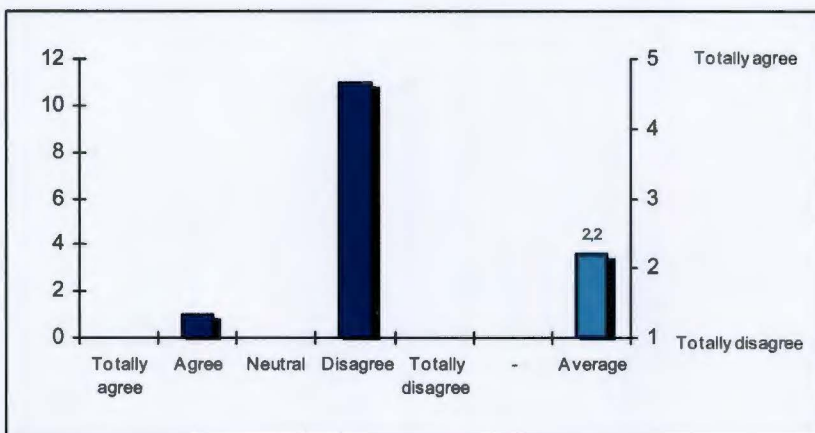


Figure 48: Frequencies and average of proposition “The unfamiliarity with alternatives affects the choice for an alternative”

“Overconfidence within our organization affects the choice for an alternative”

In total, six respondents have a neutral position towards this proposition. Five respondents do believe overconfidence affects the choice for an alternative and one respondent disagreed. The average score of this proposition is 3.3 meaning the majority of respondents tends to believe overconfidence affects the choice for an alternative.

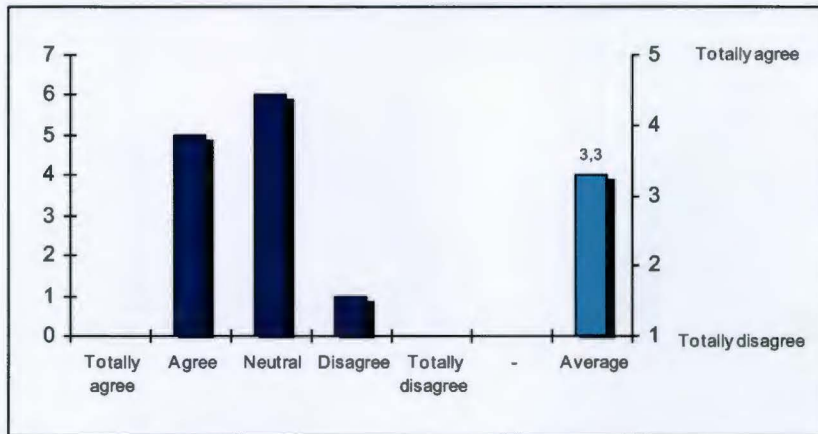


Figure 49: Frequencies and average of proposition *“Overconfidence within our organization affects the choice for an alternative”*

“Emotional and psychological factors affect the choice for an alternative”

This proposition was used to enable respondents to give their general opinion about the influence emotional and psychological factors rather than judging a specific factor. Five respondents do believe emotional and psychological factors affect the choice for an alternative. Seven respondents have a neutral opinion. The average score is 3.4 meaning the respondents have a tendency to believe emotional and psychological factors affect the choice for an alternative when dealing with vacancy.

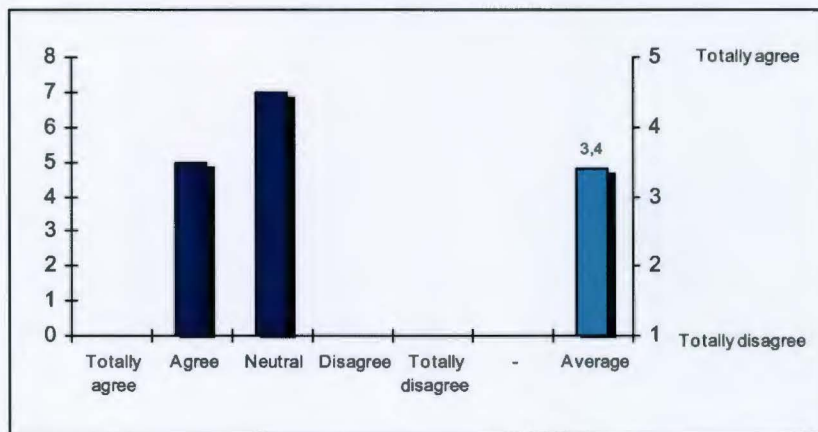


Figure 50: Frequencies and average of proposition *“Emotional and psychological factors affect the choice for an alternative”*

Conclusion

Based on the interviews, a few emotional and psychological aspects are important in the decision making process and others appear to be not an issue or at least very doubtful. The results are based on 12 respondents, so one must be careful to draw conclusions. The results should be seen more as an indication of what factors could be important and which ones will probably not. Moreover, an emotional or psychological factor that plays a role in the decision making process does not necessarily have to be a bad thing. After all, it is not verified what the consequence of the specific factor is and whether that consequence will be negative or positive.

All in all, one emotional factor and two psychological factors appear to be of significant importance in the decision making process of investors when deciding about a structurally vacant office. Above all others, optimism amongst investors about the situation on the office market plays an important role when an investor chooses an alternative to deal with vacancy. This attitude results in investors ‘waiting for the market’, choosing to maintain the office.

After that, overconfidence and the disposition effect appear to have most impact on the decision making process. Investors are overconfident about their ability to creatively approach and solve vacancy. The disposition effect provides an interesting lead as it indicates investors are sometimes better off to take a loss in an early stage of lettability issues instead of desperately continuing the office function. The proposition about the average influence of emotional and psychological factors showed the highest average score. Probably, specific propositions are rejected as they are quickly associated with (socially) undesirable behaviour, whereas the average influence of emotional and psychological aspects is associated with normal human behaviour and not rejected.

According to the investors, all other emotional and psychological factors do not play an important role in the decision making process. Especially the proposition about personal image and unfamiliarity with alternatives are strongly rejected by investors. In paragraph 5.6 'discussion', a link with the literature review is made for all factors and the results are discussed.

5.5.4 Consideration of alternatives

The way investors approach a vacancy issue and how alternatives are considered is discussed in this paragraph. Also the role portfolio management and asset management have in the decision-making process is discussed.

Procedure / protocol

None of the investors uses a specific procedure or protocol to deal with vacancy. At least, not a generally applicable tool, as recorded in some kind of document. Reason for this is the fact each and every building is unique. Obviously, this results in a unique and specific approach to deal with vacancy every time.

“As real estate is not a mass-product, every single piece of real estate is unique and so is the best way to deal with vacancy”

However, according to the interviewed investors, there is a rough working method about how to approach a vacancy issue. This process is rather ad hoc. Starting point in every situation is the vacant office building and its condition. In fact, an investor makes a SWOT-analysis¹³ of the office. What is the condition of the office building? What is the condition of the office location? What are expected threats and possible opportunities in the market? The SWOT analysis is mentioned explicitly by a few investors. Other investors did not mention the SWOT analysis tool explicitly but the described working method was similar to it. The SWOT analysis is always made before actual vacancy has been established and provides a rough expectation for the office. In most cases, a specific action-plan to deal with vacancy issues is set up by the technical and financial specialist when vacancy becomes real.

¹³ A SWOT-analysis is a tool which is used to examine Strengths & Weaknesses (internal analysis) and Opportunities & Threats (external analysis) of a research subject.

Conclusions

- None of the investors uses a standard procedure or protocol to deal with vacancy
- ‘Ad hoc’ approach of vacancy is the standard
- Starting point in the process for all investors is the vacant office itself
- Most investors use a working method like the SWOT analysis technique to approach a vacancy issue
- Investors often have a plan of action sketched in rough outlines for every building

Portfolio management

For a large investor, a decision concerning vacancy on building level will probably not depend on portfolio management as the office is part of a large portfolio. One office will hardly affect the balance and return of the portfolio. It does happen that a certain desire for the balance of the portfolio can lead into the direction of a certain decision. This however, will never be decisive. This holds for both real estate categories and qualities. For a smaller investor however, this is different as one office can represent a substantial part of the portfolio. This means, choosing for a specific alternative, can have a large impact on the balance of the portfolio. This means smaller investors have to be more careful when making a decision that will affect the portfolio balance than large investors.

Some investors have a rather opportunistic way of working, which makes portfolio management subordinate to a decision on building level. It is the opportunity on building level that is decisive rather than the policy for the portfolio as a whole.

“The portfolio balance is not holy at all; reducing vacancy is the key issue in these situations.”

Other investors regard the relation between portfolio management and decisions on building level as an iterative process. The so-called ‘top-down’ and ‘bottom-up’ approach came up during some interviews. In this case, there is a constant interaction between the present situation and the desired future situation of the portfolio. In this situation a decision could depend on the portfolio management but does not have to be decisive.

One private investor had a completely different perception than others. This investor claimed that portfolio management on itself does not exist. In practice, portfolio management is derived from the specific characteristics of the individual assets in portfolio.

“There is no such thing as portfolio management in my opinion; portfolio management is dictated by the characteristics of the individual assets, not the other way around.”

Investors with a strong focus on a specific real estate category tend to keep these assets in portfolio, even when confronted with lettability difficulties. At the same time, these investors tend to sell a real estate category, on which is no focus, more quickly when confronted with lettability issues.

Related to this behaviour are investors that - exceptions excluded- do not sell assets in principle. They claim the current market lacks dynamics and they feel it is very hard to find another asset to reinvest. Selling an asset, without having the opportunity to buy a new asset is not preferred. In fact, they rather stick to a (partly) vacant office they know from inside out than to sell the office and look for something they do not know at all.

Conclusions

- The relationship between portfolio management and decisions on building level is seen in three different ways by the interviewed investors
 - Opportunistic investors claim to have no relation with portfolio management at all
 - Most investors regard the relation as an iterative process between the current portfolio situation and the preferred future portfolio situation
 - Portfolio management is dictated by specific characteristics of the individual assets
- The larger the portfolio, the less influence decisions on a building level will have on the portfolio balance.
 - Portfolio management in relation to vacancy is more important for smaller investors
 - Portfolio management will most often be 'leading into a direction' for an alternative rather than that it will be decisive
- Investors that focus on one specific real estate category tend to keep these assets in portfolio
- Real estate categories, that are no core-business of the investor, are disposed more quickly
- Some investors do not sell in principle due to lack of reinvestment alternatives

Asset management

All investors work with some kind of constant performance measuring on both tenant level and building level. This is done by means of financial administration of tenants and buildings on a weekly or monthly basis. Also the expenses for offices are monitored and compared to the budget. One could say the balance between rental income and costs is closely looked after by all investors. All investors monitor the long-term situation of objects in portfolio by means of a lease expiration overview and a vacancy overview.

Institutional investors investigate their portfolio on a yearly basis, mostly by means of a so-called 'hold-sell analysis'. Private investors claim they have the possibility to work more dynamically than institutional investors as they do not have obligations to report results to shareholders. In this way, they feel they are better able to focus on their core-business: generating positive cash-flows and maximizing returns.

"We have no static obligations to shareholders to frequently report returns and profits; we are just focussing on making profit, a lot preferably."

For most investors, the performance of individual objects is important. For a few investors only the average return of the total portfolio counts as the direct return for shareholders is

what they are directly responsible for. If one object is not doing well, this can be covered up by other well performing objects in the portfolio. For these investors outperforming the ROZ-IPD index is important to proof their added value to shareholders. In order to keep their participants satisfied, the return should also meet the promised return. In a closed-end fund, if returns appear to be disappointing, sometimes extra buildings are added to the fund in order to improve the return. For a decision like this all participants must agree to reinvest.

Performance of objects is measured in different ways. Some investors compare individual objects to the ROZ-IPD index, whereas other investors compare the return of individual objects to an internal benchmark.

“Comparing your returns to the benchmark enables you to proof your quality as investor to shareholders, competitors and other stakeholders.”

Other investors compare the return of individual objects to the expected return of the object at the time of purchase. In fact, these investors constantly attempt to align the real return with the expected return by means of correction measures. All investors try to eliminate or improve objects that underperform compared to either a benchmark or their individual expectation. Some investors that did not compare their internal returns to the ROZ-IPD yet, intended to do this in the near future. It is regarded as an essential part of competition, transparency policy and openness to the outside world.

Conclusions

- Investors measure financial performance constantly by means of financial administration on tenant and building level
- Long term monitoring is done by means of a lease expiration overview and a vacancy overview
- Return performance is either measured on building level or on portfolio level
 - Investors dealing with shareholders tend to focus on total portfolio return
 - Other investors most often focus on return on building level
- Return performance is measured in different ways
 - Some investors focus on outperforming the ROZ-IPD index
 - Some investors focus on aligning the actual returns on individual objects with the expected return at the moment of purchase
 - Other investors focus on maximizing returns on individual objects, regardless from the benchmark or expected returns
- All investors closely look at underperforming buildings, the reasons for underperforming and how the performance of these buildings can be improved

Compare alternatives

The interviews have shown all investors consider alternatives to some extent. The number of alternatives that are considered differs a lot from one investor to another. Alternatives other than maintaining and upgrading will not be considered before actual vacancy is expected. Apparently, it is a matter of time before some alternatives become realistic to investors. Investors only consider alternatives that are most practicable for them. An investor, who has personnel with experience in project development, will consider alternatives that deal with development more quickly. An investor who does not have such personnel is forced to hire costly advisors. Most investors only seriously consider those options that seem like a realistic

and feasible solution at first sight. The distinction between what options will be considered and which ones will not is mostly made rather intuitively. The one investor clearly makes decisions more rationally than the other by using financial models to calculate the feasibility of alternatives. Especially large institutional investors use models and instruments for making feasibility studies. Other investors only make rather easy and simple calculations based on intuition, reference projects and other 'market evidence'. Some investors claim only to consider options in which the office keeps its original function. These investors stick to the fact the office function represents the highest value at all times. They rather accept the fixed costs of the vacant office and hope to find a tenant than to write off book value in an early stage.

"Why would I choose to make a large loss at once in an early stage, instead of a small loss year after year? There is always a chance to find a tenant, we'll wait for that."

One very pro-active investor even thought of possible options to deal with vacancy before purchasing an office. The idea is to have some kind of 'worst case scenario' ready in case the exploitation of the office is disappointing. One could think of transformation possibilities and/or changing the function of the plinth of the building.

Conclusions

- All investors consider different alternatives in some way
- The amount of time that has to go by before more drastic alternatives are considered differs a lot
 - Most investors do not consider alternatives other than maintaining and upgrading before actual vacancy is expected
 - Most investors only consider more drastic alternatives when actual vacancy persists
 - Some investors consider different alternatives in an early (pre-vacancy) stage
- The number of alternatives that are considered by investors differ a lot
 - Only practicable alternatives are considered
 - Most investors only consider alternatives that seem realistic at first sight
 - Some investors only consider alternatives in which the office keeps its function

Preferred order

Investors that claim to always consider different options have no preferred order for alternatives nor do they prefer to make as little investment as possible. When confronted with vacancy, these investors make a balanced weighing of alternatives. Very pragmatic, the best option is chosen, based on expectations of future revenues and costs. All investors prefer not to spend money in an early stage of vacancy.

"In my opinion, spending as little money as possible is nothing more and nothing less than a healthy economic principle."

When vacancy persists, most investors still choose to make as little additional investment as possible which in practice results in maintaining or selling (without substantial loss) the vacant office. These investors claim any additional investment, before a new tenant has been found, is a waste of money. They claim tastes differ from one tenant to another and it is unsure whether or not a new tenant will be found at all. These investors have a strong demand-driven focus. Under the condition a new tenant is found, all investors are willing to make an additional investment. In close consideration with the new tenant, the quality improvement is negotiated and noted down in the contract. In contrast to investors that do not make any additional investment, some investors prefer to give an office an upgrade at all times when it has become vacant. These investors have a true 'hands-on' mentality. Their thought is to improve the building in order to find a tenant before the competition does. It is their belief a potential tenant will lease an office much quicker when the office is in an up to date condition. The actual physical condition, during the inspection with a potential tenant, will make the difference, even when competitors promise to upgrade the office as well, however, after the contract is signed.

"I always compare leasing a vacant office with selling a second hand car: you won't sell it without washing and servicing it."

In practice, investors sometimes feel forced to make an additional investment, as their competitors do so. Especially when buildings are similar and/or located in the same or competing areas, this is necessary to keep up with your direct competition.

Selling is for almost all investors only an option when an asset can be sold without making (substantial) loss. This emphasizes the strong aversion against loss amongst investors. Investors make an exception for offices which have become completely hopeless in their opinion. These offices become blacklisted and are preferred to be sold in a portfolio deal in order to cover up the loss. For private real estate investors, who have deliberately bought a (partly) vacant office, selling is not an option. Fact of the matter is finding a tenant for the office plays a key role in making their gain on the office. The alternatives transformation and demolish & rebuild are only considered in special situations and under specific conditions. This is discussed more thoroughly in paragraph 5.6.5.

Conclusions

- Some investors always balance out and consider different alternatives and thus have no preferred order for alternatives
- Some investors always choose for making as little additional investments as possible which results in *maintaining* or *selling*
 - When vacancy persists for a long time, a cosmetic operation is considered, sometimes only for a small part of the office
- All investors are willing to invest, under the condition a new tenant is found
- Other investors always choose to make an additional investment
 - This sometimes 'forces' other investors to make an additional investment as well
- For most investors, *selling* is only an option when no (substantial) loss is made
 - Exceptions are completely hopeless offices which have become blacklisted
 - For investors who deliberately buy vacant offices, selling is not an option at all
- Transformation and demolish & rebuild are only considered in very special situations (5.5.5)

5.5.5 Choice for alternatives

In this paragraph, an investor's specific and average choice for an alternative to deal with vacancy is discussed. The specific choice discusses the choice an investor made in relation to the particular case in the case study. The average choice provides an indication of all decisions taken in relation to vacancy in the past.

Specific choice

The decisions investors have made to deal with vacancy in the cases align the average working method of investors to a large extent. The specific choices of investors can be seen in figure 51. Of all 13 cases, nine investors chose to maintain the office in its current function and condition. The dominating thought amongst these investors is that they will find a tenant without improving the quality of the office beforehand. Investors claim the market negatively affected the lettable of the office in the last three years. They regard the current market as positive and therefore expect to find a tenant sooner or later.

One investor gave the office a cosmetic upgrade and three investors chose to renovate the office. These investors felt their chances to find a tenant were very minimal without improving the quality of the office. Almost all investors claim they have at least thought about different alternatives; however those options appeared to be not practicable or less attractive financially.

The results resemble the reserved, risk-avoiding attitude of investors in practice. Also, the strong preference to prevent making an additional investment to improve an office's quality is emphasized by these results.

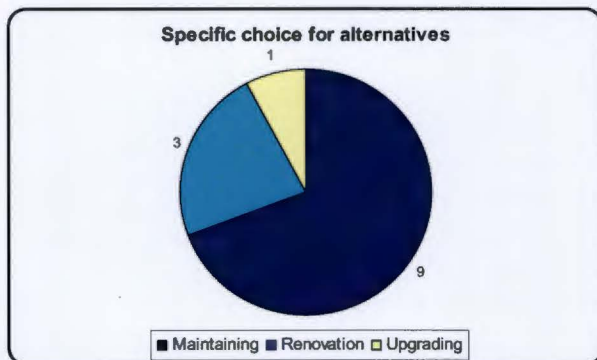


Figure 51: Choice for alternatives in the thirteen cases of the case-study.

Average choice

During the interviews, investors were asked to provide an indication of how all decisions in the past concerning (structural) vacancy are distributed over the different alternatives. The results are based on 11 respondents and provide a global overview of the distribution of choices of investors for alternatives to deal with vacancy. The specific reasons why different alternatives are chosen in practice were asked as well. The results are presented in figure 52. The critical factors of success in practice are discussed hereafter.

Alternative	Percentage (total 100%)	Critical factors of success
Maintaining	33%	Location is attractive for office organizations
		Office meets market demand standards
		Finding a tenant in current situation is realistic
		Investor is willing to give incentives
Upgrading	30%	Location is attractive for office organizations
		Office clearly lacks certain easy improvable qualities
		Investment is in proportion to quality improvement
		Rent is in proportion to additional investment
		No improvements that are dependant on taste of tenant
		Finding a tenant is realistic
Renovation	16%	Investment does not exceed 30% of the value of the property
		Location is highly attractive for office organizations
		Office clearly lacks certain indisputable improvable qualities
		Investment is in proportion to quality improvement
		Rent is in proportion to additional investment
		No improvements that are dependant on taste
Transformation	7%	Finding a tenant is realistic
		Location is not attractive for office organizations
		Legal possibility (project development)
		Limited loss on book-value
		Office has special and unique qualities ('jewel')
		Relatively low transformation costs
		Possibility to add floorspace horizontally/vertically
		Demand for other functions in the area
		Cooperation of municipality / political stability
		Possibility to change zoning-plan
		Strong drive and perseverance of investor
		In-house experience in (re)development
		Investor is relatively large
Mix of real estate categories in portfolio		
Demolish & rebuild	3%	Legal possibility (project development)
		Limited loss on book-value
		Development must represent higher and better use
		Demand for the functions (as meant above) in the area
		Cooperation of municipality / political stability
		Possibility to change zoning-plan
		In-house experience in development
Mix of real estate categories in portfolio		
Disposition	11%	Little or no loss on book-value
		Hopeless future prospect
		Office is on 'blacklist'
		Sufficient alternatives for investor to reinvest
		Perfect match with portfolio management (anti-obsolescence)
Tactical disposition (portfolio deal at right 'momentum')		

Figure 52: Average choice of investors for alternatives and corresponding critical factors of success.

Maintaining

When choosing for the option maintaining, the first condition is the attractiveness of the location for office organizations. Secondly, finding a tenant, without improving an office's quality, must be realistic. At the same time, an investor must be willing to give away incentives like a rent free period in order to win a tenant over.

Maintaining is chosen in most cases by investors. Sometimes an office is rather new and/or meets quality standards. In these cases, a quality improvement is just not necessary. Other cases show, investors are very reluctant to invest in an office before a new tenant is found. These investors are more demand-driven and will only invest money in close consideration with a new tenant. Lastly, some cases show an investor chooses the easy way and does not consider other alternatives.

“An organization will sooner choose for a bad office on a good location, than for a good office on a bad location. Offices can be improved, locations can not.”

Upgrading

Also for upgrading, the first condition is that the location of the office must be attractive for office organizations. In other words: it must be realistic to find a tenant for the office. It must be very clear which characteristics of the office lack quality standards and only those must be improved. Investments which are highly dependant on the taste of a future tenant should be avoided as the chance is high the money is wasted. In order to be profitable, an investment must be in proportion to the quality improvement and in proportion to a realistic rent level. This must be calculated thoroughly in an early stage.

Upgrading is chosen very often as it is regarded as an optimum between the quality improvements of the office in proportion to the investment. A relatively small investment gives the office a much better look, which make the chance to find a tenant much larger. Investors choosing to upgrade an office before a new tenant is found are more supply-driven.

“Investing in a quality upgrade of an office, before a tenant is found, means you're guessing a future tenants taste.”

Renovation

Like any other alternative, in which the office keeps its original function, renovating an office is a waste of money if the location will barely attract office organizations in the future. Especially for renovation, as it is a large investment, the long-term expectation for the location of the office must be positive. Investments which are highly dependant on the taste of a future tenant should be avoided as the chance is high the money is wasted. Only indisputable quality improvements like the façade, elevators and air-conditioning should be done. At the same time, an investment must be in proportion to the quality improvement and in proportion to a realistic rent level in order to be profitable.

Renovation is mostly chosen for obsolete offices on good locations for which is clear what characteristic does not meet market demand standards. An investor will only make a large investment like this when he is rather sure of the future exploitation of the office. Very often, investors believe the achievable rent level for the office does not cover the cost of investment.

“The cost of a thorough renovation of an office is very often not in proportion to the rise of the expected future rent level.”

Transformation

The interviews show, that although theoretically possible, investors still hardly consider, let alone choose for transformation in practice. Transformation comes with all kinds of uncertainties and risks. First of all, a specific demand for other functions on the particular location is essential. Next, the office should have some special qualities and should be rather easy to transform in order to keep the cost relatively low. Special qualities can for instance be monumental details or a perfect view. The zoning plan must be changed in order to be successful in the first place. The possibility to add floorspace and the cooperation of the municipality are large advantages as well. When an investor has endured these difficulties, transformation is still a matter of drive and perseverance as very often several unforeseeable setbacks need to be overcome.

In practice, several investors claim to consider transformation very often. Yet, most investors step back rather quickly as they do not like the idea of having to deal with bureaucracy concerning permits and the zoning plan. One could say investors have strong initial resistance against transformation. The dominating idea about transformation is that transformation is either not practically feasible (zoning, demand for functions, lack of knowledge and experience) or financially feasible (high transformation cost, loss on book-value, revenue of new function). For many offices, located on a business park outside the city, transformation indeed is hardly possible due to lack of demand for other functions on those locations.

“Governments, universities and advisors are completely full of transformation but all I know is investors who have spent a lot of money without being successful in it.”

Demolish & rebuild

In order for the alternative *demolish & rebuild* to be successful, a need for another function that represents a much higher and better use on the location is essential. Other important factors are the cooperation and stability of the local government. Related to this is the essential possibility to change the zoning plan of the location. Having experience and knowledge about project development in-house is a large advantage, especially in an early stage of calculations and feasibility studies. Unless a new development is sold directly, an investor that has a strong focus on one real estate category in portfolio will not consider this option quickly as the new development does not match the portfolio management.

Of all alternatives, investors mostly agreed in their opinions upon *demolish & rebuild*. All investors argue demolishing an office is destruction of capital which has to be deducted from the profits on a new development. Unless a certain location represents a much higher and better use than the current office and the loss is limited, this alternative is not considered by any investor.

“Both transformation and demolish & rebuild are project development; that is just not our business, not our league. We have no in-house experience, so let someone else do it”

Disposition

Selling a vacant office building is by most investors only done under a few conditions. First of all, almost all investors will not sell an office building when a substantial loss is made. In most cases, investors had a positive expectation for the office. Only when an office really starts to annoy an investor and the future prospect is hopeless in their opinion, an office is sold. Investors will always try to execute a disposition in some kind of tactical way, for example by means of a portfolio deal. A factor that pushes disposition can be a perfect match or solution in relation with the portfolio management. A factor that holds investors back from selling an office is the lack of qualitative investment alternatives in the market.

“We regard ourselves as a stamp collector; we look for special and unique assets and selling happens only very exceptionally.”

5.6 Discussion

Taking the practical results of the interviews in consideration and linking these with the findings and expectations of the literature review, conclusions about similarities and differences between theory and practice can be drawn. These similarities and differences and their possible background are discussed in this paragraph.

5.6.1 Characteristics of investor

This paragraph discusses the link between the expectations about the characteristics of the investor in the literature review and the practical findings during the interviews. The expectations are discussed step by step.

- The legal entity of investors does play a role in the possibility to choose for alternatives according to the interviews. As the literature review described, public limited companies are only able to execute *transformation* and *demolish & rebuild* by means of a taxable daughter company or a third party.
- The characteristics of the portfolio have impact on the choice for an alternative. The smaller a portfolio, the more impact a decision on building level will have on the balance of the portfolio. Therefore, this plays a larger role for smaller investors.
- The preferred balance of the portfolio concerning real estate categories and qualities will in practice not be decisive for a decision on building level. Yet, it could be leading into the direction of a certain alternative.
- The investment volume of private investors is much lower than the investment volume of institutional investors. This however, did not give a lead to the expectation that making an additional investment will be more difficult for a private investor due to lack of financial back-up.
- The alleged opportunistic, or at least less risk-averse, attitude of private investors came up several times during the interviews. This indeed makes private investors more likely to consider more drastic alternatives than institutional investors.
- Institutional investors are dealing more with restrictions and organization policy than private investors which makes the decision-making process less dynamic and decisive.
- Investors with shareholders have to discuss every important decision with their shareholders which makes the process less dynamic and decisive.

- Differences in tax-regime between investors in relation to the feasibility of alternatives have not been mentioned by any of the respondents.
- The duration of which investors keep assets in portfolio has not been mentioned by any of the respondents. The same holds for the alleged longer duration of assets in portfolio by private investors.
- Institutional investors tend to keep the portfolio rather young. Offices showing first signs of lettability issues are replaced by newer offices in a rather early stage.

5.6.2 Assessment of vacancy

This paragraph discusses the link between the expectations about the assessment of vacancy by the investor in the literature review and the practical findings during the interviews. The findings are discussed step by step.

- Investors are aware of the fact that the quality of their office is measured relatively to other offices. Especially in the current buyers market, for offices in the lower regions of the market relative obsolescence is crucial.
- Starting point in the decision-making process for all investors is the vacant office itself. This aligns with the expectation, as the market situation as well as the location quality is barely changeable by individual investors. Investors make an inventory of strengths and weaknesses of the office and opportunities and threats in the market.
- The interviews indicate there is no relation between the market situation and the willingness of investors to make an additional investment to improve an office' quality. All investors are willing to invest; under the condition a tenant is found. Before a tenant is found, some investors invest, regardless from the market situation, as they believe their office must outperform a competing office at all times. Other investors do not invest, regardless from the market situation. They believe investing is a waste of money, as tastes of tenants differ.
- When investors regard the market situation as the main cause of vacancy, investors indeed choose to maintain (give incentives) or upgrade an office. The expectation an investor will not agree on a rent level which is not in line with the needed investment was not emphasized by the practical results. After all, the rent level is dictated by the market. Regardless from the investment, an investor prefers to have a tenant for a rent level which is not in line with the investment, than to have no tenant at all. In this situation, some investors will try to establish a rather short lease period, hoping to be able to establish a higher rent in a couple of years.
- When building obsolescence is considered to be an important cause of vacancy, investors indeed focus on improving an office quality by means of upgrading or renovation, under the condition a tenant is found.
- When location obsolescence is considered to be an important cause of vacancy, *transformation* or *demolish & rebuild* should be considered according to the literature. However, investors are very reluctant to choose for these alternatives. Reasons for this are mainly due to lack of financial and practical feasibility. Also, the lack of possibilities and competencies of investors plays a role. However, looking at practical achievements of transformation lately, one could say it is also a matter of initial resistance.

Taking a closer look at the assessment of vacancy, an interesting relationship is seen between the degree in which an investor is able to influence the cause of vacancy and his assessment of the cause of vacancy. The more important the role of a particular cause of vacancy, the less

influence the investor has on that cause of vacancy. After all, the main cause of vacancy, above all others, is the market situation, which is impossible to influence. The second most important cause of vacancy, according to the investors, is the quality of the location, which is also hard to influence by an individual investor. In last position, investors believe the lack of quality of the office itself is important. In other words: investors feel they are not to blame for the vacancy as the office meets market demand standards and they did not have any grip on the market situation and the location quality. An interesting question is whether or not these investors are realistic about the cause of vacancy and whether or not they are completely honest. Is the main cause really the current market situation or are the office and/or location less qualitative than foreseen? Taking the scope of the vacancy issue in consideration one could say the current situation is not purely a typical market problem. Knowing this, at least some investors clearly made serious miscalculations. The question, what exactly has caused these miscalculations can not be answered precisely unfortunately. However, based on the results of the interviews one could conclude at least optimism (about the situation on the office market) and overconfidence (in their ability to reduce vacancy) will have played a role in these miscalculations. Also facing the real scope of the problem in an earlier stage and acting differently upon that could have prevented the vacancy issue to become worse for these investors.

5.6.3 Emotional & psychological aspects

This paragraph discusses the link between the expectations of the literature review about emotional and psychological aspects of the investor and the practical findings during the interviews.

Several emotional and psychological factors seem to explain the behaviour of investors to a large extent. For this reason, emotional and psychological aspects were expected to play an important role in the decision-making process. However, based on the interviews, investors think their decision-making process relating vacancy is rational to a large extent. Most emotional and psychological factors, as described in the literature review, do not affect the choice for an alternative according to the investors. Investors believe their decisions are well thought over and founded. They make financial calculations after all is their thought. The results do show three exceptions. These exceptions are optimism (about the situation on the office market), overconfidence (in their ability to reduce vacancy) and the disposition effect (selling in an earlier stage would have been better). All emotional and psychological factors that have been examined will be discussed in this paragraph, making a link with the expectations of the literature review.

“The image of our organization affects the choice for an alternative”

Three investors believe the image of their organization affects the choice for an alternative. These investors meant this in the opposite way as expected in the literature review. These investors claimed their organization did not step back for more drastic alternatives in order to show the outside world their ability to creatively deal with vacancy and their entrepreneurship. The expectation investors would regard alternatives to be ‘not chique’ or in conflict with their image appeared to be of no importance. Possibly, some investors have given socially desirable answers, as they do not like to admit something they regard as socially undesirable.

“Optimism about the office market situation affects the choice for an alternative”

For investors dealing with vacancy, the best possible solution for the problem is finding a tenant. Knowing this, it is understandable that a certain ‘wishful thinking’ amongst investors dominates. After all, when the office market gets better, finding a tenant becomes more realistic. On the other hand, being pessimistic about the office market evidently will force an investor to make a (financially) ‘painful’ decision. These findings align the findings in the literature review. Taking the size of the structural vacancy issue in consideration, many investors have indeed been too optimistic. This is emphasized by the fact many investors admit selling in an earlier stage would have been better. In the future, investors must be more realistic about the lettability of their asset and draw conclusions in an earlier stage.

“When it comes to taking a loss, my personal ego affects the choice for an alternative”

The results do not match the expectation in the literature review. An explanation is found in the fact many respondents have not been personally responsible for the purchase of the asset. The office was bought a long time ago, and the respondent happened to be responsible for the asset at the moment. This fact takes away the foundation of the expectation. Another explanation for the result can be the possible social desirability of the answers. An investor will probably not admit his personal ego does play a role as the companies interest should prevail over personal interests.

“The value of a structurally vacant office is overrated in our organization”

The expectation in the literature review was that many investors do overrate the value of a structurally vacant office. Some investors agree as they believe their expectation about the future of the office might be too optimistic. This results in an overrated value which makes it impossible to come to an agreement with a potential buyer. Investors that do not agree claim they do not overrate the value of the office, as the appraisal of the office is done by an external and professional valuer. Obviously this is true; however this value is value on paper for bookkeeping purposes. An investor will also have his personal idea about the value of an office, especially when he was responsible for the purchase himself. In a situation like this, it is much more likely the value is overrated by the investor. Another explanation for the high score of disagreement could be the possible social desirability of the answers; will an investor admit he overrates the value of a vacant asset? Although the results indicate investors do not overrate the value of their vacant assets, one can not exclude the importance of possible overrated values in the decision making process, as the investors can also be completely unaware of their behaviour.

“The aversion against taking a loss affects the choice for an alternative”

The expectation was the aversion against loss would play an important role in consideration and choice for an alternative. The results of the interviews are not in line with this expectation. Most investors believe there is no relation between a possible aversion against taking a loss and the choice for an alternative. However, looking at the behaviour of investors, one could say there is a difference between what investors claim and what they actually do. In practice, the alternatives which inherently mean taking a loss are practically never chosen which indicates aversion against these alternatives. However, investors claim this is not due to an aversion against loss on itself but because these alternatives are considered less attractive in a wider perspective. Investors claim, it is not the loss on itself, but, for instance, the lack of

practical feasibility. Yet, taking the scope of the problem into account, at least some investors must get it over with and take action, even when this means taking loss. Practical results of, for instance transformation, show that with a lot of effort and perseverance other, more drastic alternatives are realistic. Although the results indicate loss aversion does not play a role, one can not exclude the importance of loss aversion in the decision making process, as the investors can also be completely unaware of their behaviour.

“Selling in an earlier stage would have been better, as the loss would have been limited”

The results correspond to the expectation in the literature review to some extent. Investors tend to hold on to offices, hoping a tenant will be found. After all, finding a tenant is the best solution. However, for many investors finding a tenant appeared to be unrealistic, resulting in a value drop of the office. Clearly, for most investors being absolutely realistic about the future prospect of their office, resulting in taking a loss in an earlier stage, was a hard decision to make. Apparently, investors prefer to take the chance of waiting for a tenant, sometimes resulting in an even bigger loss in the end. This provides an interesting lead for further study. When one is able to forecast the duration of vacancy, a whole different calculation arises, as the standard is to calculate one year of vacancy. When an investor could be convinced of the large likeliness of a vacancy duration of more than a year, an investor will probably take action in an earlier stage. More realistic information about vacancy duration will accelerate the process of investors taking action, hopefully resulting in substantial numbers of office space that will be taken out of the market.

“Conservatism within our organization affects the choice for an alternative”

The results do not match the expectation in the literature review. The expectation was that for a majority of investors conservatism would determine the choice for an alternative to a large extent. Again, there seems to be a large difference between what investors claim and what they actually do in practice as investors hardly choose for drastic alternatives. Investors however claim this is not related to conservatism, but to the fact that these alternatives are less attractive in a wider perspective. Similar to the alleged aversion against loss, investors claim factors like lack of practical feasibility are mainly due to the fact drastic alternatives are hardly chosen. Again, taking the scope of the problem into consideration, at least some investors must look further than conventional alternatives. Although denied by investors, practice shows investors have ‘cold feet’ and initial resistance to more drastic alternatives. The two respondents for which conservatism does play a role in the choice for an alternative are both investors dealing with shareholders. As seen before, these investors have a strong focus on direct return and tend to avoid risk as much as possible. This attitude goes hand in hand with certain conservatism against more drastic and risky alternatives. The respondent who totally agreed on this proposition is a private investor with a strong focus on buying relatively cheap (vacant) offices. This investor focuses on making profit by finding tenants for vacant offices, which explains the conservative attitude in relation to other alternatives than that.

“The unfamiliarity with alternatives affects the choice for an alternative”

This result does not correspond to the expectation in the literature review. Several investors claim they do know all about the alternatives, yet still do not choose very often for drastic

alternatives. Again, they argue, this is not because of unfamiliarity but because other alternatives appear to be better options. Again, practice shows a completely different reality. Investors seem to suffer from 'cold feet' and initial resistance to more drastic alternatives to a large extent. Another possibility for the great unanimity could be (some) respondents have confused 'unfamiliarity' with 'not knowing'. Obviously, all investors 'know' the alternatives, resulting in a disagreement with the proposition. The respondent who totally agreed on this proposition is again the private investor with a strong focus on buying relatively cheap (partly vacant) offices. His conservative attitude resulted in not having any familiarity with drastic alternatives for this investor.

"Overconfidence within our organization affects the choice for an alternative"

In relation to the expectation in the literature review the following can be concluded. The expectation overconfidence would play a role has come true to some extent. However, the way overconfidence manifests in practice is different than expected. Overconfidence amongst investors does not strengthen their belief in the quality of the office. Most investors that agree on the proposition are overconfident in their ability to approach and solve a vacancy issue in a creative way. This can be either in continuing the office function, but also in the execution of more drastic alternatives like transformation or demolish and rebuild. This means overconfidence manifests more in creativity and entrepreneurship rather than in overconfidence about the quality of the office.

"Emotional and psychological factors affect the choice for an alternative"

The average score of this proposition is 3.4 which is the highest score of all propositions. Apparently, investors judge the individual propositions much lower than the proposition about the average influence of emotional and psychological factors. These results are remarkable. After all, the average influence should more or less reflect the scores on the individual propositions. A possible explanation for this could be that an investor is able to form an idea about an individual proposition. An investor could possibly regard that specific idea as (socially) undesirable and rejects the proposition. However, when thinking about the average influence of emotional and psychological factors an investor is not able to form a specific idea. In that situation, the proposition is more abstract rather than specific, resulting in a thought that emotional and psychological aspects in general are human, resulting in not rejecting the proposition.

5.7 Conclusion

When selecting cases, diversification criteria were used. A distinction between 'old owners' and 'new owners' was made. Also, different types of investors were selected. Out of the total population of investors that met the diversification criteria, the 30 most interesting cases have been selected. Out of this selection, thirteen interviews were held, eleven investors were not willing to cooperate and six investors could not be contacted. The practical results of the case-studies have been discussed using the order of the research questions that followed from the conceptual model. In order to prevent a very lengthy conclusion, the conclusions of the relation between an investor's characteristics, his assessment of the cause of vacancy, alleged emotional and psychological factors and the consideration and choice for an alternative are presented after every sub-paragraph in this chapter. In the next chapter, these results form the foundation for the decision support tool.

6 Decision support tool

6.1 Introduction

In this chapter, a summary of the decision making process about vacancy is discussed and reflected in a schematic overview. Next, the decision support tool is presented. The results of the several interviews, as described in the previous chapter, form the input and foundation for the tool. The set-up of the tool is based on the so-called decision tree model and is explained textually step by step.

6.2 Decision-making process

Based on the analysis of case studies, the decision-making process in relation to vacancy can be divided into three phases: pre-vacancy, expected vacancy and actual vacancy. These three phases are explained textually and presented in a schematic overview of each phase thereafter.

6.2.1 Phase 1: pre-vacancy

Several investors mentioned they have a sort of action-plan, in case of vacancy. The plan is based on a SWOT-analysis and consists of detailed information about the condition of the office and the future expectation of the location and the office market. In fact, an investor tries to foresee what can happen with an office and anticipates to that. Some investors claim to anticipate as much as possible on several alternatives, others have a more 'wait and see' attitude. All in all, one can conclude an investor has at least some thought about the future of an office building. One investor mentioned the importance of thinking of a 'worst case scenario' even before purchasing an office. In case of a disappointing exploitation of the office and persisting vacancy, another scenario can be executed rather easily instead of hoping for a new tenant desperately.

An investor can be confronted with vacancy in two ways. The confrontation with vacancy is either foreseeable or vacancy is unforeseeable. Foreseeable vacancy can occur because of an expiration of a lease contract without continuing the lease agreement. When an investor foresees a lease will expire, firstly the current tenant is consulted. What is the tenant's strategy and expectation for the future? Does the tenant intent to stay? Making a new lease with the sitting tenant has strong preference for all investors. The only exception could be a situation when an investor has specific other plans (like *demolish & rebuild* or *transformation*) for the building, which practically never happens. An investor can also deliberately purchase a (partly) vacant office in a single asset deal. Another possibility of foreseeable vacancy is a (partly) vacant office which comes with a portfolio deal. Adding a specific vacant asset to a portfolio when making a portfolio deal is very often a way for investors to get rid of bad performing assets.

Unforeseeable vacancy can occur in two ways. First of all, a tenant can go bankrupt resulting in premature lease expiration. In this situation an investor could try to get his money from the curator or a possible mother company or liable holding company. In practice, investors will try to get a special clause in the contract for these situations. Another possibility of

unforeseeable vacancy can be a premature cancellation of the contract by the tenant. In this situation a tenant will have a cancellation clause in the contract. Mostly, the tenant can terminate the contract by paying a certain 'fine' which has been agreed upon in the contract.

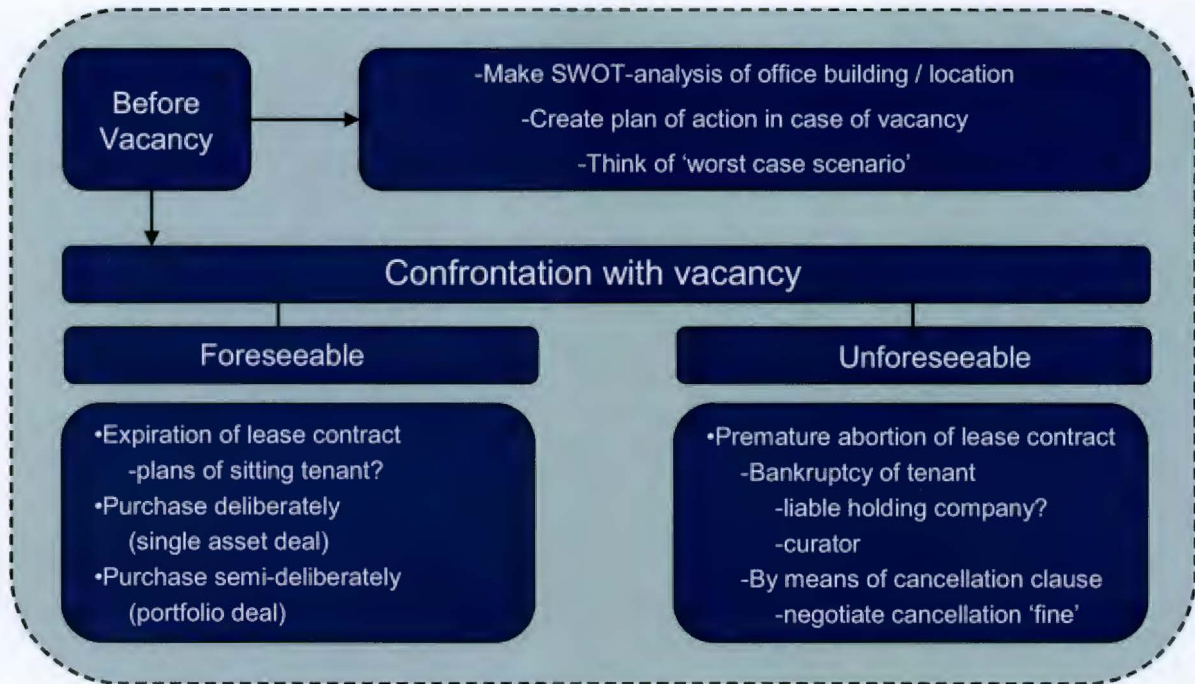


Figure 53: The first phase in the decision-making process: pre-vacancy

6.2.2 Phase 2: expected vacancy

When the sitting tenant decides to move out, an investor starts to look for a new tenant. In most cases, dependant of the contract, this moment is one year before the lease actually expires. Finding a new tenant is mostly done by means of a real estate broker. Most investors prefer to work with one or two of 'the big four' brokers¹⁴. Some investors have strong preference to work with one specific broker in all cases. Other investors choose for one large nationally operating broker combined with a smaller and more locally focussed broker. This is seen as a perfect combination because the different brokers have different networks and clients. Several specific other combinations of large nationally operating brokers and smaller locally operating brokers also came across.

The eagerness of a broker to find a tenant for a structurally vacant office building is seriously doubted by some investors. Reason for this is the fact the office has little or no representativeness or status so it will not improve a broker's track record, nor will it generate a lot of money as the rent is relatively low. Because of these reasons, this kind of offices will in practice have little priority for a broker. For these reasons, several investors mentioned the importance of making sure the broker is getting on with his work.

Some investors will try to accompany the broker and potential tenant during an inspection in order to show the investor's commitment to the potential tenant. Some investors mentioned

¹⁴ The four largest brokers in The Netherlands: DTZ Zadelhoff, Jones Lang LaSalle, Cushman & Wakefield and CB Richard Ellis.

creative marketing as a means to attract tenants. Some investors work out the marketing themselves and others mentioned a long-term relationship with a marketing agency. An example of creative marketing is advertising an office on 'tuk-tuk' cabs that drive around in the city.

As time goes by and no realistic potential tenant is in sight, most investors start to consider other alternatives more seriously. Investors will start thinking about what to do when no tenant is found before the sitting tenant moves out. The consideration process actually starts in the phase of expected vacancy and goes over into the phase of actual vacancy. Because most investors do not seriously consider other alternatives than maintaining and upgrading before actual vacancy occurs, the way investors consider alternatives is discussed in the next phase.

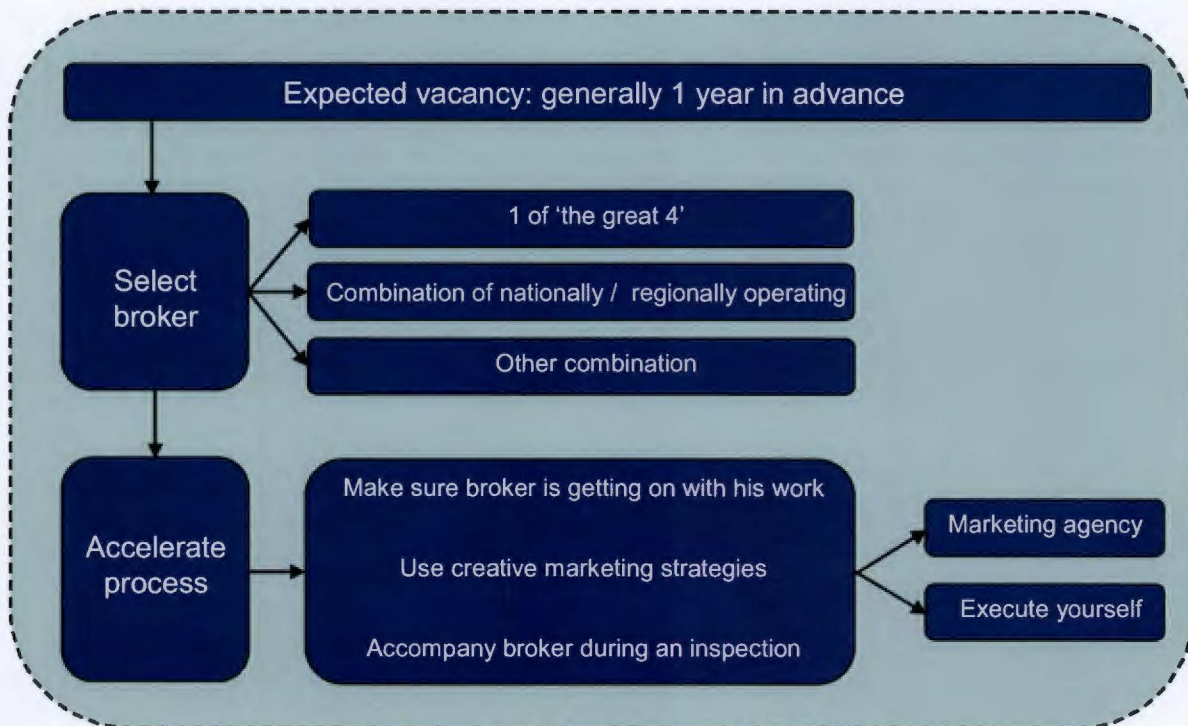


Figure 54: The second phase in the decision-making process: expected vacancy

6.2.3 Phase 3: actual vacancy

Maintain office function

In the phase of actual vacancy, some investors first make another check up of the physical condition of the office. Apparently, the expected condition and the real condition of an office that becomes vacant can differ in practice. Doing so, the plan of action for the office is adjusted to the actual situation. In an early stage of vacancy, most investors prefer to maintain the office function. When an office has become actually vacant, two different approaches can be distinguished. The first group does not invest any (or very little) money in the office, whereas the second group invests in a vacant office at all times.

The first group of investors chooses to maintain the office as little as possible, let alone they consider seriously investing in the office. Some of these investors will choose to maintain one

aspect like the interior, the exterior or the office surroundings like green space and parking space. These investors are demand driven and believe investing money, before a new tenant is found, is a waste of money. The second group of investors tries to maintain all aspects of the office as much as possible. These investors want their office to look properly at all times, in order to give potential tenants a good impression during inspections. One investor admitted he also believed the local municipality and the people living in the neighbourhood appreciated his maintenance very much and he hoped that would pay-out in the future in some way. When needed, these investors will also upgrade or even renovate certain aspects of the office. These investors are supply driven and have a strong focus on outperforming direct competitors (owners of similar vacant offices) by means of maintaining and/or upgrading a vacant office at all times.

In order to accelerate the leasing process, several options were mentioned. Again, making sure the broker is getting on with his work and accompanying the broker during an inspection are good options. The same holds for using creative marketing. In this phase, using an interior designer can help in giving an office a good first impression during an inspection. Another option in this phase of vacancy is to focus on leasing a part of the office. An investor will prefer to have one large tenant (in a single tenant building) or few relatively large tenants (in a multi-tenant building) in his office. However, in case of vacancy there is not much choice for an investor, so he will become less picky.

After one year of vacancy, many investors take action to prevent the office from being squatted. In The Netherlands, squatting real estate which has not been used for over one year is tolerated. For this reason, investors arm themselves with diverse anti-squatting measures like accommodating temporary living facilities or an art-gallery.

When vacancy persists, some investors do feel the need to upgrade the office by means of a 'cosmetic operation'. In practice this cosmetic operation consists of small quality improvements which will give an office a better look. One could think of new carpet, new painting, new ceilings, improve the main entrance, improve the sanitary and improve the kitchen-unit or parking lot. In this phase, some investors still choose only to improve a part of the office. In this way, the investor is able to show a potential tenant what the office will look like after a total upgrade or renovation without having to make the complete investment.

Consideration of other alternatives

In general there is a relation between the duration of vacancy and the consideration of more drastic alternatives. When vacancy becomes more structural, investors will look for solutions more desperately, resulting in the consideration of other alternatives than maintaining the office function (maintaining, upgrading and renovation). Exceptions are investors that claim they always balance out and consider different alternatives.

In this situation investors mainly consider practicable alternatives and alternatives that look realistic at first sight. If an investor is not able to execute a drastic alternative himself, or does not have any experience with that alternative, selling the asset comes in sight rather quickly. However, for most investors, selling is only an option when no substantial loss has to be made. This often results in a conflicting situation.

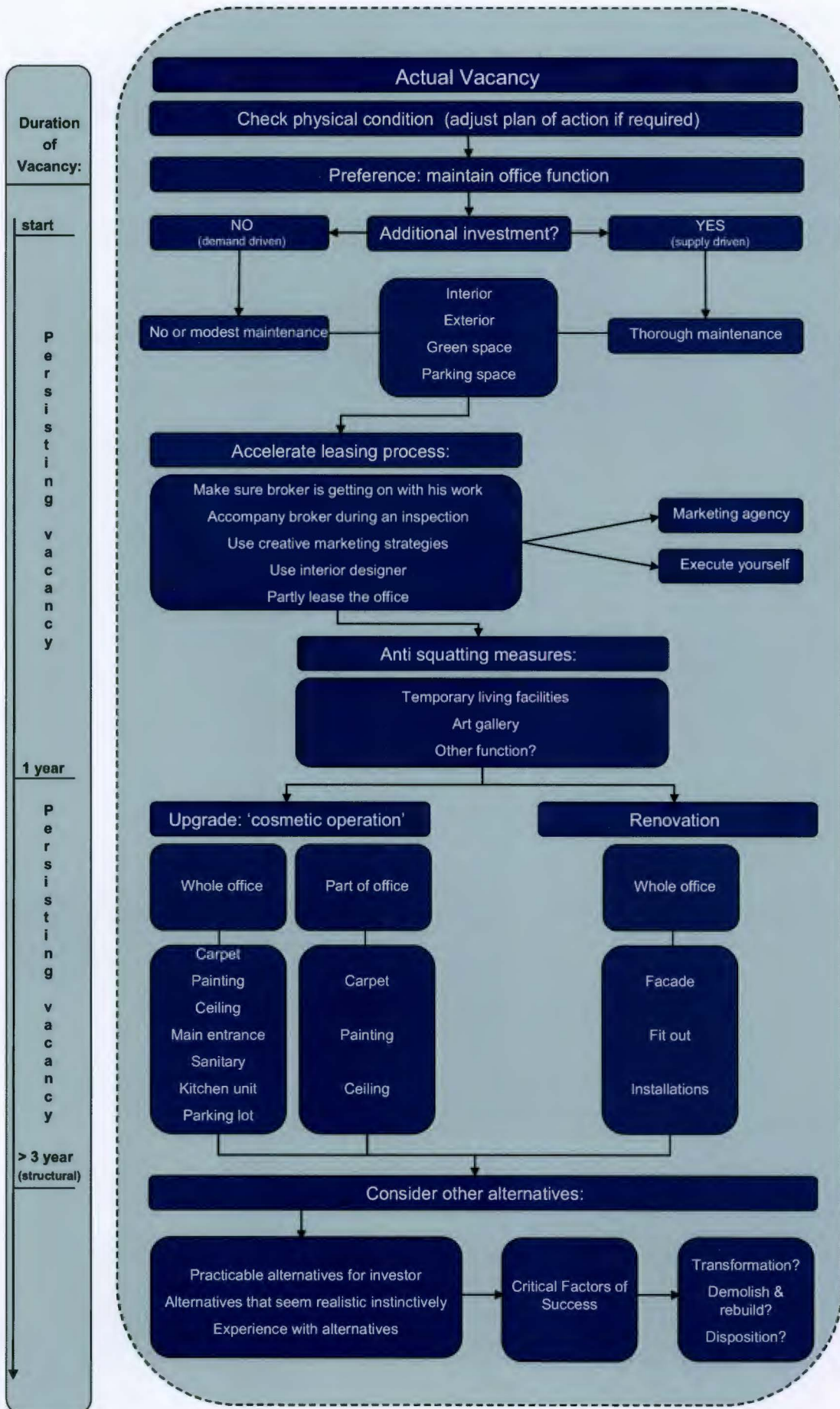


Figure 55: The third phase in the decision-making process: actual vacancy

6.3 Decision support tool

The analysis of 13 cases, as written out in chapter five 'case studies', combined with information from the literature review form the foundation of the decision support tool. The tool has been worked out digitally in 'Microsoft Office Excel' and is found on the enclosed CD-rom. The tool can be used for any vacant office in any stage of vacancy (pre-vacancy, expected vacancy and actual vacancy). However, as seen in paragraph 6.2 'decision-making process', most investors will only start considering more drastic alternatives after two years of persisting vacancy. The tool is meant to be used by real estate advisors as they will be able to judge more objectively than the actual owner of a vacant office.

Decision tree model

As seen in chapter two, the most important aspects for choosing an alternative are the quality of the location and the quality of the building. When a certain location is no longer attractive for office organizations, one should not try to continue the office function for example; let alone, one should make a large investment aiming at continuing the office function. The location quality and building quality determine the best possible alternative to deal with vacancy to a large extent. For this reason, the basis of the tool is formed by questions about the assessment of the location quality (step 1) and assessment of the building quality (step 2). The quality of the location is judged on the four most important location characteristics that affect the attractiveness of locations. Based on this judgment, the tool provides an advice. The quality is either good or bad. Next step is judging the quality of the building. Again, the quality is either good or bad and the tool provides an advice based on the judgment of the four most important building characteristics. After that, the question of whether or not an investor is willing to make an additional investment is important. Basically, this results into four scenarios:

- good location / good office
- good location / bad office
- bad location / good office
- bad location / bad office

Good location / good office

When the quality of both the office and the location is good, and the investor is not willing to make an additional investment, best thing to do is to maintain the office. Both the office and its location are good after all, so finding a tenant should be a matter of time. If the investor is willing to make an additional investment he could upgrade the office. Giving the office a small upgrade, will probably accelerate the leasing process and win tenants over more quickly. If these alternatives are not satisfying, or in conflict with the critical factors of success (C.F.S.) presented in figure 52, the investor should consider selling the office.

Good location / bad office

When the quality of the office is bad and the investor is not willing to make an additional investment, best thing to do is selling the office. Finding a tenant in the current situation will be practically impossible after all. If the investor is willing to make an additional investment, the next question is whether or not the investor is willing to take a loss on book-value. If the investor is not willing to take a loss, best thing to do is renovation. If the investor is willing to take a loss, best thing to do is to demolish the old office and replace it by a new office. If these alternatives are not satisfying, or in conflict with the critical factors of success, the investor should consider selling the office.

Bad location / good office

If the location of an office is not attractive for office organizations, yet the quality of the office does meet market demand standards the best thing to do is maintaining or upgrading. Although the location is not attractive, the loss on book-value will be too big when the function is changed or the office is demolished. Yet, an investor should prevent making large investments, as they will probably not be profitable in the long run. If the investor is willing to make an additional investment, he should consider giving the office an upgrade in order to win a potential tenant over. If the investor is not willing to make an additional investment, maintaining and waiting to find a tenant is probably the best thing to do. If these alternatives are not satisfying, or in conflict with the critical factors of success, the investor should consider selling the office.

Bad location / bad office

When the location is unattractive for office organizations and the office quality is bad, an investor should consider drastic measures. If the investor is not willing to make an additional investment, there will be little hope to find a tenant and selling the office will be the best thing to do. In the situation an investor is willing to make an additional investment, yet not to take a loss on book-value he should also consider selling the office. Investing in the office, whilst keeping its function is a waste of money after all. When the investor is willing to take a loss on book-value, he can either choose for transformation or for demolish & rebuild. The best option in this situation depends on several factors. The answer is found by matching the situation with the critical factors of success for each alternative. If these alternatives are not satisfying, or in conflict with the critical factors of success, the investor should consider selling the office.

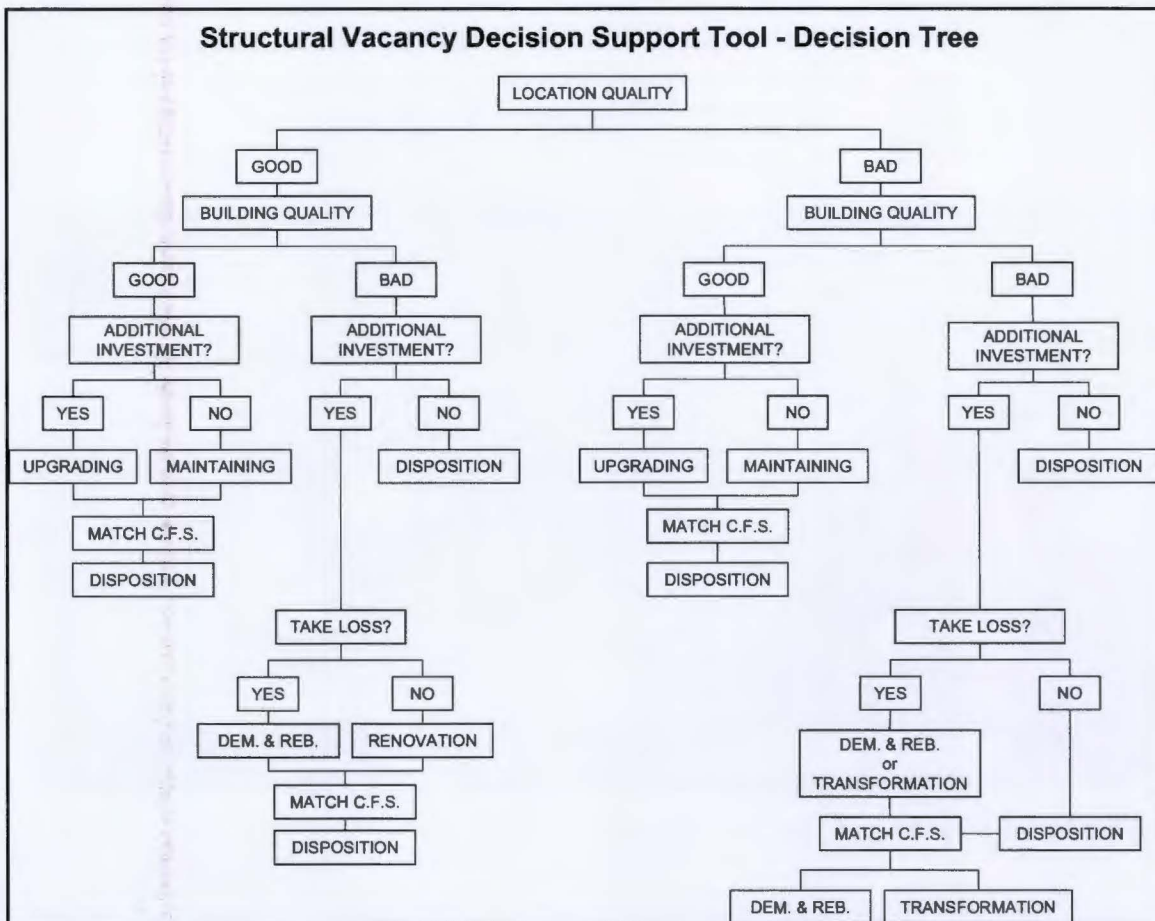


Figure 56: Decision tree of the tool

Tool

The working method of the tool and the way one should navigate through the steps in the tool is described in the introduction sheet. The introduction sheet is seen in figure 57.

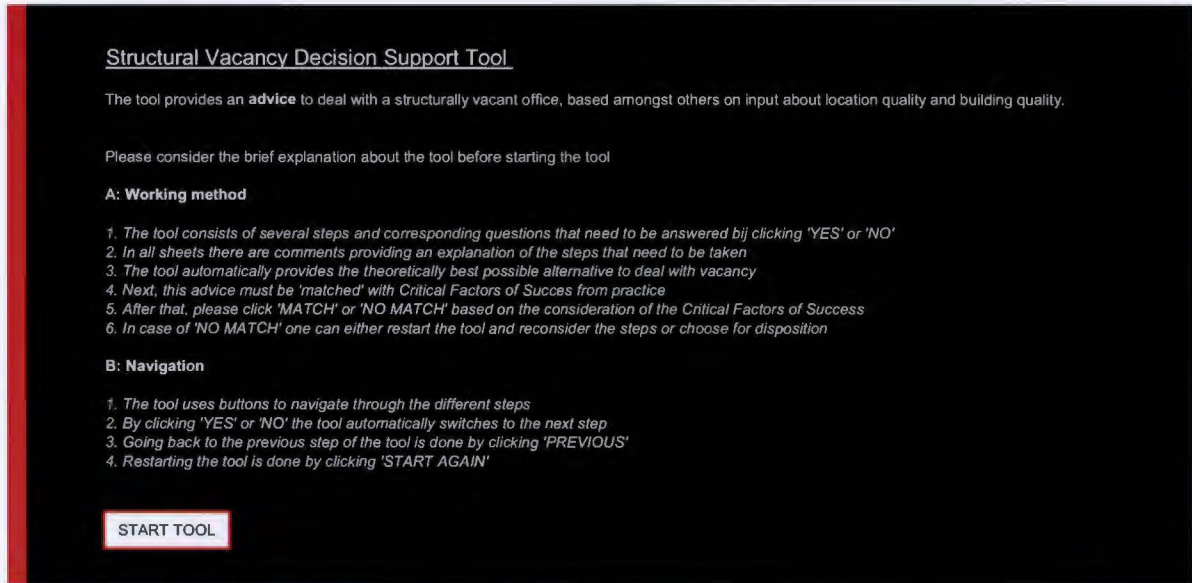


Figure 57: Introduction sheet of decision support tool

The first step of the tool is the judgement of the location quality. The location quality is judged on the four most important aspects in a similar way as in the interviews. In the upper right corner of cells, an explanation is given about a specific quality and how to rate them. The first step of the tool is seen in figure 58. The building quality (step 2) is measured in the same way as the location quality, using the most important aspects as used in the interview.

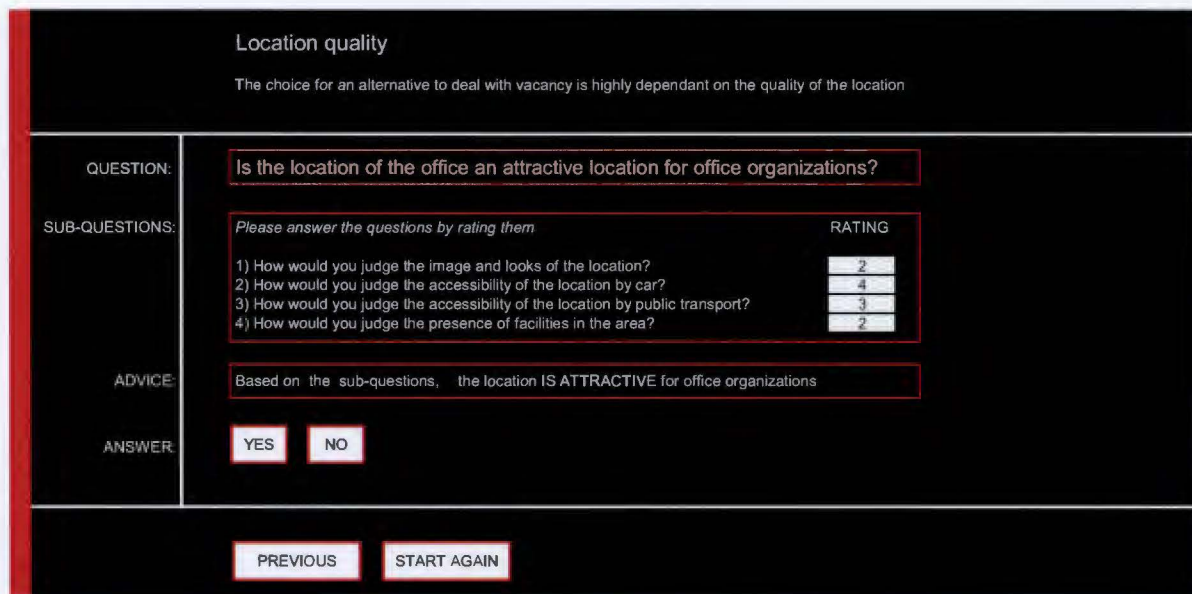


Figure 58: Step 1 of decision support tool: location quality

The alternatives have different consequences for an investor. The most important consequences of the different alternatives have also been described in chapter two. These are the question of whether or not an investor is willing to make an additional investment (step 3) and whether or not the investor is willing to take a loss on book value (step 4). These two questions follow the questions about location quality and building quality.

Based on these four factors of input, the tool provides an advice about the (theoretically) best possible alternative to deal with vacancy. Obviously every single vacant office is unique, whereas the tool provides a general advice. Therefore, the advice should be regarded as guiding, rather than the solution for a structurally vacant office. Instead of telling an investor what to do, it gives an indication about the direction in which an investor can think. After all, the theoretically best possible alternative is not necessarily the most practical and/or financially most attractive alternative for an investor. In order to create a link with the practical matters which have been outlined by investors during the interviews, a list of critical factors of success for each alternative (see figure 52) is presented in the tool. These critical factors of success should be taken into consideration (step 5) by an investor before actually choosing an alternative.

Best possible alternative	
The best possible alternative in this situation is shown below	
ADVICE:	The best possible alternative to deal with vacancy is: RENOVATION
MATCH WITH C.F.S.:	<p>Please consider the practical critical factors of succes for this alternative:</p> <ul style="list-style-type: none"> -Location is highly attractive for office organizations -Investment does not exceed 30% of the value of the property -Office clearly lacks certain indisputable improvable qualities -Investment is in proportion to the quality improvement -Rent is in proportion to the additional investment -No building improvements that are dependant on taste of tenant -Finding a tenant is realistic
MATCH / NO MATCH?	<input type="button" value="MATCH"/> <input type="button" value="NO MATCH"/>
<input type="button" value="PREVIOUS"/> <input type="button" value="START AGAIN"/>	

Figure 59: Step 5 of decision support tool: match with critical factors of success

6.4 Testing

Important aspects are the practicability and usefulness of the tool. People who are not completely familiar with the structural vacancy issue and do not have experience in using the tool must be able to use it easily. Last but not least, the tool must in all cases provide a proper advice, leading into the right direction of the best way to deal with vacancy in a particular case.

The final version of the tool has been tested by several colleagues of Jones Lang LaSalle. The tool proved to be very practicable and easy to use. The explanation on the introduction sheet, in combination with the additional explanation by means of comments, appeared to be sufficient to understand the working method of the tool. The tool was also tested on two vacant offices for which an investor appeared to have already chosen an alternative. Doing so, one could see in retrospect whether or not the chosen alternative matched the given advice by the tool. For one office, the advice provided by the tool (upgrading) matched the chosen alternative by the investor. The office was located at a good location, yet the office lacked some functional qualities. The investor was willing to make an additional investment, yet not to take a loss on book-value, resulting in an advice to give the office an upgrade. Apparently, the investor has had a similar thought. For the other office the investor had chosen for renovation, whereas according to the tool disposition would theoretically have been a better choice. This 'mismatch' emphasizes a drawback of the tool. As mentioned before, the theoretically best possible alternative will not be in all cases the most attractive (financially and practically) alternative. For instance in this case, the location was not attractive for office organizations so aiming at other functions by means of transformation or demolish and rebuild would be the best option according to the tool. However, the investor was not willing to write off book-value, resulting in an advice to dispose the office. Yet, in this case, disposing the office also meant taking a large loss. For this reason, the investor chose to renovate the office, probably against his better judgement, and hoped to find a tenant.

The tool has opportunities to be build out to a larger and more specific version. Extra steps can be built in easily by adding extra options. When required, a different method to measure the location quality and building quality can be used instead of the current method.

6.5 Conclusion

In this chapter, the three phases in the decision-making process of investors dealing with vacancy in office buildings has been described. These three phases are: 'pre-vacancy', 'expected vacancy' and 'actual vacancy'. The decision-making process of each phase is thoroughly described and the different steps are presented in a schematic overview. In addition, the decision support tool was presented and the five different steps of the tool were discussed. The working method and applicability of the tool are explained as well.

7 Conclusions & recommendations

7.1 Introduction

At the beginning of this thesis the following objective definition was formulated:

Developing a decision-support tool, that can be used to determine the best possible alternative for a real estate investor to deal with structural vacancy in an office building.

This objective has been achieved successfully. Based on literature review on the one hand, and practical information obtained from 13 case studies on the other hand, a decision support tool was developed. The tool can be put to use in situations of (structural) vacancy in office buildings and provides an advice of the theoretically best possible alternative to deal with vacancy. In this chapter the most important conclusions are drawn and recommendations for further study are given.

7.2 Conclusions

7.2.1 Conclusions literature review

This paragraph answers the five sub-questions that have been examined in the literature review part of the thesis.

- *What is structural vacancy, what are its causes and when does vacancy become an issue?*

Vacancy is completed office floorspace offered on the open market for leasing or sale, vacant for immediate occupation on the survey date, within a market (Jones Lang LaSalle 2000). Structural vacancy is referred to when office floorspace has been offered in the market for at least three years.

Technically speaking, the reason for vacancy is the fact that there is more supply of office space than there is demand for office space in the market. This creates a buyers-market: a situation in which users of office space can choose between many housing options and have strong negotiating power. Reasons for vacancy can be classified into three groups: the *economic trend*, *location characteristics* and *building characteristics*.

To some extent vacancy is accepted as it creates a certain dynamic in the market. This dynamic enables organizations to move efficiently. A normal vacancy rate lies around 6 percent. The current situation, with vacancy rates in some cities between 10 and 15 percent is far from healthy. Vacancy is especially problematic when its main cause is lack of location quality as this is barely changeable. The direct negative consequences of vacancy are mainly financial and affects the investor. In the long run, vacancy also has negative consequences for the society as it accelerates the degeneration of an area.

- *What are the most important building and location characteristics in relation to the lettability of offices?*

The lettability of offices is highly dependant on the quality of the office building and the quality of the location of the office. The four most important building qualities that affect the lettability of an office are: image & looks, flexibility, technical specifications and parking space. The four most important location qualities that affect the lettability of an office are: image & looks, accessibility by car, accessibility by public transport and the presence of facilities in the area.

- *What different types of investors can be distinguished in the Netherlands?*

Generally speaking, investors are divided into institutional investors, private investors and real estate funds. An institutional investor is a professional organization that manages the capital of its participants. In general, two types of institutional investors are distinguished: pension funds and insurance companies. A private investor is a natural person or group of natural persons organized in a legal entity who invest private money in real estate in order to establish a certain return on their investment in the future. A real estate investment fund is an organization that has as core business to invest money in real estate in order to get an as high as possible return for their shareholders.

- *What alternatives to deal with structural vacancy can be distinguished?*

In this study, six possible alternatives that an investor has in order to deal with vacancy have been examined. These six alternatives are:

- Maintaining
- Disposition
- Upgrading
- Renovation
- Transformation
- Demolish & rebuild

These alternatives can be separated into four active alternatives and two passive alternatives. The first passive alternative is *maintaining* the office in its current function and condition. The second passive alternative is *disposing* the office in its current function and condition. When maintaining or selling the office, no additional investments in order to improve the buildings technical, visual and functional quality are made. The active alternatives are *upgrading*, *renovation*, *transformation* and *demolish & rebuild*. The active alternatives represent a physical action and can be separated into a level of gradation. From top to bottom, the one active option is more drastic than the other. When upgrading or renovating an office, an additional investment in order to improve the buildings technical, visual and functional quality is made. Renovation is a more drastic an integral approach than upgrading. Upgrading is often considered as a 'cosmetic operation'. Transformation refers to the action in which a (functionally) obsolete office is given a new use. Demolish and rebuild refers to the action in which a (functionally) obsolete office is demolished and a new development is established on the land. It must be stated that these alternatives are options for the investor, rather than actual

solutions for the problem. For instance, when an investor sells his structurally vacant asset the problem is not solved but shifted to a new owner.

- *What factors influence the consideration and choice of an investor for the different alternatives?*

The consideration and choice for an alternative depends on three main factors. These three factors form the independent variables in the conceptual model of the study. The relation between these factors and an investor's consideration and choice for an alternative was examined in the practical part of the thesis.

First of all the characteristics of an investor are likely to affect the consideration and choice for an alternative. The characteristics of an investor that are important in the decision-making process are the type of legal entity of an investor, the portfolio management and the asset management of the investor.

Secondly, the investor's assessment of the cause of vacancy plays an important role in the decision-making process. As the feasibility of alternatives is related to the cause of vacancy, the cause of vacancy is also an indicator for the direction of the best possible alternative to deal with vacancy. In practice, the investor's perception of the cause of vacancy will play an important role in the decision-making process.

Lastly, emotional and psychological aspects of an investor are expected to be important in the decision-making process. Especially as the structural vacancy issue involves decision making under uncertainty. Investors dealing with structural vacancy operate in an area of tension between the expected duration of vacancy (the development of the market) and the risk and return of alternatives to deal with vacancy.

7.2.2 Conclusions practical analysis

In this paragraph the sub-questions that were set up and examined in the practical part of the thesis are answered.

- *What is the relationship between an investor's characteristics and his consideration & choice for alternatives?*

The legal entity of an investor has an implication on the possibility to choose for alternatives. A public limited company is only able to execute a transformation and a new development by means of a taxable daughter company or a third party.

The larger a real estate portfolio, the less impact a decision on building level will have on the preferred balance in the portfolio. This means decisions on building level are more important for smaller investors. However, portfolio management will never be decisive in decisions concerning individual buildings. Large (institutional) investors have a policy to keep the portfolio rather young, resulting in early replacement of older offices by newer ones. In practice, a young portfolio results in the fact institutional investors are ahead of structural vacancy issues very often. These investors will therefore do not have any experience with drastic alternatives.

Private investors appeared to be less risk averse than institutional investors. This means private investors are more likely to consider drastic alternatives than institutional investors. Private investors can be more decisive and dynamic in the decision-making process about vacancy as they are not, or less restricted by organization policy, rules and responsibility to shareholders than institutional investors and real estate funds. Some private investors will deliberately purchase a (partly) vacant office speculating on finding a tenant, resulting in a high return.

- *What is the relationship between an investor's assessment of the cause of vacancy and his consideration & choice for alternatives?*

There seems to be no relation between the willingness of an investor to invest in a vacant office and his assessment of the market situation. In practice, the willingness to invest depends on whether or not a new tenant is found. Regardless from the cause of vacancy, investors prefer to continue the office function and keep looking for a tenant as this is always most financially attractive. There is a relation between the duration of vacancy and the consideration of alternatives. Most investors will simply not consider other alternatives than continuing the office function (maintaining, upgrading and renovation) before approximately two years of vacancy or when a situation has become completely prospectless.

When the main cause of vacancy is addressed to the situation in the office market, an investor will always choose to maintain the office function. Attracting tenants is done by means of giving incentives and/or upgrading the office quality.

When the main cause of vacancy is addressed to a lack of building quality, an investor also prefers to maintain the office function. In this situation upgrading or renovating the office are preferred options. Some investors will upgrade or renovate the office before a new tenant is found. Other investors will only improve the office quality under the condition a new tenant is found.

When the unattractiveness of the location of the office is regarded as the most important cause of vacancy investors still focus on maintaining the office function. Even though this is more or less a prospectless situation, an investor will desperately look for a tenant. Clearly, investors are very reluctant to choose for a drastic alternative like transformation or demolish & rebuild. Reasons for this are mainly due to lack of financial and practical feasibility, according to investors.

- *What is the relationship between the emotional and psychological aspects of an investor and his consideration & choice for alternatives?*

Investors believe their decision-making process relating vacancy is rational to a large extent. The majority of the examined emotional and psychological factors do not affect the choice for an alternative. There are three factors that do seem to affect an investor's consideration and choice for alternatives.

First of all, optimism about the situation on the office market seems to affect the choice for an alternative. As investors prefer to continue the office function, being optimistic about the office market justifies their choice to keep waiting for a tenant.

Secondly, overconfidence amongst investors seems to affect the choice for an alternative. Investors are overconfident about their entrepreneurial skills and their ability to reduce vacancy in a creative way. This holds for investors who do not step back for more drastic alternatives like transformation but also for investors choosing to continue the office function.

Lastly, investors indicated selling the office in an earlier stage would have been better (disposition effect). Apparently, looking back investors believe that taking a relatively small loss in an early stage was preferable over continuing the office function and desperately looking for a tenant. This indicates investors should consider other alternatives than continuing the office function in an earlier stage in the future.

- *Consideration & choice for alternatives*

Of all thirteen cases, nine investors chose to maintain the office in its current condition. One investor chose to give the office an upgrade and three investors renovated the office. The results resemble the reserved, risk-avoiding attitude of investors in practice. Also, the strong preference to maintain the office function and to prevent making an additional investment to improve an office's quality is emphasized by these results. The specific choice of investors in these cases is also a reflection of the average choice for alternatives in general. All choices of the investors relating vacancy in the past are, on average, distributed over the alternatives as follows: maintaining 33%, upgrading 30%, renovation 16%, disposition 11%, transformation 7%, demolish & rebuild 3%.

In answer to the question to what extent the decision-making process of investors is rational, the following can be concluded. Every investor has his own way of comparing and balancing out alternatives. Also, the way decisions are made and procedures have to be followed differs from the one investor to the other. Some investors use financial models and analysis tools, others act more intuitively. Generally speaking, the decision-making process of large (institutional) investors is more structured and professionalized than the decision-making process of smaller (private) investors. Also, larger investors will generally have more restrictions and regulations which make them less dynamic and decisive in the decision-making process relating vacancy.

7.3 Recommendations

This paragraph discusses a list of recommendations for further study into the subject.

- The decision-making process of investors has been explored in this study by means of 13 case studies. Several possible relations and leads have come up. The found relations and leads should be subject to more in-dept study. It is also recommended that more respondents are involved in order to be able to execute a statistical analysis and draw better founded conclusions. This could for instance be done by means of a survey.
- This study has tried to examine differences between types of investors as well as between 'new owners' and 'old owners'. However, due to the limitation of 13 interviews comprising only one 'new owner' and few different types of investors, the value of these results is very limited, let alone one could generalize the results.

Therefore, it is recommended to study specific differences in the decision-making process between types of investors and 'new owners' and 'old owners' more closely.

- The results indicate that the cause of vacancy is mainly due to the market situation. After that, the lack of location quality and lastly the lack of building quality are regarded as important in the cause of vacancy according to the investors. Is the problem really caused by the market only, or is the problem also caused by the wrong perception that an investor had of the market? In other words: has the investor made an unfortunate choice considering the market situation at that time or has he made a miscalculation because of a cognitive bias? In order to be able to answer this question, it is recommended to study the cause of vacancy more closely. In addition, more study into the specific characteristics of structurally vacant objects (for instance the offices in the selection of this study) is recommended.
- Concerning the emotional and psychological factors there is a high risk of social desirable answers amongst investors. For this reason, it is recommended to conduct a practical experiment in order to determine certain irrational behaviour and to make investors aware of that possible irrational behaviour. Especially the anomalies that have shown to be of significant importance (optimism, overconfidence and disposition effect) in the decision-making process should be examined.
- Another possibility could be that investors are just unaware of certain aspects of their behaviour in the decision-making process relating vacancy. This means one can not exclude the importance of anomalies that seemed to be of minor or no importance in this study. If an investor is not aware of certain behaviour, he is also unable to point out that behaviour after all. For this reason, also the anomalies that appeared not to play an important role in the decision-making process should be examined more thoroughly by means of practical experiments.
- When a certain irrational behaviour in the decision-making process of investors has been determined, the next step is to find out the consequences of that particular behaviour. An interesting question to answer is whether the consequence of a certain anomaly is positive or negative. Also how often a certain anomaly occurs in practice and its impact is interesting for further study.
- The fact investors indicated it would have been better to sell the office in an earlier stage is an example of a negative consequence of the endowment effect. This provides an interesting lead for further study. If one is able to give a good indication of the realistic duration of vacancy, an investor's calculation will look a lot different. The vacancy duration is the crux in these calculations. One year of vacancy is usually the standard, without making a proper expectation about the realistic duration of vacancy. Having a realistic expectation of the vacancy duration will result in a more realistic comparison of alternatives. Further study to the variables that determine the duration of vacancy is desired. A 'vacancy-duration-tool' would be a good addition to the decision support tool. Being able to forecast the duration of vacancy will convince investors of the prospectless situation of his office and motivates him to take serious action in an earlier stage in the future. In other words: the 'mistake' that was made this time can be prevented the next time.

- The decision support tool could be build out to a larger and more specific version by adding extra steps and options. Currently the location quality and building quality are measured by means of a rating of the four most important qualities. This method could be replaced by a different method to measure the location quality and building quality. Practical feasibility is accounted for by providing a list of critical factors of success. These factors are presented in order to be taken into consideration. These factors could be made more explicit and decisive, for instance by using veto-criteria concerning feasibility. Also, options when a '50% match' or '75% match' occurs could be build into the tool. Lastly, an integration of different market situations could be added.
- Many investors showed to be rather conservative and to have initial resistance to choosing for more drastic alternatives. In contrary to investors who are conservative and reserved with drastic alternatives stand investors who are not. Certain overconfidence in their ability to execute these alternatives amongst this group of investors was observed in the study. It will be interesting to study to what extent the last group of investors has been successful. Practical proof of the success of these investors could take away the resistance amongst other investors.

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Consulted persons

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Daemen, F.P.	General Manager, FGH Asset Management
Norren, H. van	Portfoliomanager, Cortona
Remøy, H.T.	Co-author “transformatie van kantoorgebouwen”, specialized in structural vacancy and transformation. Delft University of Technology
Voordt, D.J.M. van der	University Professor, Delft University of Technology. Co-author “transformatie van kantoorgebouwen”.

Interview respondents

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Bremmer, P.	Kroonenberg
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Hack, F.	Fortress
Heijnen, S.P.M.	Altera Vastgoed
Jansen, A.A.	Fortis Vastgoed
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Verploegen, J.M.C.	Jovi Investments
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Appendix I - Building qualities & location qualities

This appendix explains the four most important building qualities and four most important location qualities as found in several studies and discussed with Jones Lang LaSalle colleagues more extensively. For every aspect a couple of examples are given.

Building qualities

Image & looks

Office buildings are more appreciated in the market when their physical appearance is better. A business leasing an office is associated with the image & looks of the office building. For this reason, modern businesses are looking for representative offices that reflect their culture and identity. For example high quality materials, architectural design, an outstanding main entrance and modern facades can contribute to a high quality appearance and image.

Flexibility

Companies change and thus their specific need for office space and how they would like to use that space changes. Also, an office's tenant can change several times during the exploitation period, which inherently means changing needs and standards. For this reason it is important for a high quality office building to be flexible in many ways. First of all, so-called 'vertical flexibility' is important. The larger the distance between two floors, the more space for the data-zone, the living area and the installation zone between those floors. Secondly, horizontal flexibility relating to windows modularity determines the layout possibilities of the work floor. Other qualitative flexibility aspects are the amount of support structure (layout flexibility) and the possibility to use walls, doors and ceilings elsewhere in the building. The layout and size of the floor plan are important to users of office space. The floor plan determines the way an office can be arranged. The best size for a floor plan is between 750 and 1500 square meters gross floor area. This size fits most office firms and enables an office firm to arrange the floor plan flexibly. Also the positioning of elevators and staircases can contribute to the maximization of the use of space

Technical specifications

The quality of the building specification refers to the quality of the buildings finishes and the quality of installations. The buildings finishes comprises the quality of finishing of, for example, the working area, the reception desk, the kitchen and toilet space. The quality of installations refers to technical installations like air-conditioning, elevators, intercom and other installations concerning electronics and safety.

Parking space

As the majority of today's mobility, and especially business mobility, is still car mobility, parking space is an important aspect for an office building. Public parking as well as on-site private parking is very important for office buildings. Public parking lots should be available around the office within a distance of 200 meter. On-site parking, preferably underground parking is considered high quality when a parking ratio of 1 parking space per 50-100 square meters gross floor area of office space can be established.

Location qualities

Image & looks

Office locations are more appreciated in the market when their physical appearance is better. A business leasing an office on a specific office location is associated with the image & looks of that location. For this reason, modern businesses are looking for locations that reflect their culture and identity. In practice, companies like to rent offices on locations where other well-known companies are located as well. This means the representativeness and image are important characteristics for a location. Locations which locate large international companies are very attractive. Also the quality of landscaping and amount of planted area, water and lawns is important for a location. It must be stated that this is highly dependant on the type of organization and economic sector.

Accessibility by car / accessibility by public transport

The accessibility of offices is important for the employees in the office as well as for visitors. In today's dynamic economy time is costly and qualitative office locations are locations with outstanding accessibility characteristics. Accessibility is important on two levels: car and public transport. High quality car accessibility is referred to when an office is located within 1 kilometre of a highway exit. Also there must be no bottle necks like traffic jams, bridges or railway crossings that affect travel-time negatively. For as far as public transport is concerned, the proximity to a public transport station is important. The closer an office is located to an airport, railway station, metro station, tram stop or bus stop the better.

Facilities

For office employees it is important to have all kinds of facilities in the area. Facilities create vivid areas with large social dynamics. For example, in order to be able to do shopping for every day needs but also for having a business lunch or diner, facilities are needed. When facilities are close to an office people have the possibility to go out and do what they need without losing a lot of time. Important facilities for an office location are shops for more or less every day needs (kiosk, supermarket, dry-cleaner, flower shop), hotels, banks, post office and recreational facilities like a restaurant or gym.

Appendix II – Types of investors

This appendix provides the general classification of investors by Jones Lang LaSalle.

Investor Type	
<u>“Institution”</u>	Insurance companies, pension funds, banks or finance companies. E.g. Government of Singapore Investment Corporation (GIC), CDP/Quebec, Calpers. This is a fast dwindling group as most investors who used to classify themselves as 'Institutions' are now 'Investment or Fund Managers' such as PruPIM, SWIP etc and now invest on behalf of third parties as well as their captive funds.
<u>“Listed REITs”</u>	Listed trusts (Real Estate investment trusts) and other “REIT-type” listed property vehicles such as LPT's, JREIT's etc. A 'listed fund' is listed on an exchange. The fund price is therefore set by the market, NOT by the fund manager.
<u>“Unlisted”</u>	Unlisted vehicles, venture funds, fund managers and syndicated property trusts. Includes unlisted open- and closed-ended indirect vehicles, such as German Open and closed-Ended Funds (DIFA, DEKA etc) private equity (e.g. Blackstone, Whitehall etc), hedge funds, unlisted REITs and bank-sponsored funds (MSREF, UBS etc). Investment / Fund Managers e.g. LIM, ING, IXIS AEW, RREEF.
<u>“Corporate”</u>	Companies that are not in the business of owning property – other than as ‘owner occupiers’.
<u>Listed Developers/Property Companies</u>	Listed property companies (not property trusts or REITs) e.g. British Land, Hammerson, Hong Kong Land, IVG etc
<u>Unlisted Developers/Property Companies</u>	Unlisted property companies (not property trusts or REITs) e.g. Kenmore, Heron, HRO, London & Regional, Topland
<u>“Hotel Owner / Operator”</u>	
<u>“Government”</u>	All tiers of government, local, state, regional, federal etc.
<u>“Non-Profit Organisation”</u>	Typically charity organisations such as Salvation Army, UNICEF etc.
<u>“Private”</u>	Private individual investors, syndicates and private companies that are not property companies. E.g. Abu Dhabi Royal Family, Pears Group, Quinlan, Warren Private.
<u>“Unknown”</u>	To be used only if all other means of classifying company have been exhausted. Should be used for less than 5 % of cases.

Source: Jones Lang LaSalle; *European property data definitions*.

Appendix III - Operationalization schedule

Variable / factor	If factor: variables	Level of measurement	Item	Description
Characteristics of investor				
Legal entity		nominal	REIT / BV / NV / CV / Maatschap	
Portfolio details	Number of objects	ratio	... objects	
	Investment value	ratio	... million euro's	
	Real estate category	Interval	% of office / industrial / retail / residential	
	Quality of real estate	interval	scale (3)	A / B / C
Risk attitude		interval	scale (3)	core / value added / opportunistic
Performance measurement		nominal	yes / no	
Portfolio management		nominal	Open question	Influence of portfolio management on decisions on building level
Choice for alternative	Theoretically possible	nominal	alternatives	Maintaining / Upgrading / Renovation / Transformation / Demolish & rebuild / Disposition
Assessment of cause of vacancy				
Location quality	Image & looks	ordinal	scale (5)	very good / good / neutral / bad / very bad
	Accessibility by car	ordinal	scale (5)	very good / good / neutral / bad / very bad
	Accessibility by public transport	ordinal	scale (5)	very good / good / neutral / bad / very bad
	Facilities	ordinal	scale (5)	very good / good / neutral / bad / very bad
	Overall Location Quality	ratio	mark	1/2/3/4/5/6/7/8/9/10
Building quality	Image & looks	ordinal	scale (5)	very good / good / neutral / bad / very bad
	Flexibility	ordinal	scale (5)	very good / good / neutral / bad / very bad
	Technical specifications	ordinal	scale (5)	very good / good / neutral / bad / very bad
	Parking space	ordinal	scale (5)	very good / good / neutral / bad / very bad
	Overall Building Quality	ratio	mark	1/2/3/4/5/6/7/8/9/10
Market situation	Office rent in rel. to investment	ordinal	scale (5)	very good / good / neutral / bad / very bad
	Willingness for investment	ordinal	scale (5)	very good / good / neutral / bad / very bad
	Will vacancy be reduced?	ordinal	scale (5)	very good / good / neutral / bad / very bad
	Overall market situation	ratio	mark	1/2/3/4/5/6/7/8/9/10
Emotional & psychological aspects				
Image		ordinal	scale (5)	totally agree / agree / neutral / disagree / totally disagree
Optimism		ordinal	scale (5)	totally agree / agree / neutral / disagree / totally disagree
Personal ego		ordinal	scale (5)	totally agree / agree / neutral / disagree / totally disagree
Loss aversion		ordinal	scale (5)	totally agree / agree / neutral / disagree / totally disagree
Disposition effect		ordinal	scale (5)	totally agree / agree / neutral / disagree / totally disagree
Conservatism		ordinal	scale (5)	totally agree / agree / neutral / disagree / totally disagree
Unfamiliarity		ordinal	scale (5)	totally agree / agree / neutral / disagree / totally disagree
Endowment effect		ordinal	scale (5)	totally agree / agree / neutral / disagree / totally disagree

Overconfidence		ordinal	scale (5)	totally agree / agree / neutral / disagree / totally disagree
	Overall Emotional & Psychological aspects	ratio	mark	1/2/3/4/5/6/7/8/9/10
Choice & consideration for alternative				
Procedure / protocol		nominal	open question	
Compare alternatives		nominal	open question	
Preferred order		nominal	open question	
Specific choice		nominal	alternatives	Maintaining / Upgrading / Renovation / Transformation / Demolish & rebuild / Disposition
Average choice in practice		Interval	% alternatives	Maintaining / Upgrading / Renovation / Transformation / Demolish & rebuild / Disposition
Comments?		nominal	open question	

Appendix IV - Test interviews

Test interviews

In order to create the final interview first the interview set-up was discussed with two professionals in real estate asset-management. In this way the first version of the interview was discussed thoroughly and criticized by professionals with experience in real estate asset management.

The first test interview was held with H. van Norren MSc on July 4th 2007. Mr van Norren is a junior asset-manager and works for private investor *Cortona Real Estate* in Amsterdam. This test interview was useful as several new relevant topics and questions came up while discussing the interview and talking about the subject. Others questions appeared to be not as relevant as expected before the test interview. Also the structure and lay-out of the interview were improved after this test interview.

The second test interview was held with F.P. Daemen on July 17th 2007. Mr Daemen is general manager of *FGH Asset Management*. Mr Daemen came up with a warning for social desirability for some specific questions. This phenomenon is compensated as much as possible by adding extra questions that ask the same thing in a different way. He also advised to create more figurative space in order to establish a possibility for a more dynamic and open conversation. This resulted in a few more open questions and some final changes in the interview.

Appendix V - Interview guide

Interview guide for:

**A study into the decision making process of real estate investors
when deciding about the future of a structurally vacant office
building.**

TU/e

Organization	
Name respondent	
Contact	
E-mail	
Type of investor	
Object	
Square meters	
Vacancy rate	
Year of purchase	
Type of location	
Year of construction	
Respondent number	

Introduction

- Introduce myself
- Short introduction about study
- Short introduction about alternatives
- Objective of study
- Duration of interview
- Available time of respondent
- Interview is confidential, details will be processed anonymously
- Ask permission for recording the interview
- Any questions before starting?

Portfolio details

I would like to start the interview by going through some details about your investment portfolio and general details about vacancy.

- 1) What is the legal entity of your investment organization?

- 2) Which of the following alternatives are theoretically possible in your organization? Which alternatives are not theoretically possible and why not?

Alternative	Possible	Not possible	Why not?
Maintain			
Upgrade			
Renovate			
Transformation			
Demolish & rebuild			
Disposition			

3) What is the size of the real estate portfolio?

Number of objects:				
Total value of portfolio	€			
Real estate category	Percentage	Quality		
		A	B	C
• Office				
• Retail				
• Industrial				
• Residential				

4) Which risk profile best fits your organization?

- Core
- Value added
- Opportunistic
- Combination → percentage

5) If there is immediate cause to do something about vacancy, how exactly is this done?

Is there a standard procedure or protocol in the organization?

6) Are different alternatives being compared and carefully balanced out?

If yes, which alternatives and how are they compared? Feasibility studies?

7) Is there a certain order in which alternatives are preferred?

8) Does strategic portfolio management influence decisions about vacancy on object-level?

If yes, in what way(s)?

9) Is the performance of individual objects measured?

If yes, in what way?

If no, why not?

Cause of vacancy

Generally causes for vacancy can be separated into causes related to the location characteristics, causes related to building characteristics and causes related to the economic trend.

Assessment of the quality of the office location

(Provide short explanation for every aspect)

10) How would you judge the image & looks of the office location?

- Very good
- Good
- Neutral
- Bad
- Very bad

11) How would you judge the accessibility by car of the office location?

- Very good
- Good
- Neutral
- Bad
- Very bad

12) How would you judge the accessibility by public transport of the office location?

- Very good
- Good
- Neutral
- Bad
- Very bad

13) How would you judge the amount of facilities in the area of the office location?

- Very good
- Good
- Neutral
- Bad
- Very bad

14) In what way does the quality of the office location affect the office's lettability?

- ... (1 = very bad influence, 10 = very good influence)

Assessment of the quality of the office building

(Provide short explanation for every aspect)

15) How would you judge the image & looks of the office building?

- Very good
- Good
- Neutral
- Bad
- Very bad

16) How would you judge the flexibility of the office building?

- Very good
- Good
- Neutral
- Bad
- Very bad

17) How would you judge the technical specification of the office building?

- Very good
- Good
- Neutral
- Bad
- Very bad

18) How would you judge the parking space of the office and the area?

- Very good
- Good
- Neutral
- Bad
- Very bad

19) In what way does the quality of the office building affect the office's lettability?

- ... (1 = very bad influence, 10 = very good influence)

Market situation

In practice, the choice for an alternative depends on the situation in the office market and the influence that market situation has on the lettability of the office.

20) How would you judge the willingness to do an additional investment in the office building in order to improve the office's lettability?

- Very large
- Large
- Neutral
- Little
- Very little
- Not possible

21) How would you judge the market rent in relation to the additional investment?

- Very good
- Good
- Neutral
- Bad
- Very bad

22) What is the chance the investment reduces vacancy in the office?

- Very good
- Good
- Neutral
- Bad
- Very bad

23) In what way does the situation in the office market affect the office's lettability?

- ... (1 = very bad influence, 10 = very good influence)

24a) Has anything been done in the last couple of years to reduce vacancy in this office?

If yes, what and why?

If no, based on which arguments?

24b) What does your organization intend to do with this vacant office?

Emotional & psychological factors

In literature and several studies, alleged emotional and psychological factors amongst investors are mentioned rather frequently. It is expected these factors play an important role when a real estate investor is deciding about the future of a structurally vacant office as well. The next propositions are about these emotional and psychological aspects.

Propositions

25) The image of our organization affects the choice for an alternative.

- Totally agree
- Agree
- Neutral
- Disagree
- Totally disagree

26) Optimism about the office market situation affects the choice for an alternative.

- Totally agree
- Agree
- Neutral
- Disagree
- Totally disagree

27) When it comes to taking a loss, my personal ego affects the choice for an alternative.

- Totally agree
- Agree
- Neutral
- Disagree
- Totally disagree

28) The value of a structurally vacant office in portfolio is overrated in our organization

- Totally agree
- Agree
- Neutral
- Disagree
- Totally disagree

29) The aversion against taking loss affects the choice for an alternative.

- Totally agree
- Agree
- Neutral
- Disagree
- Totally disagree

30) Looking back, selling the office in an earlier stage would have been better as the loss would not have been as big.

- Totally agree
- Agree
- Neutral
- Disagree
- Totally disagree

31) Conservatism within our organization affects the choice for an alternative.

- Totally agree
- Agree
- Neutral
- Disagree
- Totally disagree

31) The unfamiliarity with the alternatives affects the choice for an alternative.

- Totally agree
- Agree
- Neutral
- Disagree
- Totally disagree

32) Overconfidence about our knowledge and abilities affects the choice for an alternative.

- Totally agree
- Agree
- Neutral
- Disagree
- Totally disagree

33) Overall, emotional & psychological factors affect the choice for an alternative.

- Totally agree
- Agree
- Neutral
- Disagree
- Totally disagree

34) Which alternatives to deal with vacancy are actually chosen in practice? Could you please indicate for every alternative what percentage of the total decisions it represents in your organization?

Alternative	Percentage (total 100%)	Is not chosen	Why not?
Maintain			
Upgrade			
Renovate			
Transformation			
Demolish & rebuild			
Disposition			

Ending

35) Has, in your opinion, something in relation to vacancy not been discussed what should have been discussed during the interview?

Appendix VI - Five largest agglomerations (G5+)



Number Place/District

- 1 Amsterdam Centre
- 2 Amsterdam II-Oever
- 3 Amsterdam South
- 4 Amsterdam Buitenveldert
- 5 Amsterdam West
- 6 Amsterdam Sloterdijk
- 7 Amsterdam South-West
- 8 Amsterdam Oost
- 9 Amsterdam East
- 10 Amsterdam South-East
- 11 Amsterdam North
- 12 Amsterdam South-West

Bordering Municipalities

- 13 Duisendrecht/Amstel
- 14 Diemen
- 15 Amstelveen
- 16 Hoofddorp Beukenhorst West
- 17 Hoofddorp Beukenhorst East
- 18 Hoofddorp Beukenhorst South
- 19 Schiphol Centre
- 20 Schiphol Rijk



Number Place/District

- 1 Rotterdam Centre
- 2 Rotterdam Adjacent Centre
- 3 Rotterdam Modern Shipping Quarter
- 4 Rotterdam Traditional Shipping Quarter
- 5 Rotterdam Kop van Zuid
- 6 Rotterdam Brakpank and environs
- 7 Rotterdam Alexanderplein/Oosterhof
- 8 Rotterdam Businesspark North-West
- 9 Rotterdam Spaanse Polder
- 10 Rotterdam Mercantielein
- 11 Rotterdam Weulhaven

Bordering Municipalities

- 12 Capelle aan den IJssel Bivona

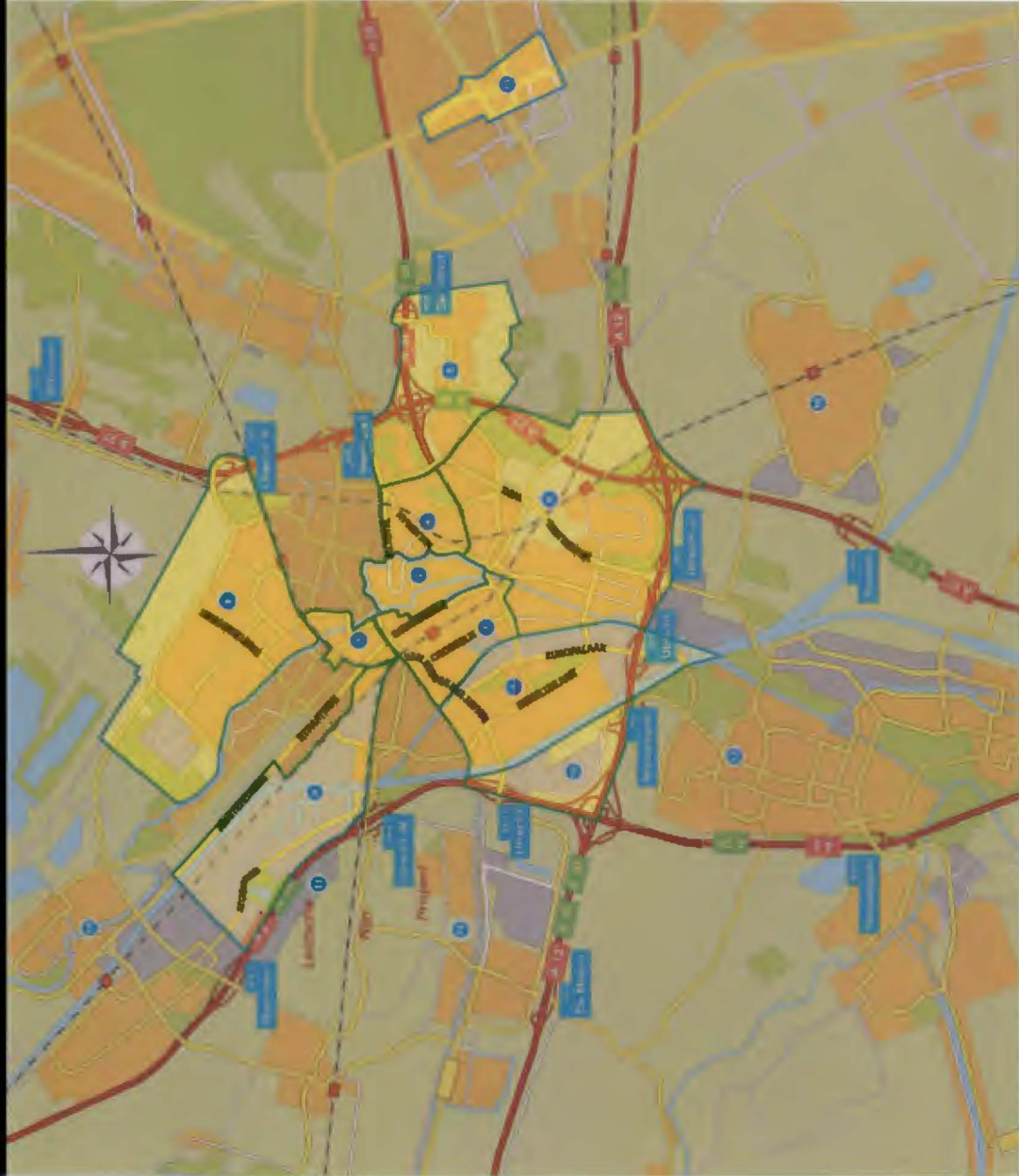


Number Place/District

- 1 The Hague Centre
- 2 The Hague New Centre
- 3 The Hague Beroordenhout
- 4 The Hague Staten Quarter
- 5 The Hague Van Stolkpark
- 6 The Hague Binckhorst
- 7 The Hague Beatrix Quarter
- 8 The Hague Schenstroom
- 9 The Hague Hollands Spoor

Bordering Municipalities

- 10 Rijswijk Plaspoelpolder
- 11 Rijswijk Broekpolder
- 12 Rijswijk Zuidflank
- 13 Rijswijk Hoozswijk
- 14 Rijswijk Station/in de Hoogaard
- 15 Leidschendam
- 16 Zoetermeer Centre
- 17 Zoetermeer Afrikaweg
- 18 Zoetermeer Zuidas

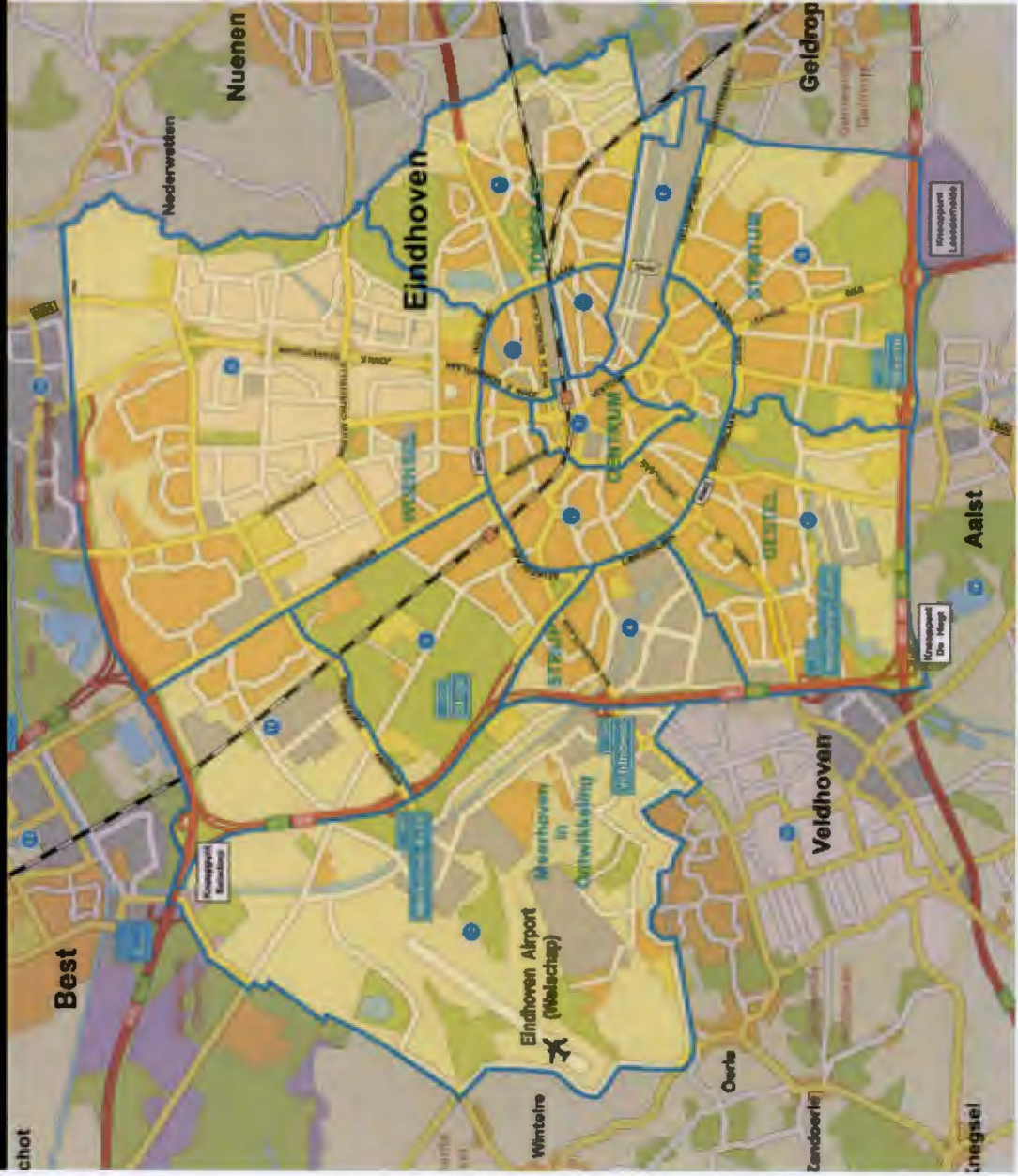


Number Place/District

- 1 Utrecht Centre
- 2 Utrecht Old Inner City
- 3 Utrecht Oudenoord
- 4 Utrecht Madinbaan
- 5 Utrecht Rijnweerd/Uithoef
- 6 Utrecht Lanetten/Staduum
- 7 Utrecht Kamelenland
- 8 Utrecht Overvecht
- 9 Utrecht Lage Weide/Cartasaweg
- 10 Utrecht Papendorp
- 11 Utrecht Leidsche Rijn
- 12 Utrecht Vleuten/De Meern

Bordering Municipalities

- 13 Nieuwegein
- 14 Maastricht
- 15 Zeist
- 16 Houten



Number Place/District

- 1 Eindhoven Centre
- 2 Eindhoven Adjacent Centre
- 3 Eindhoven TU-terrein
- 4 Eindhoven De Horst-Lierendal
- 5 Eindhoven Strijp
- 6 Eindhoven Woonstad
- 7 Eindhoven Tangelbe
- 8 Eindhoven De Kade
- 9 Eindhoven Stratum
- 10 Eindhoven Games/High Tech Campus
- 11 Eindhoven Acht-Kapelbeemd
- 12 Eindhoven Airport/Flight Forum

Bordering Municipalities

- 13 Best
- 14 Son en Breugel/Science Park
- 15 Veldhoven
- 16 Aalst-Venlo

Appendix VII - Survey procedure

Survey procedure

This procedure describes the working method for each of the five cities. Starting point is the two files with supply data in 2007 as well as 2004 for a certain city. First both data files were filtered to take out new offices, grade A offices and offices which are smaller than 1000 square meters. After the first filters were executed, the office supply database of Q1-2007 has been matched with the office supply database Q1-2004. The match has been made using the addresses of the offices in both files. To make sure no buildings were left out due to small misspellings in the addresses, all the addresses with no match were put together in alphabetical order. Doing so, possible misspellings became visible and missing matches could still be added to the selection.

In order to establish the structural vacant supply in the G5+ a match in addresses has been made between the supply in Q1-2007 and the supply in Q1-2004. A match implicates there has been supply on one address for more than three years. Only the structural supply that has increased in the last three years is left in the selection. This is done in order to find the most interesting and dramatic cases. After all, when the supply has decreased this means a new lease agreement has been established in the last three years. When a new lease has been agreed upon an investor has little incentive to consider a rather dramatic measure which makes him less interesting for the study. Also a new lease agreement proves the office is not completely unlettable in the first place.

A critical comment can be made at this working method. First of all, supply in Q1-2007 and supply at the same address in Q1-2004 does not automatically mean this is exactly the same supply. After all, a 50% vacant building in 2004 and in 2007 can theoretically have changed tenant and still be 50% vacant. This problem is dealt with by checking the found addresses in the on-line database of Vastgoedmarkt¹⁵. If a new lease transaction is made in the last three years the office is taken out of the selection. Secondly, the fact office floor space is offered in the market does not per definition mean the office is in fact vacant. Theoretically an office can be offered in the market and still have a tenant at the same time. For instance, an investor who foresees his office to become vacant will start looking for a new tenant in an early stage. Although it is very unlikely an investor will offer his office three years in advance this is theoretically possible. This problem is dealt with by asking the asset-manager and/or broker for the specific situation in a particular office.

When the final selection of a city was ready, other building specifications were retrieved. These are the office's total floor area, vacancy rate, the (type of) investor who owns the office, the year of purchase, the nationality of the investor, the year of construction and the type of location. In order to calculate the vacancy rate, the office total floor area had to be found. The consulted sources are 'data-online' from Vastgoedmarkt and the Jones Lang LaSalle property stock database. If these two sources did not help, the relevant real estate brokers were consulted. To retrieve the owners of the different offices and the year of purchase, the Dutch land register¹⁶ was consulted. The land register provides on-line data about real estate property. In a property-certificate the legal owner(s) of a property, the year of purchase, purchase price and possible easements on the property are reported.

¹⁵ Vastgoedmarkt: an organization that collects Dutch real estate transaction data. www.vastgoedmarkt.nl

¹⁶ Dutch land register 'Het kadaster' www.kadaster.nl

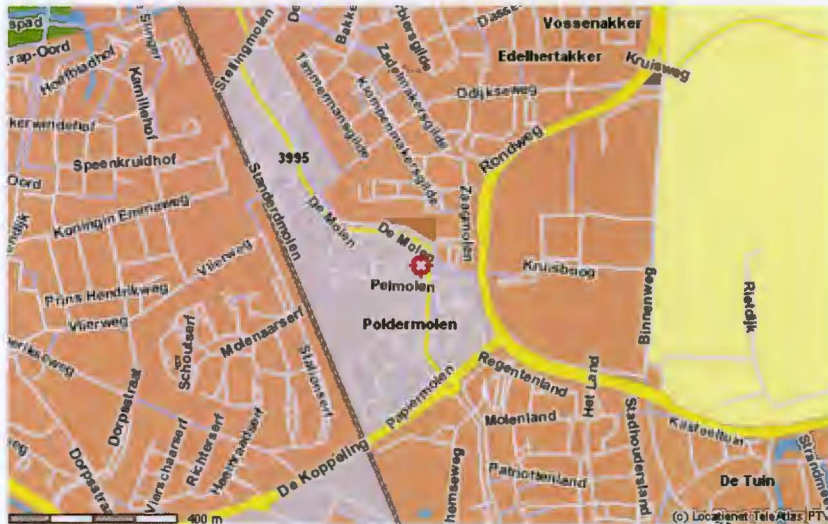
Typology of investors

The characterization of the investors that own the structurally vacant offices has been done in cooperation with Jones Lang LaSalle Colleagues from the Capital Markets department. The following typology of investors was used when analyzing the typology of ownership.

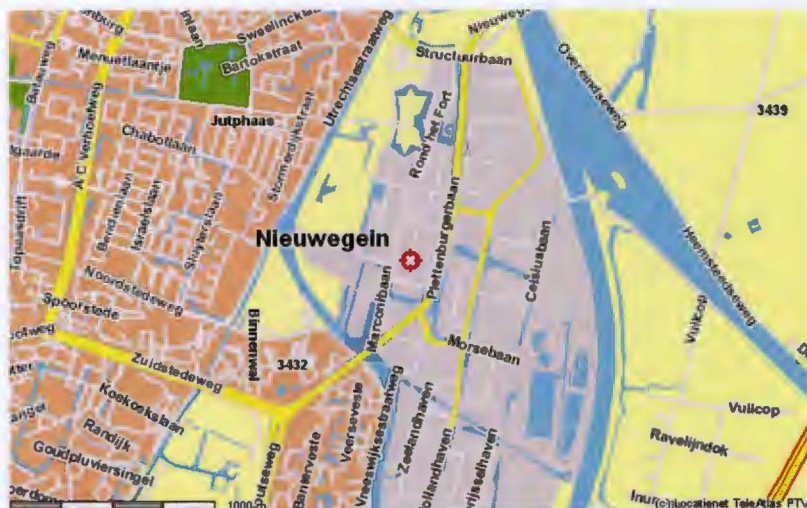
Investor Type	Description & examples
Institutional investors	Insurance companies, pension funds, banks or finance companies. (ING vastgoed, Achmea, Fortis, Altera, Interpolis, Vasloc, ABP)
Private investors	A natural person or group of natural persons organized in a legal investing entity. (Uni-Invest B.V., De Groene Groep, Breevast, Cocon, Fortress, Hilders, Kroon Vastgoed, White Estate, VHS)
Listed funds	Real estate funds which are listed at the stock exchange. (NSI, VastNed, Rodamco, Wereldhave)
Real estate funds	An open-end fund is a collective investment which can issue and redeem shares at any time. No Dutch open-end funds exist. (Westinvest, NPC, Nordcapital, Credit Suisse, DEKA immobilien) A closed-end fund is a collective investment scheme with a limited number of shares. (Annexum, Bankhaus Wölbern & Co, Hanzevast, HCI, Van Boom & Slettenhaar, WilgenHaege)
Fund managers	Firms that provide investment management services to clients. (Cortona, Lancelot land BV, AXA, DBRE, Halverton, ING)
Developers	Developing companies that own real estate because of their developing activities. (Amvest, Wepro)

Typology of location

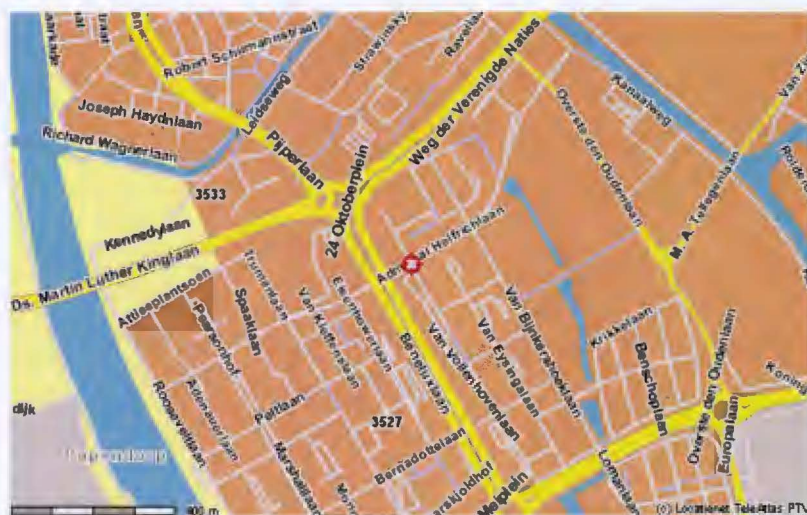
The typology of location that is worked with consists of three location types. These are: *business park within city*, *business park outside city* and *inner city locations*. The pictures below provide a visual example of the location types.



Example of business park within city



Example of business park outside city



Example of inner city location

Appendix VIII – Final selection of investors

The list below contains the investors that have been selected for interviews. The list comprises structurally vacant offices with at least 85% vacancy. The investors that own these offices and accompanying cases are the starting point for the interviews.

Investor	Type of investor	m ²	Vacancy rate	City	Location	Nationality
'New owners'						
STAAL VASTGOEDMAATSCHAP ALLIANCE	Fundmanager	2.010	100%	Eindhoven	Business park outside city	Dutch
LANCELOT LAND BV	Fundmanager	2.155	100%	Utrecht	Business park within city	British
ANJOS VASTGOED C.V.	Real estate fund	2.281	100%	Eindhoven	Inner city location	Dutch
ABTANA HOLDING B.V.	Private investor	6.911	100%	Amsterdam	Business park outside city	Dutch
DE GROENE GROEP BELEGGINGEN BV	Private investor	4.308	100%	Amsterdam	Business park outside city	Dutch
PLATINA ARGENTA B.V.	Private investor	4.763	100%	The Hague	Business park outside city	Dutch
WESLO BELEGGING BV	Private investor	2.215	100%	Utrecht	Business park outside city	Dutch
KANAALCENTRUM UTRECHT BV	Investor/developer	8.226	100%	Utrecht	Inner city location	Dutch
BARNSTIJN BEHEER BV	Private investor	2.612	100%	Utrecht	Inner city location	Dutch
STICHTING BEWAARDER B & S KANTOREN XI	Private investor	3.000	100%	Amsterdam	Business park outside city	Dutch
'Old owners'						
ING VASTGOED BELEGGING BV	Institutional investor	21.000	100%	The Hague	Business park within city	Dutch

COMMERZ GRUNDBESITZ INVESTMENT GESELLSCHAFT MBH	Real estate fund	21.049	100%	Amsterdam	Business park outside city	German
OPPENHEIM IMMOBILIEN-KAPITALANLAGEGESELLSCHAFT MBH	Real estate fund	9.980	100%	Amsterdam	Inner city location	German
NSI KANTOREN B.V.	Listed fund	1.888	99%	Rotterdam	Business park outside city	Dutch
ALTERA VASTGOED N.V.	Institutional investor	4.826	100%	Eindhoven	Inner city location	Dutch
ACHMEA PENSIOEN- EN LEVENSVERZEKERINGEN NV	Institutional investor	1.415	86%	Utrecht	Inner city location	Dutch
FORTIS VERZEKERINGEN VASTGOED MAATSCHAPPIJ NV	Institutional investor	1.348	89%	Amsterdam	Inner city location	Dutch
WESTINVEST GESELLSCHAFT FUR INVESTMENTFONDS MBH	Real estate fund	2.127	100%	Rotterdam	Business park outside city	German
STENA REALTY B.V.	Real estate fund	4.204	100%	The Hague	Business park outside city	Swedish
DEKA IMMOBILIEN INVESTMENT GMBH	Real estate fund	3.960	100%	Utrecht	Business park within city	German
NPC CITYFONDS NIEDERLANDE BETEILIGUNGS GMBH	Real estate fund	3.032	100%	Eindhoven	Inner city location	German
UNI-INVEST B.V.	Private investor	1.794	100%	Utrecht	Inner city location	Dutch
OLYFAST PROPERTY B.V.	Private investor	3.065	100%	Amsterdam	Business park outside city	Dutch
ZOMERHOF MUYS GROEP BV	Private investor	1.390	100%	Rotterdam	Business park within city	Dutch
WESTERSINGEL INVESTMENTS BV	Private investor	1.755	100%	Rotterdam	Inner city location	Dutch
NOORD INVEST B.V.	Private investor	4.075	100%	The Hague	Business park within city	Dutch
FOWEY ONROEREND GOED B.V.	Private investor	1.440	92%	Amsterdam	Innercity location	Dutch
HANDELSONDERNEMING KROONENBERG B.V.	Private investor	1.270	100%	Amsterdam	Innercity location	Dutch
MANS BUILDING B.V.	Private investor	5.200	100%	Amsterdam	Business park outside city	Dutch
MAATSCHAPPIJ DOELENSTRAAT B.V.	Private investor	7.497	100%	Utrecht	Inner city location	Dutch

Appendix IX: Land register certificate

Kadaster

Dienst voor het kadaster en de openbare registers in Nederland
Gegevens uit de kadastrale registratie, met uitzondering van de gegevens inzake hypotheeken en beslagen

Betreft: WEESPERKARSPER M 448 25-6-2007
Karspeldreef 8 1101 CJ AMSTERDAM ZUIDOOST 14:57:16
Toestandsdatum: 23-6-2007

Kadastraal object

Kadastrale aanduiding:

WEESPERKARSPER M 448

Grootte: 35 a 24 ca

Coördinaten: 125155-479788

Omschrijving kadastraal object:

KANTOORGEBOUW PARKEERGARAGE ERF

Locatie:	Karspeldreef	8
	1101 CJ AMSTERDAM ZUIDOOST	
	Karspeldreef 8	A
	1101 CJ AMSTERDAM ZUIDOOST	
	Karspeldreef 8	B
	1101 CJ AMSTERDAM ZUIDOOST	
	Karspeldreef 8	C
	1101 CJ AMSTERDAM ZUIDOOST	
	Karspeldreef 8	D
	1101 CJ AMSTERDAM ZUIDOOST	
	Karspeldreef 8	E
	1101 CJ AMSTERDAM ZUIDOOST	
	Karspeldreef 8	F
	1101 CJ AMSTERDAM ZUIDOOST	
	Karspeldreef 8	G
	1101 CJ AMSTERDAM ZUIDOOST	
	Karspeldreef 8	H
	1101 CJ AMSTERDAM ZUIDOOST	
	Karspeldreef 8	K
	1101 CJ AMSTERDAM ZUIDOOST	
	Karspeldreef 8	L
	1101 CJ AMSTERDAM ZUIDOOST	
	Karspeldreef 8	M
	1101 CJ AMSTERDAM ZUIDOOST	
	Karspeldreef 8	N
	1101 CJ AMSTERDAM ZUIDOOST	
	Karspeldreef 8	P
	1101 CJ AMSTERDAM ZUIDOOST	
	Karspeldreef 8	R
	1101 CJ AMSTERDAM ZUIDOOST	
	Karspeldreef 8	S
	1101 CJ AMSTERDAM ZUIDOOST	
	Karspeldreef 8	T
	1101 CJ AMSTERDAM ZUIDOOST	
	Karspeldreef 8	U
	1101 CJ AMSTERDAM ZUIDOOST	

Jaar: 1999

(Met meer onroerend goed verkregen)

Ontstaan op: 17-8-1995

Ontstaan uit: WEESPERKARSPEL M 312 gedeeltelijk

Gerechtigde

EIGENDOM BELAST MET ERFPACHT

DE GEMEENTE AMSTERDAM WEESPERKARSPEL

AMSTERDAM

Postadres: POSTBUS 1104
1000 BC AMSTERDAM

Zetel: AMSTERDAM

(Gerechtigde is betrokken als gerechtigde bij andere objecten)

Recht ontleend aan: 84 WPK02/ 7464 d.d. 5-6-1986

Eerst genoemde object in brondocument:

WEESPERKARSPEL M 209

Nog niet (volledig) verwerkte brondocumenten:

HYP4 52534/ 92 d.d. 25-6-2007

HYP4 52534/ 7 d.d. 25-6-2007

HYP4 52515/ 83 d.d. 25-6-2007

HYP4 52524/ 151 d.d. 22-6-2007

HYP4 52524/ 79 d.d. 22-6-2007

HYP4 52524/ 55 d.d. 22-6-2007

HYP4 52524/ 48 d.d. 22-6-2007

HYP4 52524/ 29 d.d. 22-6-2007

HYP4 52514/ 184 d.d. 21-6-2007

HYP4 52514/ 180 d.d. 21-6-2007

(Er zijn meer niet (volledig) verwerkte brondocumenten)

Gerechtigde

81/100

ERFPACHT

UNI-INVEST B.V.

(In de naamgeving zijn diakritische tekens niet opgenomen)

Joan Muyskenweg 22
1096 CJ AMSTERDAM

Zetel: AMSTERDAM

(Gerechtigde is betrokken als gerechtigde bij andere objecten)

Recht ontleend aan: **HYP4 AMSTERDAM 17122/ 18** d.d. 29-12-2000

Eerst genoemde object in brondocument:

WEESPERKARSPEL M 448

Aantekening recht

VERKREGEN TEN BEHOEVE VAN COMMANDITAIRE VENNOOTSCHAP

Betrokken persoon:

PREMAG REAL ESTATE C.V.

AMSTERDAM

Postadres: Stadhouderskade 1
1054 ES AMSTERDAM

Zetel: AMSTERDAM

Ontleend aan: ATG 2681 d.d. 16-4-
2004**Gerechtigde****19/100****ERFPACHT****PEN HOLDINGS B.V.**

'S-GRAVENHAGE

Postadres: Stadhouderskade 1
1054 ES AMSTERDAM

Zetel: 'S-GRAVENHAGE

(Gerechtigde is betrokken als gerechtigde bij andere objecten)

Recht ontleend aan: **HYP4 AMSTERDAM 17122/ 18** d.d. 29-12-
2000

Eerst genoemde object in brondocument:

WEESPERKARSPER M 448**Aantekening recht**

VERKREGEN TEN BEHOEVE VAN COMMANDITAIRE VENNOOTSCHAP

Betrokken persoon:

PREMAG REAL ESTATE C.V.

AMSTERDAM

Postadres: Stadhouderskade 1
1054 ES AMSTERDAM

Zetel: AMSTERDAM

Ontleend aan: ATG 2681 d.d. 16-4-
2004

Einde overzicht

De Dienst voor het kadaster en de openbare registers behoudt zich het recht voor als bedoeld in artikel 2 lid 1 juncto artikel 6 lid 3 van de Databankenwet.

Appendix X - Description of study

Amsterdam, July 2007

Dear mister ...

In order to finish my study, I am writing a thesis about the considerations an investor makes in the decision-making process about vacancy. To do so, I am focusing on the owners of structurally vacant offices in the five largest agglomerations in The Netherlands. This research is done within the scope of my study Real Estate Management & Development at the Eindhoven University of Technology. Currently I am doing my internship at real estate consultant Jones Lang LaSalle in Amsterdam at the Research & Consultancy department.

When a building becomes vacant, there are different possibilities for an investor to deal with that. Based on literature review, the alternatives presented in this study are *maintaining, upgrading, renovation, transformation, demolish & rebuild* and *disposition*. In practice, many investors do not take action quickly but rather wait for the market to recover. For many offices however, finding a new tenant seems rather difficult, even in a recovering market.

For this reason, the study focuses on the decision-making process of an investor. The study's goal is to find out an investors attitude in relation to the different alternatives there are to deal with structural vacancy. The positioning of the study and the different alternatives can be seen in the figure below.

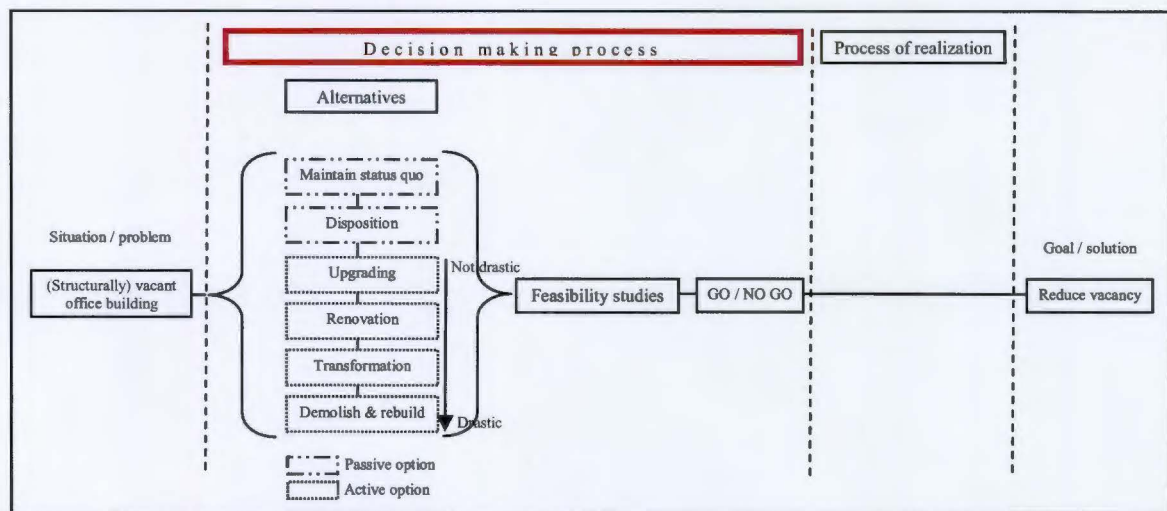
The problem- and objective definition have been formulated as follows:

Problem definition

Which considerations takes an investor into account in the decision-making process about the future of a structurally vacant office building and to what extend is that process rational?

Objective definition

Developing a decision-support tool which can be used to determine the best possible option for an investor to deal with structural vacancy.



Positioning of study

The alternatives presented in this study can be separated into active alternatives and passive alternatives. The passive alternatives are *maintaining* the office in its current condition and *selling* the office in its current condition. The active alternatives represent a physical action and can be separated into a level of gradation. This gradation handles the alternatives from 'not drastic' to 'drastic'. The active alternatives are *upgrading*, *renovation*, *transformation* and *demolish & rebuild*.

The research is done on building level. In order to be complete, the definitions for the alternatives are given below.

Maintaining: continuing the asset in its current function, without doing additional investments in order to improve the buildings technical, visual and functional quality.

Upgrading: continuing the asset in its current function, and doing small additional investments in order to improve the buildings visual and functional quality. Upgrading is often considered as a cosmetic improvement of a building.

Renovation: continuing the asset in its current function and doing large additional investments in order to improve the buildings technical, visual and functional quality. Despite the difference in gradation between upgrading and renovation, it is hard to draw a specific line. Unlike upgrading, renovation is considered as an integral plan to improve the buildings quality.

Transformation: the entirety of measures that has to be taken in order to bring an existing building into a technical condition so that it can accommodate a new technical program of requirements, assuming its existing function will be changed.

Demolish & rebuild: tearing down the asset and develop and build a new real estate object on the free land in order to establish the 'highest and best use' for the particular location.

Disposition: selling the asset to another investor in its current function, without doing additional investments in order to improve the buildings technical, visual and functional quality.