

Retail vacancy in Dutch city centers:

How can differences in retail vacancy between cities be explained?



Jeffrey van Zweeden
September 2009

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Preface

This thesis is written to complete the master of Urban, Port and Transport Economics at the Erasmus University in Rotterdam. During this Master's program my interest switched from transport economics to urban economics. As a consequence, I wanted to do my thesis on vitality of city centers. When looking for a subject I noticed many newspaper articles on increasing vacancy rates in city centers. An often used explanation was the economic recession. I thought the economic recession could not be the only explanation for vacancy, and I wondered which other factors could explain vacancy. Looking at Dutch cities, it also showed that some cities had higher vacancy figures than others. How is that possible when the economic recession is seen as the cause of vacancy? Doesn't the economic recession hurt the entire economy throughout the Netherlands? This motivated me to look into factors which could influence vacancy in city centers.

This thesis would not have been completed without the help of my supervisor, Alexander Otgaar of the Erasmus University. He was always able to help and respond quickly with critical notes and many suggestions which helped improving this thesis. Therefore, I want to thank Alexander Otgaar for his help and support. I also would like to thank Dick van Doleweerd for providing me with information and his willingness to answer several questions about retail vacancy.

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Summary

In the last few years, city centres in The Netherlands have suffered from an increase in store vacancy. Between 2007 and 2012 demand for store space will approximately decrease with 7% to 9%, leading to even more vacancy. Although the current economic crisis and increased e-shopping is mentioned many times as an explanation, many other factors play a role as well. Cities can get into a negative spiral, as higher vacancy leads to a less attractive city center. These city centers attract fewer visitors, which increases vacancy. Cities need to prevent getting into this negative spiral. However, there are differences in vacancy rates between cities, which indicate that not every city suffers similarly from vacancy. Why does city A suffer less than city B? How can these differences be explained? This thesis tries to answer these questions by answering the main research question of the thesis:

Which factors influence vacancy in city centers and how can possible differences be explained?

Vacancy can be seen as the non-let situation of an available real estate property. Based on several classifications of scholars on vacancy, it can be said that there are two main categories of retail vacancy: less-harmful vacancy which consists of initial and frictional vacancy, and harmful vacancy, which consists of structural, functional and technical vacancy.

To understand retail vacancy in the Netherlands, the retail real estate market needs to be understood as well as trends in supply and demand of consumer goods. The retail real estate market is a complex market as general rules of supply and demand are not always applicable. As demand rises compared to supply, prices in general will rise. However due to the absolute importance of location this is not always true for real estate objects. Demand for retail real estate is influenced by retailers who see location as the most important factor. Objects can be vacant in a street towards the main street while there is a waiting list for the main street, showing that the general rule of supply and demand not always holds. Looking at the supply side, real estate developers influence vacancy by their increased supply in retail floor space. In the last 10 years the floor space in the Netherlands has increased with 62,5%, while the population only grew with 7,84%. The municipality also influences vacancy by investing in the attractiveness of the city, as an attractive city attracts more visitors than others.

Consumers have changed over the years as well, leading to new store concepts and ideas. Due to the internet e-shopping became available, which causes people to visit the city center less. The shopping goals of people have changed as well. On the one hand there are more two-person households which mean there is less time available to do shopping, leading to an increased demand of one-stop shopping. On the other hand people see shopping more and more as a leisure activity, which leads to fun shopping. The two-person household also changed the demand of opening hours of stores, as these people became more limited in shopping during office hours, leading to a demand of opening hours in the evening and on Sundays. A change in composition of the population (people are living longer, more ethnic diversity and more one person households) also changed the demand for goods. Retailers want to attract as many consumers as possible and have therefore tried to anticipate on these developments. Experience shopping is a new form of shopping, which allows consumers to try products before they buy the product. Out-of-town shopping is shopping at peripheral malls which offer one-stop-shopping and opening hours have become more flexible over the years, although the Dutch government is currently looking at decreasing this flexibility again.

Vacancy does not just occur in a city. Vacancy is a derivative of other factors, as vacancy arises as a consequence of changes in the retail sector. The changes which have been researched most by scholars are the attractiveness of a city, location decision factors of a retailer and at determinants of retail rent. Factors explaining these three changes therefore also influence vacancy. Research showed that factors can be either influenced by retailers or municipalities (endogenous factors) or they cannot be altered or influenced by these parties (exogenous factors). Several scholars have created an overview of factors explaining these changes, other scholars have focused on a single factor. The table below gives an overview of factors found and described.

Overview of all factors mentioned

Exogenous	Endogenous
economic recession	opening hour
globalisation	increase in store space
economic cycle	available floor space
inflation	accessibility
average gdp per capita	parking policy
disposable income	average rent
national location policy	local policy
regional competition	crowd pullers
increased mobility	diversity of stores
e-shopping	availability of facilities
	size of the shopping area
	self employed store owners

These factors influence vacancy in city centers, however they give no indication for differences in vacancy between cities. A selection of these factors has been made, and a case study in Breda has been done to see which factors could indicate a difference in vacancy between cities. Vacancy rates of Breda have been compared with other larger cities in the Netherlands. However, as these factors are not statistically tested, only indications can be given if a factor could explain vacancy differences between cities.

The case study showed that cities with good accessibility have high and low vacancy rates as well as cities with bad accessibility. This indicates that better accessibility does not directly lead to lower vacancy rates. Looking at parking policy, the case study indicates that a more strict parking policy does not directly lead to higher vacancy. An absolute larger shopping center does not lead to lower vacancy rates, however there is an indication that a larger relative shopping center does lead to higher vacancy. Looking at magnet stores, these stores are too different to test a hypothesis if more magnet stores in a city center lead to lower vacancy rates. Magnet stores as the H&M and Hema are located in many smaller cities as well, while the Bijenkorf and Media Markt only have a few city center locations in the Netherlands. As absolute larger shopping centers will have more magnet stores than other cities, it can be said that there is no indication that more magnet stores lead to lower vacancy rates. There also seems to be no indication that an increase in store space has lead to higher vacancy rates in Breda or in the Netherlands on the short run. However the continued supply of retail space could have an impact on vacancy on the longer run. The influence of other functions in the city center on vacancy is also hard to measure. There is an indication that the opening of a new function does not contribute to the vacancy rate. A better indication could be given if the influence of one function in different cities could be measured.

Future research should look into the effect of magnet stores and other functions in the city center as this could not be done completely in this thesis. Data should be collected to test the other factors statistically to support the indications given in this thesis. The long term effect of the increased store space should be taken into account to prevent over supply of retail space as this could have a large impact on vacancy rates in the future.

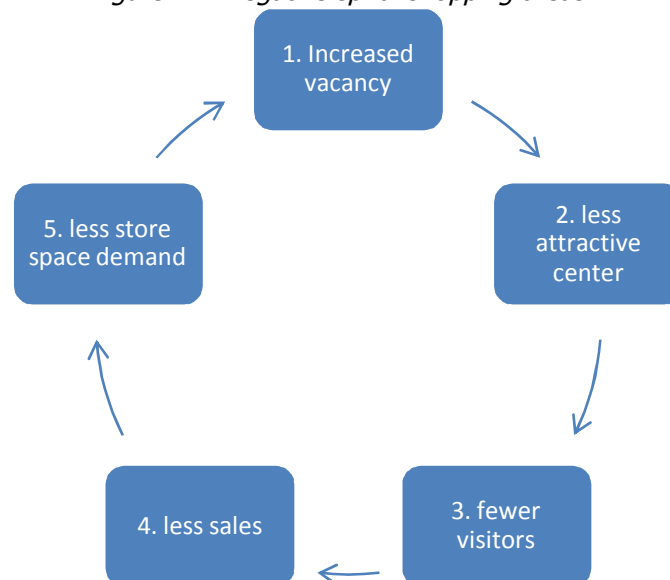
Chapter 1: Introduction

In the last few years, city centres in The Netherlands have suffered from an increase in store vacancy. Newspapers report regularly on a decrease of city center visitors and their expenditure, leading to less demand of store space. An increase in vacancy is also the conclusion of Jones, Lang and Lasalle (2008), an important retail real estate specialist, as they argue that the demand of store space will decrease with 7% to 9% between 2009 and 2012. They indicate that increased vacancy is certainly not only a consequence of the current economic crisis, as increased internet-shopping and limited opening hours have significantly contributed to vacancy in the last years. However, looking at vacancy rates, large differences are noticed between Dutch cities, showing that not every city suffers as much from vacancy as others. For instance, Haarlem only had a vacancy rate of 4.2%, while The Hague suffered much more with 13% (Locatus¹, 2008). With increased competition between cities and upcoming shopping malls, reducing vacancy in city centers becomes more and more important for cities to keep being attractive. The question therefore is, how can vacancy be explained, what causes vacancy and how can cities reduce the vacancy in their city center?

1.1 Problem statement

Vacancy arises when the supply of store space does not meet the demand. Cities prefer to have a vacancy rate as low as possible, because higher vacancy negatively influences the attractiveness of a city. An attractive city is an important factor in the economical prospect of a city, and vacancy is one of the many factors influencing the attractiveness. This influence is vice versa as well, as a less attractive center can lead to higher vacancy. An attractive city center is not only beneficial for store owners, it is beneficial for restaurants, bars and all other sorts of companies in the center as well, because an attractive city leads to more visitors and thus more sales. The figure below shows the possible negative spiral a city can get itself into if increased vacancy leads to a less attractive city center. In the end increased vacancy could lead to a less economical healthy and prosperous city or region, creating a large incentive for cities to try to prevent increasing vacancy.

Figure 1.1: negative spiral shopping areas



The question therefore is, how can cities prevent getting into this spiral? And why does one city have much less problems with vacancy than others? Also, what causes vacancy? To be able to answer these questions, it is necessary to know which factors influence vacancy. When it is clear which

¹ Locatus is a independent data base specialized in the retail sector in the Benelux

factors determine and influence vacancy rates, suggestions can be made to cities to decrease vacancy. However, looking at current literature on vacancy, as of yet there is no clear integral overview of factors influencing vacancy. An overview has to be created before suggestions can be made to reduce vacancy.

1.2 Goals and objectives

Current literature mainly focuses on the effect of a single factor on vacancy. Although it could help to explain the vacancy in a specific city, it does not explain how vacancy in city centers in general could be limited, because there are many other factors which influence vacancy as well. Current literature lacks an overview of these factors, and this thesis tries to fill up this gap by identifying many possible factors which influence vacancy. An overview of factors can contribute to reduce vacancy in a more efficient way as many factors will be known and can be taken into account when deciding which factor is the most important factor that causes vacancy. It can also help determining which factors can be easily altered and which factors do not play a role in a specific city. Therefore, the goal of this thesis is as follows:

To identify and create an overview of factors which influence vacancy in city centres

The aim of the thesis is to create an overview in a qualitative way, and therefore it will not show which factor has the largest influence on vacancy based on quantitative statistics. The focus of this thesis will be on vacancy in the city center. This part of a city has the largest influence on the attractiveness of a city because visitors mainly visit this part of the city. Looking at vacancy within suburbs or at shopping malls would lead to different local factors than looking at city centers, making it almost impossible to create an integral overview of factors.

Possible factors will be identified and categorized based on the possibility to be influenced by parties as retailers or municipalities. Some factors have such an impact worldwide that it also affects the retail sector, however retailers or municipalities cannot change the impact of such factors due to their scale. An example of such a factor is an economic recession and these factors can be described as exogenous factors. On the other hand, there are factors which can be influenced on a local scale, such as parking prices or the availability of store space, the endogenous factors. This distinction is made to be able to explain differences between cities, as every city experiences exogenous factors but they can individually influence or alter endogenous variables.

So how do these factors influence vacancy in Dutch city centers in practice? To illustrate this, a case study will be done to determine the effects of the mentioned factors on the vacancy of a specific city. Based on all factors found a selection of factors will be made which will form the research framework for this case study. The framework will consist of several factors which can be identified within a city and the effect of these factors will be indicated. It can be argued if a city scores well or poorly on a specific factor. When these scores are related to the vacancy rate, some conclusions or indications on the impact of factors on vacancy can be given. The case study does not have to goal to statistically research the effects of factors and to give causal relations, it is only done to give an indication of possible effects of these factors. Breda, a medium sized city in the southern part on the Netherlands, is chosen to function as a case study to look at these factors in practice.

1.3 Research question

The goal of this thesis will be realized by answering the main research question of this thesis:

Which factors influence vacancy in city centers and how can possible differences be explained?

This main question can be divided into several sub-questions:

1. What is vacancy?
2. Which trends can be seen in retail which could influence vacancy?
3. What is the relation between vacancy and attractiveness of a city?
4. Which factors influence vacancy in The Netherlands?
5. How do these factors influence vacancy in practice, and specifically in Breda?

1.4 Content

The following chapter will describe all theory on which this thesis is based. Vacancy will be explained, just as trends which have changed retail over the years. Chapter three will start with literature on factors explaining vacancy and will also consist of explaining factors which could influence vacancy. A distinction will be made based on the possibility to influence the factor. Chapter four is based on the case study in Breda, at which several factors will be specifically looked into. Finally, in chapter 5 conclusions will be given.

Chapter 2: Vacancy and the retail sector

This chapter will describe the theoretical background of this thesis. First of all, a description of what vacancy is will be given. Second, it will be explained how the retail real estate market works and how it influences vacancy. Different forms of vacancy will be described as well. Also, an indication will be given of trends which have influenced the supply of stores as well as the demand for stores. Finally, a short conclusion will be given.

2.1 Explaining vacancy

Defining vacancy

Vacancy is a term which is used in many articles and news items, while an explanation is usually not given. Apparently it is such a common word that it is assumed people have an idea what it is, which makes explaining unnecessary. Several scholars have surpassed giving an explanation, although vacancy was their main subject. Benjamin et al (2000), Keeris (2005) Weimar and Koppels (2006) all look into factors explaining how vacancy arises, without giving a definition of vacancy. However, one scholar briefly explained what was being meant with vacancy. Van der Voordt (2006) gave a wide definition of vacancy: "vacancy is the non-let situation of an available property". Although this definition is quite useful to understand the subject of this thesis, from an economical perspective and it is much more useful to know what causes vacancy. This will be discussed now based on the retail real estate market.

Retail market forces influencing vacancy

A market can be described as a place where trade takes place: suppliers offer their goods for a certain price and buyers will evaluate if the offered product is worth that specific price. When many buyers are interested in that good, the price will rise. If no buyer is interested, the supplier will lower its price until a market price is realized and both the supplier and buyer are satisfied. In an optimal situation the demand would be equal to the supply, leading to market equilibrium. A difference between the demand and supply could lead to scarcity or abundance of a product (Van Marrewijk, 2007).

Real estate market

The real estate market can be defined as a market where suppliers and buyers of any sort of residential or commercial building (offices, stores) meet and is quite dynamical and has a cyclical character. Suppliers of real estate objects are mainly real estate developers and renovators, while the group of buyers consists of owners, users and renters of the real estate object (Benjamin, 1998). The rent that has to be paid or the purchase price can be seen as the price for an object as described in a general market. However, the real estate market is more complex than a basic market due the fact that the market equilibrium is not solely based on this rent and due to specific characteristics of the market. Real estate is durable, heterogeneous, it requires high investment costs, there is a long delay after the demand or supply changes and it is immobile (Kohnstamm, 1994, Uhlenbroich, 2008). In a regular market mobility and homogeneity of goods creates relatively equal prices and reduces scarcity in places. If city A has a shortage of a certain car type, this car can be moved from city B to city A, creating a new equilibrium. Due to the specific real estate characteristics, this does not hold for this market.

Vacancy arises when the supply of real estate is larger than the demand. Within the real estate market, shortages cannot be filled with real estate abundance from another city. City A can be very attractive to locate your office and therefore have a shortage in office space, while city B has vacant offices and is in the same region. In the real estate market local factors play a very important role and this creates many small and local real estate markets with own characteristics (Schutte, 2002). This local focus could lead to large regional differences in supply and demand of real estate and therefore can cause different prices for similar objects in different cities. More important, it can also create large differences in real estate vacancy rates between similar cities in the same region.

Retail real estate market

The retail real estate market is a part of the real estate market and has similar characteristics with the same groups of suppliers and buyers. Due to these characteristics as immobility, some cities will have higher retail real estate vacancy rates than others, as the local supply and demand of stores can differ. The factor that distinguishes retail real estate from other real estate is the absolute importance of its location. As for offices the accessibility for its employees could be the most important factor, for houses the amount of green space in the vicinity, for retail it is the location within the shopping center. Many stores are largely dependent on visitors of other stores, as visitors are often attracted to a shopping center and not to a single store. Magnet stores are crowd pullers for the shopping center as they attract a large crowd. As a smaller store, it is very important to be near these magnet stores as you are dependent on visitors walking by and doing an impulsive purchase (Still and Simmonds, 2000). A good location near these magnet stores is therefore the most important factor in retail real estate. However, location is not the only decision factor for retailers as the rent, the store space, the possibilities to expand, the amount of visitors to the center as a whole and the presence of competing stores also contribute to the location decision.

The combination of these factors makes retail real estate a complex market to explain differences in supply and demand between cities, which makes explaining differences in vacancy hard as well. The complexity of the market does not only mean that vacancy differs between cities, it could also lead to contradicting situations. It is possible that vacancy arises while the demand of stores is larger than the supply. In these situations the current supply of stores is not suitable for retailers, even if lower prices are offered. Cities often have waiting lists for stores to locate in the main shopping street, while there are vacant properties as well (Bolt, 2003). This does not only show the importance of location, it also shows the complexity of retail vacancy.

Supply side influencing vacancy

Several scholars (Benjamin, 1998, Kok, 2007) have indicated that in the last century the average amount of store space per capita has increased. An explanation by Borchert (1998) is that there is an increased amount of chain retailers who try to realize economies of scale and therefore require larger space. A second explanation is the increased amount of out-of-town shopping centers while city centers also maintained their retail function. Several scholars as Pershio (1991), Roulac (1994) and Litt and van Dijkum (1995) have all indicated that there is a misbalance between retail supply and demand which is possibly caused by the increased amount of store space. If the supply of store space increases faster than the population and their average spending, this could lead to vacancy as the consumer spending is too little to support those amounts of store space. Looking at the market, more supply would lead to lower rent prices to come to equilibrium. However, based on the complexity of the market and the mentioned factors earlier this is often not the case. Increased amount of retail space and constant prices can increase retail vacancy.

Demand side influencing vacancy

Looking at the demand side of retail, not every retail object is suitable for a retailer. Real estate agents often indicate that the three most important factors of an estate object are: location, location and location. Although this is often said with a humorous undertone, as explained earlier, location is regarded as the most important factor for a real estate object as it is seen as the most important factor to realize success. Main shopping streets are therefore the most popular for retailers to locate in, as these streets attract the most visitors. Although these locations are more expensive, according to Bolt (2003) these streets usually have a waiting list for retailers to locate. Streets towards these locations ("aanloopstraten") are less in demand and are vacant more often. In other words, on the one hand there is a waiting list for certain retail locations, on the other hand there is vacancy due to a less desirable location and dainty retailers.

The municipality influencing vacancy

Next to the suppliers and buyers there is another factor which plays an important role in vacancy rates in a city center. Not only the diversity in stores and supplied goods is important to visitors, the total attractiveness of a city plays a role as well. Due to increased presence of chain stores in cities, many

cities offer a similar range of goods. With new trends as fun-shopping, visitors do not only look at stores, but to the presence of bars, restaurants, museums and the overall look of a city as well. Based on the urban life cycle theory of Van den Berg (1982) it can be said that western cities nowadays try to create an attractive city and to increase the quality of life in order to stay competitive. The goal of creating an attractive city is not solely to attract visitors, to attract residents, companies and investors as well. A city which is less attractive could therefore experience higher vacancy rates than a comparable city which offers the same range of goods and is more attractive. Demand of retail space is therefore not solely based on the location, but on the attractiveness of the location as well.

To summarize, there are three main parties which influence vacancy. First, suppliers of retail real estate affect vacancy rates by increasing the total amount of floor space. There is more space available than there is demand, which could lead to structural vacancy in less desirable locations. Second, buyers of store space affect vacancy by their preferred location in main shopping streets and less willingness to locate at other locations as they prefer to be put on a waiting list. Third, municipalities affect vacancy rates by (not) investing in the attractiveness of a city. Therefore it could be said that the retail real estate market is more complex than an everyday markets. Although rents increase when the location is more desirable, as a consequence of the street and its attractive surroundings, the rent is not the only factor which influences vacancy. This thesis tries to identify and explain other factors influencing vacancy in city centers. Although vacancy is usually seen as a negative aspect of a city center, there are different forms of vacancy which all have different impacts on a city center. These different classes will be discussed now.

Forms of vacancy

As explained in chapter one, vacancy could lead to a less attractive city, which could lead to less visitors and even more vacancy, creating the image that vacancy is always a negative aspect of a city. Several scholars as Keeris (2005) and Weimar and Koppels (2006) indicate that vacancy is not necessarily bad for a city center. Both Bolt (2003) and Keeris argue that 3 to 5% vacancy rate is still healthy for a city. The reason is that in order to have a market of retail objects, some objects need to be unoccupied. Without empty locations, no movement is possible and there would be no market for retail objects, which also limits possibilities for retailers to expand or to move to more desirable or larger locations. Another explanation is that real estate owners require time to find suitable new tenants for their location which means that an object could be empty for a small period of time. Another benefit of this available time is that the owner can perform maintenance to revitalize their stores. So, which vacancy forms are described by scholars and which ones can be seen as negative?

Several scholars have written articles on different forms of vacancy. Analyzing these classifications of Keeris (2005), Weimar and Koppels (2006) and Van der Voordt (2007) show very similar classes. All scholars make a clear distinction based on the economic effect of the vacancy. On the one hand there is a category which has low impact on the economic performance and is indicated as "normal" vacancy or "accepted" vacancy. On the other hand is the group which largely affects the economy and is indicated as "problematic" or "excess" vacancy. These two main groups are specified into several subgroups of vacancy.

The less-harmful class, or low impact class, can roughly be divided into three groups:

1. Initial vacancy occurs after a building is just completed,
2. mutation vacancy occurs between two different retailers in a location
3. Frictional vacancy is described as a vacancy where no new tenant has been found for yet and is vacant for less than one year.

All scholars indicate that real estate objects in this group have a good prospect of being let again.

The Harmful group differs more between the scholars. Weimar and Koppels (2006) keeps it quite basic with four clear categories, while Keeris (2005) indicates seven different problematic groups. Van der Voordt makes it more complex by creating a difference between "problematic" and "dramatic" vacancy, although the difference is not that clear. In general, all scholars indicate that structural vacancy exists, which is vacancy that lasts longer than two years and that vacancy can be caused by a less desirable location (functional vacancy) or that the building does not meet the general

requirements any more (technical vacancy). In comparison to the less-harmful group, these classes have less clear boundaries between each other. In this group an object can be vacant due to both its location and not meeting the general requirements. This creates a situation where a single vacant object can be classified in several groups, making it harder to define the true source of its vacancy.

As vacancy is not always harmful it is important for cities to know the source of a vacant location. A 10% vacancy in city A is not equal to a 10% vacancy level in city B. Knowing which part of this 10% is harmful is essential to know if a city wants to take measures to reduce vacancy. Based on the classes of several scholars one classification is made and this is shown in the table below.

Table 2.1: vacancy classes

Less-harmful vacancy	Harmful vacancy
1. Initial vacancy	1. Structural vacancy
2. Frictional vacancy	2. Functional vacancy (outdated property due to location)
	3. Technical vacancy (outdated property due to not meeting the general market requirements)

Vacancy has been explained, the affect of the real estate market on vacancy has been explained and different forms of vacancy are mentioned. Next to the supply and demand of retail space, there is also a supply and demand in shopping. Several trends in demand and supply have affected vacancy, and these trends will be discussed now.

2.2 Trends in retail demand

One of the most important developments in the western world in the last century is the steady increase of disposable income of residents. According to Glaeser (2001), over the last 1200 years the disposable income has increased and despite future recessions and depressions there is a strong believe that it will continue to rise in the future as well. This increased disposable income means that on average people have more money to spend. This has two main effects on demand of goods and thus on retail. First, people demand more luxurious goods as these goods become available to more and more people and they demand higher quality from daily goods. Second, the price of time has increased. While the higher demand of luxurious goods can easily be seen in the supply of goods in a city center, increased costs of time has several indirect effects on the demand of retail.

Increased e-shopping

In combination with the upcoming of internet, higher value of time has lead to more e-shopping. E-shopping, which is purchasing goods via the internet, is available 24 hours, it eases comparing prices and goods and the goods are usually delivered to your house (Baen, 2000). With less time available, e-shopping becomes an interesting option for many consumers. More internet sales means that people visit stores less. When people visit the city center, they are more inclined to do an impulsive purchase as they walk passed a certain store. Therefore e-shopping does not only lower direct sales, it also affects the indirect, impulsive sales. Fewer sales in a city center could lead to higher vacancy rates.

Change in shopping goals

Another affect of the increased disposable income is the increased mobility of people. In combination with mass production the car became available to many people. This gave people much more freedom in deciding where they want to do their shopping as they could travel faster and more efficient in the same time available (Metz, 2008). This easiness to travel fueled the upcoming of new shopping trends such as fun shopping. On the other hand, time became more valuable and people want to spend as less time possible shopping. Both polarized shopping goals influenced the demand for retail.

Fun shopping is a widely used term which usually means that the process of shopping is more important than the purchased good itself. Shopping as a leisure activity in combination with drinks or dinner (Gorter et al, 2003). This perspective changes the goal people have when they visit a city or a center. The main goal used to be purchasing a specific good, now it is more based on having a good time. This means that visitors not only demand a wide range of products in a city center, the atmosphere of the center and the possibilities to eat and drink in the same area are also of importance. In other words, the overall attractiveness of a city needs to be good as well and this attractiveness could influence vacancy in a city.

However, consumers also have less time to spend with shopping. Many households nowadays exist of two people working full time, which mean they have limited time available to do their shopping. People are trying to shop as efficient as possible and preferably in a single store, often referred to as one-stop shopping. One stop shopping can be defined as: "all of a shopper's needs can be filled in one step, all at one time, suggesting that the proper assortment in each store is a must, and a desirable mix of stores should be assembled at one convenient location" (Kaufman, 1996). This changes the demand of retail, as consumers expect to find a wide range of goods in a single store. Smaller city center stores are not always able to provide in this demand, which could mean that increased demand of one-stop shopping leads to higher vacancy.

Flexible opening hours

The increased value of time also affected the demand towards retailers for more flexible opening hours. An increased amount of households with two full time employees and the 24-hour economy made the traditional opening hours of stores not sufficient anymore. Consumers required longer opening hours in the evening and more available Sundays to do their shopping. Store owners also wanted longer opening hours as a response to the upcoming of e-shopping. Limiting possibilities of flexible opening hours could possibly create higher vacancy in a city.

Change in demographic composition

Over the years the composition of western countries population has changed. First of all, there has been a steady decrease in the average amount of people per households (Hilderink et al, 2005). In combination with an increased population, this means that there is an absolute increase in the amount of households. More households mean that there is a higher demand for goods such as furniture and electronic goods, as every household needs these goods. As this increases the demand for certain products, it changes the demand for stores as well.

Another demographic change is the ageing of the population. The "baby boom" generation, a large group of people born just after the Second World War, is reaching their retirement. However, they have more spending power than the current senior citizens. Due to their good health they will continue their lifestyle with going to restaurants and going on holiday, as well as spending money on shopping. Due to the size of this group and their upcoming availability of time they influence the product range in city centers.

Another change in demography is the increased diversity of people. Due to globalization, open borders and immigrant workers, European countries have experienced an increased amount of ethnic diversity. These people not only consume European products, they have a demand for goods from their home country as well. More ethnic minorities mean that the demand for certain products changes as well.

2.3 trends in retail supply

Change in demand is often followed by change in supply, as retailers want to maximize their income by adjusting to the consumer's needs. However, not all desired changes are directly allowed by Dutch law. Changes in these laws and in consumer demand lead to different retail supply developments, which will be discussed now.

Experience shopping

A relatively new trend in retail is experience shopping. As a response to a demand of fun shopping and to counter the effects of e-shopping, several brands have opened experience stores. Stores try to attract customers by giving them the opportunity to try out goods. The idea is to give customers a

specific item in their hands and to show them how to use it. The thought behind the idea is that people are willing to spend more after they used and experienced the item. Examples of experience stores are Autostadt, an amusement park of Volkswagen, and Niketown, a large experience shop of Nike. As said, this form of shopping is not only a response to a demand of fun shopping, it is also a method to pursue consumers to physically visit a city center again (Sociaal Cultureel Planbureau, 2001). More experience stores could possibly reduce vacancy in a city, as it could attract more visitors to a city center.

Out-of-town shopping centers

As a consequence of one-stop shopping, retailers required larger retail floor space. However these amounts of space are scarce in city centers, creating a demand of floor space at peripheral locations in a city. Because out-of-town shopping malls had crowded out city centers in France and the United States in the 1960s, the Dutch government has kept a restrictive legislation to protect their city centers (Gorter et al, 2003). A legislation change in 1993 made it possible, to some extent, to locate outside city centers. Retailers did not only want to locate at peripheral locations due to the increased available floor space, also due to lower rents, higher accessibility and lower parking fees for visitors (Still and Simmonds, 2000). The upcoming of these peripheral shopping centers could increase vacancy rates in city centers as these centers offer similar products as the city center and most possibly will attract consumers which otherwise would have visited a city center.

Another form of a peripheral mall is the factory outlet center. Fernie (1996) describes these centers as close resembles of out-of-town shopping centers with similar lay out, parking facilities, presence of bars and restaurants but with a different selection of goods. In a factory outlet center different manufacturers, mainly clothing, offer goods for low prices. Because there is no intermediary store, the prices are lower compared to traditional retailers. Also, the product range is often of a previous season or a stock which has not sold well. This market is already large in the other countries such as the United States and France. Due to restrictive legislation The Netherlands has only three outlet stores currently; however there are 158 factory outlets throughout Europe (European Factory Outlet Centers Observatory, 2008). Just as with regular out-of-town shopping malls, these factory outlets could increase vacancy in Dutch city centers as they also attract consumers who would otherwise have visited a city center.

Opening hours

Another trend in retail supply is the increase in opening hours. As a consequence of the demand by consumers for more flexible opening hours, in 1996 the Dutch government made municipalities more autonomous in deciding their own opening hours. In most cities stores were allowed to be open on more Sundays in a year and in the evening as well. Due to this flexibility consumers have more possibilities to visit the city center, which could lead to more direct and impulsive sales (Jones, Lang and Lasalle, 2009). More sales could lead to lower vacancy. However, it has to be said that in 2009 the Dutch government is thinking of limiting opening hours again to preserve the Sunday as a day of rest. This development can increase vacancy in city centers as shopping possibilities will be more limited again.

2.4 Conclusions

This chapter has described the theoretical background of this thesis. It has shown that vacancy is a term which is often assumed to be clear, that everyone has an idea what it is. However this chapter has made clear that different forms of vacancy exist and that not every form of vacancy is per definition harmful to a city. The retail real estate market is described as complex, with more factors influencing vacancy than just rent. Suppliers affect vacancy by continuing to build retail floor space and buyers of retail space affect vacancy figures by preferring to wait for a top location instead of locating in a less desirable location. Municipalities on their turn can lower vacancy rates by investing in the creation of an attractive city.

Looking at the demand and supply of goods, there are several trends which influence vacancy as well. E-shopping increased rapidly in the last decade and people have less time available to do their shopping. City centers experienced the upcoming of fun shopping, which not only requires a decent

supply of stores, also an attractive city center. Retail suppliers are now able to move to peripheral shopping malls which are competitors of the city center and the upcoming of factory outlet stores also contributes to vacancy in a city center.

This chapter has shown developments and trends which have influenced vacancy in a city center. As mentioned, rent is not the only factor in explaining why city A has a higher vacancy than city B. The next chapter will describe other possible factors which also influence vacancy and could be even more important than rent.

Chapter 3: factors influencing vacancy

This chapter tries to explain what causes vacancy. As described in the introduction, an extensive overview of possible factors will be identified which are based both on the supply and the demand in retail. Vacancy can be caused by global developments as well as local factors. First of all, the relation between the attractiveness of a city, the location decision and retail rents with vacancy will be identified. This is followed by a review of scholars and their research on factors influencing vacancy. When these factors are known, the factors will be classified into exogenous or endogenous and will be discussed.

3.1 Vacancy as a derivative

Vacancy does not just occur in a city. Vacancy is a derivative of other factors, as vacancy arises as a consequence of changes in the retail sector. The changes which have been researched most by scholars are the attractiveness of a city, location decision factors of a retailer and at determinants of retail rent. These trends are of importance to determine the attractiveness of a store location and therefore directly influence vacancy in a city. As vacancy is a derivative and has not been researched a lot as such, it is important to know which factors affect the attractiveness of a city, the location choice and the retail rent level to understand which factors influence vacancy. Before these factors can be identified, the relationship between these three developments and vacancy are discussed.

3.1.1 Attractiveness of a city

Globalization and internationalization made it much easier for companies to locate all over the world. Companies used to be bound to their starting location, nowadays they move to another location more easily. This development caused more competition between countries and cities within these countries, which is explained by the Urban Life Cycle theory of Van den Berg (1982) as well. The Netherlands has an attractive tax policy for companies, but for a city it does matter if a company locates in their city or at their neighbour. This created a situation where cities are not only competing for companies, for residents, employees, (sports-) events and tourists as well (Lever, 1999). Several Scholars, such as Begg (1999), Kavartzis (2004) and Kotler (1999) argue that a city can only become economical healthy and prosperous if it is able to attract these groups of customers to their city. According to Cushman and Wakefield (2008), the most important factors for a company to locate in a specific city are qualified staff, easy access to markets, the quality of telecommunications, transportation links and the quality of life (European cities monitor, 2008). Creating a high quality of life should become an important goal of a city to attract residents and companies to your city (Porter, 2000).

Looking at the attractiveness of a city for residents, the quality of life plays an important role. Mercer Consultancy does a yearly review of the quality of life of cities and they use 10 groups of factors which influence the quality of life. One of these groups is "Recreation", which is measured by the presence of restaurants, theatres, cinemas, sports and leisure activities. Another group is "consumer goods", which is mainly measured by the diversity in goods which are supplied within a city. As fun shopping is more and more seen as a leisure activity and that the diversity of goods supplied is an important aspect of the quality of life, it can be said that retail plays an important role in the quality of life. Therefore, the supply of stores in a city is important to attract residents and visitors. The more visitors in the city center, the more attractive it becomes for retailers to locate in that area. In other words, if the quality of life in a city is good, it will attract more residents and visitors, which attracts more retailers. More retailers mean a higher demand for retail locations and, *ceteris paribus*, lower vacancy rates.

It can be said that retail plays a significant role in the successfulness of a city. Without good retail facilities, a city has a lower quality of life and becomes less attractive for residents. Fewer residents means less qualified staff, which on its turn reduces the attractiveness for companies to locate in the city, making a city less competitive and in the end it could lead to worse economic performance. Therefore, factors explaining the attractiveness of a city center have an indirect influence on vacancy in a city center and these factors can be used to identify factors influencing vacancy.

3.1.2 Location decision factors

Location decision factors are those aspects of a retail location which determine if a store location is suitable for a retailer. As indicated in chapter one, location is arguably the most important factor for a retailer. With the exception of magnet stores, all other stores are dependent on visitors passing their store and doing an impulsive purchase, making the location near a magnet store the most attractive (Louviere 1996, Konoshi and Sandford, 2002). As indicated in chapter two, retail locations in main shopping streets often have a waiting list while streets towards these main streets suffer from vacancy.

However, the position of a store within a shopping center is not only important, the location aspects of the shopping center itself are important as well. City center shopping areas do not only differ based on size, other factors as accessibility and the amount of magnet stores play an important role in location decision as well (Timmermans, 1986). A city that scores better on these location factors will attract more visitors and retailers and therefore experience an increase in store space demand. More demand will, *ceteris paribus*, lead to lower vacancy rates. Therefore, the factors which influence the location decision of retailer indirectly influence vacancy in a city and are therefore important factors which can explain vacancy.

3.1.3 Retail rents

From a pure economic perspective, the retail rent is determined based on the difference between supply and demand. When the supply is larger than the demand, the rent will decrease and vice versa. However, due to the complexity of the retail market (as described in chapter 2), this does not always hold. Several other factors influence retail rents as well, and these factors have been researched by several scholars. Examples of factors that also determine the rent are the amount of visitors in a shopping center, the size of the location in square meters and the wideness of the store (Bolt, 2003). Retail rent can also be seen as an indication of the attractiveness of a retail location, as higher rents per square meter are being asked for more attractive locations. Higher average rents in a city center could therefore indicate the attractiveness of a city center. A higher attractiveness leads to a higher demand and this can lead to lower vacancy figures. Factors that influence retail rents also indirectly influence vacancy in a city center and are therefore useful to indicate factors influencing vacancy.

Now that the relation between these three most important aspects of retail and vacancy are made clear, possible factors that influence vacancy can be identified. The next paragraph will discuss factors based on research of several scholars on vacancy, attractiveness of a city, location decision factors and retail rents.

3.2 Which factors will be taken into account?

As mentioned in chapter 1, vacancy can be caused by all sorts of factors. However, an important difference between factors is to which extent the factor can be influenced or altered by retailers or a municipality. Therefore, a distinction is made between factors that cannot be influenced, the exogenous factors, and the factors that can be influenced, the endogenous factors. Exogenous factors are important to know, however as they cannot be influenced, a city or a retailer has to take these effects as a given. On the other hand, the endogenous factors can be influenced and are therefore more different between cities and more interesting to research these effects on different cities. Before the factors are classified, an overview of possible factors per scholar is given first.

Mcallister

Mcallister (1996) reviewed different factors influencing the rent of retail property. As explained, the rent can be seen as an indication of the attractiveness of a location, as the willingness to pay for a more attractive location is higher than for a less desirable location.

According to McAllister, there are four main levels which influence the turnover of a retailer in any city. Higher turnovers mean an attractive location and thus higher rents. These levels range from global to local:

1. Macro-economical factors: inflation, economic cycle, average GDP
2. Quality of the shopping center: the attractiveness of the surroundings, the locational, physical, functional and commercial quality of the shopping center
3. Quality of the shop unit: the position of the shop in the center, the available space, average rent
4. Quality of the retailer: the quality of the manager, what products do they sell, is the store set-up well

Looking at which factors could influence vacancy, the quality of the retailer is of less importance to this thesis. Every company will most probably not perform well with a manager who does not perform adequately and this is really a factor which is the own hands of a store owner. Other factors such as inflation and the quality of a shopping area do influence vacancy and will be taken into account.

Timmermans

Timmermans (1986) researched the location choice behavior of retailers. Factors influencing the location decision are important to vacancy as well, as a non-desirable location will experience vacancy faster than desirable locations. He interviewed 39 different store owners in Meyel, a small Dutch city. Timmermans asked the store owners what they found to be the most important location factor to locate their store in a hypothetical city. The results of these interviews are shown in the figure below:

Figure 3.1: Location decision factors ordered by importance

Attribute	Frequency	Percentage
1. Accessibility	39	100
2. Size of centre	33	85
3. Extension possibilities	36	92
4. Distance to competing stores	26	67
5. Presence/absence of magnet stores	32	82
6. Presence/absence of banks	32	82
7. Presence/absence of restaurants, bars, etc.	23	59
8. Distance to other types of shops	31	79
9. Fixed costs	33	85

Source: Timmermans, 1986

The figure shows that the accessibility and the size of the center are the most important factors, with the presence of a magnet store as an important third. A conclusion made by Timmermans (1986) is that the economic factors play a much larger important role than distance factors, indicating that the proximity of other functions of a city are less important. These nine factors are used by Still and Simmonds (2000) as well in their research on parking policy to indicate the importance of accessibility for the vitality of a city center. However, it has to be said that Timmermans only looked at local factors and did not take national or global factors into account.

O'Roarty et al.

O'Roarty et al (1996) reviewed the impact of retailers' store selection criteria on the estimation of the retail rents. The research started with identifying which factors actually did influence the location decision of retailers. O'Roarty et al interviewed 50 people who are responsible for the location of approximately 9500 stores located in high streets in cities in the United Kingdom. These interviewees were asked to indicate which change (factor) would have the largest impact on the location decision for a store. The factors which could be chosen from were based on locational, physical and lease-term characteristics. These results of this survey are shown in the figure below.

Figure 3.2: most important location decision factors in the UK

Property characteristic	Retailers	
	Index	Rank
Rent	0.976	1
User clause	0.912	2
Position (prime/secondary)	0.90	3
Area	0.89	4
Alienation	0.864	5
Position (maximum pedestrian (flow)	0.848	6
Frontage	0.844	7
Review cycle	0.776	8
Frontage breaks	0.772	9
Quality of floor space	0.736	10
Quality of adjacent tenants	0.728	11
Frontage to depth ratio	0.712	12
Window size	0.696	13
Shape of floor area	0.692	14
Depth	0.688	15
Break clause	0.684	16
Term of years	0.664	17
Service charge	0.656	18
Repairing covenant	0.652	19
Return frontage	0.644	20
Transport termini	0.64	21
Quality of vertical flow	0.62	22
Rateable value	0.596	23
Provision of upper floor sales space	0.58	24
Upward-only review	0.58	25
Access	0.52	26

Source: O'roarty, 1996

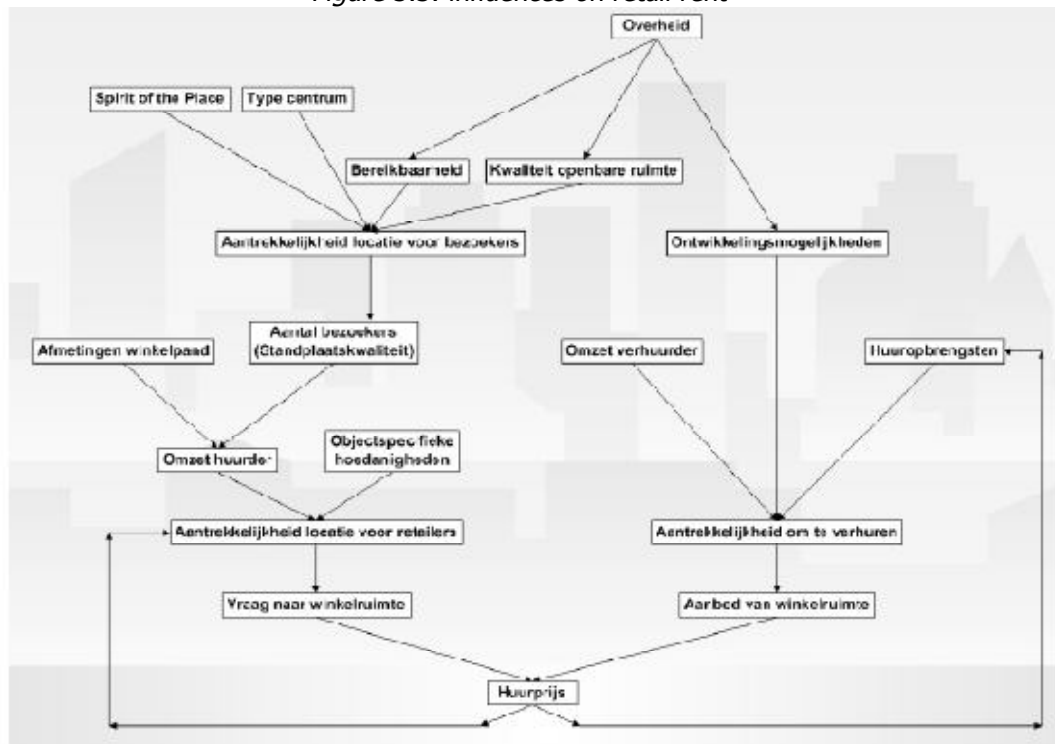
It shows that the rent of a location is the most important location factor. This can be expected, as it has a direct impact on the profitability of the store. The second factor "user clause" consists of the function conditions, i.e. is a store allowed to sell goods from this location, which is of clear importance. The 3rd important factor is the location, both the area (in a city) as the location in a street. Stores with a wide window and are less deep are often preferred to deep stores (Bolt, 2003), however according to this survey the quality of the floor space and the adjacent tenants are more important. Adjacent tenants usually mean the presence of magnet stores. The most striking result is the low position of "access" which is often indicated by store owners as very important, especially access by car.

Bolt

Bolt (2003) argues that the most important factors influencing the retail rent are the amount of visitors in a specific location, development of turnover, government interference, the type of shopping area, the difference between demand and supply, the "spirit of the place" (the perception people have of a city, a shopping area or street), the size of the location and the location specifications (architecture of the building, the store setting etc). To indicate the relations between these factors

and their influence on the retail rent, Van Houwelingen (2008) created an overview of these factors which can be seen below.

Figure 3.3: influences on retail rent



Source: Van Houwelingen, based on Bolt (2003)

It shows that the main factor influencing the retail rent is the difference between the demand and the supply of store space. Both the demand and the supply are influenced by different factors. As explained in 3.1, this figure is applicable for vacancy as well as the retail rent plays an important role in vacancy. If a location is unattractive due to the size and a lack of visitors, it does not only lead to a smaller demand and therefore lower retail rent, but also to an increased chance on vacancy. Bolt mainly indicates local factors, leaving global factors and national factors (with the exception of government) out of his scope. The table below shows a clear overview of the mentioned factors.

Table 3.1: Factors influencing retail rent

1. Difference between supply and demand	2. Spirit of the place
3. Turnover retailer	4. Quality of the public space
5. Object specific specifications	6. Accessibility
7. Amount of visitors	8. Possibilities to expand
9. Size of the location	10. Expected rent turnover
11. Type of shopping center	12. Turnover of the retailer

Source: Van Houwelingen (2008), based on Bolt (2003)

In another research by Bolt he indicates another factor: the proximity of other shopping centers ("Zicht op markthuren winkelpanden", 2004). The further away another large shopping center, the more residents are inclined to do their shopping in their own city. In other words, people are averse to generalized transportation costs. In a town with 20.000 inhabitants, 55% of the people buy their non-daily goods in the city on average. If another city centre is very close (< 5km), only 40% of the inhabitants buy these goods in their own city. On the other hand, if a city is 25 kilometres away, 75% buys their goods in their own city. Less competition means that stores in a city have a larger catchment area, which means that they serve a larger crowd. More captive people means that the demand for goods is higher, which increases the demand for store space as well. Therefore, the less

competition in a region, the higher the demand for retail space and, ceteris paribus, the lower the vacancy.

Van Houwelingen (2008) did not solely look at theoretical factors which influence retail rents in cities as seen in the figure above, he also surveyed store owners in streets towards main shopping streets to find out which factors have the largest influence on retail rents in those less preferable locations. Next to the mentioned factors in the figure, the presence of specialty stores, the excess availability of employment agencies and travelling agencies and the lack of commitment to the city are factors which influence retail rent, and thus vacancy, as well. The presence of local self employed store owners is essential, as it contributes both the amount of specialty stores and to the commitment with the city center. This survey also indicates that a diverse supply of stores is important for a city center. The results of the survey are shown in the table below

Table 3.2: Factors influencing rents in streets towards main shopping streets

Positively evaluated aspects	Mentioned	Negatively valuated aspects	Mentioned
Presence speciality stores	54	bad accessibility	17
proximate retail developments	16	too much vacancy	14
part of the city center walking route	12	no crowd puller	9
specific store	11	too many traveller agencies	8
presence of institute	5	not enough involvement with main street	7
accessibility	4	not enough people passing by	7
proximity to main street	3	too strict advertisement policy	6
looks of the store	2	inconvenience due to youth and drugs	6
out of the city center walking route	2	messy streets	6
renovations of public space	2	unattractive beginning of the street	5
part of the "VVV" route	2	too few retailers	5
rest	4	no shared exterior	4
		too much traffic, loading/unloading	3
		not enough green	3
		bus traffic	3
		building activities in the vicinity	2
		not enough atmosphere	2
		rest	4

Source: Van Houwelingen, (2008)

Benjamin

Benjamin researched the determinants of shopping centers rents (1990) and created an empirical test of the difference between retail demand and supply (1998). He indicates which factors influence the difference between retail supply and demand, which could lead to vacancy. A mismatch in demand and supply for retail space has the potential to reduce rents, raise vacancies, and challenge the financial worthiness of retail landlords and creditors. As these factors influence vacancy as well, these factors influencing difference in demand and supply will be taken into account.

Retail rents, retail sales, low retail vacancy, constraints on future development (e.g. zoning, few available sites, and master plan restrictions), population growth and aggregate disposable income of the local population have influenced the demand of retail space, while economic climate, land availability, capital market cycles, interest rates and tax law have influenced the supply of retail space.

The supply is influenced by demographic, sociological, economic trends and local conditions as well. Also, Benjamin indicates results of Eppli and Shilling (1996), who state that retail sales of a local center decreases when nearby centers are larger in size, the distance to competing malls is small and the average disposable income of nearby residents is lower. An overview of these factors is shown in the table below, and it shows that Benjamin takes both local as national and global trends into account.

Table 3.3: factors influencing supply and demand of store locations

Influencing supply	Influencing demand
Economic climate	Retail rents
Land availability	Retail sales
Capital market cycles	Low retail vacancy
Interest rates	Constraints on future development
Tax law	Population growth
Demographic trends	Aggregate disposable income of locals
Sociological trends	
Local Conditions	

Source: Benjamin (1998)

Massagli

Massagli (1996) researched the impact of e-tailing on place-based shopping in the United States. More specific, the future of downtown shopping centers is reviewed. In order to do so, critical success factors of a downtown shopping center were identified. According to Massagli there are five different critical success factors for a shopping center. The first two were based on tradition retail point of view, while the other three are based on new developments that play a role for consumers to decide where they want to go for shopping. Looking at vacancy, a shopping center with low scores on these factors could experience higher vacancy rates as these shopping malls are less attractive. Therefore, the mentioned factors could explain vacancy rates in a city center. These factors are shown in the table below.

Table 3.4: factors influencing success of downtown shopping

Factor	Explanation
Proximity, accessibility and convenience	Close to major business centers and urban areas, access to public transport and major roads, easy parking
Exterior, store layout, interior décor, merchandise presentation	Visually appealing, inviting, efficient shopping experience, attractive displays
Sense of the place	Provides excitement, creates a unique identity to the place, emphasizes qualities not found anywhere
Community benefits	A mixture of events and promotions that play a civic role, creates a safe environment
Experiential components	Provides entertainment, an unique experience, interactive environments

Source: Massagli (1996)

Scholars who have mentioned single factors

This paragraph discusses single factors mentioned by different scholars. The previous scholars looked into different matters from a wide perspective, while the next scholars focused on a single factor and went more in depth into the specific topic. The factors mentioned will be briefly discussed, as each factor will be discussed in more detail in the next paragraphs.

Still and Simmonds (2000) illustrate the importance of the presence of a magnet store (or crowd puller) in a city center. These kinds of stores are the stores that attract people to visit the city. In contrast to other stores, these stores are not dependent for their sales of customers of other stores, as they generate enough customers to realize a stable income. Smaller stores need the presence of

magnet stores as these stores are responsible for a large amount of visitors. More magnet stores in a city center means that the city is more attractive to visit and thus to locate your store as well.

Louviere (1996) researched the influence of the presence of anchor stores on the perceived image of a shopping center. *Konishi and Sandfort (2002)* also looked into the effects of anchor stores in a peripheral shopping center. They define an anchor store as a store that increases, through its name and reputation, the traffic of shoppers at or near its locations, increasing the sales and profits of nearby stores. An anchor store can therefore be seen as a synonym for a magnet store as explained by *Still and Simmonds (2000)*. *Louviere* concludes that anchor stores have a strong impact on the image consumers have on the shopping center. In addition, due to their impact, they explain most of the variance between shopping centers based on visitors as well.

Weltevreden has written several articles on the impact of the internet age on city centers. Amongst other papers, he has looked into regional differences of e-shopping in The Netherlands in 2006, he looked into the competing and complementary aspects of e-shopping in a city center shopping in 2005, the adaptation of e-shopping of Dutch retailers in 2006 and into the general developments in the Netherlands regarding city center shopping and e-shopping in 2005. In his papers *Weltevreden* argues that e-shopping has changed city center retail shopping, however with a decent strategy and an attractive location a city center will remain attractive for visitors as well.

Maher et al (2007) have written a paper on the importance and the influence of transparency on the retail real estate market. High transparency eases the access to local information, making it easier to decide if they should invest in a country and it helps looking for investment opportunities. Higher transparency lowers the risk of investing, as more information can be known upfront. However, a market with low transparency is not necessarily bad if this could mean that an entire new market can be reached, for instance in the Middle East. As this paper focuses on city center in The Netherlands, transparency could be of less importance as it will be practically be the same in every city. However, on a global basis it could affect the location decision making process of global store chains to locate in The Netherlands in general. More transparency could mean that these stores locate more easily, leading to higher demand of store space and therefore less vacancy.

Jones, Lang and Lasalle argue in their retail market special 2009 that limited opening hours could lead to vacancy. Due to the upcoming of e-shopping and the increased amount of households with 2 full time workers changed the demand of opening hours of stores. People have less time available to do their shopping during the day, forcing them to do shopping in the evening or on weekends. One of their conclusions is that people scream for wider opening hours, while the government is currently looking into limiting the current opening hours in The Netherlands.

Accessibility is regarded by many different scholars (o.a. *Gutierrez, 2001, Russo and Van den Borg, 2002*) as an important location factor, not only for stores, but for offices, houses and other businesses as well. *Bruinsma and Rietveld (1997)* researched the relation between the attractiveness of a city to locate your business in relation to the cities' accessibility and they find a strong relation between a city's attractiveness and its position in the Dutch road network.

Gorter et al (2003) researched the causes of the upcoming of out-of-town shopping. They indicated that as these locations became popular because of low rents and easy accessibility. Also, they indicate that city center shopping became less popular since the 1960's due to decline in accessibility, lack of parking space and limited possibilities to expand. This development is also indicated by *Nijkamp (2000)*.

Monheim (1998) reviewed methodologies to measure the attractiveness of a city center. An important note of *Monheim* is that visitors identify the quality of goods offered, the professionalism and friendliness to the customer and the attractiveness of the urban environment as important factors. On the other hand, retailers think customers value accessibility by car as the most important factor. Looking at accessibility, there should also be a distinction between internal and external accessibility.

Campo et al (2000) focuses on the composition of the population of a region to determine the sales in a city center. More sales in a city center could reduce vacancy as a higher demand in goods leads to a higher demand in store space. They argue that total sales increase is based on the local market potential and local buying power. These factors are on their turn influenced by population characteristics such as family size, age distribution, income level and ethnicity. Therefore, the demographic composition and their economic power can be important factors which influence vacancy.

Every factor mentioned influences a city center in the Netherlands. However, some factors can be influenced by local parties as the municipality or retailers, while others can hardly be influenced due to their scale or other characteristics and affect every city quite similar. As this thesis has the goal to give possible explanations why city A suffers more from vacancy than city B, a distinction is made between those two sorts of factors. First, exogenous factors will be explained, followed by the factors that can be influenced or altered, the endogenous factors.

3.3 Exogenous factors

Exogenous factors are those factors that influence vacancy from outside the city center and cannot be altered or influenced by a retailer or a single municipality. Store owners can diminish the effects of the factors by anticipating on possible consequences on changes in these factors. These exogenous factors will be discussed now.

3.3.1 Economic recession

The current economic recession affects many different markets around the world, and the Dutch retail market is just one of them. According to the Raad Nederlandse Detailhandel² the economic recession has a significant impact on the amount of stores. According to the CBS, average consumer spending has gone down as a consequence of the current (which started in many countries in 2008) recession. Lower consumer spending is especially harmful for smaller stores in less preferable streets, the streets towards the main shopping area. Looking at current retail sales figures, the amount of sales in the first quarter of 2009 was 5% less than sales in 2008, which represents a turnover decrease of 3% (CBS, 2009). However, the economic recession did not hurt every retail category equally. Furniture, clothing, shoes, DIY and computer stores have experienced a decrease in sales, while supermarkets, bicycle stores and housekeeping stores have experienced an increase in sales. Based on figures of the CBS, the average purchasing power of consumers has increased with 2% in comparison to 2008, despite the economic recession. However, according to the hoofdbedrijfschap Detailhandel (HBD, another representative organisation of retail) people spend less due to economic uncertainty and people prefer to save money, up to 5 times more than usual. Although consumer purchasing power has increased, their spending has decreased as a consequence of increased saving. Apparently the perception of the economic recession caused lower demand and thus fewer sales in city centers, which could reduce the amount of stores and increase vacancy. The RND predicts that a total of 5.000 to 10.000 stores will disappear in the near future as a consequence of the economic recession.

3.3.2 Globalisation

Economic globalisation can be described the process of the reduction and removal of barriers between national borders to increase trade, capital, services and labour (Martel, 2007). Transport became very cheap as a consequence of economies of scale and the introduction of the container in the 1957, which fuelled the introduction of many goods from all over the world to European markets. Looking at retail, globalisation has both a positive and a negative influence on it. Globalisation caused the internationalization of retail and wholesale (Mattson, 2002), which allowed chain stores to locate in new markets more easily, which created a larger supply of different stores. New retail formulas in cities increased the demand of store space, which at first reduced vacancy. Also, new formulas and stores can attract more people who want to experience new kinds of stores. On the other hand, new chain stores in a city center increases competition. This can reduce the amount of self employed store

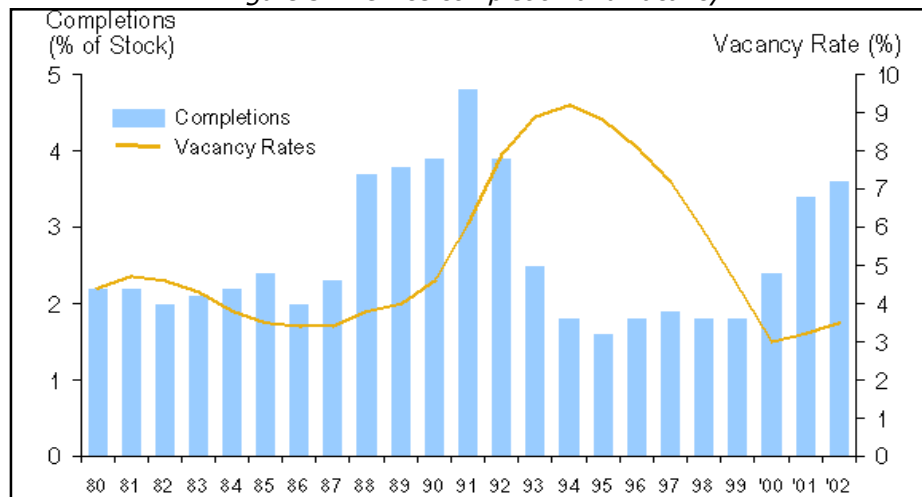
² RND is a Dutch retail employers' organization who represents the interest of retailers. Together with MKB Nederland they form "Platform Detailhandel Nederland", which also represents the interest of retailers and does research on retail topics.

owners, who are seen as positive aspects of a street. Also, rents can increase as the demand of store space increases. Chain stores could be able to pay for these higher rents, self employed store owners often have more trouble paying those amounts of money and are therefore forced to move to less desirable locations. If these streets also have higher rents due to increased demand in store space, it could lead to higher vacancy. Therefore, globalisation both negatively and positively influences vacancy in general.

3.3.3 Economic cycle

The economy is always in a cycle. The earlier described economic recession is a clear example of economic decline, while there are also periods in time when the economy is booming. This economic cycle influences almost every market, including retail in The Netherlands. Looking at a similar market, offices, it shows that investments in office space also experience the economic cycle. Developers invest in real estate when the economy is booming: at that moment in time there is a large demand in office space. However, construction can take years and when these buildings are completed, the economy is already in decline. A declining economy is a consequence of less spending and as a consequence, there is less demand for office space. As more office space comes available on the wrong time in the cycle, it means that the gap between supply and demand becomes even larger which leads to more vacancy. This process becomes clear when comparing figures of vacancy and office completion in one figure between 1980 and 2002:

Figure 3.4: Office completion and vacancy



Source: Jones, Lang and Lasalle (2002)

It is clear that the orange line, vacancy, follows the completion of offices. A clear peak between 1987 and 1991 in completed offices is followed by a peak in vacancy in 1994. A similar pattern can be seen with retail locations, as both markets are part of the real estate market and are influenced by similar factors. The influence of the economic cycle on vacancy is argued by Bolt (2003) as well.

According to Bolt, the average vacancy rate is approximately 5% during an economic boom, while during an economic recession this figure can go up to 10%. Vacancy is a derivate of the economic situation, as the situation directly influences the spending power of a consumer. Spending power does not only influence retail sales, the perception of the economic situation also affects sales. As explained at "economic recession", although spending power of people increased, they spend less and preferred to save money. Both the true economic situation and the perception people have influence city center sales and thus vacancy.

3.3.4 Inflation

Inflation is the rise of general prices of products and services in an economy, usually determined on a yearly basis. Money growth over GDP growth leads to inflation: if more money comes on the market while the GDP stays the same, the money becomes less valuable, which leads to higher prices (Van

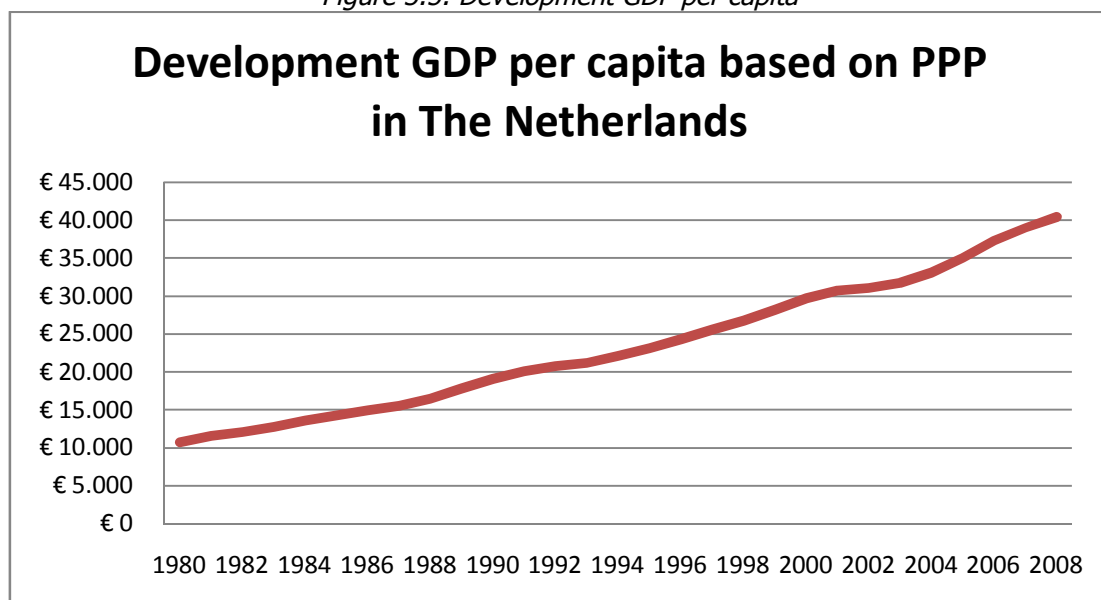
Marrewijk, 2006). If the inflation is higher than the growth of GDP, goods become more expensive. For the same amount of money, people can now buy less (the purchasing power of the currency becomes less). Fewer products for the same amount means a lower demand, less purchases means less income for store owners, which could lead to vacancy. Therefore, a high inflation in a country could lead to lower disposable income, fewer sales, less income for retailers and thus vacancy. Therefore, the inflation has to be seen in relation to the GDP per capita. This is discussed next.

3.3.5 Average GDP per capita

Gross Domestic Product (GDP) is the sum of the total value of all goods and services produced in a year and it is usually seen as an indicator of a country's economic performance. GDP per capita is the total value divided by the population. The GDP per capita is not a measurement of the standard of living or personal income of people in a country. However, research did show that it can be said that the standard of living tends to increase as the GDP per capita increases (Inglehart and Klingemann, 2000). When comparing the real income levels of two different countries, a Purchasing Power Parity (PPP) correction is needed. PPP takes inflation and costs of living into account, creating a better comparison between countries (van Marrewijk, 2006). The absolute GDP per capita can be the same between two countries, one country could have higher costs of living creating a lower disposable income per inhabitant. PPP controls for this difference, creating a level playing field to compare countries. Therefore, the higher the PPP in a country, the more money people relatively can spend. However, it has to be said that comparing PPP on the short run does not always hold: a country with a higher PPP could have less spending power on the short run due to internal change. On the long run PPP does hold (Van Marrewijk, 2006). Also, determining the PPP is done by comparing tradable goods between countries. Non-tradable goods are not taken into account, although these prices do affect the costs of living. However, as explained earlier, the assumption is made that an increased GDP per capita measured in PPP represents an increase in disposable income, i.e. people can spend more.

Looking at GDP per capita in PPP on a national level, there has been a steady increase over the last 30 years. The development of the average GDP per capita, corrected for PPP, is shown in the figure below.

Figure 3.5: Development GDP per capita



Source: CBS, 2009

It shows that people have more to spend, as the GDP per capita in PPP increased from €10.700 in 1980 to €40.400 in 2008 (an increase of 377%). This means people have more money to spend on goods in the cities. More money available could lead to higher demand for goods in a city center, however the disposable income of residents should be taken into account before making conclusions on the relation between GDP per capita and vacancy. The disposable income will be discussed now.

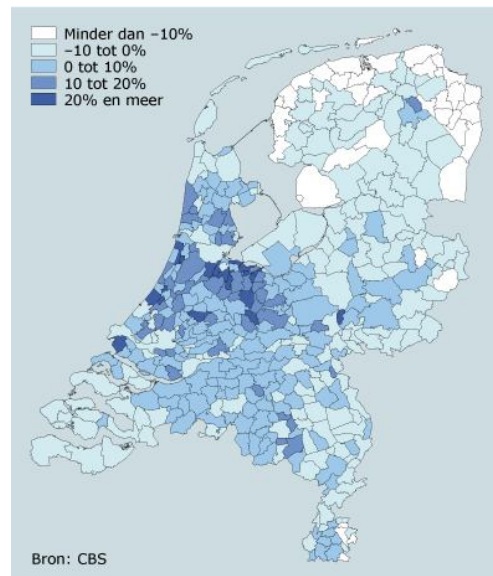
3.3.6 Disposable income

Just as the average GDP per capita, the disposable income in The Netherlands has experienced a steady increase as well. A higher disposable income means that people have, on average, more to spend. Increased disposable income often goes together with higher expenditures and more purchases, as people tend to spend more of they have more money available. More purchases means more sales for retailers, which would result in a higher demand of store space, as more retailers want to profit from increased sales. However, unexpected decline in disposable income is the factor that influences vacancy. Store owners want to locate in a city where people spend their money and they expect, based on the average increased disposable income in the last decades that the amount of purchases will keep increasing as well. Cities develop new urban areas and real estate developers try to anticipate on increased consumers by building more retail locations. However, just as what is currently happening in 2009, people spend less due to the economic recession. Less spending in combination with an oversupply of retail space increases vacancy in city centers. Therefore, it is the decrease in disposable income which actually influences vacancy in a city centre as vacancy arises when people spend less.

The disposable income is not evenly spread across The Netherlands which could mean that there are regional differences in vacancy as well. Differences in disposable income means that population in one province has less to spend than in another province, which means that less money spend could lead to higher vacancy rates. However, PPP is not taken into account with these figures so it is possible that due to higher living costs, people with less disposable income in rural areas could actually have a higher spending power. However, to illustrate regional differences in income in The Netherlands, the table below shows the Dutch index of disposable income per province (2008) and the figure shows the average disposable income per municipality.

Figure 3.6: average disposable income in The Netherlands

Province	Disposable income index
Drenthe	94
Flevoland	95
Friesland	90
Gelderland	99
Groningen	90
Limburg	96
Noord-Brabant	101
Noord-Holland	104
Overijssel	94
Utrecht	108
Zeeland	96
Zuid-Holland	102



Source: CBS, 2008

It shows that the Randstad area is the area with the highest average income in The Netherlands. Comparing this with figure 3.7 and table 3.5 it shows that this region also has the largest competition of shopping centers and the lowest average vacancy rate. Although there could be different explanations, it is possible that the higher disposable income attracts retailers to locate in this area and that the higher spending rate can support more stores and thus creating less vacancy.

3.3.7: National location policy

The Netherlands has always had a restrictive policy on out of town shopping centers. These shopping centers already occurred in other industrialized countries as the United States, France, the United

Kingdom and Germany since the 1960s. Due to increased pressure of retail organisations, the Dutch government kept protecting the city centers to secure their vital city centers. France did not limit this development and nowadays the large out of town shopping centers (hypermarchés) dominate the market and have crowded out city centers, leading to long lasting vacancy (Gorter et al, 2003).

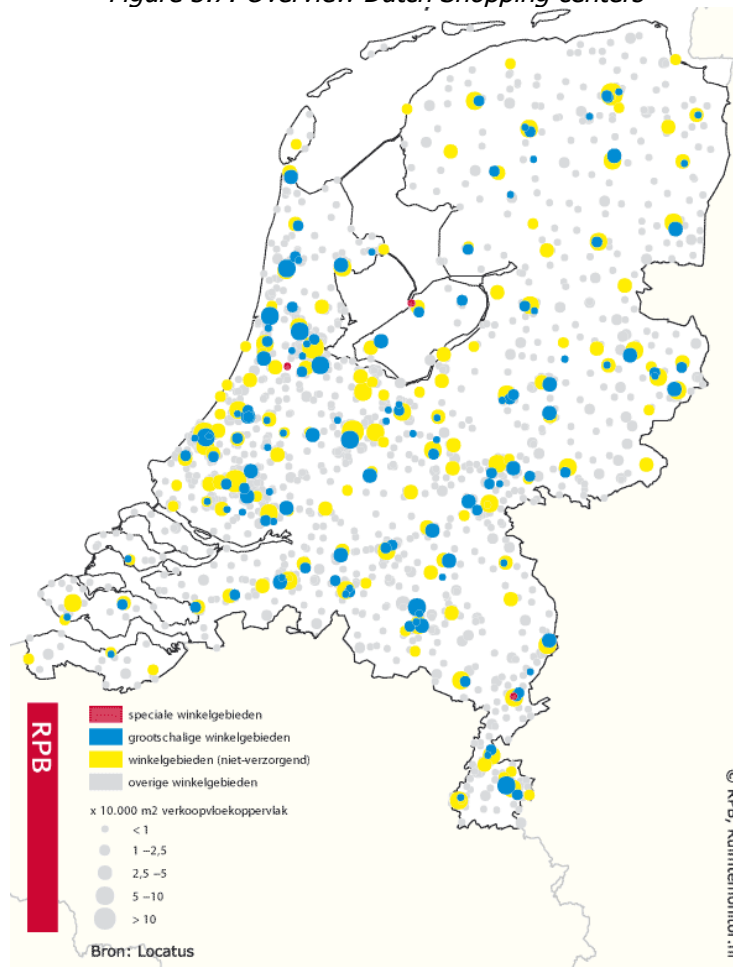
In 1993, the Dutch government allowed to some extent the development of these peripheral shopping locations ("PDV/GDV beleid" in Dutch). The first shopping center was built in 1995 in Rotterdam, Alexandrium. Gorter et al researched the effects of these new shopping centers on the functioning of the city center's retail sector. One of their conclusions is that almost 50% of the visitors indicated they visited as "fun shoppers", which is bad for the city centers as these centers are usually seen as more attractive for fun shopping. Also, almost 50% indicated that they would have purchased their goods in the city center if the shopping mall did not exist. However, another conclusion is that especially local people substitute their city center for the shopping mall, not the people living further away. Therefore, it can be said that the national location policy has an influence both on the supply of stores and the demand for stores in the city center, as it became possible for retailers to locate in a shopping center and for consumers to visit these shopping centers. Less demand for store space in the city center could therefore lead to higher vacancy if a shopping mall is located in the proximity of the city center.

3.3.8 Regional competition

According to Bolt (2004) the further away another large shopping center, the more residents are inclined to do their shopping in their own city. In other words, people are averse to generalized transportation costs (GTC). Therefore, the presence of competition on a regional level is important to indicate differences between vacancies in a city. Lower competition could mean lower vacancy, as there are only a few alternatives available for consumers, while their demand for a diverse supply of goods can be assumed to be similar to consumers in an area with strong competition.

The Dutch Environmental Assessment Agency, "Planbureau voor de leefomgeving (PBL)" in Dutch, is part of the Dutch Ministry of Housing, Spatial Planning and the Environment (VROM) and performs strategic policy analysis to improve decision making on natural, environmental and spatial planning (PBL mission statement, march 2009). In their report "Ruimtemonitor" they indicated new retail centers in the Netherlands as well as all other 2100 shopping centers in The Netherlands. The situation of the Netherlands is shown in the figure below.

Figure 3.7: Overview Dutch Shopping centers



Source: Locatus, 2004

The figure shows shopping locations in The Netherlands in 2004. PBL has divided The Netherlands into three normal categories based on facts of Locatus (2004) which differ in size, and one special category. The pink dots are special retail centers as these are the factory outlet stores in Lelystad and Roermond. As of 2007 Roosendaal has a factory outlet center as well, however this is not shown in the figure. The blue centers are the central shopping areas, the yellow dots are supporting shopping areas and the grey dots are the smallest, other shopping areas.

It shows that the major large shopping centers (blue dots) are located in the Randstad area. There are also several regions with few shopping centers such as Zeeland and the Northern part of the Netherlands: Drenthe, Friesland and Groningen. Based on theory of Bolt, this would mean that these regions have less competition, a larger catchment area and thus lower vacancy rates. Randstad provinces would have higher vacancy due to increased competition. However, looking at vacancy data of Locatus (June, 2009, see table below) this is not entirely true.

Table 3.5: vacancy index The Netherlands

Province	Vacancy index June 2009
Drenthe	94
Flevoland	89
Friesland	80
Gelderland	102
Groningen	107

Limburg	157
Noord-Brabant	106
Noord-Holland	64
Overijssel	110
Utrecht	84
Zeeland	123
Zuid-Holland	107

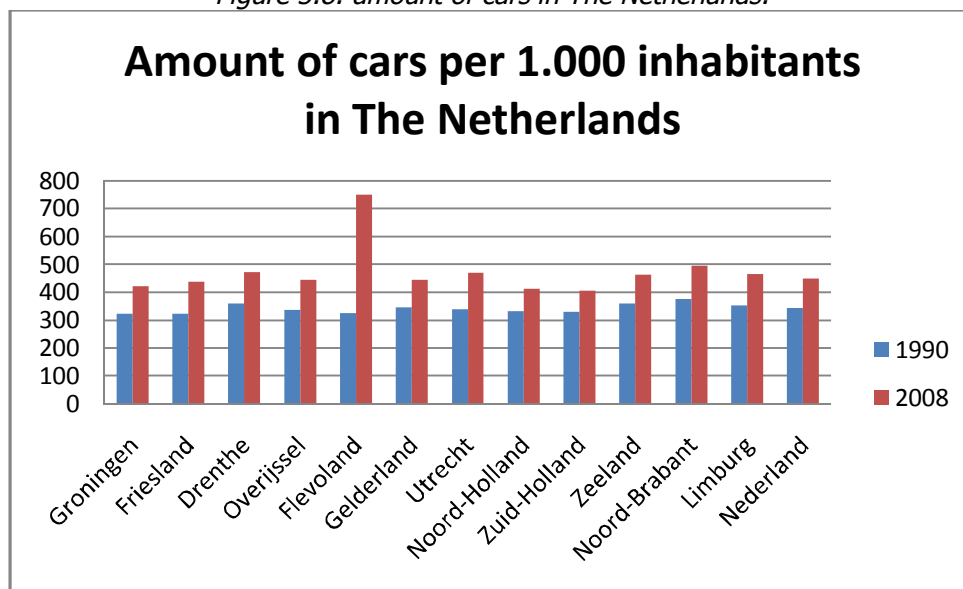
Source: Locatus, 2009

The table shows that Drenthe and Friesland actually have less vacancy and Groningen is just above average (107) while Zeeland has the 2nd highest vacancy in The Netherlands. Looking at provinces with large competition, Noord-Holland and Utrecht are in first and third position of provinces with the lowest vacancy. Zuid-Holland is just above average with 107. It shows that regional competition does not have a large influence on average vacancy in a city center. It shows that both regions with low competition have low vacancy (with the exception of Zeeland) and regions with high competition have low vacancy, and therefore it could be said that proximity of competition does not have a causal relation with vacancy and that it can be assumed that vacancy is caused by other factors.

3.3.9 Increased mobility

The average disposable income of people has steadily increased over the years. This increased spending power lead to an increase in car use in European cities (Beirao and Cabal, 2007, Gorter et al, 2003). Nowadays a car is not seen as a luxurious good, but as a necessary good. Easier access to cars means that people can move around more easily. People are less bound to local shopping facilities as many other shopping centers are just a few kilometers away. Mobility expands the catchment areas of cities which lead to increased competition: not only between same types of stores in different cities, to entire cities as well (Weltevreden et al, 2005). This increased mobility is shown in the amount of cars per 1000 inhabitants in The Netherlands.

Figure 3.8: amount of cars in The Netherlands.



Source: CBS, 2009

The figure shows that every province has experienced an increase in amount of cars between 1990 and 2008. Large increase in Flevoland (founded in 1986) can be explained by the increased population in this newest province of the Netherlands. Between 1986 and 2008 the population doubled from

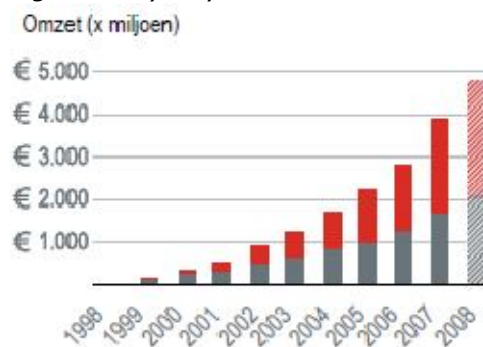
177.000 to 383.000 in 2008, while the average growth in The Netherlands in the period was 14% (CBS, 2009). This rapid increase of population also explains the rapid increase in amount of cars. Increased mobility leads to a larger range in which people are willing to do their shopping, which increases the competition between different city centers and stores as these cities create a larger catchment area. Due to economies of scale and increased mobility, chain stores often reduce the amount of stores in each other's proximity and locate only in the most attractive city, changing the supply of stores in a city. Cities that are less attractive could therefore attract fewer visitors (which lowers demand) due to a lack of crowd pullers and experience higher vacancy rates than more attractive cities in their vicinity.

On the other hand, this increased mobility can lead to less accessible city centers by car. More cars on the road mean a larger chance of congestion. A good accessibility to stores is seen as a benefit for a city center, while congestion obviously reduces this accessibility. Several scholars as Gärling et al (2002) Bartik (2005), Banister and Stead (2003) and Beirao and Cabal (2007) argue that mobility management (MM, or Transport Demand Management. TDM) is the most viable way of reducing congestion in city centers (see Parking policy in 3.4.5 for more details). Also, increased environmental and social costs of private car use, such as pollution and depletion of energy, lead to a focus on reducing car usage via MM. MM uses soft measures as incentives to reduce car usage in city centers instead of hard measures as increasing the amount of roads to reduce congestion. Cities with a more pro-active role in reducing congestion via these MM measures could become more attractive for people to visit and more visitors could lead to less vacancy in the city center. On the other hand, reducing accessibility by car via MM can reduce the amount of visitors as visitors prefer cities with good accessibility by car. This is discussed in more detail at "Parking policy", 3.4.5.

3.3.10: E-shopping

Due to the upcoming of the internet and the constant increase of GDP per capita, which makes time more valuable, E-shopping has experienced a rapid increase over the last years. Although several scholars argue that e-shopping does not merely contribute as much to vacancy as the fact that there is too much retail space available, it does contribute to vacancy in certain sectors. The figure below shows the rapid increase of internet sales in The Netherlands, where the grey part of the column represents internet retail sales and the red part all other internet sales (such as insurances, tickets etc)

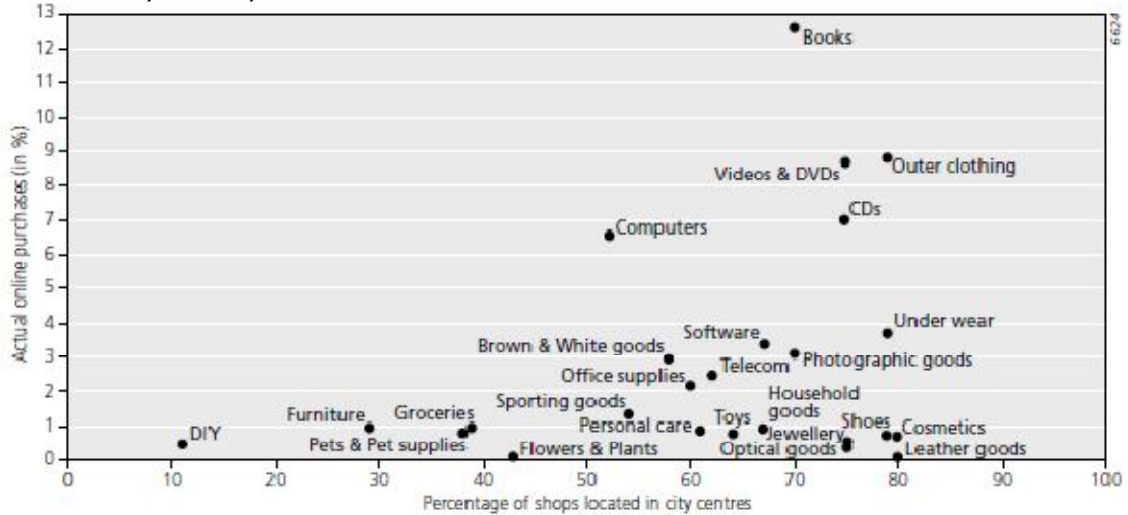
Figure 3.9: yearly turnover internet sales



Source: Jones, Lang and Lasalle, 2009

Within 10 years the internet sales has increased to a total of 5 million euro. However, this 5 million euro is not distributed evenly among different types of goods. The figure below makes a comparison between the internet sales of a type of good (vertical axis) and the percentage of stores that sell these goods that are located in the city center (horizontal axis). The higher the type of good, the more internet sales. It shows that books suffer largely from e-shopping, just as electronics and multimedia goods. A city with many book stores and multimedia stores can therefore experience a decreased demand of goods in their city and become more sensitive to increased vacancy due to e-shopping.

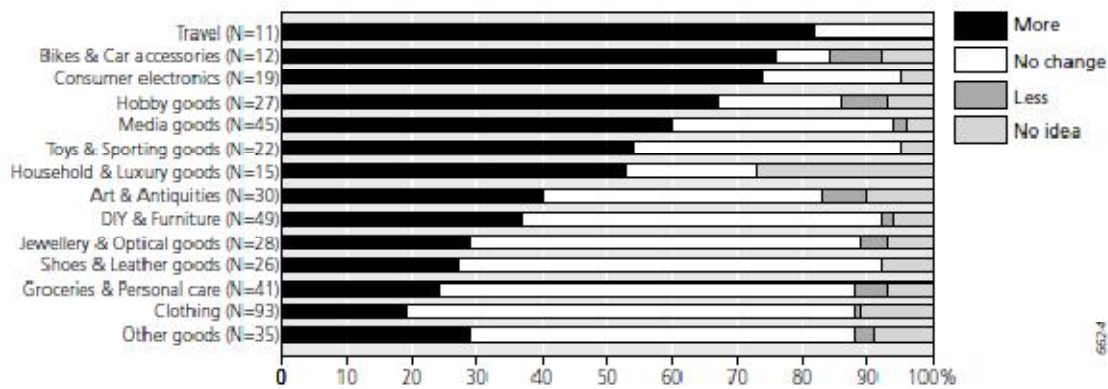
Figure 3.10: City center presence and e-commerce sensitiveness of retail sectors in The Netherlands



Source: Weltevreden (2004)

Next to the actual change in purchases, the perceived impact of the internet on goods can also play a role in vacancy. As incumbent stores use the internet as well to sell goods, they also have to face more competition from the virtual retailers. The perceived influence of the internet on competition can therefore indicate the sensitivity of a good towards vacancy as experienced by retailers. The higher the perceived competition, the higher the sensitivity (Weltevreden, 2006). This is shown in the figure below.

Figure 3.11: The impact of the internet on the perceived competitive pressure



Source: Weltevreden, 2006

Compared to figure 3.10 it shows that not only the perceived pressure of media goods and consumer electronics is high, the actual influence is high as well. On the other hand, 50% of "toys and sporting goods" stores indicated that they have noticed increased competition, while the percentage of toys sold is a marginal 1% and for sporting goods it is only 2%. This shows that the internet does affected the incumbent retail sales, but not as much as some store owners suggest it did.

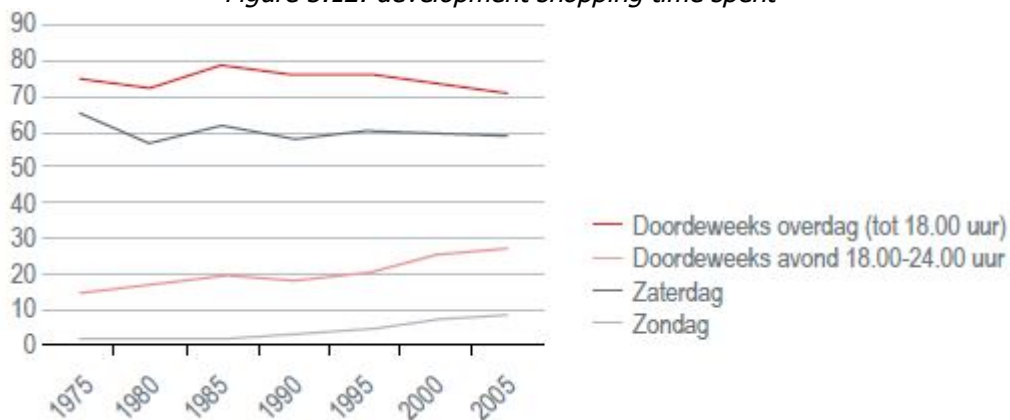
3.4 Endogenous factors

Endogenous factors are those factors which can be altered or influenced by either the municipality or the store owners. These factors are therefore more interesting to look at, as these factors differ more between cities than the exogenous factors. As endogenous factors can be influenced, they create a larger difference between cities than exogenous factors, as every city experiences these factors in a similar way. The endogenous factors will be discussed now.

3.4.1: Opening Hours

In 1996, Dutch legislation on opening hours changed. National legislation limited the opening hours of stores till 18.30, with maximum 52 opening hours in one week. Also, a store could be open on Sundays for a maximum of 8 times per year. In 1996, the government decided to make the opening hours more flexible and made the municipalities more autonomous to decide their own opening hours. This meant each municipality can choose their own opening hours between 06.00 and 22.00, and stores were allowed to be open on Sundays 12 times per year. An exception to this maximum was implemented for touristic cities which were allowed to be open more often on Sundays. The shift in daytime shopping can be seen in the figure below. It is clear that from 1996 onwards people did less shopping during the day on weekdays and on Saturdays, while more time is being spent on shopping during Sundays and in the evening hours. A commonly mentioned factor is the increase in two people working full time in one household, leaving less available time to do shopping on weekdays and during office hours, as already explained in chapter two.

Figure 3.12: development shopping time spent



Source: Jones, Lang and Lasalle, 2009

A city which implements the most flexible opening hours and has many stores who are open beyond office hours as well could therefore be more attractive for people to visit. More visitors mean a higher demand for goods, which leads to more sales. More sales can lead to a higher supply of stores, which reduces vacancy in a city center.

However, currently this legislation is criticized because it seems only one fifth of all stores are open after 18.00 and that the expected increase in labour spots failed to occur. The government is now working on limiting the flexibility of store opening hours again because too many cities are claiming to be a tourist city which allows them to open stores on more than 12 Sundays a year (MKB Nederland, 2009). Apparently the increase in sales during evenings and on Sundays shown in figure 3.12 is not as high as the government had hoped for.

The initial idea was that if consumers became more flexible to buy goods, store owners would profit due to higher sales. However, self-employed store owners often do not want to be open in evenings because it does not always cover the extra costs. However these stores need to be open from a competition point of view. Also, according to the CBS, the broader opening hours stimulates economies of scale even more, which is quite harmful for self-employed store owners. On the other hand, these opening hours are beneficial for chain stores as they realize higher turnover. According to

Jones, Lang and Lasalle (2009) limiting opening hours would be very harmful to the city center retail as it would cause even less sales due to limited possibilities of people to shop on weekdays, which will stimulate e-shopping as well. Limited possibilities for (chain) stores to be open on Sundays and in the evening could prevent stores from locating in a city center. Also, less income could even mean that stores have to close. Limiting opening hours could therefore lead to higher vacancy in city centers. Also, if opening hours are limited again, shops have more limited time to realize a similar turn over as before. Limiting opening hours could therefore also lead to more vacancy as some stores will not be able to realize similar turnovers.

3.4.2 Increase in store space

According to the Raad Nederlandse Detailhandel (RND, 2008) between 5.000 and 10.000 on a total of 120.000 stores will disappear from the streets in the near future. Although many people think the increased e-shopping causes this trend, this is not true according to the RND. They argue that The Netherlands is "overshopped". In the last decade, about 10 million square meters of store space has been build in The Netherlands, which is massive as the current total amount of today is 26 million square meters (increase of 62,5% in 10 years). Another calculation is made by MKB Nederland and they argue that the amount of floor space between 1995 and 2010 will be doubled. To compare: in 1995 The Netherlands had approximately 15.3 million inhabitants and in 2009 16.5 million inhabitants, an increase of only 7.84% (CBS, 2009). Therefore, RND argues that store vacancy in city centers is mainly caused because there is just too much floor space available in The Netherlands. This abundance of floor space affects vacancy in city centers as there is space which hardly will be occupied as the population is just too small to support those kinds of retail space. The continued construction of retail can lead to higher vacancy in city centers.

This is also one of the conclusions of Benjamin (1998). The excess supply of retail space or retail space saturation problem is caused by stagnating or declining real retail sales. He argues that there is a coming shakeout in retail space generated from an imbalance of the demand for space relative to changing supply both in the amount of retail space and its location. In other words, the continued increase in supply of store space could lead lower rents, higher vacancy and challenge the financial worthiness of retail landlords and creditors (Benjamin, 1998).

3.4.3 Available floor space

Just as the continued supply of store space, the current store space is importance as well. The current available floor space in a city influences vacancy in two ways. First of all, the average floor space of a store is important for store owners if they want to locate in a city or if they want to expand. There is an increased amount of chain stores in city centers and these stores usually need a large space for their store. Especially in historical city centers the possibilities to expand could be limited, which makes the choice for retailers to move to a peripheral shopping center or another city easier. It can be assumed that a higher average store space is preferable than a lower average floor space per store in a city center.

The second influence is the wideness of the store entrance. The difference in rent between a deep store and a wide store in a main shopping street can be seen in the table below.

Table 3.6: average floor rent based on store depth and location

Depth in meters	Average rent per square meter in €
10	795
16	660
22	535
27	500
34	490
43	460
53	415

Source: author, adjusted from Bolt (2003)

The table shows that the deeper a store, the less average rent per square meter. Store owners prefer a wide shop (the front zone of a store) more than a deep shop, because then they have a larger shop window to show their presence. Bolt has looked statistically into this matter and he found that the correlation between store rent and amount of visitors is +0,75, which means that there is statistical proof that the average rent per square meter becomes higher when more people visit the street. Also, the correlation between rent and the depth of a store is -0,41, meaning that when a store is deeper, it becomes cheaper to rent, indicating that a small but deep store is less preferable than a broad store. Therefore, a city with many small stores or with a lack of possibilities to expand could experience a smaller supply of stores as store owners prefer wide stores. Lower supply can lead to fewer visitors, which leads to higher vacancy rates in a city center.

3.4.4 Accessibility

Gorter et al (2003), Still and Simmonds (2000), Timmermans (1986), Bruinsma and Rietveld (1997) and Massagli (1996) all argue that an important factor influencing the amount of visitors in a city center is the city's accessibility. Without a decent accessibility, visitors are more inclined to visit other cities. External accessibility is seen as the most important part of accessibility because people need to be able to come to the city center before they experience the internal accessibility. Especially due to the increase in GDP per capita, and as a consequence increased mobility, the city access by car became very important. However, there seems to be differences in outcomes of researches on accessibility and the importance of it.

First of all, Still and Simmonds found that at the retail supply side, store owners indicate accessibility as an important location decision factor. However, they found only a weak relationship between accessibility and urban vitality. They conclude that accessibility may not be that important according to statistics, it is the perception of store owners and this perception could influence vacancy as well. Other research by O'Roarty et al (1996) consisted of interviewing many professionals who were responsible for over 1900 store locations in the United Kingdom and he found that only 50% of all interviewees regarded accessibility as an important factor as they stated that it was rarely of importance. The exceptions were the department stores, which indicated that accessibility does play a role in their location decision making. More important factors were retail rent, area and store location and the size of the store.

Looking at internal accessibility, Weltevreden (2005) has researched the effects of e-shopping on the attractiveness of city centers. Looking at the demand side of retail, Weltevreden indicated that e-shopping can be complementary to city center shopping instead of competing, if the city is attractive and has a good internal accessibility. Nowadays consumers consult the internet before they go to the city center and purchase a good. However, this is only true if the city center is easily accessible. Worse internal accessibility will prevent consumers to visit the city center and buy more via the internet or in another city, which could increase vacancy. Also, Van der Borg and Russo (2006) researched the most important factors for a city to attract tourists and both external and internal accessibility were one of the six factors, indicating that accessibility is seen as very important to attract visitors.

If accessibility can be improved, be it by a new highway or better bus connections to the city, people will be more likely to visit. As explained, people in general are averse to generalized transportation costs, which mean they want to spend as less money and time on travelling (Metz, 2008). If a city center can now be reached in 10 minutes instead of 30 minutes, people will be more inclined to visit the city and possibly do less e-shopping or use the internet in a complementary way. Improved accessibility can lead to more visitors, more sales and therefore less vacancy. The opposite holds as well, as higher generalized transportation costs will lead to fewer visitors. A clear example is the increased tourism in European cities which became new destinations for low cost carriers such as Easy jet and Ryan air. These carriers introduced flights between 2nd airports near major cities and smaller cities in Europe for low prices. Due to this new improved accessibility for a low price, the tourism in many of these cities rapidly increased. According to Jones, Lang and Lasalle Hotels (2006) examples of European cities that have experienced an increase in tourism due to these low cost carriers are Berlin, Budapest and Prague.

3.4.5 Parking policy

An important addition to the internal accessibility is the parking policy of a city, which mainly consists of the amount of parking places and the average parking fee. In the last decade, more emphasis was put on the environment, especially on CO₂ emission. 80% of all CO₂ emissions, which causes global warming, are caused by cities, making cities the right platform to try to diminish the emissions (Danish ministry of the Environment, 2007). According to Mingardo (2008), 20% of all Dutch CO₂ emissions come from transport, while 50% of that comes from passenger transport. Because global warming is such an important topic nowadays, many cities want to be seen as a sustainable and green city. Measurements of cities therefore are focused on the reduction of CO₂, which usually means cities try to limit cars in the city as much as possible by adjusting their parking policy.

One of the measures cities use is Transport Demand Management (TDM, synonym for Mobility Management). TDM is a general term for strategies and programs which encourage more efficient use of transport resources (road and parking space, vehicle capacity, funding, energy etc, Litman, 2003). Sustainable transport is one of the goals of TDM, and TDM usually uses soft measures (incentives) to reach its goal. Examples of these soft measures are cycling improvements, park and ride places, public bike systems, promotion of teleworking, High occupancy vehicle lanes, road pricing, fuel taxes, parking management, shuttle services etc (Victoria Transport Policy Institute website, accessed 2009). As becomes clear, many of these programs try to stimulate commuters and city center visitors to use other forms of transport than the car. Increased TDM measurements therefore can have a significant influence on the attractiveness of a city and the amount of visitors and thus sales in a city center, because limited available parking space in a city is usually perceived as a negative aspect of a city (as indicated by Still and Simmonds, 2000).

Another initiative to create a sustainable city is currently being held in Rotterdam. The city of Rotterdam has initiated the Rotterdam Climate Initiative, which main goal is to reduce CO₂ emissions with 50% in 2025 (in comparison to 1990, www.rotterdamclimateinitiative.nl, accessed in July 2009). This initiative is based on 5 main targets, and sustainable mobility is one of these targets. The main goal is to create sustainable public transport and try to increase the use of public transport with 2 to 3% each year. Realizing this goal will certainly not be done by increasing parking spaces. Stimulating public transport will be done via TDM, which means that the use of parking will be discouraged. Although these measures prove that private car usage is being discouraged, the effects of this on vacancy are not clear. This will be discussed now.

According to Still and Simmonds (2000), who reviewed the effects of parking restraints on the urban vitality, shoppers are less bound to pay for parking than employees, because they have the option of shopping somewhere else while employees work at one location. From a retailer's perspective, a restrictive parking policy therefore could limit the amount of visitors, which could lead to vacancy. They also argue that city center visitors value the easiness of parking and find cities with good parking facilities therefore more attractive. Based on this, retailers claim that "towns which reject the car for sustainability will shut down the engine of survival", meaning that a city without parking facilities will lose competition with other cities and internet shopping. This shows a strong relation between parking policy and urban vitality, but Still and Simmonds also argue that there is very limited statistical evidence to back up this conclusion, making it unsure if a restrictive parking policy negatively influences urban vitality and thus, indirectly, vacancy. Marsden (2006) also concluded that he found little evidence on negative influence of parking policy on commercial activity. However, it has to be taken into account that although there is no statistical evidence, the perception of a negative influence of parking policy on a city center could also create higher vacancy. Store owners can easily blame parking policy and parking fees as a factor which caused a reduction in their sales, even if many other factors influence their sales as well. Therefore, parking policy is an important factor when looking at vacancy in a city center. Just as with accessibility, a change in GTC due to higher parking fees could reduce the amount of visitors to the city center, which could lead to higher vacancy.

3.4.6 Average rent per square meter

As already indicated at the average available store space, the average rent per square meter plays a role as well. Higher prices could give shop owners an incentive to move away from a top location to find lower rents in streets towards the main shopping street. The average rent is influenced by both the supply and demand in retail space. The owner of the real estate property bases the rent on several factors as the location and the wideness of the store (as explained in paragraph 3.2), the demand for these locations varies if store owners give a similar value to the location as the supplier does. Also, the municipality influences rents via their taxes (see paragraph 3.4.7). If there is a difference between the value for a supplier and a buyer, vacancy can arise. Vacancy can also arise when a street is gentrified or a new magnet store is located in that specific street. These higher rents due to increased attractiveness cannot always be paid by self-employed store owners, which could lead to higher vacancy.

3.4.7 Local policy

A municipality can influence vacancy in their own city center in different ways. The composition of the different political parties in the city can be an important aspect of a city as they write policies which could both be beneficial or harmful for city center shopping. A city council which takes on a very active role in reducing vacancy and increasing the amount of visitors to a city could therefore be more successful in reducing vacancy than a city which goal it is to reduce cars in the center as much as possible to become a "green" city. Therefore, local policy is seen as a separate factor which influences vacancy, as every city has a different view and city council.

A municipality has different policy methods to reduce vacancy: they can influence the accessibility and parking policy as already described, and they can change taxes and improve the quality of the city center surrounds to create a more attractive city. These two factors will be discussed now.

Municipalities are in several cases free to decide which taxes and the size of these taxes they implement in their city. The most common and important municipality taxes for stores are the "onroerende zaken belasting" OZB, taxes on advertisements ("reclamebelasting") and on goods that a store puts outside on the pavement in front of their shop ("precariobelasting", www.postbus51.nl, accessed June 2009). Looking at reclamebelasting, according to the RND (June 2009) in 2008 an increase of 80% of the municipalities has implemented this tax. Although there are only 50 municipalities on a total of 441 that have implemented "reclamebelasting", the RND expects many more municipalities to follow. Because this tax is quite expensive for store owners, sometimes up to €5000 per store, the RND argues that this tax needs to be abolished to stimulate stores in city centers. This information shows that local taxes can differ a lot between cities in The Netherlands, which could mean that some cities are more attractive to locate than others. Cities with low taxes could have less vacancy in their city center and cities who implement this "reclamebelasting" could experience more vacancy as their city becomes more expensive to locate your store.

The maintenance of the streets in a city center is an important factor as well. If the streets are filthy, it does not appeal to customers to walk in the city. A badly maintained street can reduce the amount of visitors and thus increase vacancy. Also, safety in a city is an important aspect as well. These factors in a city center are the responsibility of the municipality, and they can therefore improve the attractiveness of a city center to shop by improving the surroundings.

3.4.8 Crowd pullers, magnet stores and anchor stores

A crowd puller can be seen as a store which is popular enough to attract an own large crowd in a city center. The importance of a crowd puller in a city has been made clear by Still and Simmonds (2000). They argue that all smaller stores are dependent on the presence of a crowd puller. These smaller stores dependent largely on public who pass their store on their way to a crowd puller. Smaller stores are usually not capable of attracting their own crowd, so a lack of a crowd puller could lead to less visitors and thus to more vacancy. This idea is also mentioned by Bolt (2003), as he argues that crowd pullers are still important for a city center to generate enough visitors. According to Strabo, a Dutch research and consultancy agency, the stores with the largest crowd puller effect are De Bijenkorf, Vroom en Dreesman, Media Markt, Hennis and Mauritz and Zara.

The presence of a crowd puller is narrowly related to the accessibility and the parking policy of a city. As magnet stores attract large crowds, it is important that the store is easily accessible. However, these large stores are usually capable of moving away to peripheral locations and have therefore a good bargaining position when municipalities want to implement a restrictive parking policy (Pashigian and Gould, 2002). Municipalities know the importance of these stores and will therefore try to satisfy these store owners as much as possible. Smaller retailers do not always have the possibility to move, making the current parking policy even more important for them as they are bound to the city center and its parking possibilities. Without a good parking policy, magnet stores could move, leaving the city center behind with fewer visitors and thus fewer sales for smaller retailers which in the end could lead to vacancy.

As many scholars have indicated, the presence of a crowd puller is very important for a city center and it can reduce vacancy. However, Jones, Lang and Lasalle (2009) does not agree with this point of view. In their "Retailmarket special 2009" they argue that department stores have been crowd pullers in cities until the eighties. The three largest department stores in The Netherlands (Bijenkorf, V&D and Hema) since then have had changing success. Current demand of consumers requires stores to be flexible and to be able to respond quickly to market changes, but due to their size these department stores are not able in doing so. This lead to the fact that nowadays the attractiveness of a shopping area is hardly based on the presence of department stores, with a possible exception of the Bijenkorf. Jones, Lang and Lasalle say that the influence of department stores will decrease in the future, however they also recognize that other stores such as the H&M and the Media Markt will take over the role of a crowd puller. The only problem is that the space demanded by these stores is not always available in the city center, which means these stores move to the edge of the center.

Changes in the presence of crowd pullers can have large effects on vacancy in city centers. When more crowd pullers move in, stores in their vicinity become more attractive to locate, creating a higher demand and lower vacancy. On the other hand, moving away of a crowd puller can have a large impact on the amount of visitors. A city without a crowd puller or specialty stores will attract fewer visitors and the stores near the crowd puller will become less attractive as well. As less visitors come to the city, a snowball effect of vacancy could occur if a crowd puller moves away.

3.4.9 Diversity of stores in the center

Stores in city centers used to sell all kinds of products, ranging from clothes to groceries or cds. The upcoming internet and e-shopping changed this demand of products in city centers. However, according to Jones, Lang and Lasalle (2009) not every category of goods suffered as much from e-shopping as another. This is also indicated by Weltevreden (2006), which is already discussed in paragraph 3.3.10 on e-shopping. They argue that especially fresh products, large products and expensive products are still mainly sold via physical stores because people want to experience the "look and feel" of a product. Also clothes and sports items are being sold in stores because people want to fit and try them before they buy it. With these products, the internet serves as a complementary source of information to buy goods instead of a competing sales canal.

On the other hand, music and other entertainment items are being sold more and more via the internet, just as holidays and tickets for day trips. Also computer hardware and software are goods that have been sold via the internet a lot of the last few years. An overview of the sensitivity of goods to the upcoming e-shopping is shown in the table below, where a red square is high influence of e-shopping on the product, while a grey square is a limited effect of e-shopping on the product. Weltevreden (2006) also created such as figure, which is explained 3.3.10, and shows similar results.

Figure 3.13: sensitivity of goods in relation to e-shopping



Source: Jones, Lang and Lasalle (2009)

The figure also points out the effect of e-shopping on the diversity of product supply in city centers. Goods that are being sold more and more via the internet will disappear first from the city center. A limited diversity of stores could prevent consumers to visit a specific city if a neighboring city does supply these goods. Not all people prefer buying on the internet and therefore there is still a demand for physical stores which provide goods such as computer supplies or cds and DVDs. When a city does not offer these products, it could lead to fewer visitors, less sales and thus an increased chance of vacancy.

3.4.10 availability of facilities in the proximity

One of the factors mentioned by Timmermans (1986) the availability of bars and restaurants in the proximity of stores. 59% of the retailers interviewed agreed that the presence of bars and restaurants is an important location factor. Although this research has been done in 1986, based on current literature this location factor does not seem to have changed. As described in chapter 2, fun shopping has become more important in the last years. An important part of fun shopping is that trip to the city on itself is more important than the sales. This means people value the availability of bars and restaurants in the proximity of stores, as these give an extra dimension to fun shopping. Therefore, a lack of these and other facilities could prevent consumers to visit a specific city, which means this could lead to vacancy.

3.4.11 Size of the city center shopping area

Another location factor which is introduced by Timmermans (1986) is the size of the shopping center. According to his research, this is the most important location factor after accessibility. Accessibility and shopping center size together determine for more than 50% the location of a store. Size of the shopping center is narrowly related to the diversity of stores, as larger shopping centers usually offer a larger diversity in goods as well. Also, larger centers usually attract more visitors than smaller ones. This is also argued by Bolt (2003), as he claims that the larger the shopping center, the larger the attraction of people to this center. Nelson (1958) indicates that consumers demand a concentration of stores to ease the process of comparing products. On the other hand, larger shopping centers mean

more competition. However, shop owners apparently prefer more visitors over more competition as the distance to competing stores is seen as less important than the size of the center.

Looking at a specific classification for shopping center sizes, literature research shows that there is no widely accepted classification for The Netherlands. Different scholars created own classifications for their research. However, these different classifications are based on the same factor: the size of a shopping center is mainly based on the amount of stores. The amount of available floor space plays a role as well. A summary of three different classifications and the matching amount of stores by Dutch Scholars is given in the table below.

Table 3.7: overview of different shopping center sizes

Bolt (2003)	Amount of shops	Weltevreden (2004)	Amount of shops	Ruigrok (2007)	Amount of shops
Large	> 500	Large size, highly attractive	> 500	Very large	> 175
Main center large	275-500	Medium size, highly attractive	300 - 500	Large	100 - 175
medium	200 - 275	Medium size, medium attractive	300 - 500	Medium	50 - 100
Main center medium	125 - 200	Low size, low attractive	< 300	Small	50 - 25
Small	75 - 125			Very small	> 0
main center small	50 - 75			Retail parks	> 0
village center	< 25			Factory outlets	> 50

The table shows that there is no general classification which all methods are based on. Weltevreden couples sizes with attractiveness, while Ruigrok has almost identical groups as Bolt but he has fewer stores per group. Looking at the affect of shopping size on vacancy, it can be said that retail entrepreneurs prefer larger centers. A clear distinction and classification for Dutch city center is as of yet not available. If a city center would suddenly lose several stores in the city center, they could actually get into a vicious circle. Fewer stores mean a smaller shopping area and thus less diversity in goods supplied. Consumers prefer larger shopping centers and as a consequence they could easily go to another center due to the increased mobility. Fewer visitors means fewer sales, and this could also increase vacancy. More vacancy, again means fewer visitors. Therefore a shrinking city center shopping area could be very harmful for the city and vacancy should be tried to be diminished.

3.4.12 presence of self employed store owners

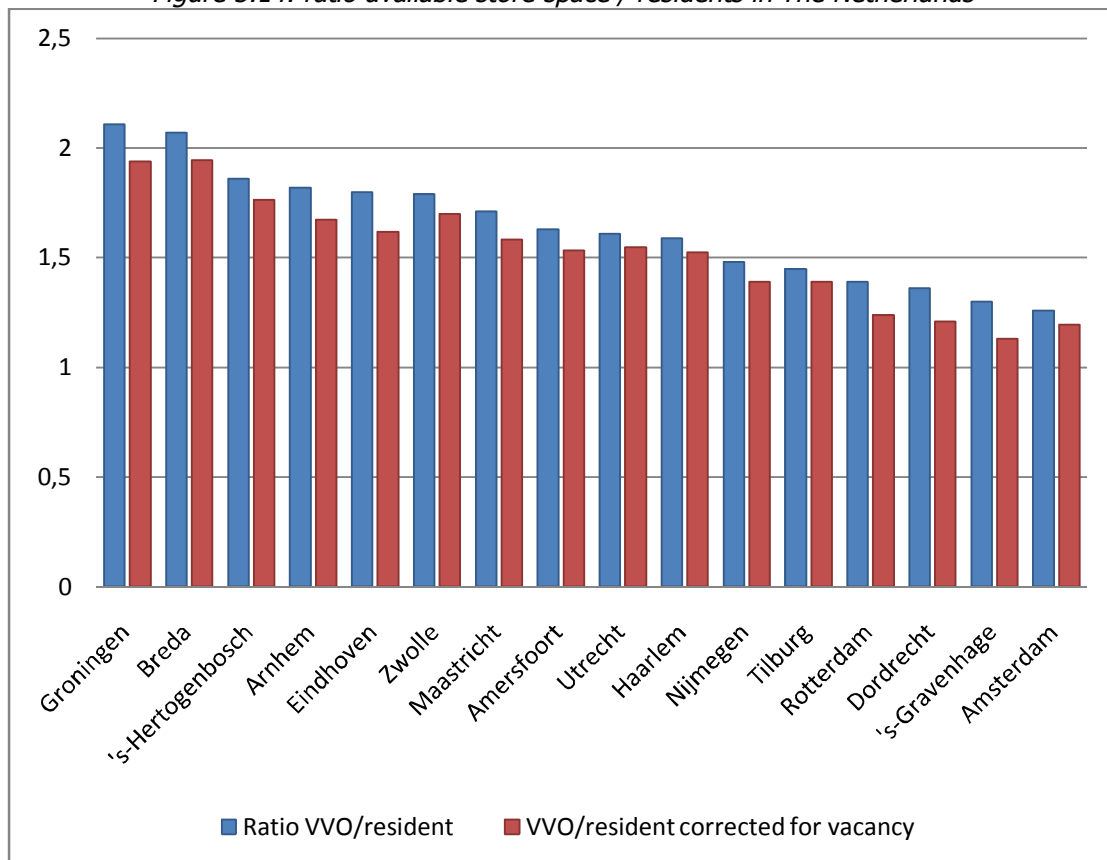
According to Van Houwelingen (2008) in his research on B and C locations (locations outside of the main shopping street) in The Netherlands, one of the most important factors for the attractiveness of these locations is the presence of self-employed store owners in the street. Store owners prefer self-employed over chains of businesses, as they can create an own character for the street, the "spirit of the place". Self employed owners can open specialized and unique stores which attract customers. Opening stores which try to compete with stores of chains are not seen as beneficial for these locations as the competition is quite fierce. Van Houwelingen also argues that the spirit of a place and its image plays a larger role in the successfulness of a B or C location than the availability of specialty stores, as these specialty stores appear in almost every B or C location. Therefore the main factor that distinguishes a street from others is the spirit of the place, which can be created by several self employed store owners. A lack of self employed store owners could therefore create a monotonous city with no clear characteristics which makes the city unique. This makes a city center less attractive and could therefore lead to less visitors and higher vacancy.

3.4.13 ratio store space/residents

The Netherlands has experienced a store space growth of nearly 65% in the last decade (see paragraph 3.4.3: increased store space). To determine which city has a large capacity of store space, a ratio of store space and population can be made. The higher the ratio, the higher the average floor space per resident. A high ratio could indicate that a city has a large catchment area, as there is a relatively large amount of floor space for its residents, indicating that many people from outside the city visit the shopping center as well.

A high ratio could both have positive and negative consequences. A positive aspect is that a city would have relatively many stores, which means a more diversified supply of goods. As explained in 3.4.11, a larger shopping center is seen as positive and it could attract more visitors. A side note is that the ratio is relative, which means an absolute larger shopping center could be in the proximity as well, which would be more attractive. Also, it could indicate that cities with a high ratio just have more vacancy. If a large supply of retail space has recently been build, the ratio would be high in a city and it would indicate that the city offers a relatively large supply of stores. A negative aspect of the ratio is that it does not say anything about the status of the space: is it occupied or is it vacant? Therefore, a correction is made based on vacancy figures in that city. The figure below shows both the ratio of resident and floor space (blue bar), as well as the ratio that is corrected with vacant retail space in the city. This correction is made by lowering the total supply of store space with the vacancy percentage of the city.

Figure 3.14: ratio available store space / residents in The Netherlands



Source: Author, based on figures of Locatus, 2006

The figure shows only small differences between the ratios within a city. The gap between both bars indicate the vacancy in a city, and it shows that Eindhoven scores slightly less well due to their vacancy rate, while Amsterdam scores better. Therefore, vacancy does not seem to influence the ratio a lot and it could be assumed that cities with a higher ratio have a larger catchment area. More stores in these cities are supported by people from outside the municipality.

Another explanation could be that cities with a higher ratio have a catchment area that consists of consumers with a higher disposable income. These people would have more money to spend, and can support more stores per resident. The higher ratio is therefore not based on volume of consumers, but on spending power per resident. However, looking at these cities with the highest ratio, they are all located outside the Randstad region. As shown at "disposable income", the Randstad area is the area with the higher average disposable income. However cities within the Randstad region have the lowest ratios, as the last four cities are all located in this region.

The ratio therefore clearly indicates that cities with a high ratio function as a regional shopping center for many villages and smaller cities in the vicinity. As said by Nelson (1958), people prefer to visit a cluster of stores with a diverse supply of goods, which is often not available in smaller cities and villages. A city with a higher ratio area is quite important for the region as shopping area, and due to the large catchment area there is a smaller chance on vacancy as there are many people to support those stores.

3.5 Conclusions factors influencing vacancy

This chapter is a long list of many possible factors which can have an influence on vacancy in a city center. The first paragraphs have shown that vacancy is not a topic which has been researched a lot as it a derivative factor itself from other developments. Attractiveness of a city, location decision factors and determination of the rent are all three developments which have a direct relation with vacancy and factors influencing these developments therefore have an effect on vacancy as well. Factors influencing these looking at factors influencing vacancy, a clear distinction can be made: factors that can and factors than cannot be influenced or altered by retailers or municipalities. An overview of all explained factors is shown in the table below:

Table 3.8: overview of all factors mentioned

Exogenous	Endogenous
economic recession	opening hour
globalisation	increase in store space
economic cycle	available floor space
inflation	accessibility
average gdp per capita	parking policy
disposable income	average rent
national location policy	local policy
regional competition	crowd pullers
increased mobility	diversity of stores
e-shopping	availability of facilities
	size of the shopping area
	self employed store owners

The exogenous factors mainly have an influence on many markets, sometimes even on larger regions than the Netherlands. Their effect is often indirect and can be noticed via consumer spending. Endogenous factors are more focused on cities itself and can differ more between cities as these factors can be influenced. If a difference in vacancy between cities needs to be explained, these factors should be looked into. However, exogenous factors are important as well and are therefore also indicated in this chapter.

As said in the introduction, a case study will be done as well to test some of these factors in practice. The goal of this thesis is to give an indication why certain cities suffer more from vacancy than others. The previous paragraphs have mentioned which factors a city should pay attention to if they want to reduce vacancy, however a better explanation can be given if these factors are looked into in a specific city. Therefore the goal of the case study is to give insight in the effects of several factors on vacancy in a city. The case study does not try to statistically explain the effects of factors on vacancy, nor does it try to give causal relations between factors and vacancy. That type of research is almost impossible to do, as vacancy is caused by a combination of several factors. The goal of the case study is to indicate possible influences of factors on a city's vacancy rate. Which factors will be taken into account will be discussed now.

3.6 Theoretical framework case study

The theory part of this chapter explained two different categories of factors: endogenous and exogenous. Although these exogenous factors are hard to alter, their effect on a city could be different. Therefore, not only endogenous factors are taken into account with this case study, some exogenous factors as well. Table 3.8 showed all possible factors mentioned which have an influence on vacancy. However, not every factor is suitable to take into account for a case study. The selection of factors will be explained now.

Economic recession, globalisation, economic cycle, inflation, GDP per capita are all factors which influence each Dutch city and each Dutch consumer in a similar way. None of these factors have a specific influence on a city and are therefore not suitable for a case study. For example, the effect of inflation on the city center is almost impossible to determine. Disposable income can play a role as the purchasing power of residents, however the effect of the current disposable income on vacancy in the city would be quite hard to measure. The same goes for increased mobility and e-shopping: although these factors influence the demand for goods in a specific center, their effect is hard to determine and it is hard to find direct relations between these factors and vacancy. Change in national policy is not a suitable factor either as it affects every city in the Netherlands, however the effect of national policy on regional competition can be important. The presence of regional competition is important for a city, more attractive cities or peripheral shopping locations could attract more visitors. Regional competition can therefore be a suitable factor to look into.

Looking at endogenous factors, more factors are suitable for a case study. Opening hours, available floor space, diversity of stores and the percentage of self employed store owners could be hard to determine their effect on vacancy. Increase in store space is regarded by RND and HBD as the most important explanation of vacancy and should be taken into account. Accessibility and parking policy are factors which are quite easily to determine and are suitable as well. The local policy should also be taken into account, as the city council can influence many different other factors and are responsible for the attractiveness and the quality of the city center. The presence of crowd pullers, other facilities and the size of the shopping area can also quite easily be found and these results could explain vacancy in the city center. Regional competition and local policy will be described in the introduction of Breda and its region, while the other factors will be tested via hypotheses. Therefore, the following factors will be tested with this case study:

1. Increase in store space
2. Accessibility
3. Parking policy
4. Crowd pullers
5. Other facilities in the vicinity
6. Size city center shopping area

Results of the case study will be presented in the next chapter.

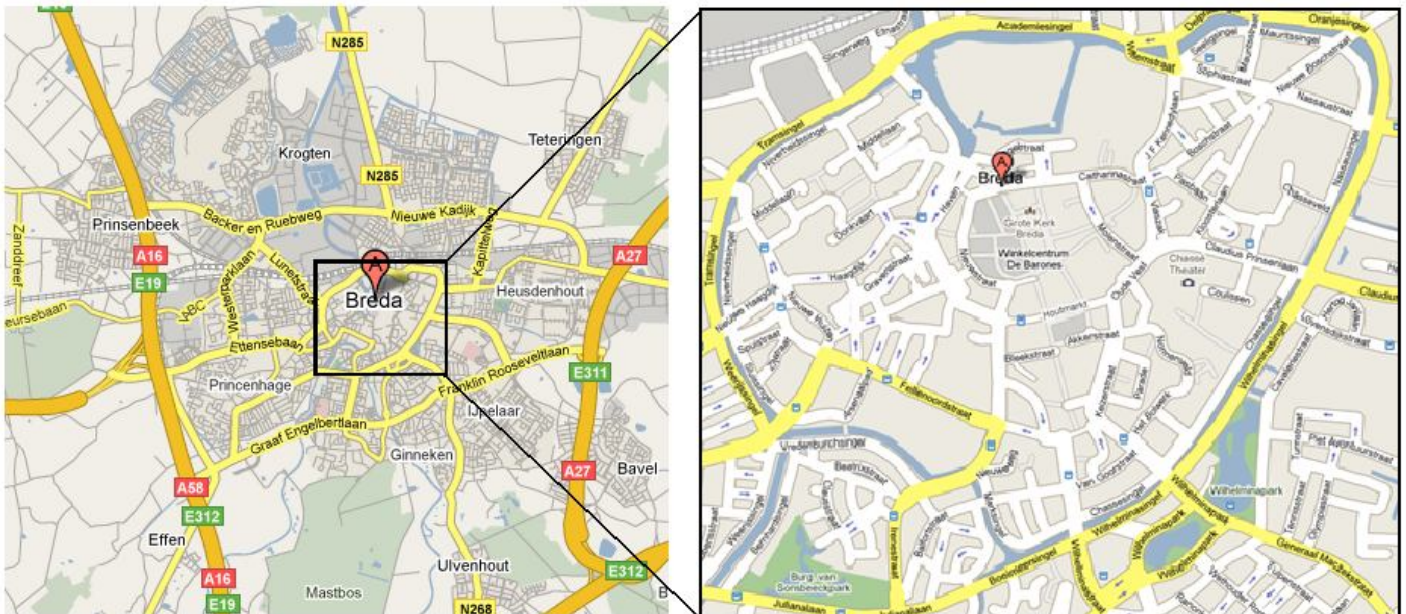
Chapter 4: case study in Breda

This chapter describes the case study of Breda. The selected factors will be looked into for Breda specifically and comparisons will be made with other cities to give indications which factors could explain differences in vacancy between cities. First, the city will be introduced and vacancy figures within the city will be described. Second, six hypotheses will be looked into and indications will be given if these hypotheses should be accepted or rejected. Finally, conclusions will be given.

4.1 City profile Breda

Breda is located in the western part of Noord Brabant, in the South of the Netherlands. It is a midsized city and it has developed itself a regional hub for business, leisure and retail. Several new regional headquarters (such as Chevrolet, GE finance and Scania) have located in Breda in 2008. The location of West Brabant between Rotterdam and Antwerp in combination with these new developments made Transport and Logistiek Nederland (TLN) choose West Brabant as the logistical hotspot in the Netherlands in 2008. The increased attractiveness of Breda for residents to live is shown in the housing market: houses in Breda are above average in price and it becomes increasingly harder for starters to find a suitable house in the city. Breda is seen as one of the most attractive cities in the Netherlands to shop, which is indicated by the increased rent per square meter over the years and one of the lowest vacancy rates in the Netherlands (Vastgoedmarktmonitor 2008). Looking at the city as a shopping city, Breda is located on the 7th position in the Netherlands, while Breda as a place to life scores an 11th position and to work a 14th position (Rabobank "Nederland Stedenland, 2006³). As Breda is the 12th largest city in the Netherlands, Breda scores relatively well on shopping. To give an indication what Breda looks like, the figure below shows the entire city with a detailed image of the city center.

Figure 4.1: Breda and the city center



Source: Google maps

Before looking into vacancy in Breda and in factors which possibly have influenced vacancy, the influence of local policy on vacancy via redevelopment of the city center is discussed first. As explained in chapter 3, local policy can influence and change vacancy in a city. A city can change its

³ The list of best places to shop is based on the availability of non-daily goods stores such as clothing and furniture

position by increasing parking policies, focusing on sustainability and giving certain subsidies. Therefore, it could be said that the composition of the city council is important. There are several projects which have recently been completed and there is a large plan being started as of 2009 as well.

In the last 15 years Breda has invested in its city center by redeveloping several areas. Looking at shopping, the indoor shopping center "Barones" was built, which is located next to the main shopping street. The entire Chasse area (including a theatre, a new municipality office building, a new cinema and a park) has recently been completed as well. The Holland casino was developed in the same period. The most recently completed project in Breda was re-opening canals on the west side of the city center. These canals increased the attractiveness of the city as several bars and restaurants with large terraces were opened along the canal. Also, the area got a new marina and a waterway connection to other parts of Breda via the singels around the city center (See paragraph 4.6, "other functions" for more details).

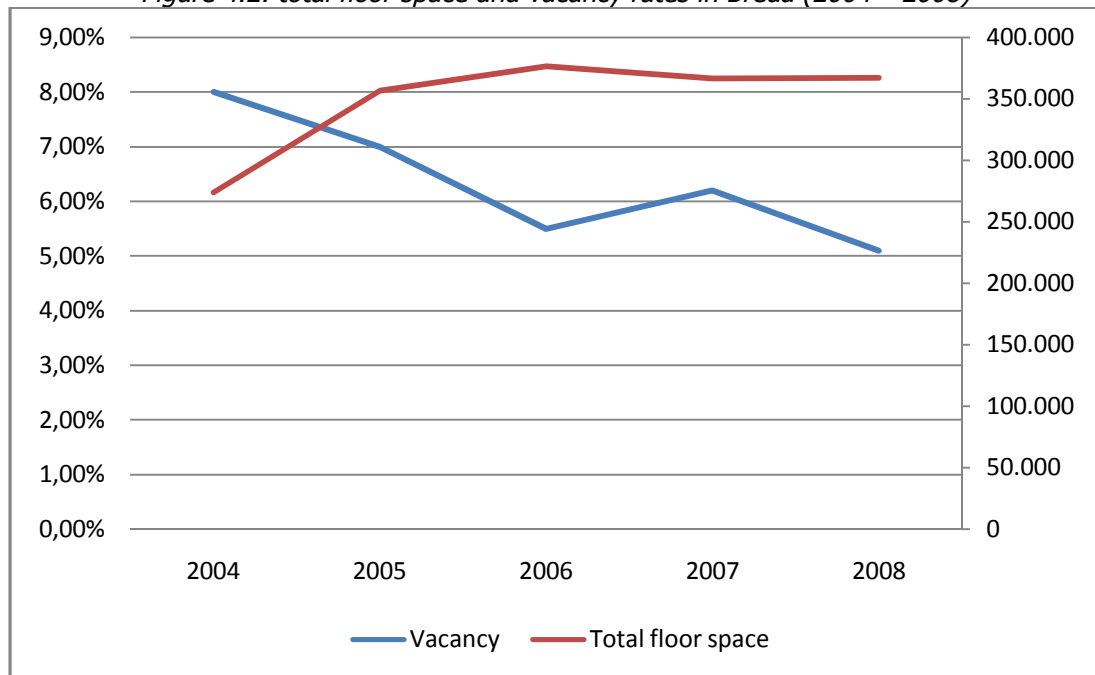
There is one major project with several sub-projects being researched and implemented in the near future. The main development which caused this large project is the development of the HSL route via Breda. The national government wants cities within the HSL network to become intermodal hubs for international connections. A city with that kind of function can become a top location for people to live, work and recreate. To become such a hub, Breda has created a project called Masterplan Centraal Breda (also called project "Via Breda") and the municipality sees it as a key project for the future of Breda. The municipality wants to realize the goal of "living in an urban environment and meeting people internationally" with their masterplan, which is planned to be realized in 2025. The plan consists of redeveloping the area around the central station by building new office space, leisure activities, houses and a new public transport terminal for better connections between rail and bus.

Breda is a city investing in their economic activities in their city center with their finished development of the city port, the new plans for their accessibility and transport hub near the central station and their city center development in the east (project Achter de Lange Stallen). Breda seems to be an ambitious city and is suitably located to realize these ambitions. The municipality council shows its ambition as well by starting these projects. Now that it is clear that the city of Breda has invested in its city center over the years and is currently developing their central station area as well, vacancy in Breda will be discussed next.

4.2 Vacancy in Breda

Looking at vacancy figures, Breda had 17.800 square meters (sqm) vacant in 2008. On a total floor space of 366.885 sqm, this equals a vacancy rate of 5,1%. Breda has experienced a significant decrease in vacancy as it was approximately 8% in 2004. Also, in this period 71 new stores were opened which increased the total supply of store space with 27.900 sqm. The figure below shows both the development of vacancy rates as well as the total amount of floor space in Breda in the last five years.

Figure 4.2: total floor space and vacancy rates in Breda (2004 – 2008)

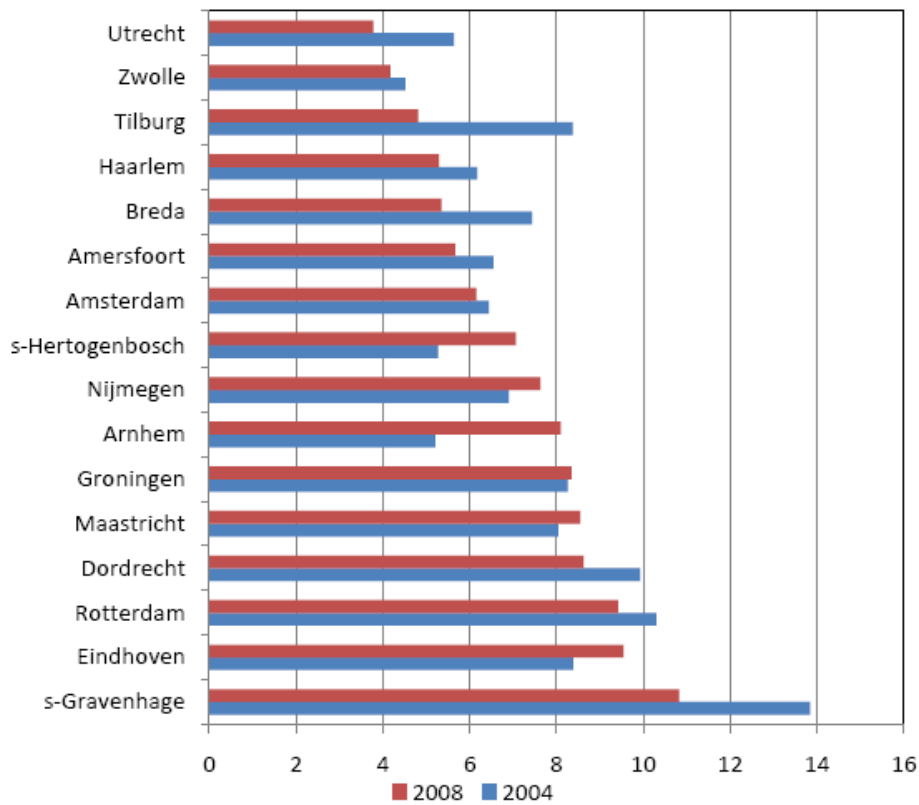


Source: Author, based on figures of Breda Vastgoedmarktmonitor 2004, 2005, 2006, 2007 and 2008

The figure shows that the total supply of floor space has increased in these 5 years with 92.000 sqm and that it has been steady in the last two years. The most important explanation of this increase is the completion and start up of an IKEA location at the woonboulevard. The figure also shows that the mentioned decrease of vacancy was not a steady decrease. A peak in 2007 in combination with a small decrease in store space could indicate a dip in sales in the city center. However in 2008 the floor space remained the same, while the vacancy rate decreased again. As chapter two explained, a city needs to have a small percentage of vacancy, and therefore it can be said that Breda currently has a very healthy vacancy figure of only 5,1%.

Comparing it with the national's average in larger cities, Breda has done much better than others. The national average vacancy decreased only slightly from 8,0% to 7,6%. As a consequence, Breda is positioned fifth on the ranking of larger cities with the lowest vacancy figure, while in 2004 they were positioned 12th. A comparison with similar other Dutch cities can be seen in the figure below. It shows that Breda has one of the lowest vacancy rates in 2008.

Figure 4.3: Vacancy compared with other large Dutch cities



Source: Locatus, 2008

However, looking at vacancy in more detail, it shows that Breda suffers from structural vacancy in specific locations, which is seen as bad for a city. As explained in chapter 2, A-locations hardly suffer from vacancy rates, while streets towards the main shopping street can have trouble finding tenants. A-locations are those store locations which are passed by most visitors. Locatus has done a visitor counting survey in Breda in 2008, and the result is shown in the figure below. The darkest colored stores have an index of 100, which means that these stores are visited by all shoppers in the city center (Bolt, 2003). The lighter the color, the less people visit these streets.

Figure 4.4: Amount of visitors city center Breda



Source: Locatus, 2008

It shows that the main shopping streets goes from north to south from the Torenstraat (1) into the Eindstraat (2), which ends in the Ginnekenstraat (3), while the less visited streets go from east to west. Looking at different vacancy results over the years, it shows that the areas with fewer visitors do experience higher vacancy rates. In 2005, DTZ Zadelhoff looked at vacancy rates in Breda and they found that vacancy was located mainly in the west of the city center, near the Haagdijk (4) and the Tolburgstraat (5). A possible explanation given is that in 2005 the city started redeveloping this area, which lead to many closed streets which made these stores less accessible. However, recent figures of the VCOB⁴ indicated that this area still suffers most in Breda from vacancy, while the redevelopments already had been completed. However, it is possible that the area needs time to attract consumers again. Other streets indicated as vacancy sensitive are the Boschstraat (6) and the Catherinastraat (7) in the eastern part of the city center. Both streets were mentioned as vacancy sensitive in 2005 and 2008 vacancy reviews of DTZ Zadelhoff and VCOB. Based on these indications, it seems that although Breda currently has a low vacancy figure of 5,1%, locations in the east and west of the city center have experienced vacancy over several years, while the main street hardly

⁴ VCOB (vereniging commercieel onroerend goed binnenstad Breda) is a organization located in Breda whose goal it is to maintain and increase the value of properties in the city center of Breda

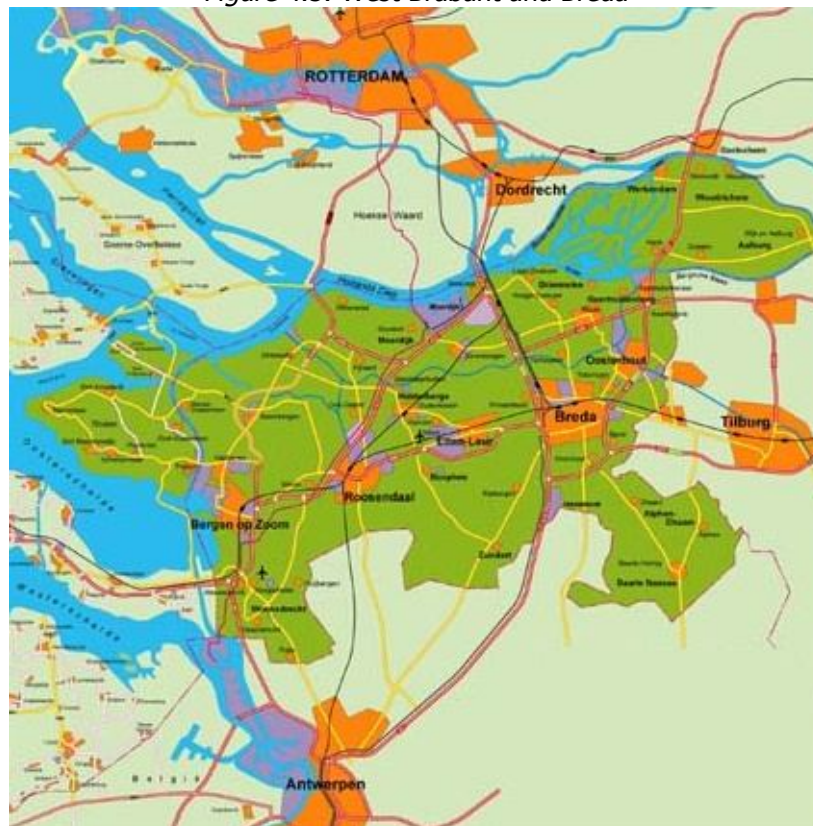
experienced vacancy. As of now the west has been redeveloped and the city is planning on redeveloping the eastern part in the near future (Project "Achter de stallen"), which indicates that Breda tries to reduce vacancy in their vulnerable areas.

The southern part of the center is usually not mentioned as an area with high vacancy rates. A possible explanation is that this area is known to focus on the supply of services as employment agencies and travelling agencies in combination with offices. These types of stores could be less sensitive to impulsive purchases of consumers as people visit these stores with a specific goal in mind, making this region less sensitive to vacancy as well.

Although the vacancy rates of Breda seem to be very well with only a small portion of structural vacancy in the east and west of the city center, it is possible that shopping centers in the vicinity have even lower vacancy rates. This would mean that Breda does well compared to the Netherlands, not so well in respect to their own region. Therefore regional competition centers in the vicinity and their vacancy rates will be looked at now.

Breda is a city which is located in an area with fierce competition. There are several other medium sized and large cities in the vicinity and an outlet factory has been opened recently as well. The figure below shows the region of West Brabant. The figure shows the clear proximity of Tilburg in the east (203.000 inhabitants in 2009, CBS) which also has a large supply of stores and attracts many visitors from villages and smaller cities in their vicinity as well. These two cities share a contested market and Tilburg is therefore an important competitor for Breda. However, as said in the introduction, Breda is also located between Rotterdam and Antwerp. Both cities offer even a larger supply of diverse stores and they attract visitors from the same region as Breda as well due to the increased mobility of consumers. Especially Antwerp is seen as an attractive city to visit. The region of west Brabant and Breda's competitors are shown in the figure below.

Figure 4.5: West Brabant and Breda



Source: Rewin⁵, 2009

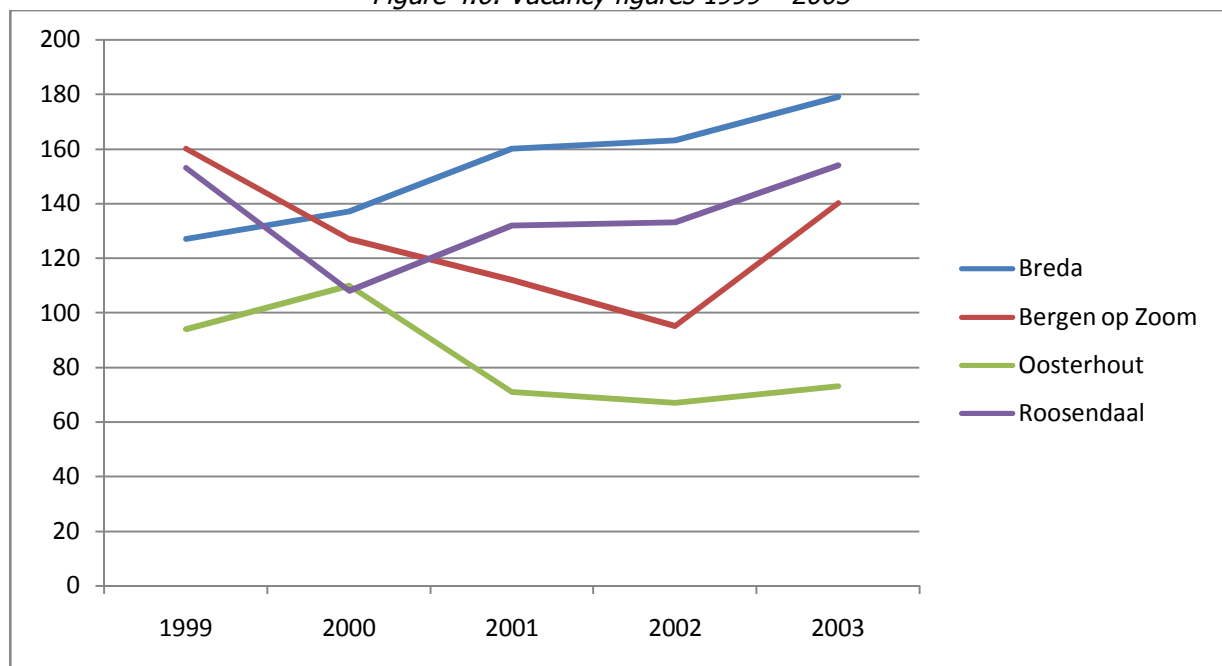
⁵ Rewin is a regional development organization whose goal it is to stimulate West Brabant economically

Not only city centers play a role in Breda's competition, there is also a recently opened factory outlet center located in West Brabant: Rosada outlet center in Roosendaal. Although predicted forecasts of 2 million visitors per year were never realized, still a million people visited the outlet center (VCOB website, accessed august 2009). Breda is quite close to the outlet center and it can be assumed that a percentage of the million visitors may otherwise have visited the city center of Breda.

So, does Breda have a relatively high or low vacancy rate compared to its regional competitors? Figure 4.3 showed that Tilburg halved their vacancy rate between 2004 and 2008 to 4,8%, which leads to an even lower vacancy rate than Breda. Rotterdam slightly reduced their vacancy to 9,1%, while Dordrecht has a vacancy rate of 8,8%. Other large cities in Noord Brabant also have a higher vacancy rate than Breda. Eindhoven is one of the few cities that actually saw its vacancy increase between 2004 and 2008 to 9,3% and Den Bosch has a vacancy rate of 7,0% (Locatus, 2008). Looking at Antwerp in 2007, they suffered from a vacancy percentage of 14% (Grimmeau, University of Brussels, 2007)⁶.

Looking at smaller cities in the vicinity, Roosendaal had a vacancy rate of 10,4% in 2008, which is more than twice as much as Breda. 2008 vacancy figures of other nearby villages and smaller cities as Bergen op Zoom, Etten-Leur and Oosterhout are not available. Vacancy figures of Locatus are used in figure 4.3, however recent research of Locatus did not look into vacancy figures of these cities. Most recent figures of Roosendaal, Bergen op Zoom and Oosterhout of Locatus are available up to 2003. As figure 4.3 showed, there are large differences between 2004 and 2008. Comparing figures of 2003 from these cities with a 2008 vacancy rate of Breda would therefore probably lead to distorted conclusions. However, an indication of vacancy differences between these four cities can be given if vacancy rates from that period are compared. The figure below shows the development of retail vacancy rates of the four cities based on the index figures of the respective year between 1999 and 2003.

Figure 4.6: Vacancy figures 1999 – 2003



Source: Locatus, 2004

The figure shows that Breda has been the city in West Brabant with the highest vacancy rate. If this trend had continued to 2008, it could be said that although Breda has a relatively low vacancy rate,

⁶ Note: the average retail vacancy in Belgium is 15,1% compared to 7,8% in the Netherlands. Although it seems Antwerp has a very high vacancy rate, it is better than average in Belgium.

compared to its nearby competitors it is quite high. This could indicate that compared to other parts of the Netherlands West Brabant does economically well, however Breda scores worst within this region, indicating that the current vacancy figure of Breda is not as good as suggested. However, Breda has had a high index in this period, while Breda currently has an index of 62, which is 120 points lower than in 2003. These figures seem to indicate Breda's success of reducing its vacancy, and based on these large differences between 2003 and 2008 there is an indication that Breda currently has a lower or similar vacancy rate as these cities in west Brabant. However, as vacancy figures are not available, no clear conclusions can be given on the difference in vacancy rates between Breda and smaller cities in its proximity.

The mentioned figures show that every major city in the vicinity of Breda has a higher vacancy rate, with the exception of Tilburg. However, the difference with Tilburg is very small with only 0,3%. Smaller cities have scored lower in the past, however Breda currently has a very low vacancy index as well. West Brabant consists of 670.000 residents (Rewin, 2008) who can easily choose and change the city they want to do their shopping, resulting in a contested area for cities to attract visitors from. Within Breda there are some streets with possible structural vacancy, however these are located at ends of the shopping center. The question therefore is, how does Breda score on the selected factors? Which factors could have caused this positive vacancy figure?

Based on the literature in chapter 3, different hypotheses of the factors can be looked at. As vacancy is caused by a combination of multiple factors, these factors are very hard to test. These hypotheses will therefore not be tested, however indications to accept or reject these hypotheses will be discussed. The discussed hypotheses are shown now:

1. Accessibility: better accessibility leads to lower vacancy
2. Parking policy: more parking spaces and lower parking tariffs lead to lower vacancy
3. Size city center shopping area: the larger the shopping area, the lower the vacancy
4. Crowd pullers: more crowd pullers lead to lower vacancy rates
5. Increase in store space: higher increase in store space compared to increase in the amount of residents will lead to higher vacancy
6. Other facilities in the vicinity: More other activities and functions in the city center leads to lower vacancy rates

4.3 Accessibility

Looking at external accessibility, Breda has a good external accessibility by car. Breda is surrounded by a "square" of highways, which means that in every direction it has a good external accessibility towards other cities and port regions such as Antwerp, Rotterdam and Moerdijk (see figure 4.5 for an illustration). With the A16 towards Rotterdam and the A27 towards Utrecht in the North, The A58 towards Tilburg in the east and Zeeland and Roosendaal in the west, with Antwerp via the E19 in the south Breda is well connected to cities and ports and other logistics sites. However, it has to be said that the A27 towards Utrecht is one of the busiest highways in the Netherlands as it ranked 3rd in the congestion top 10 in 2008 according to the ANWB, which reduces the external accessibility of Breda in the rush hour.

Looking at external accessibility by air Breda has no own civil airport and the closest international airports are Eindhoven and Rotterdam, however only a limited amount of destinations within Europe can be reached via these airports. The closest larger intercontinental airports are Schiphol Amsterdam or Zaventem (Brussels Airport). However, the impact of visitors by air should not be over exaggerated as international tourists do not see Breda as a city they want to visit.

Breda has two forms of external accessibility by public transport. Breda has two train stations: central station and Breda-Prinsenbeek. There are several trains per hour to Roosendaal, Tilburg and further away to Nijmegen and Arnhem, while at Tilburg a transfer can be made to travel to Utrecht, Eindhoven and Maastricht. The Hague and Amsterdam can be reached via Rotterdam (Nationale Spoorwegen, 2009). However, the train connections will significantly improve in the near future due to

the development of the High Speed Rail connection between Amsterdam and Antwerp (and further on towards Paris). This new rail connection travels via Breda and Breda has already increased its capacity to handle a possible increased amount of visitors. The new HSL means Breda gets a very fast direct connection to Amsterdam and Rotterdam in the north and to Antwerp and Brussels in the south. As a consequence, Breda is currently redeveloping the central station area in the northern part of the city center, which creates space for many new offices and better public transport connections. This new train connection is planned to start at the end of 2009 (website HSL Zuid, accessed august 2009). Another new train route which connects Breda directly with Utrecht has been researched over several years now, and this new route would also mean a new train station in the east of Breda. Also, the Dutch railways (NS) is currently testing the viability of a night route between the Randstad and the province of Brabant, which will continue till 2010. A recently held survey (2009) shows that travellers experience the night service as quite good and there is a high possibility of a regular night route between Brabant and the Randstad. This would mean that Breda will be better accessible during the night as well.

Looking at the internal accessibility by car, Breda is quite easily accessible. From the highways around the city, there are many wide roads leading towards the city center. There are three main roads crossing Breda from west to east ranging from north to south: The N285 in the north, the Ettensebaan in the middle and the Graaf Engelbert laan in the south. Also, the city center is surrounded by a wide road, the so called "singels" of Breda. This network of roads makes the city center quite easily accessible by car.

Does better accessibility lead to lower vacancy?

What does this accessibility mean for vacancy in Breda? Both the "Kenniscentrum grote steden" as well as TNS-NIPO looked at the accessibility of cities in the Netherlands. Their results show that o.a. Haarlem (5% vacancy), The Hague (10,8%), Amsterdam (6,1%) and Utrecht (3,9%) are badly accessible. However these vacancy rates show that these cities actually do not suffer much from vacancy with the exception of The Hague. Dordrecht (8,5%), Rotterdam (9,2%) and Breda (5,1%) are indicated as cities with a good accessibility. It shows that bad accessibility is seen in cities with high vacancy and low vacancy and vice versa. Based on these examples in the Netherlands there is no clear trend visible between bad accessibility and high a vacancy rate. Therefore there are some indications that the hypothesis of "better accessibility leads to lower vacancy" should be rejected.

4.4 Parking policy

Parking policy is regarded by many store owners as the important aspect of the store location. People should easily be able to park near the store, or else they will visit another city or store. The hypothesis therefore is that a good parking policy leads to lower vacancy.

The municipality of Breda has an information brochure on parking in the city center, and all possible parking locations are shown in the figure below. Off course there are also possibilities of on-street parking in certain streets as well.

Figure 4.7: Parking facilities in the city center of Breda



Source: Municipality of Breda website, accessed 2009

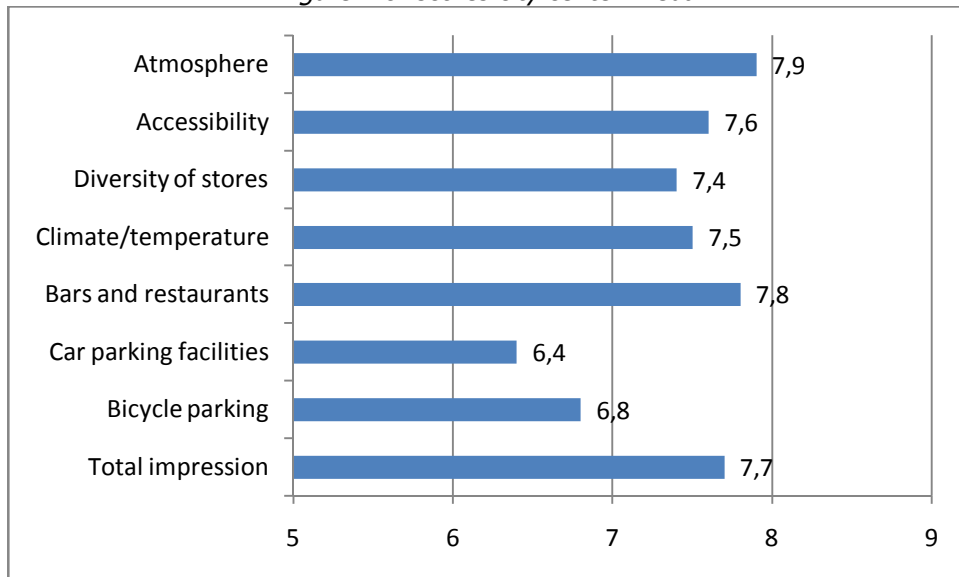
Looking at parking tariffs, there are differences within the city. Breda divides the center into two parts: the center zone (indicated with the red line around the city center) and the singel zone, the areas on the outside of the city center. The center zone has a tariff of 1,90 to park for an hour, the singel zone costs 1,10. Parking areas in these zones charge the same amount per hour, however they also have a tariff for a full day: 8,00 in the city center and 3,50 in the singel zone. Parking garages also costs 1,10 per hour and 7,00 for a full day. In total, the city center has approximately 2000 parking spaces available (Website municipality of Breda, parking tariffs 2009).

Due to its historic composition, Breda is not able to handle a massive amount of cars each day. As a consequence they want to limit car usage via their parking tariffs. Off course Amsterdam is still much more expensive, as it was named the most expensive city in the world to park your car for a day, according the Colliers International in their "global parking rates survey 2009". However, the same survey showed that other Dutch cities are more expensive than Breda as well: Utrecht, The Hague, Eindhoven and Rotterdam all have higher tariffs. This is not entirely striking, as these are the 5 largest cities in The Netherlands. Looking at comparable cities in the Netherlands it shows that Breda has an average tariff. Groningen has a tariff in the city of 1,80 per hour, Nijmegen maintains their 2,00 per hour in 2009, Leiden charges 2,40 per hour, Haarlem charges 2,50 per hour, while Gouda only charges 1,50 per hour. Tilburg charges 1,80 per hour, Arnhem has a tariff of 1,90 per hour, Enschede charges 2,00 per hour while Maastricht has a relatively high tariff of 2,60 per hour (websites of the respective municipalities, accessed august 2009). These tariffs show that Breda charges an average price per hour with their 1,90. However, combining the amount of parking places and the current tariffs, visitors does not seem to be very satisfied with the parking policy of Breda.

The figure below shows results of research by Strabo, a consultancy organisation in retail. They have investigated the opinion of city center visitors in Breda. Although every topic scored positively, car parking possibilities scored the lowest of all topics with a 6.4 and with 48% of the people giving it a negative mark. Also, parking for bicycles scored relatively low with a 6,8, while all other topics scored higher than a 7,4. Due to the historic center and the lack of parking possibilities, in combination with

an average tariff per hour makes Breda score relatively bad on parking policy according to visitors of the city center.

Figure 4.8: scores city center Breda

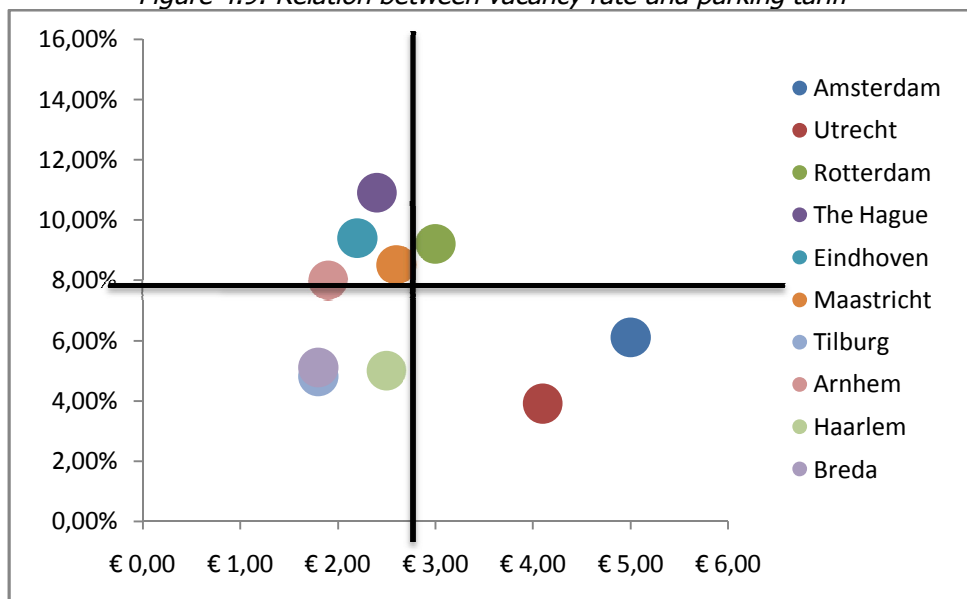


Source: Strabo 2009

Does a good parking policy lead to lower vacancy rates?

A similar comparison as with accessibility can be made based on parking tariffs. Amsterdam (6,1% vacancy), Utrecht (3,9%), Rotterdam (9,2%), the Hague (10,9%), Eindhoven (9,4%), Maastricht (8,5%) and Nijmegen (7,5%) have a higher parking tariff. Tilburg (4,8%), Arnhem (8%) and Haarlem (5%) have lower tariffs. If a figure is made which shows the relation between the tariff rate and the vacancy rate in the specific city as of 2008, it can be seen if lower parking tariffs result in low vacancy rates as stated in the hypothesis. Such a figure is shown now. The black lines represent the average of the Netherlands: 8% average vacancy in 2008 and €2,66 as the average parking tariff of the cities mentioned.

Figure 4.9: Relation between vacancy rate and parking tariff



Source: Author, based on figures of Vastgoedmarktmonitor 2008 and municipality websites on parking

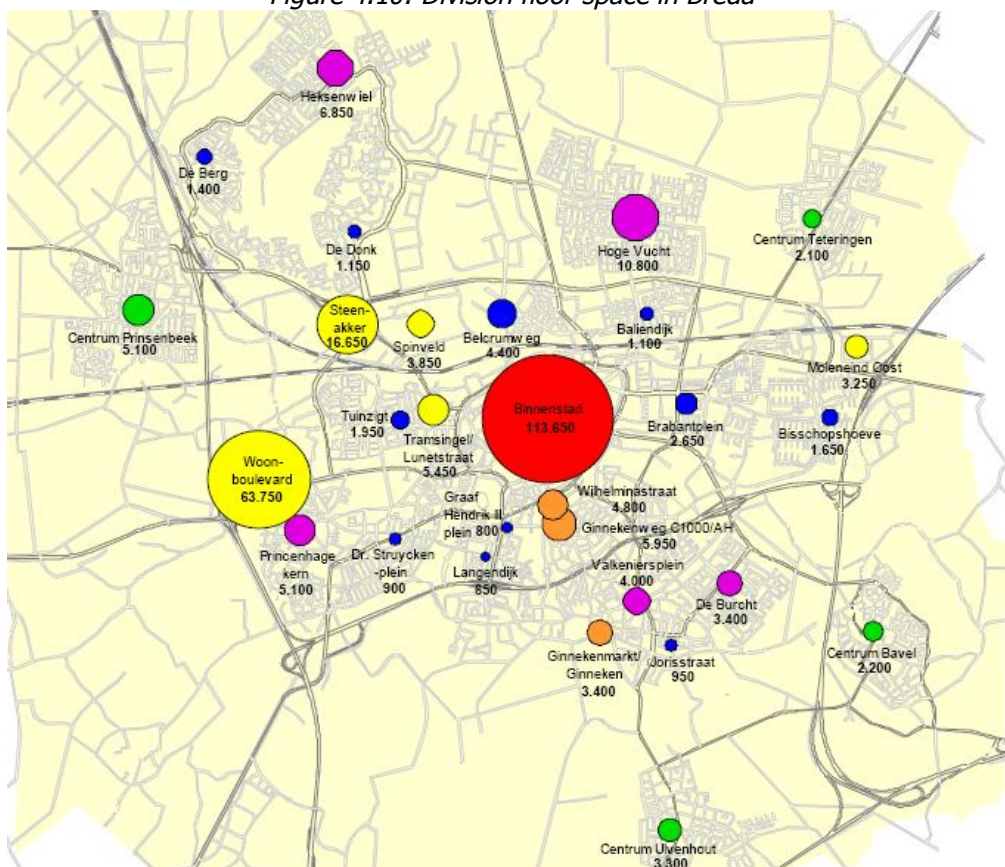
The bottom left square is the area of cities with both a low vacancy rate and low parking tariffs. The upper right square is exactly the opposite, and based on the hypothesis all cities should be in one of these two squares. However, it shows that this is not the case. There are 3 or 4 cities with a high vacancy rate despite a relatively low parking tariff, while there are two cities with relative high tariffs and a low vacancy.

Parking policy consists of more factors than just parking tariffs, however these tariffs can be seen as an indication of the desirability of cars in their city center. Higher parking tariffs are often used to discourage car usage and high parking tariffs could be seen as an indication for a restrictive car parking policy in a city. Also, a tariff can be an indication of difference between the supply and demand for parking places, as a higher demand than supply leads to higher prices. Cities with a high tariff have a much higher demand than supply of car spaces and can therefore be seen as cities with a restrictive parking policy. Based on this reasoning there is an indication that a more strict parking policy does not lead to higher vacancy in a city center and vice versa.

4.5 Shopping center size

In 2008 Breda has a total floor space of 366.885 sqm. With current population figures, this means a ratio of store space per resident of approximately 2.4, resulting in the second highest ratio in the Netherlands, just after Groningen (overview of these ratios can be found in 3.4.13). However, only one third (113.650 sqm) of the total floor space is located in the city center. 65.000 sqm is dedicated to furniture stores which are located in a peripheral location near the highway in Breda West. Also a part of the total floor space is used for daily shopping in local shopping areas spread around the city. An overview of the division of the sqm and the location of other shopping areas in the city are shown in the figure below.

Figure 4.10: Division floor space in Breda



Source: Vastgoedmarktmonitor Breda 2008

The vast majority of store space is located in the city center, which is indicated with a red circle. Looking at the size of the city center, it can be said that according to Bolt (2003) and Weltevreden (2007) the city center size is seen as a large with a high attractiveness based on the amount of stores as Breda has more than 500 stores in the city center (approximately 580 in 2007). As the ratio floor space/resident is not based on city centers but on entire centers, an indication is made of amount of stores in other cities in the Netherlands. The table below shows a few other cities in the Netherlands with their amount of floor space in their center and the amount of stores. This list includes both the 5 largest Dutch cities as well as comparable cities to Breda such as Den Bosch, Dordrecht, Leiden and Enschede. The figures in the table are from different municipal reviews of their city center.

Table 4.1: Dutch city center floor space and amount of stores

	City	Floor space city center	Amount of stores
1	Amsterdam	240.000	2150
2	Rotterdam	207.000	775
3	Den Haag	182.000	1000
4	Utrecht	140.000	820
5	Breda	113.650	580
6	Nijmegen	113.000	515
7	Eindhoven	100.000	450
8	Den Bosch	94.000	570
9	Leiden	87.000	650
10	Enschede	84.000	330
11	Leeuwarden	71.000	420
12	Tilburg	65.000	370
13	Dordrecht	63.000	467

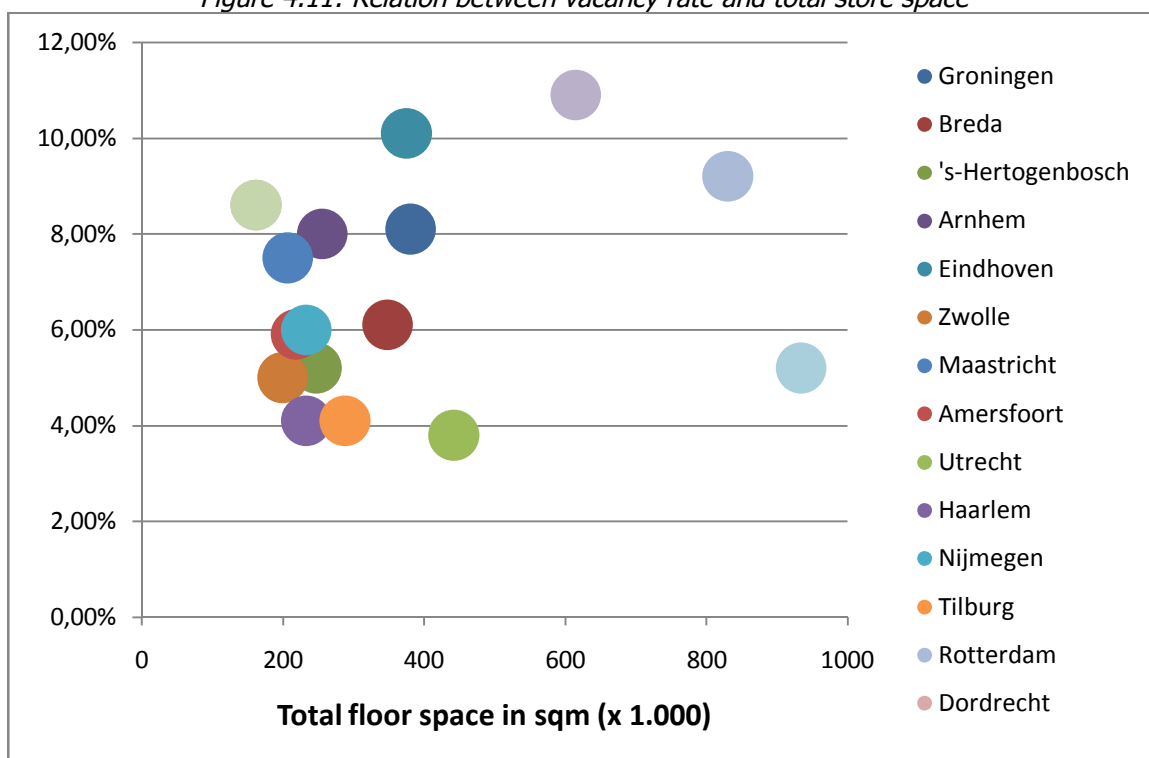
Source: respective municipality websites and research papers

The table shows that Breda has a relatively high city center floor space. Although there is a large gap between the four large cities in the Randstad, it has more floor space than other large cities in Noord Brabant as Eindhoven and Tilburg. These two cities, as well as Nijmegen, have more residents as well. However, looking at the absolute amount of stores, Leiden has more stores and Den Bosch only has a few stores less. Still, it can be said that based on these figures and in combination with the high store space/resident ratio of 2.4 Breda has a large shopping center which is seen as very attractive by visitors.

Does an absolute large shopping center suffer less from vacancy as suggested by several scholars?

If this hypothesis is true, it would be expected that a city with a large shopping size should have the lowest vacancy rate as consumers prefer larger centers over smaller centers. More visitors would lead to more sales and lower vacancy as explained in chapter 3. However, as these two characteristics are combined, it does not show a clear distinction between smaller and larger cities and their vacancy rates. Amsterdam, Rotterdam and the Hague clearly have more total store space, while their vacancy rates are not different from other cities in the Netherlands. Based on the result of combining these factors it can be said that the absolute shopping center size is not important for the vacancy rate in a city, as larger shopping centers do not have a lower vacancy rate than smaller ones. The figure below shows the relation between vacancy and total floor space of 17 Dutch cities.

Figure 4.11: Relation between vacancy rate and total store space

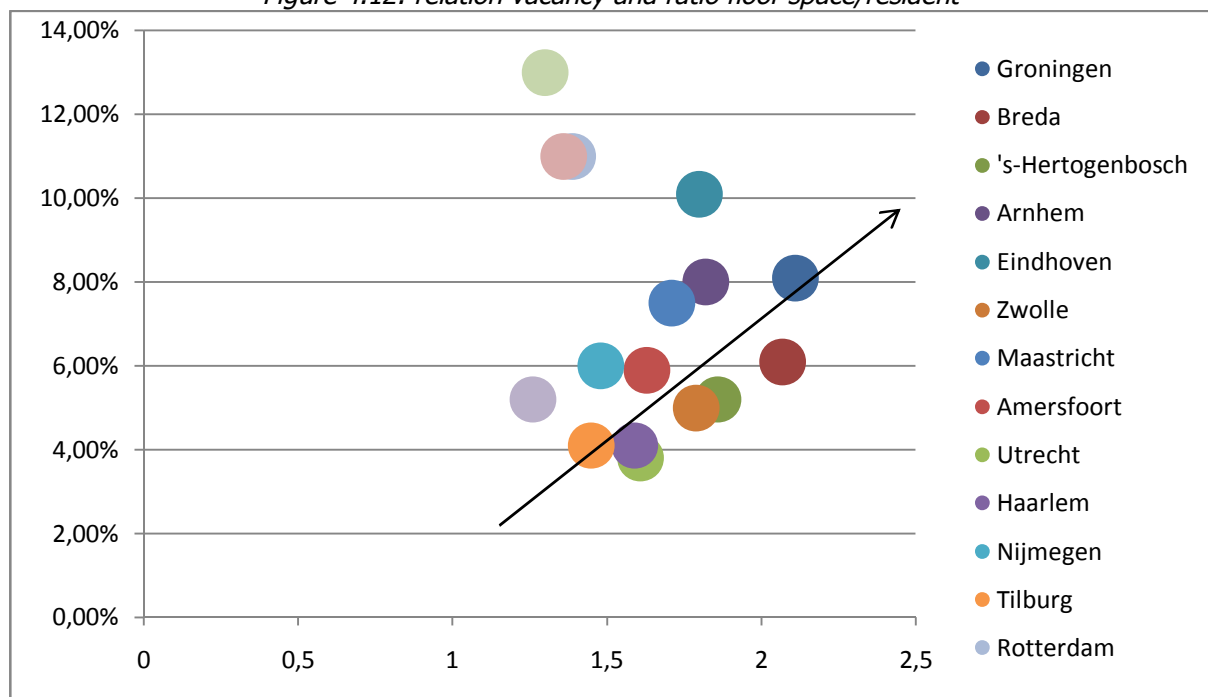


Source: Author, based on figures of Locatus (2006) and Vastgoedmarktmonitor Breda (2008)

Does a relative large shopping center suffer less from vacancy?

As said, the absolute total amount of floor space does not take the amount of residents in the city into account. If the ratio of store space per resident is related to the respective vacancy figures, a certain trend can be seen, as shown in the figure below.

Figure 4.12: relation vacancy and ratio floor space/resident



Source: Author, based on figures of Locatus (2006) Vastgoedmarktmonitor Breda (2008)

The figure shows some form of trend that vacancy increases when the ratio of store space per resident increases as well. This could indicate that cities with a high ratio have an oversupply of stores for its residents. In other words, the population is not large enough to sustain those amounts of floor space. Chapter 3 described cities with a high ratio as regional centers with many visitors from outside the municipality. It seems people from outside do not spend enough to support these amounts of floor space, or these regional shopping centers have just build too much floor space in the first place. Even in combination with consumers from outside the city the population is too small to sustain those amounts of floor space, which leads to vacancy. It seems that an absolute large center does not play a role in vacancy in a city center, the relative size does seem to play a role. The hypothesis should be rejected for relative large shopping centers, as vacancy seems to increase instead of decrease when the relative size increases.

4.6 Magnet stores

One of the main reasons why consumers prefer a larger shopping center is the presence of magnet stores (also referred to as anchor stores or crowd pullers). Many other, and often smaller stores are dependent on the crowd attracted by these stores, making success of the city center dependent of the presence of magnet stores.

According to several scholars the traditional department stores are the main crowd pullers in a city. Breda has all three of these Dutch department stores: the Bijenkorf, V&D and the Hema. However, nowadays the V&D and Hema are located in almost every larger city, while the Hema is even located in smaller cities as well. Hema has more than 400 stores in the Netherlands (Retailmarkt news website, august 2009), which reduces the effect of the Hema as a crowd puller. The Bijenkorf is still a crowd puller, although Breda only has a small version of the Bijenkorf with a limited supply of goods compared to the Bijenkorf flagship stores. There are plans to relocate to a yet to be developed area of the city center with more floor space available to provide a larger supply of different goods (winkelzaken.nl, January 2009). As the Bijenkorf nowadays is seen as the only crowd pulling department store, this would mean that a new Bijenkorf would increase the attractiveness of Breda's city center. An increased supply of magnet stores can increase the amount of visitors and sales, leading to less vacancy.

However, other scholars argue that a new kind of magnet store has developed over the last years. New magnet stores are based on clothing and electronics and consist of H&M, Zara and Media Markt according to Jones, Lang and Lasalle (2009) and Strabo (2008). Breda has even two H&M stores and one Zara in the city center, however there is no Media Markt. A Media Markt is located at the woonboulevard in Breda West which is quite far away from the city center. Other electronic consumer goods stores are located in the city center, such as It's and Expert. Looking at general crowd pullers for city centers, it can be said that Breda scores good on this factor. Both the traditional as the new kinds of crowd pullers are mostly available in the city center.

Does a city with these magnet stores have a lower vacancy rate?

This hypothesis is not easy to test, as the amount of magnet stores is narrowly related to the shopping size as well. Magnet stores are mainly global retailers, and they prefer to be in larger shopping centers as they attract more visitors. Larger shopping centers therefore have more magnet stores than smaller ones. As explained, larger centers do not have a lower vacancy rate than smaller ones, which could also indicate that cities with more magnet stores do not have a significant lower vacancy rate than cities with fewer magnet stores. However, not every magnet store is similar and their effect can be different as well.

As said, Hema has many store locations. The V&D is also widely available and is currently opening new stores in cities with a population between 50.000 and 100.000, the smaller Dutch cities (ANP, April 2009). H&M has more than 60 locations spread around the Netherlands. On the other hand, the Media Markt is not widely available in city centers. Although it has 27 stores, these stores are mainly located in peripheral locations due to their demand for large store space. Zara is located in just 13 cities in the Netherlands. Bijenkorf has 12 locations, with only 3 flagship stores and 3 locations focused on clothing such as Breda. There is clearly a distinction between magnet stores: some are

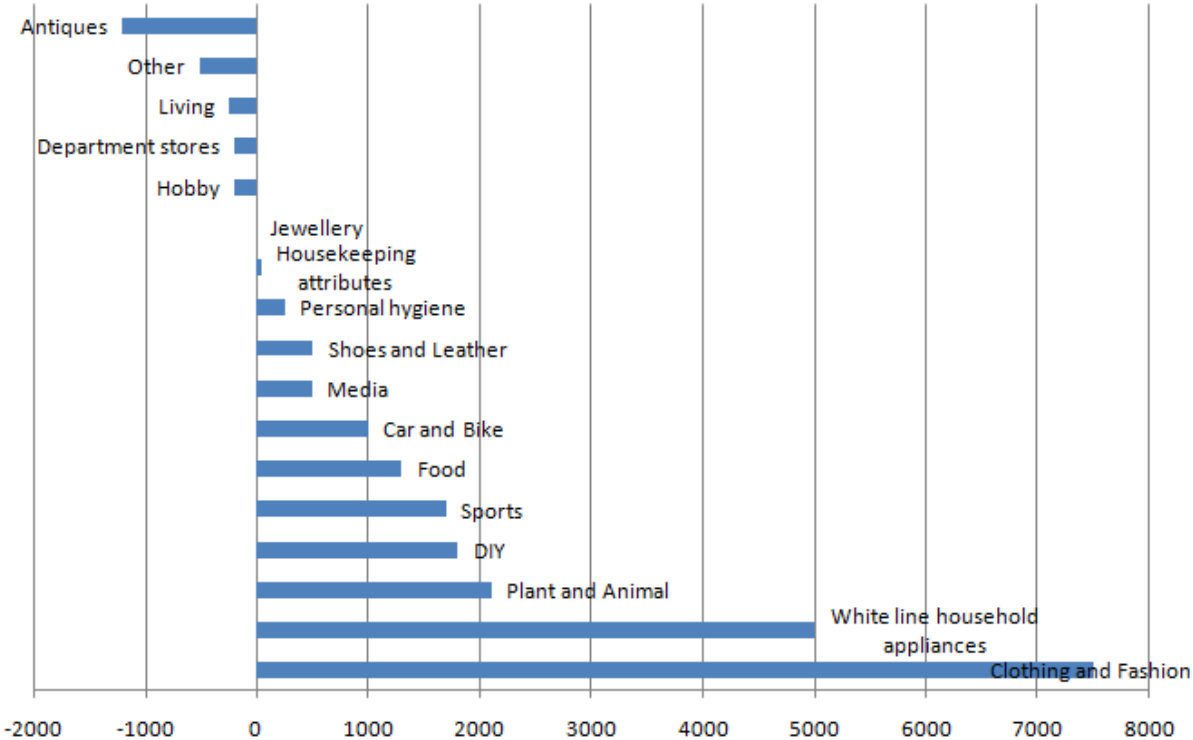
widely available while others are only located in a few cities. However, many of the magnet stores are located in all larger cities, so to be able to measure the effect of magnet stores on vacancy these larger cities should be compared with smaller cities. Unfortunately vacancy rates of smaller cities are hardly available. Adding the fact that some magnet stores are located in smaller cities as well creates a situation where the effect of magnet stores on vacancy is impossible to compare. If the effect of magnet stores needs to be measured it is best to start with the effect of one brand instead of magnet stores in general due to their diversity.

Looking at figures available, it seems that magnet stores are narrowly related with the size of the shopping center, and as already explained, there seems to be no clear relation between absolute size and vacancy rate. Magnet stores are very different based on their presence in Dutch cities, as some are located in every city while others only have a few locations. Therefore there is no clear data available to test the hypothesis.

4.7 Increase in store space

Just as in general in the Netherlands, Breda has experienced increased store space in the last years. Between 2004 and 2008 Breda had seen the total amount of stores increase by 71 stores, which represents 27.900 sqm. As the current store space is 366.885 sqm, this means the store space has increased with 8,23% in only four years time. To compare, in the same period the population of Breda grew with only 3,6% (Municipality of Breda, BreDATA July 2009). A large part of this new store space is located at the woonboulevard in Breda West, which has a floor space of 63.750 sqm in 2008. The figure below indicates changes in floor space per category of goods between 2004 and 2008.

Figure 4.13: increase and decrease in store space per category of goods



Source: Vastgoedmarktmonitor Breda 2008

It shows that the sum of the changes is an increase in store space. As already said, Breda is specialized in clothing and fashion, which is shown with the largest increase over 4 years (7500 sqm). Locatus have indicated the total floor space in the Netherlands over the last years and the total amount has increased from 24,9 million in 2004 to 26,8 million at the end of 2008. This is an increase of 7,61% and therefore slightly lower than the increase in Breda. Although Breda has increased their floor space relatively more than other cities, this does not show in their vacancy rate. In the same period vacancy decreased from 8% in 2004 to 5,1% in 2008. It can be said that for Breda specifically the increased amount of floor space did not lead to higher vacancy. As consumers can only spend their money once, it is possible that it affected vacancy rates in competing city centers.

The largest regional competitor for Breda is Tilburg. However, as figure 4.3 shows, their vacancy decreased in the same period as well to 4.8%, even lower than Breda. Rotterdam and Den Bosch also showed a decrease in vacancy, making Eindhoven the only city in the region which actually saw its vacancy increase. The national vacancy rate only decreased with 0,4%, making these cities score much better than the national's average. A possible explanation is that smaller cities have not experienced a decrease in vacancy and are therefore responsible that the national's average only decreased with 0,4%. Consumers from villages could have increased their shopping in a nearby larger city, leading to higher vacancy in their own village. This would actually indicate that shopping center size is increasingly important, as larger cities have reduced their vacancy more than smaller cities by attracting more visitors. However to my knowledge there are no vacancy figures available for smaller cities and villages, making it impossible to make such a comparison.

Another explanation is that Noord Brabant is an area which has become more economically healthy, leading to more consumer spending and therefore less vacancy compared to other Dutch regions. The higher average vacancy could therefore be caused by these other regions. Although the introduction showed that West Brabant is an attractive location for companies, the increased economic success does not show in the disposable income of its residents. In 2002, 2003, 2005 and 2008 the region has had an average disposable income in the Netherlands (CBS, 2009), which indicates that there has not been an increase compared to the other 11 provinces in the Netherlands. This indicates that increased expenditure in Noord Brabant compared to the rest of the Netherlands should be rejected.

Does increased amount of floor space lead to more vacancy?

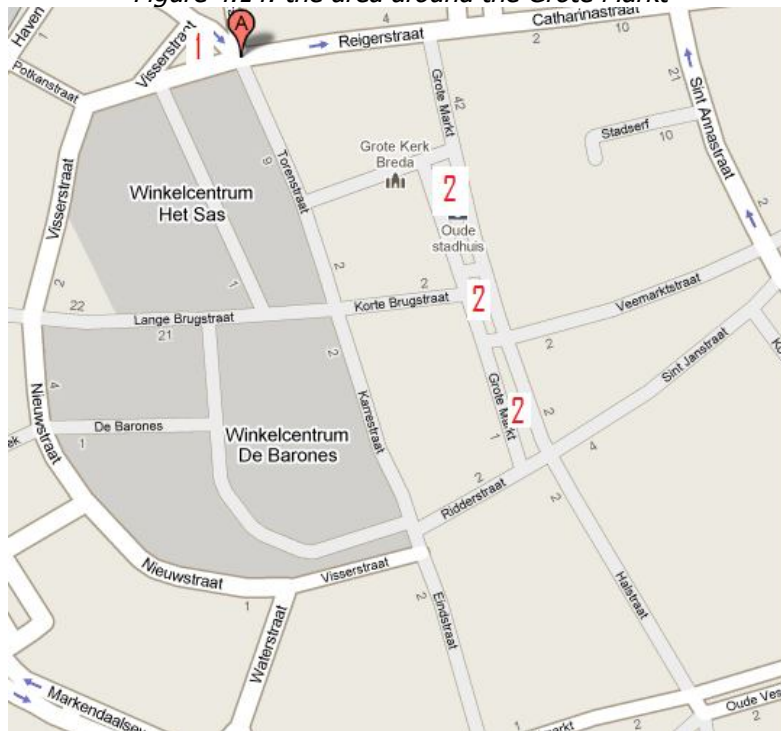
The increased amount of store space did not lead to higher vacancy in Breda. In fact, it did not lead to higher vacancy in the Netherlands either. Breda and cities in the region have reduced their vacancy more than the national's average, which could indicate that smaller cities in the region have suffered from increased vacancy. Another explanation would be that in other parts of the country the vacancy has increased. However, for Breda it can be said that increased store space does not lead to higher vacancy in the city center and this is not true in general as well.

4.8 Other functions in the vicinity

As indicated in previous chapters, visitors of a city center not only look at the amount and diversity of stores, they look at other possibilities to do in a city center as well. Breda has a compact city center with several functions within walking distance from each other. As said earlier, the city center of Breda can be seen as the area within the "singel" streets, such as the "Academiesingel, Tramsingel, Oranjesingel and the Wilhelminasingel. Within this area, there are several other functions available.

Breda is well known for its night life and the available bars and restaurants. The main area is located next to the main shopping street: the "Grote Markt". This is a square at the Grote Kerk Breda and is almost completely filled with bars, restaurants, lunchrooms and a few stores. The square runs parallel to the most important shopping street of Breda, which consists of several streets. Another area of many bars and cafes is the area around the Havermarkt, which is more focused on students. The figure below shows both areas in relation to the shopping area to indicate the proximity of these areas.

Figure 4.14: the area around the Grote Markt



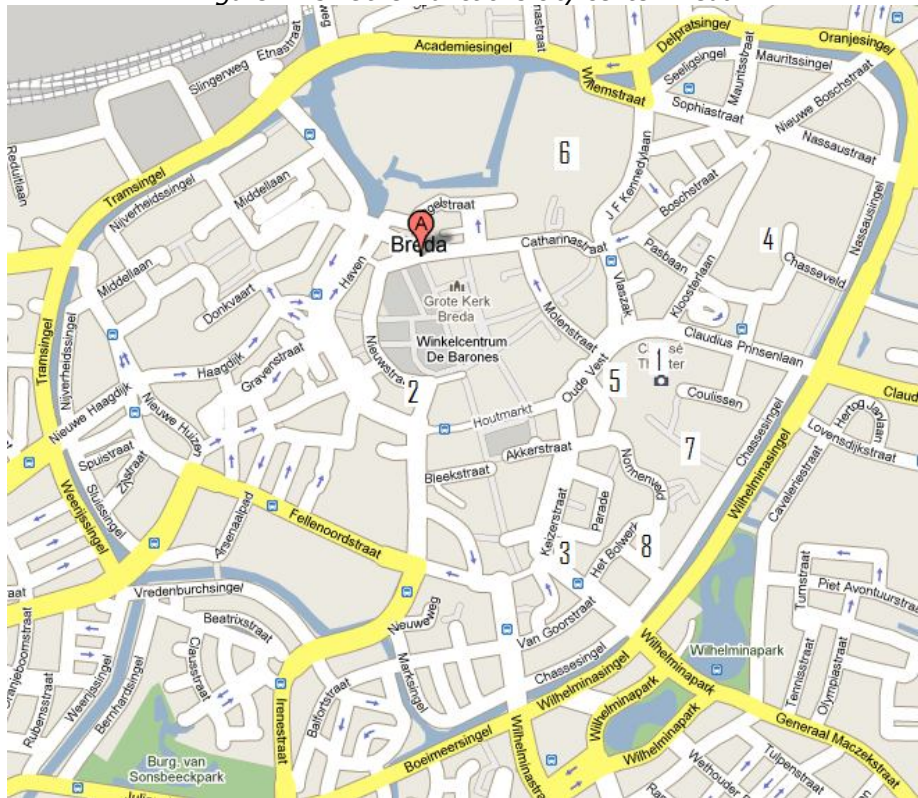
Source: author, based on Google maps

The figure shows the area of the Havermarkt (1) and the Grote Markt (2), while the main shopping street is indicated as well (Torenstraat and further south as well as the Barones shopping center). It shows that both areas are very close to each other which makes fun-shopping in combination with a lunch or dinner easier.

Breda also offers other activities within the city center. First of all, in 1995 the Chasse Theatre was opened. This theatre has three rooms with a total capacity of 2330 seats and it has three cinema rooms. Another, smaller, theatre is "De Avenue" which combines a musical with a dinner and has a capacity of 275 people. Another location for cultural activities is "Mezz concerts and dance". This is a stage at which mainly pop music is played and which also offers rooms for bands to practice. Next to the cinema possibilities in the Chasse theatre, a main stream cinema has recently opened in the city center of Breda as well: Mustsee Breda. Breda has a Holland Casino in its city center. Holland Casino's are the largest in the Netherlands and in Breda it is located in a unique location: an old monastery. If people are looking for less action and more quiet time after their shopping, this is possible in Breda as well. The city park "Valkenberg" is located at the northern part of the city center. This park consists of many trees, benches, large fields of grass and a large pond in the center of it. Several cultural activities are held in the park as well, such as the music events "Breda Barst" and the "Valkenbergconcerten". Another park is located on the east side of the city center: the "Chassepark". This is a green area with several apartment buildings and earlier mentioned buildings as the Holland casino and the Mezz as its neighbours. Another building in the area is the museum of Breda, which is located in an old military barracks and it focused on educating children and the history of Breda.

Breda has a wide range of other functions in the vicinity of the shopping streets in its city center. As fun shopping has increased over the years, Breda can attract more visitors because of the increased amount of new functions. Finally, to show the vicinity of the other functions mentioned, a map of the city center will be shown with all the locations mentioned.

Figure 4.15: Other functions city center Breda



Source: author, based on Google maps

(1= Chasse theatre, 2= Theatre Avenue, 3=Mezz concerts and dance, 4= Mustsee cinema, 5=Holland Casino Breda, 6=Valkenberg park, 7=Chasse park, 8= Museum of Breda)

Do these functions contribute to vacancy in the city center of Breda?

To draw any conclusions on the effect of these developments in the city center, a comparison should be made between vacancy rates and the opening of the functions mentioned. Although such a comparison does not prove any causal relation between the function and vacancy, it could indicate which functions could have influenced vacancy positively or negatively.

Comparing vacancy rates with the opening of these new functions, there seems to be no relation between both factors. The functions mentioned have been opened between 1995 and 2008 and in this period vacancy rates in Breda changed from 8% to 11% in 2003 and back to 5,1% in 2008. It shows that vacancy rates increased and decreased after a completion of a function. To make any remarks regarding the hypothesis, a comparison should be made between vacancy rates and functions in other cities as well. It is possible that a certain function, for instance a casino, could influence vacancy while a museum does not. At this moment comparisons between other cities and their functions are not possible and based on the results in Breda it is said that there is no clear relation between availability of new functions in a city center and vacancy.

4.9 Conclusions case study

Breda has been studied to find possible explanations for vacancy in city centers. Chapter 3 has indicated a long list of factors mentioned by scholars, this chapter has looked into several factors and made comparisons with other cities based on figures of Breda. Several hypotheses were looked into and although they were not tested statistically, some indications were found to accept or reject the hypotheses mentioned.

Looking at Breda in general, the city scores very well on its size, as it is quite large for its population and Breda is the fifth city in the Netherlands regarding city center shopping space. Within this space, Breda offers the supply of all magnet stores mentioned by scholars and retail organization, with the exception of the Media Markt which is located at the woonboulevard. Also, other activities near the shopping center are also widely available, from a large park, to a cinema and a theater or a museum. Therefore, Breda scores very well on the supply of magnet stores and other functions in the vicinity as well. Looking at regional competition, Tilburg, Rotterdam and Antwerp are large cities in the proximity, while Roosendaal, Bergen op Zoom and Oosterhout are smaller cities in the same area. Breda has lower vacancy than Antwerp, Rotterdam and Roosendaal, while Tilburg has 0,3% less vacancy. Several hypotheses were looked into to possibly explain differences in vacancy.

Breda is a city with a good accessibility. There are various forms of public transport available and there are several highways towards other large cities. The influence of accessibility on vacancy seems to be low, as other cities with good accessibility also have high vacancy and low vacancy rates as well as cities with a bad accessibility. Based on these results there is an indication that the hypothesis "better accessibility leads to lower vacancy" should be rejected.

Regarding parking policy, Breda is not a city with an abundance of parking spaces. It has a historical city center, which is not build for large amounts of traffic. However this is not an exception in the Netherlands, as many cities have a lack of parking spaces. Looking at parking tariffs, compared to other larger cities Breda has an average tariff per hour. If these tariffs are seen in relation to vacancy figures in different cities, there is no clear relation between high tariffs and high vacancy and vice versa. If the parking tariff is seen as an indication for the parking policy in the city it can be said that there is an indication that the hypothesis "a car restrictive parking policy leads to higher vacancy" should be rejected.

Breda has a relatively large shopping area, which is also indicated by their high store space/resident ratio. When absolute size and vacancy are compared, there is no clear relation to indicate that larger centers have lower vacancy rates. On the other hand, if vacancy is compared with relative center size, there seems to be a relation between higher ratio's and higher vacancy. This case study found an indication that vacancy does not relate to absolute shopping center size but to relative shopping size.

All mentioned magnet stores are located in Breda, however with the Media Markt located in Breda West. The effect of magnet stores is too hard to measure, as it is narrowly related to the shopping center size (larger centers have more magnet stores) and the fact that some magnet stores were located in many smaller centers as well. In combination with a lack of vacancy figures of smaller cities, the only indication found is based on the influence of the size of the center on vacancy. That indication is that there is no clear relationship between vacancy and the presence of magnet stores.

Breda has experienced an increase in store space over the last four years, even more than the national's average. In the same period, vacancy figures decreased, in contradiction to what was expected. Other cities in the vicinity did not suffer from an increased supply in Breda as most cities in the proximity (with the exception of Eindhoven) saw their vacancy rate decrease as well. An explanation could be that smaller cities or other regions in the Netherlands experienced higher vacancy. Based on these findings, there is an indication that increased supply of store space does not necessarily lead to higher vacancy rates.

Breda has a clear city center surrounded by the "singels" and there are several other activities possible within these singels, varying from a theatre to a museum or a city park. Looking at the impact of these functions on vacancy, there seems to be no clear relation between the opening of a new function and a decrease in vacancy. A better way to see a relation is to look at the effect of one function, for instance a cinema, on several different cities. Based on the results of Breda there is no clear indication that a new city center function leads to lower vacancy rates.

Combining these results it shows that only relative shopping center size has a clear relation with vacancy in the Netherlands. Accessibility and parking policy have no clear relation as cities with bad

accessibility and restrictive parking policy have low vacancy as well as high vacancy. Absolute city center size does not seem to influence vacancy rates either. Magnet stores and other functions in the city center are too hard to measure to give an indication on their effect on vacancy, however based on Breda it can be said that both functions have no clear influence on the vacancy rate. The increased store space does also not seem to increase vacancy rates on the short term.

Chapter 5: Conclusions

This thesis has tried to identify factors which influence vacancy and it has tried to identify which of these factors could explain differences in vacancy via a case study in Breda. This chapter will discuss the conclusions of the research by answering the research question of this thesis:

Which factors influence vacancy in city centers and how can possible differences be explained?

5.1 Conclusions theory and literature

What is vacancy?

Vacancy is a term which is often used but hardly defined. Vacancy can be seen as the “non-let situation of a real estate object”, such as a store, a house or an office. Researched showed several different classifications of vacancy. Combining these classifications lead to two groups of vacancy: less harmful and harmful vacancy. Less harmful vacancy consists of initial vacancy and frictional vacancy, while harmful vacancy consists of structural, functional and technical vacancy.

How does vacancy arise?

Vacancy arises as a consequence of a difference between retail space demand and supply. The supply side is influenced by retail real estate developers, as they have steadily increased store space in the last decades. The demand side is influenced by retailers and their location preference. It is shown that main shopping streets hardly suffer from vacancy while smaller streets often experience structural vacancy. Retail often prefer to be put on a waiting list instead of locating in a less desirable location. The oversupply of store space and the preferred location by retails lead to vacancy in city centers. The municipality also influences vacancy, as they are responsible for the attractiveness of a city center.

Which trends have influenced retail in the Netherlands?

Looking at consumer purchases in the city center, there are several trends which have altered city center spending. At the demand side, consumers have less time to spend to do their shopping, leading to a demand of more flexible opening hours and one-stop shopping. Due to the internet e-shopping is becoming more attractive as well. On the other hand people see shopping as a leisure activity and want to combine shopping with a dinner or seeing a moving, which is known as fun shopping. Change in the demographic composition of the Netherlands also altered the demand for goods in the city center. At the supply side, retailers tried to respond to these changes. Experience shopping is a new trend to attract people to visit the stores again. Large out-of-town shopping malls were opened to fulfill the need for one-stop shopping. Opening hours became more flexible as well.

Which factors influence city center vacancy?

Vacancy is a derivate of trends and developments in city centers. Attractiveness of a city, location decision factors and retail rent determinants are such topics which influence vacancy. Based on factors directly influencing these three topics, vacancy factors have been indicated. A distinction is made between factors which retailers and municipalities can and cannot influence: exogenous and endogenous factors. All factors mentioned by different scholars are shown in the table on the next page.

5.1 overview factors found

Exogenous	Endogenous
economic recession	opening hour
globalisation	increase in store space
economic cycle	available floor space
inflation	accessibility
average gdp per capita	parking policy
disposable income	average rent
national location policy	local policy
regional competition	crowd pullers
increased mobility	diversity of stores
e-shopping	availability of facilities
	size of the shopping area
	self employed store owners

5.2 Conclusions case study

Which factors can explain differences in vacancy between cities?

Six factors were chosen to be looked into via a case study of Breda: accessibility, parking policy, increase in store space, crowd pullers, size of the shopping area and the availability of other functions in the city center. Indications were found to accept or reject any of the 6 hypotheses.

H1: Better accessibility leads to lower vacancy

The case study showed that Breda had a good accessibility and a low vacancy rate, which indicates that the hypothesis should be accepted. However when looking at other cities and their vacancy rate, there was no clear relation between cities with good accessibility and low vacancy rates, and cities with bad accessibility and high vacancy rates. High vacancy rates occur in cities with good and bad accessibility, indicating that this hypothesis should be rejected.

H2: More parking spaces and lower parking tariffs lead to lower vacancy

Breda is a city with a historical city center and it does not have many parking spaces. The parking tariff is average compared to other Dutch cities. If these tariffs are seen in relation to vacancy figures in different cities, there is no clear relation between high tariffs and high vacancy and vice versa. If the parking tariff is seen as an indication for the parking policy in the city it can be said that there is an indication that this hypothesis should be rejected.

H3: the larger the shopping area, the lower the vacancy rate

Compared to the average in the Netherlands, Breda has an absolute and relative large shopping center in combination with a low vacancy rate. When total floor space and vacancy rates of larger Dutch cities are compared, there is no indication that larger centers have lower vacancy rates. However, when the relative size (floor space / resident) is taken into account, there is an indication that there is a relation between both factors. However this relation is negative, as relative larger shopping centers seem to have higher vacancy rates. This case study found an indication that vacancy

does not relate to absolute shopping center size but to relative shopping size and the hypothesis should therefore be rejected.

H4: More crowd pullers lead to lower vacancy rates

The case study made clear that there is no single form of a magnet store. Dutch department stores are seen traditional crowd pullers, while H&M, Zara and the Media Markt are seen a modern ones. However there are large differences between these crowd pullers, as some are location in almost every city, while others are only located in a few cities. There is a clear relation between shopping center size and the amount of crowd pullers, as crowd pullers prefer to be in larger cities. To measure the effect of a crowd puller, vacancy comparisons should be made with smaller cities. However there are no vacancy figures available of these smaller cities. The only indication which can be given based on the case study is based on the conclusion of shopping center size. Therefore, there is no indication that more crowd pullers lead to lower vacancy rates.

H5: higher increase in store space compared to increase in the amount of residents will lead to higher vacancy

In the last decade the total amount of floor space increased with 62,5%, while the population only grew with 7,84%. An expected consequence is that this would lead to vacancy in city centers, however in Breda the vacancy has decreased in the last years. In fact, Breda experienced even a larger growth than the national's average. An explanation could be that Breda became more attractive and that other cities in the vicinity suffered from higher vacancy rates. However this is not the case, as Eindhoven is only one of the few cities which saw its vacancy increase over the last 4 years. Looking at nationwide figures, it also shows that this increased store space did not result in higher vacancy rates in the last 4 years, as the average vacancy decreased from 8% to 7,6%. Based on these figures there is an indication that the increased supply in store space did not lead to higher vacancy and therefore the hypothesis should be rejected.

H6: More other activities and functions in the city center leads to lower vacancy rates

Comparing opening of new functions and activities in the center of Breda with the vacancy rate of Breda over the years, there seems to be no relation. Some openings are followed by increase in vacancy, others by decrease. To measure the real effect of functions on vacancy a comparison should be made with other cities and per function, as every function is different. However as information is not widely available such comparisons are not made. Based on the result of Breda, there is an indication that the opening of new functions does not lead to lower vacancy rates.

5.3 recommendations and future research

A few general recommendations can be given based on the conclusions given. Despite the fact that factors looked into did not show direct relations with vacancy, this does not mean cities can do anything regarding these factors without influencing their vacancy rate. There was no clear relation between vacancy and increase in store space, however this was based on figures of the last 5 years. If the pace of new store space is kept in the next years, the increased store space will influence vacancy as the population growth is too small to sustain those amounts of floor space. Cities should also keep focusing on accessibility, despite the fact that there was no clear relation with vacancy. Visitors are used to current accessibility and are apparently accepting it as worse accessibility compared to other cities does not show in vacancy rates, however reducing accessibility could result in aversion to visiting the city. The same holds for the amount of parking spaces. Keeping the same amount of parking places does not have a direct relation with vacancy, lowering this amount could make visitors convince to visit other cities in the vicinity.

There are three different aspects which future research could focus on. First, the influence of magnet stores and other functions in the city center on vacancy should be looked into. As of now their influence could not be measured due to diversity of both factors. To be able to give conclusions on both factors individual magnet stores or functions should be looked at in different cities to see if their presence has influenced vacancy in a similar way. Second, this thesis gave indications to accept or reject the hypotheses. These factors should be statistically looked into as well to find support for the results shown in this thesis. The third aspect is that future research could focus on other factors mentioned in chapter three. This thesis has made a selection of factors, while a total of 22 factors were found. These factors could also explain differences in vacancy between cities, especially as the case study did not find many factors with a clear relationship with vacancy. If these suggestions are researched, a complete and clear overview of factors influencing vacancy could be given and recommendations to cities could be given on which factors are most important to reduce vacancy in their city center.

Bibliography

- Baen, J.S., 2000. The effects of technology on retail sales, commercial property values and percentage rents, *Portfolio The Magazine Of The Fine Arts*.
- Beirao, G. & Cabral, J., 2007. Understanding attitudes towards public transport and private car: A qualitative study. *Transport Policy*, 14(6), 478-489.
- Begg, I., 1999. Cities and Competitiveness. *Urban Studies*, 36(5), 795-809.
- Benjamin, J.D., Boyle, G. & Sirmans, C., 1990. Retail Leasing: The Determinants of Shopping Center Rents.
- Benjamin, J.D., 1998. A simultaneous model and Empirical Test of the Demand and Supply of Retail Space. *Journal of Real Estate Research*.
- Berg, L. van den, Drewett, R., Klaassen, L. H. et al. (1982) Urban Europe: A Study of Growth and Decline.
- Berg, L.V. & Braun, E., 1999. Urban Competitiveness, Marketing and the Need for Organizing Capacity. *Urban Studies*, 36(5), 987-999.
- Bolt, E. Winkelvoorzieningen op waarde geschat: theorie en praktijk, 2003
- Bolt, E., 2005. Zicht op markthuren winkelpanden. , 8-12.
- Borchert, J.G., 1998. Spatial dynamics of retail structure and the venerable retail hierarchy. *October*, 327-336.
- Bruinsma, F.R., 1997. The impact of accessibility on the valuation of cities as location for firms. , (January).
- Campo, K. et al., 2000. The impact of location factors on the attractiveness and optimal space shares of product categories. *Research in Marketing*.
- Cushman & Wakefield, 2008. European cities monitor 2008. *October 2008*.
- Dixon, T. and Maher, L. (2005) Policing, crime and public health: lessons for Australia from the 'New York miracle', *Criminal Justice*, 5(2), pp. 115–143.
- Eppli, M, J, and J. D, Shilling, Speed of Adjustment in Commercial Real Estate Markets, *Southern Economic Journal*, 1995, 61:4, 1127-45.
- Fernie, S., 1996. The future for factory outlet centers in the UK: the impact of changes in planning policy guidance on the growth of a new retail format. *International Journal of Retail & Distribution Management*, 24(6), 11-21.
- Geraedts, R., Voordt, T.V. & Netherlands, T., 2002. WOONKANTOREN Meetinstrument voor de transformatiepotentie van kantoren naar woningen. *October*, (October), 1-13.
- Glaeser, E.L., Kolko, J. & Saiz, A., 2001. Consumer city.
- Gorter, C., Nijkamp, P. & Klamer, P.I., 2003. The attraction force of out-of-town shopping malls: a case study on run-fun shopping in the Netherlands. 219-229.

- Gutierrez, J., 2001. Location, economic potential and daily accessibility: an analysis of the accessibility impact of the high-speed line Madrid-Barcelona-French border. *Journal of Transport Geography*, 9.
- Hilderink et al, Scenarios voor huishoudontwikkelingen Nederland, March 2005
- Houwelingen, R.V., 2008. Het functioneren van B- en C-locaties binnen stadscentra.
- Kavaratzis, M. (2004) From city marketing to city branding: towards a theoretical framework for developing city brands, *Place Branding*, vol. 1.
- Kaufman, C.F. & Lane, P.M., 1996. A new look at one-stop shopping: A TIMES model.
- Keeris, 2005. A closer look at vacancy levels in the dutch office market.
- Kohnstamm, P., 1994. Trends in European investment, performance and real estate education, 13(2), 51-58.
- Kok, H.J., 2007. Restructuring retail property markets in Central Europe: impacts on urban space. *Journal of Housing and the Built Environment*, 22(1), 107-126.
- Koppels, P.W., 2006. Office vacancy types and lease incentives, 1-20.
- Kotler, P., Asplund, C., Rein, I y Heider, D. (1999) *Marketing Places Europe: Attracting Investments, Industries, Residents and Visitors to European Cities, Communities, Regions and Nations*, Pearson Education, Londres.
- Lasalle, J.L., 2009. Retail Market Special 2009. *Forum American Bar Association*.
- Lever, W.F., 1999. Competitive Cities in Europe. *Urban Studies*, 36(5), 1029-1044.
- Litman, T., 2003. The Online TDM Encyclopedia: mobility management information gateway. *Transport Policy*, 10(3), 245-249.
- Litt, J, and F. van Dijkum, *The Salomon Brothers Commercial Real Estate Monitor*, New York: Salomon Brothers, 1995
- Louviere, J.J., 1996. Shopping Center Image, Consideration, and Choice: Anchor Store Contribution. *Journal of Business Research*, 29(3), 95-108.
- Marrewijk, C. van, *International Economics, theory, application and policy*, 2006
- Martell, L., 2007. The Third Wave in Globalization Theory. *International Studies Review*, 9(2), 173-196.
- Massagli, M.K., 1996. E-tail vs. retail: the future of thie downtown regional shopping center
- Mattsson, L., 2002. Reorganisation of distribution in globalisation of markets. *Distribution*, 1-27.
- Mcallister, P., 1996. Turnover rents: comparative valuation issues. , 14(2), 6-23.
- Metz, D., 2008. The Myth of Travel Time Saving. *Transport Reviews*, 28(3), 321-336.
- Mingardo, J, Van den Berg, L, Van Haaren, J. *Transport, Environment and Economy at urban level: the need for decoupling*, Euriceur 2008

- Monheim, R., 1998. Methodological aspects of surveying the volume, structure, activities and perceptions of city centre visitors. *Retail Trade*, 273-287.
- Nelson, R. (1958), *The Selection of Retail Locations*. New York: F.W. Dodge Corporation.
- Nijkamp, P., 2000. Trade area analysis of out-of-town shopping malls; a case study from the Netherlands.
- Pashigian, B.P. & Gould, E., 1998. Internalizing externalities: the pricing of space in shopping malls*. *American Economic Review*, XLI(April).
- Pershio, D, B,, *The Coming Shakeout Among Regional Malls*, JMB Perspectives, 1991, 1, 3-5.
- Porter, M.E., 2000. Location, Competition, and Economic Development: Local Clusters in a Global Economy. *Economic Development Quarterly*, 14(1), 15-34.
- Roarty, B.O., Mcgreal, S. & Adair, A., 1997. The impact of retailers' store selection criteria on the estimation of retail rents. , 15(2), 119-130.
- Roulac, S, E,, *Retail Real Estate in the 21st Century: Information Technology + Time Consciousness + Unintelligent Stores = Intelligent Shopping? Not!* *Journal of Real Estate Research*, 1994, 9:1, 125-50
- Russo, A. & Van Der Borg, J., 2002. Planning considerations for cultural tourism: a case study of four European cities. *Tourism Management*, 23, 631-637.
- Simmonds, D. & Still, B., 2000. Parking restraint policy and urban vitality.
- Timmermans, H., 1986. Locational Choice Behaviour of Entrepreneurs: An Experimental Analysis. *Urban Studies*, 231-240.
- Uhlenbroich, D., 2008. Een handreiking voor het MKB.
- Weltevreden, J., 2007. Substitution or complementarity? How the Internet changes city centre shopping. *Journal of Retailing and Consumer Services*, 14(3), 192-207.
- Weltevreden, J.W. & Rietbergen, T.O., 2007. E-shopping versus city centre shopping: the role of perceived city centre attractiveness. *Main*, 98(1), 68-85.
- Winkler, D.T., Benjamin, J.D. & Jud, D., 2000. Retail vacancy rates: The influence of national and local economic conditions. *Portfolio The Magazine Of The Fine Arts*.

Organizations:

DTZ Zadelhoff

Locatus

MKB Nederland

Hoofdbedrijfschap Detailhandel

CBS

Jones, Lang Lasalle

Rewin

NS

Consumentenbond

Sociaal Cultureel Planbureau

European Factory Outlet centers Observatory

European Cities Monitor

Strabo

TLN

Municipality of Breda

VCOB

Veolia Transport