



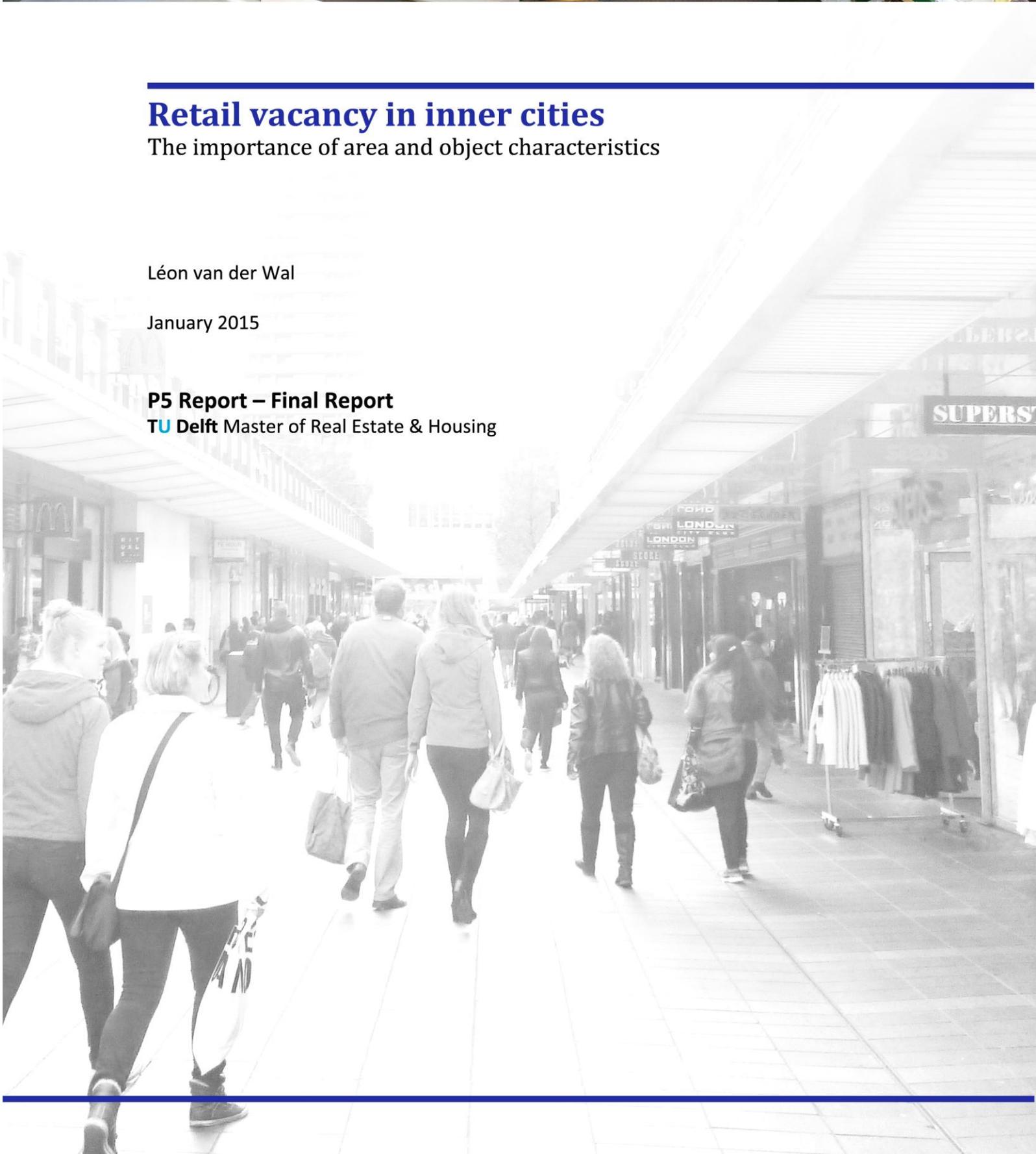
## Retail vacancy in inner cities

The importance of area and object characteristics

Léon van der Wal

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**P5 Report – Final Report**  
TU Delft Master of Real Estate & Housing





# **Retail vacancy in inner cities**

The importance of area and object characteristics

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**Adaptive Reuse – A Sustainable Real Estate Strategy**

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## Colophon



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## Preface

This report presents my thesis research part of the Master of Real Estate and Housing program of the University of Technology Delft. It is the final report and there will be elaborated on the completed research. The research was supervised by Dr. ir. Dion Kooijman and Dr. MSc. Hilde Remøy and connects to the graduation theme 'Adaptive Reuse – A Sustainable Real Estate Strategy', part of the Real Estate Management (REM) graduation Lab. Besides these two mentors from the TU Delft, Patricia Bos from GREEN Real Estate helped me during my thesis research as well by discussing the research matter and giving feedback on my reports.

The subject of the proposed research, retail real estate, was chosen from a personal interest and the perceived lack of knowledge in the real estate sector concerning the changed retail reality. The function of the thesis research is both scientific and educational. Scientific because the research aims to make a useful addition to the present body of knowledge on retail space. Hereby contributing to a better understanding of retail vacancy. Educational since both process and content related knowledge is gained by conducting the research. The master thesis allows to further develop many skills including organisational, analytical, communication, and academic reading and writing skills.

I am interested and passionate about many facets related to the built environment, including housing policy, the construction industry, and corporate real estate. However I am most interested in commercial real estate. More in specific in the relationship between the dynamic demand and a relatively static supply. During my study abroad at the University of Melbourne, one of the lectures drew my attention to retail real estate. A very interesting real estate types due to the many actors and aspects involved. Developing and managing an optimal functioning retail centre requires specialist knowledge and expertise. During the regular course of studies in Delft there is not specifically focussed on retail real estate. Spending two semester researching is an unique opportunity to gain insight in this interesting subject.

During the master of Real Estate & Housing I have gained a broad array of skills required to shape and manage the built environment. Including knowledge of real estate supply and demand on different levels. The changing demands from the scale levels society, organisation, and individual are increasing the imbalance between the supply and demand for retail space, hereby affecting many stakeholders. The characteristics of a retail agglomeration are increasingly important for attract consumers and dynamics on the retail market are changing location preferences of retailers. Especially vacancy in inner city retail space is a threat for the functioning of urban areas due to strong spill-over effects. In the thesis research I want to anticipate on current trends and assess the mismatch between demand and supply of commercial real estate.

Hereby I would like to thank all the participant; in total 23 experts participated in the research (see Appendix III and V). A special thank to Locatus, for allowing me access to their database. I was pleased by the fact that so many experts were willing to participate in the research. Since it is through research, how small the contribution of a single research may seem, that the real estate sector can grow in professionalism, to eventually lead to a better build environment.

Léon van der Wal

Delft, 21-01-2015



## Summary

The following section provides a brief management summary of the thesis research.

### Introduction

Shifts in the retail sector and changed consumer behaviour have altered the demand for physical retail space. The way we shop and with it the demand for real estate is in a process of change. Consumer behaviour has changed as an effect of several changes in society, including: increased digitalisation, a stronger focus on convenience, and a drive for experience. The focus on convenience is driven by the growing pressure on free time, resulting in consumers focusing on solely the convenience and price aspect for many basic buying decisions. Illustrative for the drive for experience is the shift from functional towards leisure orientated shopping. Shopping itself is seen as leisure; in the Netherlands shopping is ranked as one of the favourite leisure activities.

Furthermore there have been a number of changes on the retail market: retail chains have become more dominant, the number of independent retailers is declining, the distinction between retail sectors is blurring, and the presence of international (fast fashion) retailers is growing. With the emergence of online retailing consumers have an alternative for physical shopping, the orientation process of consumers has changed, and retailers are reacting by adopting multi channel strategies.

Dutch retail centers are witnessing increased vacancy rates. The increasing number of alternative shopping destinations puts pressure on inner city retail areas; there is competition from retail agglomerations at the periphery and out of town developments such as outlet centres, and online shopping is a growing alternative for physical shopping. Especially the retail branches typical for inner city and city district retail centres show relatively high online sales. The economic downturn has reflected in decreased consumer spending. As a result the demand for retail space has dropped.

### Problem statement

The Netherlands has witnessed an increase in retail vacancy. In comparison to office vacancy retail vacancy is much more visible and has an impact on image and (social) safety on area level at much lower vacancy rates. While some retail centers seem to function well, others are witnessing high vacancy rates. Area and object characteristics form a potential explanation for the increased vacancy rate in some areas. The relationship between area and object characteristics and vacancy is rather unspecified and unclear.

### Research design

The research explored the relation between area and object characteristics and vacancy. The presented research consists of a mixed method research: literature research, expert interviews, a Delphi research, and case studies. Based on literature and semi structured interviews, a Delphi research was as set up. The Delphi resulted in a ranked list of area and object factors important for the demand for retail space. The expert interviews and Delphi research derived context independent information. The case study allowed the collection of context dependent data to test and revise the research findings from the other methods.

The main research question was:

How are area and object characteristics related to vacancy in Dutch inner-city retail space?

The research focused on inner city retail centres of at least 200 stores. This are the 53 retail agglomerations in the Netherlands; the centres of the middle sized and large cities.

### **Vacancy and the relation to property characteristics**

Real estate is highly segmented and the supply of real estate is very inelastic; when the local demand for retail space changes the space stock cannot be easily adjusted. As an effect of an imbalance between supply and demand the Netherlands has witnessed an increase in vacancy on the retail space market over the past decade. Due to the structure of the real estate development process new developments were stimulated and withdrawal of properties was discouraged. Recently demand for retail space has dropped; demographic changes, decreased consumer spending, and the rise of online shopping. Real estate markets are local markets and there are large differences in vacancy rate between retail centers. Also the differences in ability to bind local consumer spending have increased.

Consumer willingness to travel for fun-shopping has increased and consequently competition amongst retail centers has increased. In their location strategies retailers are also increasingly critical in their location decisions. Especially in areas where centers are located relatively near each other, retailers select the strongest centre. The attractiveness of a retail agglomeration comprises the ability to attract consumers, stimulate them to spend more time and eventually money, and stimulate patronage intentions. The number of consumers consequently drawn to a retail cluster influences the demand for retail space.

Attractiveness attributes such as the size of the retail centre and the presence of anchor tenants, also seems to determine the place of a centre in the hierarchy of retail centres. While retail centre attractiveness is primarily important for binding local consumer spending for lower order centres, for higher order centres stimulating an influx of consumer spending is very important as well. Lower order retail centres are located in the agglomeration shadow of retail centres with a high attractiveness.

Furthermore vacancy has a self-stimulating effect since it affects both object and area factors. Vacancy can negatively influence the atmosphere in an area since it affects the facade impression and feeling of safety. Additionally gaps in the retail structure result in an unclear routing. Furthermore it influences a number of aspects on object level since a retail function disappears resulting in reduced spill-over effects on surrounding objects.

### **Expert interviews**

In total 9 experts from various part of the real estate sector were interviewed. An important function of the expert interviews was to test and extend findings from literature.

The experts recognise the importance of area and object characteristics but stipulate the importance of macro factors underlying the demand for retail space. Experts indicate some retail centres have a clear oversupply of retail space and areas within those centres are losing their retail function. The interviewed experts also indicate a split between centres focused on recreational shopping, predominantly the large City Centres, and town centres that are moving towards a function as convenience centre.

The expert interviews were used to derive factors that are important for the attractiveness of inner city retail centres. Many aspects the experts mentioned were also found in (international) literature. An aspect mentioned in the expert interviews that was not found in (international) literature, was the importance of secondary retail streets. These are the retail areas adjunct to the core of the retail centre, were predominantly independent retailers. These streets can contribute to the overall retail

mix and enhance atmosphere, the quality of the individual stores is however crucial; retailers with a specialized retail offer and superior customer service. In general the specialised character of these retailers however requires a large service area.

The expert interviews also led to the rejection of a number of aspects mentioned in the literature. The importance of entertainment advocated by for example Wolf (1999), does not seem to apply to Dutch central retail areas, or should at least be nuanced. Based on the expert interviews there was concluded that for the attractiveness of Dutch inner city retail centres, leisure functions should not be seen as a separate element but should be considered in the wider context of multi functionality. The synergy of leisure and retailing seems limited. Food and beverage facilities such as coffee places and lunch rooms, were however indicated to support the shopping activity.

Experts mentioned that retailers are increasingly critical concerning where to locate. For retail objects footfall numbers are indicated to be the most important factors since this is related to the revenue potential. Furthermore it's important for a retailer to generate sufficient exposure; the front width of a store is important in this. According to the experts, the drop in demand for retail space has given retailers a stronger negotiation position and there is a replacement market creating gaps in the retail structure, especially outside the core retail area.

### Delphi research

Trough expert interviews and a literature review 15 area and 15 object factors were derived to be important in the demand for retail space respectively for the consumer and the retailer. In total 19 experts participated in the Delphi ranking. Based on the responses the rankings presented in table 1 were derived. The Kendall W values indicate the confidence in the ranking of area factors in between fair and high. The confidence in the object factor ranking is high.

Table I: Results final Delphi round

Mean ranking Delphi research			
Area factors	Rank	Object factors	Rank
Anchor stores	1	Location	1
Retail mix	2	Ground floor	2
Centre Size	3	Size	3
Accessibility & parking	4	Function of surrounding objects	4
Atmosphere	5	Front-width	5
Food & beverage facilities	6	Width-depth ratio	6
Public space	7	Quality of surrounding	7
Routing	8	Layout	8
Multi functionality	9	Floor height	9
Historical	10	Supply accessibility	10
Safety	11	Facade	11
Orientation	12	Character of the building	12
Markets and events	13	Technical state	13
Facade impression	14	Street width	14
Secondary retail streets	15	Sun side	15
Kendall W	0,63	Kendall W	0,74

Different consumers make different demands on retail agglomerations. Different retail formulas also make different demands on retail space. However in the end all these different demands need to be met by one physical form. That is the very notation of real estate management: how to match a relatively static supply to a dynamic demand. The relatively high consensus rates of the Delphi ranking indicates that even though the specific demand may differ, an order on importance of the different aspects forming the demand can be identified.

### **Case studies**

A number of case studies were conducted to test and extend the findings from the: literature review, expert interviews, and Delphi. The case studies indicate retail centre attractiveness attributes to have a relation to the vacancy rate in the three case areas. The identified area factors were in line with the ability to bind local consumers and attract consumer spending from outside the primary catchment area. Furthermore the location, position above or below ground level, and size of the unit show clear relations to the vacancy pattern in the case study. For a number of factors there were indications for a relation to vacancy but the relationship could not be isolated; in many cases a multitude of object characteristics can be pointed out which cause the vacancy of an object.

The self-stimulating effect of vacancy and confirmed the hierarchy of retail centres based on attractiveness were confirmed in the case studies. Lower order retail centres face an outflow of consumer spending towards the nearby located high order centre. The attractiveness proposition a centre makes toward the consumer seems to determine the role of the centre. For example for a daytrip of shopping many consumers go to the high order centre.

### **Conclusions**

The research indicates there is a relationship between area and object characteristics and vacancy in Dutch inner-city retail space. Since vacancy affects both object and area factors, the presence of vacancy itself can as well stimulate the increase in vacancy.

Area characteristics influence the ability to bind local consumer spending and stimulate the influx of consumer spending. This research operationalised the concept of retail centre attractiveness by identifying a number of factors that are important in the profile of the retail centre. For attracting consumers, the most important aspects for a central retail area are: the presence of anchor stores, the distribution of various retailers and branches in the sector, the size of the retail centre, accessibility of the retail centre, and atmosphere enhancing aspects.

Object characteristic are related to the location of vacancy within a retail centre. In this research the demand for retail space was structured by identifying object characteristics important in the space demand of retailers. The most important aspects are the quality of the location, the size of the object, the function of properties in the direct surrounding of the store, and a wide storefront.

### **Recommendations**

Chapter 6 of the report provides more elaborate recommendations for both practice and further research. The following section will briefly discuss the most important recommendations for practice.

#### **Focus on important factors**

The Delphi rankings provide a simple to understand overview of the factors important on area and object level. This can be used for determining the focus point of for example town centre management schemes. As simple as it might sound; there should be focused on the most

important aspects. Focusing on low ranked factors is unlikely to make a significant impact on the attractiveness of a retail centre or retail object, respectively from the point of view of the consumer and retailer

**Focus on quality while taking into account place in hierarchy.**

In order to attract consumers and ensure the long term viability of the inner city, a focus on the quality of the retail centre is important. The attractiveness of a retail centre is relative to the attractiveness of competing centres. Therefore the place of the centre within the hierarchic structure of retail centres should be taken into account when considering any adjustments to the retail structure. Considering the presence of a replacement market, improvements within the retail centre should take into account the so called waterbed effect; improving properties somewhere in the centre might cause problems elsewhere in the retail area.

**Proactive approach**

Actors must be aware of the self-stimulating effect of vacancy. Some retail areas simply have a retail space stock that is too large. Considering the negative effects of vacancy it might be preferable in some cases to aim for a more compact retail centre. Gaps in the retail structure appear and some areas within retail centres have lost their relevance. For some objects transformation to a different function could be the best option. Assessing vacant stores on the object characteristics that were ranked high in the Delphi ranking, provides an indication of the extent to which the object is suitable for retail. Urban re-allotment and transformation could be ways to create compacter retail centres and counter the self simulative effects of vacancy.

Considering the importance of retail in the urban structure policies should be grounded in research. This research forms a building block for such evidence based decision making.



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## Readers guide

The report is split up in four parts. The first part, presented in chapter 1, consists out the research design including: a brief exploration of the research area, problem statement, research objectives, research questions, and research methodology.

The second part of the report covers literature. Chapter 2 of the report starts with the exploration of a number of theories related to the topic after which the findings of the literature research focused on retail vacancy, retail centre attractiveness attributes, and object characteristics.

The third part of this report concerns the findings from the empirical research. The expert interviews outlined in chapter 3 connect the findings from literature to experts in the real estate sector. The findings from literature and the interviews were used to set up a Delphi research. The findings from this Delphi are presented in chapter 4. The findings from literature, interviews, and Delphi were tested on three case areas. This case study is presented in chapter 5. In the appendix a number of supporting documents can be found.

The final part of this report is formed by chapter 6. This chapter connects all the preceding chapters and presents the final conclusions of the research. In this chapter there is reflected on the research questions outlined in chapter 1.

## Research design



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# 1 Research design

In this chapter the research proposal is presented. The chapter starts with an introduction to the problem area followed by the problem statement, the research focus and research methodology. The chapter provides an introduction to the research area and elaborates on the research design.

## 1.1 Introduction

The following section will provide an introduction to the problem area focused on in this research. The increased vacancy rate in Dutch retail space as well as a number of important changes related to the consumer and retailer will be discussed.

### 1.1.1 Vacancy in Dutch retail space

Over the past years the Netherlands has witnessed an increase in retail vacancy. The national average vacancy rate lays around 6,9%. However vacancy is strongly differentiated within the retail stock (Locatus, 2014b). On some shopping locations vacancy is below 3% while some areas witness a vacancy rates above 20%. As an effect of the growing importance of online retailing and the economic downturn, vacancy issues are arising in more and more shopping areas (FGHbank, 2012, p. 25). Compared to the growth in population the retail space stock has shown a strong growth (NEPROM, 2010, p. 91). The combination of growth in retail space per inhabitant, the rise of online shopping and decreased consumer spending puts pressure on vacancy rates. The retail real estate market is also increasingly becoming a replacement and displacement market (NEPROM, 2010, p. 87). Outdated real estate and properties that do not fit the demands of retailers and consumers are left vacant.

The direct impact of vacancy lies at the owner of the subject property and surrounding properties. Cashflow from rental income is not obtained, fixed cost keep running, and the value of the property declines due to vacancy. Besides this vacant properties can have a bad influence on the image of building owners (NICIS, 2006). However the negative effects of vacancy do not solely affect private parties. Vacancy on the commercial real estate market can have negative effects for municipalities due to the spill-over effect of bad image as well as effects on (social) safety (NICIS, 2006). As mentioned by Platform31 (2014, p. 42) retail vacancy is much more visible and has effect on area level at a much lower vacancy rate, compared to vacancy on the office market.

A research conducted in 2011 covering consumer flows in the Randstad area, showed the shopping frequency has decreased since 2004 (I&O Research, 2011b, p. 93). Location choice of consumers has changed as well: there has been a strong decline in the ability of shopping centres to bind local consumers (I&O Research, 2011b, p. 65). For non-daily products consumers are showing an increased willingness to travel for their shopping trip as well the differences in ability to attract and retain consumers between retail centres have increased. In other words competition between shopping centres has increased.

### 1.1.2 Changes in economy and society

"Reflecting as it does cultures and consumers, retailing is the primary conduit for production and consumption linkages in economies." (Burt & Sparks, 2003, p. 3). Changes in society inevitably influence the retail sector and ultimately impact the demand for retail space. Three rather general theories were studied: Florida (2002), Pine and Gilmore (1998), and Wolf (1999). Together these form a broad background to which many trends witnessed today can be traced back.

Florida (2002) primarily concerns the importance of the so called "creative class" and the importance this group of society places on authenticity and experiences. In the theory of the "experience economy" Pine and Gilmore (1998) as well emphasize the importance of experience within society. Wolf (1999) puts a stronger focus on fun and entertainment; the "entertainment economy" advocates the importance of rather makeable consumer experiences. The theories show a lot of similarities and concerning some topics they complement each other. In Appendix XI a brief summary of these theories is provided. Based on the before mentioned publications and additional sources two important themes were identified: convenience focused and experience focused.

### **Convenience focused**

Consumer behaviour relates to the decisions consumers make concerning which of their needs they wish to satisfy and how, when, and where they are going to do so (Burt & Sparks, 2003, p. 10). One of the trends in consumer behaviour relates to convenience concerning time and location. The frequency consumers shop decreased for both daily shopping and fun-shopping. Many consumers are increasingly going on an efficient shopping trip to an easily accessible but complete shopping centre once or twice a week (I&O Research, 2011b, p. 65). Wolf (1999, p. 35) states that: "In a sense we are consumers not only of goods and services but of the fourth dimension time.". Convenience is an important factor in shopping decisions of consumers and adds value by saving time and effort for the shopping activity, something of increasing importance for consumers (Lloyd, Chan, Yip, & Chan, 2014).

Also in the Netherlands people witness increased time pressure. Especially in the larger cities the Netherlands is moving towards a 24/7 economy (Platform31, 2014, p. 58). One of the effects of the increased time pressure is the changed starting point of shopping trips. Nowadays the starting point of a shopping trip is not per definition home: people for example shop on their way home from work (NRW, 2014, p. 7). I&O Research (2011b, p. 114) indicate the number of people that regularly shop during the lunch break or after work has grown from 64% in 2004 to 73% in 2011.

Wolf (1999, p. 282) expected retail to split into two parts: one following the line of the entertainment economy, another focussed on convenience. The focus on convenience is driven by the growing pressure on free time, resulting in consumers focusing on solely the convenience and price aspect for many basic buying decisions (Wolf, 1999, p. 282). The entertainment driven stores on the other hand would be about shopping as something to do rather than functional product acquisition (Wolf, 1999, p. 284).

### **Experience focused**

An important trend in consumer behaviour is the change from functional to fun shopping (Luijten, 2012). Shopping itself is seen as leisure. The growing importance of fun shopping is in line with the drive for experience within modern day society, a central theme in theories of Pine and Gilmore (1998), Wolf (1999) and Florida (2002). Experience is of growing interest in the postmodern society including in the retail environment (Kooijman & Sierksma, 2007). There is a stronger emphasize on recreational shopping and shopping is moving increasingly to the 'fun domain' (Speeltjens & van der Post, 2012, p. 57). Shopping is not solely about the distribution of products but also about all kind of social aspects (Burt & Sparks, 2003, p. 5; Evers, Kooijman, & van der Krabben, 2011, p. 29). Looking at shopping as a social rather than a pure functional activity is the basis of fun-shopping. Wolf (1999, p. 48) argued: "Fun, usually in the form of entertainment content (or, at the very least, content that is entertaining), is an overriding cultural value among modern consumers.". However fun- or

recreational shopping refers to something more than adding leisure to attract consumers. To quote Wolf (1999, p. 61): shopping is increasingly seen as a leisure activity in itself. Recreational shopping is related to compulsive shopping; a form of shopping whereby the shopping is being separated from the functional use of the purchased product (Evers et al., 2011, p. 34).

Shopping is one of the favourite activities for Dutch people to spend their free time (Luijten, 2012) and inner cities are predominantly attracting consumers focused on fun-shopping (Evers et al., 2011, p. 90). When consumers are fun-shopping they often consider the activity of shopping as more important than the products being acquired, therefore the experience a shopping centre offers is important (Evers et al., 2011, p. 90). The experience value a shopping centre has to offer is of growing importance for consumers (NRW, 2014, p. 6). Coincided with the rise of fun-shopping is an increased demand for day time food and beverage facilities (Platform31, 2014, p. 59). Compared to functional product acquisition, shopping as a way to spend free time makes a different demand to the retail centre and the store within it.

As Speeltjens and van der Post (2012, p. 56) argue: the future perspective of retail space is depended on the actions retailers and investors take to make shopping more fun and attractive from the consumers point of view. An example of a response on the growing importance of experience in modern day society is the opening of so called flagship stores. These stores are focused on brand building rather than profitability (Varley, 2006, p. 176). However as noted by Dawson, Findlay, and Sparks (2008, p. 17) the importance of highly differentiated retail spaces like experience focused stores should not be overestimated considering much retailing remains functional; price and convenience are still key determinants in consumer decisions.

### **1.1.3 Changes in the retail sector**

New formulas and changes in retail operation alter the demand for retail space (Evers et al., 2011, p. 109). Vacancy is increasing on the one hand and new types of physical retail stores are emerging on the other (Platform31, 2014, p. 3). The retail environment is dynamic in nature and the modern retail sector has undergone significant structural changes, including the emergence of new retailing techniques and the rise of large retail chains and new retail formats and forms (Burt & Sparks, 2003, p. 3). The following section presents a number of key trends on the Dutch retail market. Similar trends are relevant in many western economies (Burt & Sparks, 2003, p. 22) however due to the local nature or retailing the affects of these trends differ.

#### **Shifts in the supply chain**

Supply chain integration is one of the trends in the retail sector. Over the past decades retail chains have been dominating the supply chain and often steer production (Evers et al., 2011, p. 29; Fernie, Sparks, & McKinnon, 2010). Retail chains have grown in both scale and scope hereby shifting the power in the supply chain towards the retailer (Dawson et al., 2008, p. 279).

Besides supply chain integration there is also an integration of retail branches (Evers et al., 2011, p. 44). The distinction between retail sectors is blurring (Dawson et al., 2008, p. 275; Evers et al., 2011, p. 87; Varley, 2006, p. 4). For example supermarkets have a growing offering of non-food products and services as well lifestyle focused stores have a wide product range. These wider product ranges affect supportive centres since supermarkets play an important role in these centres. As well it potentially affects the retail mix of centres since the function of some retailers are (partially) being

overtaken by other stores. For example toys are nowadays not exclusively being sold in toy-stores; for example retailers in the drugstore and household goods branches are also selling toys.

### **Increase in scale**

Related to the changes in the supply chain, over the past decades retail chains have significantly grown in size and power (Dawson et al., 2008, p. 279). If managed correctly scale offers large benefits for retailers (Burt & Sparks, 2003, p. 27) and as Guy (2006, p. 153) mentions there are substantial barriers to entry for some areas of retailing. Real estate investors also prefer chains over independent retailers as tenants (Evers et al., 2011, p. 65). As a result the number of independent retailers in the main shopping areas has significantly decreased. While the presence of international retailers is increasing the number of independent retailers is declining (Evers et al., 2011, p. 87). The trend of increasing presence of retail chains has been criticized by professionals to negatively affect the diversity of retail centres. However amongst consumers the growing dominance of retail chains is not so much considered an issue (Evers et al., 2011, p. 65). In line with the preference of Dutch consumers for the "comfort of the known" mentioned by Gianotten (2010). Speeltjens (2012, p. 75) provides another explanation for this: he argues that central retail locations service a variety of consumers and most retail chains focus on the mainstream consumer.

According to DTZ (2013) retail chains have grown their presence on the main shopping streets from occupying 75% of the retail space in 2003 to 87% by 2012. Chains with a good purchase policy, rapidly changing collections, and good marketing are able to achieve high rotation speed of products needed to afford high rents; in this sense market dynamics are driving the increasing uniformity in the retail landscape (Speeltjens & van der Post, 2012, p. 39). In large cities in the Netherlands independent retailers are often found in areas adjacent to the A1-shopping area (DTZ, 2013). Rents in these areas are lower compared to rents in the core of the retail centre. An starting independent retailer is less likely to rent an expensive retail property and must find a competitive advantage over retail chains, for example by offering a specialised product range or high level of customer service (Guy, 2006, p. 153).

To improve their formulas, retail chains are increasing the size of their stores and also the international chains entering the market have resulted in a stronger demand for larger stores (Tromp & Ploegmakers, 2005). Since the 80s the number of retail stores in the Netherlands decreased, while the total retail floor area increased (Evers et al., 2011, p. 30). Average floor size per store increased from 220 m<sup>2</sup> in 2004 to 265 m<sup>2</sup> in 2013 (Platform31, 2014, p. 42). The increased demand for larger units is witnessed in both inner city retail centres and retail centres located in the periphery of cities (Tromp & Ploegmakers, 2005).

### **Fast fashion and internationalisation**

The reduced economic lifespan of some products is a driving force changing core shopping areas (DTZ, 2013). Retailers are constantly reacting on current trends and especially in the fashion branch there is a very short time-to-market of products; fast fashion. The high volatility to trends en related to this the short life cycle of products are key characteristics of fashion markets (Fernie et al., 2010). The affordable and rapidly changing collections counterbalances the decreased store loyalty of the modern consumer (Tromp & Ploegmakers, 2005). However since a retailer has to sell the product before the new collection has arrived, the importance of being located on the best spot has increased (DTZ, 2013). While the fashion market is already characterized by a high level of impulse

purchases (Fernie et al., 2010). This puts pressure on prices on the rents of stores on the best locations.

Retailing is also increasingly becoming a global market (CBRE, 2013; Gianotten, 2013, p. 62). In the Netherlands especially Amsterdam has witnessed a strong growth in presence of international fashion brands (DTZ, 2013). Even though the retail market is undergoing a process of globalisation, local considerations are still crucial for the shaping of the retail sector. As Burt and Sparks (2003, p. 5) state: "Retailing must be responsive to the culture within which it operates". According to DTZ (2013) these processes have changed to composition of the popular shopping locations; an increased presence of fast fashion and international retailers and a decreased number of retailers offering products with a low rotation speed.

### **Online retailing**

Consumers are increasingly using online retail channels. The rise of online retailing is part of a more general digitalisation of society (Platform31, 2014, p. 45). The emergence of online retailing has not led to the complete disappearance of the physical store. However it has structurally changed the retail structure. Online retailing currently makes up only a small part of the total revenues in the retail industry. However the portion of the population that grew up in a world with internet is increasing. Revenue of online retailing has grown much stronger than the growth in offline retailing (Gianotten, 2013, p. 58). The growth rate is however declining. Age still has a clear effect on the usage of online retail channels (I&O Research, 2011b, p. 104) and Platform31 (2014, p. 53) indicates that even within the group of elderly the usage of internet and online retailing is growing rapidly.

The ease of delivery, the possibility to offer broad product ranges, and in many cases lower prices have enabled online retailers to make people spend money online instead of in physical stores (DTZ, 2013). But internet does not only has a transaction function. It also increases the possibility to compare products and prices. These possibilities have significantly altered the orientation and purchase process of consumers (Gianotten, 2013, p. 70; Platform31, 2014, p. 48). One of the effects of this transparency is an increased pressure on prices.

Convenience forms one of the key motivations for customers to shop online (Jian, Yang, & Jun, 2013). Products that are standardized and well understood are much easier to present and sell through online channels compared to goods where the aesthetics and the sensory elements of the product are important (Varley, 2006, p. 233). Online shopping is especially important for functional shopping; basic buying decisions involving generic goods. As Wolf (1999, p. 283) argues convenience and efficiency are the most important factors online shopping offers to consumers. However: "The social experience of shopping in engaging environments cannot be replicated on the internet" (Wolf, 1999, p. 284). Stores that are able to enhance experience in store and benefit from the agglomeration of similar stores are likely to be less affected by competition from online shopping (Parker & Weber, 2013). Parker and Weber (2013) for example show that for niche products shoppers tend to value aspects as the "thrill of the hunt" and an air of authenticity, they focus less on convenience and efficiency. This image corresponds with the search for authentic experiences mentioned by Florida (2002) and Pine and Gilmore (1998).

That retail is increasingly becoming multi-channel and the role of physical shopping is changing. In Luijten (2012) Kooijman states most retailers have a strategy including both an online and offline retail channels. Not because this per se increases revenues but because consumers demand it and

retailers want to get grip on their customer. According to Rigby (2011) consumers increasingly want both the benefits online and offline retailing has to offer. Benefits of online channels include easy product comparisons and customer reviews, while the benefits of physical retailing involves aspects like personal help and convenient returns. Consumers show positive cross channel behaviour (Piercy, 2011). By offering physical and digital channels in an integrated way, a retailer enables customers to develop positive consumer behaviour. This includes increased customer loyalty and purchase involvement (Piercy, 2011).

Predictions concerning the extent and pace of changes in the retail sector should be put in perspective. The magnitude of online shopping is far smaller than many professionals initially predicted (Evers et al., 2011, p. 267). Bakos (2001) for example, made predictions concerning developments in the retail sector. Many aspects Bakos (2001) mentioned have become reality like significantly reduced search costs on both the physical and virtual retail market and increased price competition. However the pace of change, more specifically the percentage of online versus total retail sales, has been lower than Bakos (2001) expected. Many predictions, including those of Bakos (2001) and Borenstein and Saloner (2001), were technology led and similar statements are made today. However Alexander and Freathy (2003) emphasize the importance of social aspects when it comes to adopting a new technology. Even more so for structural changes in economy and society. An important factor mediating the technology-driven view is the so called 'social brake'. Quoting Alexander and Freathy (2003, p. 299) "Just because a technological capability in existence does not mean consumers will automatically want to use it". Changes in the retail environment are evolutionary rather than revolutionary (Alexander & Freathy, 2003, p. 298).

## 1.2 Problem statement

Based on the introduction presented in the preceding section the following important changes related to the retail space market were identified:

- ▶ The emergence of online retailing has given the consumer an alternative retail channel. Online retailing has not made retail space redundant however it has altered the retail structure.
- ▶ Several changes in society, like the increased demand for experiences, have altered the role of retail space; the function of inner-city retail space is increasingly focused on fun shopping.
- ▶ Increased competition between retail areas.
- ▶ While there has been a large amount of new developments over the past decades, recently demand has decreased due to the economic downturn, demographic changes, and online retailing.

The Netherlands has witnessed an increase in retail vacancy. In comparison to office vacancy retail vacancy is much more visible and has an impact on image and (social) safety on area level at much lower vacancy rates. While some retail centers seem to function good, others are witnessing high vacancy rates. The changed requirements for inner city retail space demanded by consumers and retailer, resulting from the changes summed up before, form a potential explanation for the increased vacancy rate in some areas. The relationship between area and object characteristics and vacancy is however unspecified and unclear.

### 1.3 Research objective

The aim of the proposed research is to make the renewed requirements for retail space explicit and investigate the relationship between these area and object factors and vacancy. Hereby increase the understanding of vacancy issues in Dutch city and town centres. Vacancy is a complex problem with many drivers. By focussing on a number of relations within this multifaceted problem capturing and giving concrete form to expert knowledge spread out over the sector, the research opts to form a building block for the better understanding of this issue. An academically grounded exploration of the key issues important for inner city retail space enables statements to be made concerning the potential for re-using vacant properties for retail purposes. Such research can as well guide initiatives for area revitalisation or policies targeting retail vacancy. Consequently the research could contribute to a better fit between demand and supply of retail space.

#### Target groups

Managing the built environment is an important but complex challenge. Addressing this challenge requires knowledge of real estate supply and demand on different scale levels. This research pays attention to the changing retail space requirements of individuals, organisations and society as a whole. There is focused on the potential mismatch between this demand and the existing supply of retail space. The research provides an understanding of the key area and object characteristics for attractive retail space and how these factors are related to vacancy. Key target groups are: building owners of (vacant) retail space, redevelopers, investors, real estate advisors, municipalities and town centre managers.

### 1.4 Research questions

The following research questions have been formulated in order to counter the problems stated in the problem statement hereby contributing to a more balanced match between the demand and supply of retail space.

**Main research question:** How are area and object characteristics related to vacancy in Dutch inner-city retail space?

#### Sub research questions:

- ▶ Q1: What is the cause of retail vacancy; what roles do area and object characteristics play?
- ▶ Q2: What area and object characteristics are driving the demand for inner city retail space?
- ▶ Q3: Is there a relation between area characteristics and vacancy in the selected case areas?
- ▶ Q4: Is there a relation between object characteristics and vacancy within the selected case areas?

#### 1.4.1 Research scope

This research will focus on location and building characteristics. The real estate space market is highly segmented (Geltner, Miller, Clayton, & Eichholtz, 2007, p. 4). The importance of location and building characteristics is typical for the real estate space market. The mismatch between relatively static location and building characteristics and dynamic user preferences is a potential cause of vacancy and forms the subject of this research. As described by Remøy (2010, p. 32) causes of vacancy can be categorized in three topics: market, location, and building. Market dynamics driven by forces including interest rates, fluctuations in economic growth, and demographics as well have a relation

to property vacancy. These market forces however are not the focus of this thesis and therefore form the context of the research. Rent and occupancy are both an effect of the match between supply and demand (Remøy, 2010, p. 34) but this research will only focus on vacancy.

Bolt (2003, p. 58) orders the factors important for the success of a retail centre into three categories: macro-factors, meso-factors, and micro-factors. This research is focused on the meso-factors. Meso-factors includes retail centre characteristics as the size of the centres, the presence of anchor stores, and so on. Macro-factors are related to the context of the retail centres. This includes size of the catchment area, age distribution and household income of the local population, and so on. Micro-factors include factors that are related to the individual quality of the stores and other services in the centres.

Retail centres are clusters of retail stores located in a nearby geographical area. The research will focus on inner-city retail centres in the Netherlands. Following the central place theory the retail centres focused on in this research are high order central retail areas. Based on the Central Place Theory a functional hierarchy of retail centres was implemented in the Netherlands after the Second World War (Spierings, 2006). Central Place Theory was also used in other countries with a strong retail planning history, including Sweden and the United Kingdom (Larsson & Öner, 2014). In the Netherlands the system includes the city centre in the core surrounded by urban quarters, district centres and sometimes even neighbourhood centres. "The city centre fulfils the leading position by offering the more exclusive goods – which other types of shopping centres cannot offer due to a lack of catchment area support – in addition to the more everyday goods." (Spierings, 2006). District centres and neighbourhood centres are focused on convenience shopping and are so called 'supportive centres' (Bolt, 2003, p. 19). Even though planning regulations have been relaxed over the past decades the hierarchic retail structure can still be traced back.

The research is focused central retail locations. Central retail areas have a different function and sector composition than other retail centres (Evers et al., 2011, p. 75). The scope is limited to two retail area typologies in the retail area classification of Locatus: "Regional centre large" and "City centre. This are city and town centre retail areas with respectively over 200 stores and 400 stores. On the moment of writing in total 53 retail agglomerations in the Netherlands fall in these categories (Locatus, 2014b). On average the distribution of retail branches in retail centres in the category "Regional centre large" is rather similar to centres in the category "City centre" (Evers et al., 2011, p. 78).

As indicated by NICIS (2006) the reuse potential of a property is not solely determined by property characteristics: legislative and financial aspects also influence the reuse potential of an object. The proposed research will however be limited to the property specific characteristics on area and object level. Interior design aspects are left outside the scope as well. These aspects are retail formula specific and the research is written from a real estate/property perspective, not from an interior design perspective. However some aspects of interior design influence object specific requirements of retail space and are thus indirectly included in the research.

## **1.5 Conceptual model**

The following conceptual model illustrates the topic of this research:

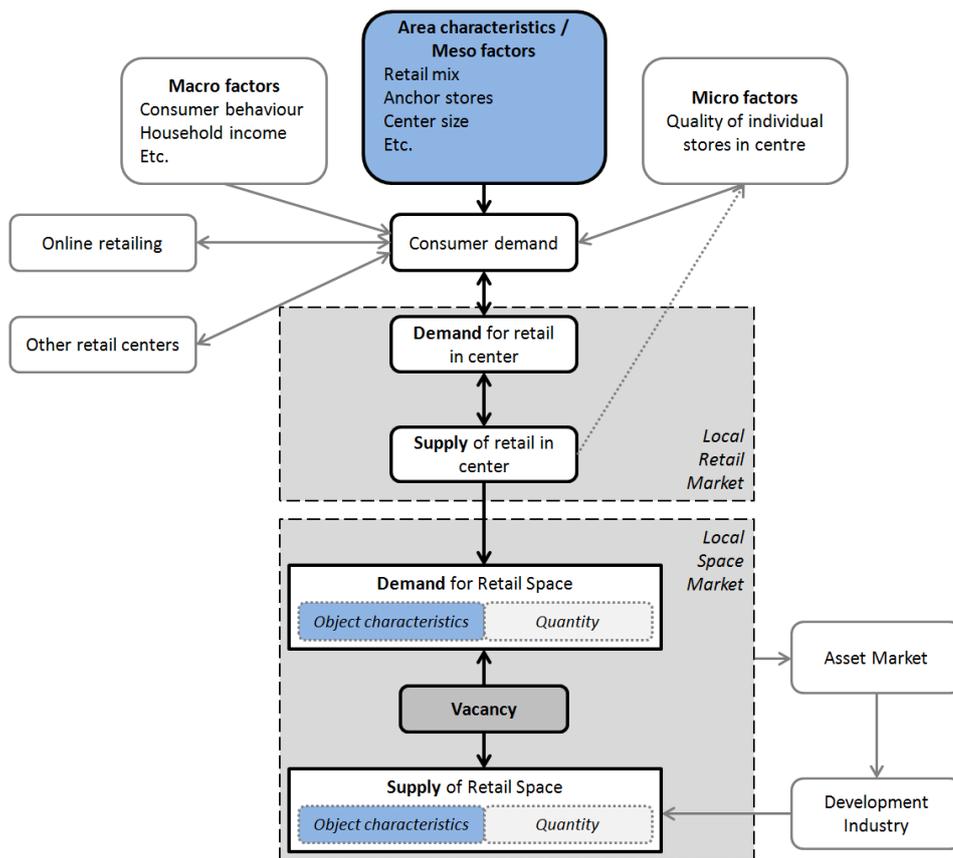


Figure 1.1: Conceptual model

Vacancy on the retail space market is a result of the mismatch between the demand for retail space and the supply of retail space. Real estate space markets are segmented geographically (Geltner et al., 2007, p. 4). Something confirmed by the strong differences in vacancy rate between retail centres, mentioned in the introduction. Therefore this research approaches vacancy as an effect of the mismatch of demand and supply on the local space market.

The research is focused on the blue marked aspects: area characteristics (approached from the point of view of consumer) and object characteristics. The conceptual model incorporates the relation between space market and asset market based on Geltner et al. (2007) and the split into micro, meso and macro factors of Bolt (2003, p. 58) mentioned earlier in this chapter. As argued by (Geltner et al., 2007, p. 65) demand for real estate space is a derived demand. Area characteristics such as the size of the centre, the presence of anchor stores and so on, influence the ability of a retail centre to attract consumers. In this way area characteristics have a link to the demand for retail in a centre. The local demand of consumers for retail interacts with the supply of retail by retailers. The supply of retail on the retail market is reflected in a demand for retail space on the market for retail space. Therefore the demand on area level is approached from the consumers point of view and the demand on object level is approached from the retailers point of view.

When analyzing commercial real estate two key markets are relevant: the space market and the asset market (Geltner et al., 2007, p. 3). On the space market tenants form the demand side and make demands concerning the physical characteristics of real estate space. The supply side of the space market is formed by the owners of real estate that rent space to tenants. Both supply and demand on the space market are location and type specific. Because of this real estate space markets

are highly segmented geographically and by property type (Geltner et al., 2007, p. 4). The demand side of the real estate asset market is formed by investors looking for future cash flows (Geltner et al., 2007, p. 11). The supply side of the real estate asset market is formed by developers, individuals, or investors that want to sell real estate.

## **1.6 Relevance**

The following section reflects on the relevance of the proposed research from a scientific and societal perspective. There will be made explicit what the added value and utilisation potential is of the research.

### **Scientific relevance**

By exploring area and object characteristics into depth this research will contribute to the body of knowledge on retail vacancy. Limited publications focus on the relation between these aspects and vacancy in retail space. In for example Evers et al. (2011) some indications are given concerning the relationship between these characteristics and vacancy in Dutch retail centres, however there has not been fully elaborated on this. Gaining insight in the qualitative mismatch between the existing stock and the demand for retail space, contributes to the understanding of the complex problem of retail vacancy.

A multitude of publications have been made covering specific aspects relevant for retailing. As well publications have been made concerning retail agglomeration attractiveness attributes. On the other hand literature on object characteristics important in the location choice of retailers is limited. Neither on area or object characteristics there is an up to date overview targeting Dutch inner city retail space, while this is important for fully understand the vacancy issue in Dutch cities. This research opts to fill this knowledge gap.

In the master thesis research of Arkenbout (2012) the Delphi technique was used to gain insight into the qualitative demand for office space. The publication of Remøy, Koppels, van Oel, and de Jonge (2007) was focused on office vacancy and as well included a Delphi research. Some principles from these publications were used in this research, extending it to retail space. In the literature research no publication was found that deployed a Delphi ranking approach related area and object characteristics of retail space.

### **Societal relevance**

Research in the topic of vacancy and the relation to object and area characteristics is important for informing policy and practice in order to reach quality inner cities. Stores and shopping areas have a prominent role in economy and society, as well they form arguably the most important function in urban areas (Evers et al., 2011, p. 16). Retail takes a prominent role in the functioning of the urban structure, especially the central retail areas focused on in this research. A crowded shopping street is a sign of a successful and lively city (Evers et al., 2011, p. 16). Retailing is of high importance for the liveability and service level in a city (Gemeente Schiedam & DTNP, 2009, p. 3). However in the Netherlands the position of inner city retail centres has been under pressure since the emergence of new shopping locations in the 70s (Evers et al., 2011, p. 89). Retail centres have been developed at the periphery of cities and out of town locations appeared such as the relatively recent developed outlet centres. With the growing influence of e-commerce the pressure on inner city retail areas is expected to increase even more. The retail branches typically present in the inner city also show

relatively high and still growing online sales (Speeltjens, 2012, p. 88). While supportive centres have a stronger focus on food retailing; a branch less affected by online retailing.

The increased pressure on inner city retail space is reflected in the growing vacancy rate of these retail centres. Retail vacancy has spill-over effects on image and perceived safety on area level at much lower vacancy rates compared to office vacancy (Platform31, 2014, p. 42). Considering the before mentioned prominent role of central retail locations gaining insight in the vacancy issue is important. With 10,7% of the outlets vacant, regional centres show the highest vacancy rate on national average of all retail centre types (Locatus, 2014b). Appendix VIII provides an overview of vacancy rates of Dutch retail centres. The covered retail areas (city centre and regional centre large) accommodate over 20.000 outlets representing around 20% of the total amount of retail outlets in the Netherlands (Locatus, 2014b).

This research contributes to a better understanding of qualitative aspects of retail space and provides a structured insight in the demand for and vacancy of retail space. The recommendations made by Van der Toorn Vrijthoff, De Jonge, Draijer, Van Delft, and Guyt (1998) already articulated the importance of quality improvements to retail centres and stated optimization of the existing retail structure is broadly supported throughout society. More than fifteen years later this still holds. Speeltjens and van der Post (2012, p. 57) articulate the importance of the attractiveness of retail space, since this is key in the distinction between online and physical retailing. NRW (2014, p. 4) stresses that while the virtual world is expanding the revaluation of the built environment is a necessity. Not only for good functioning cities as well as for financial returns on property investment. A better understanding of area and object characteristics demanded by respectively consumers and retailers can facilitate the optimization of the existing stock of retail space, hereby being of importance for the functioning of town centres.

### **Utilisation potential**

Platform31 (2014, p. 41) expects the vacancy rate on the retail space market to continue increasing with some inner cities clearly being losers and others being winners. Understanding the retail space demand is highly relevant to town centre managers and other policy makers since they may attempt to improve the retail centre and protect its long term economic viability. As argued by Guy (2006, p. 243) research findings are important to assess the effectiveness of policies and validity of underlying assumptions. The research findings can facilitate actors involved in the management of the built environment to make evidence based decisions. To facilitate decision making the ranking on importance of the various aspects underlying the demand for retail space is crucial. For example building owners or municipalities can use the findings in their strategic decisions concerning how to deal with vacant retail properties. The research is of particular interest for Town Centre Management schemes since it provides an indication on the activities these organisations should primarily focus.

## **1.7 Research Methods**

The proposed research strategy is a mixed method approach: a literature research, expert interviews retrieving qualitative data, the more quantitative Delphi technique, and finally case studies to test the findings in practice. The Delphi research formed the main research method. Because the research goes into depth on a number of rather specific concepts an expert based research method was selected. Experts deal with retail space issues on a daily basis. An expert based research method is therefore expected to yield more reliable and complete results compared to a stated preference study amongst users of retail space (consumers and retailers).

The Delphi is that a ranking of real estate related factors forms an important research outcome. For the utilisation potential of the research, an ordering in importance is crucial. Knowing which factors are of high or relative low importance is essential for prioritizing in decisions and for determining the focus of policies. Besides this rankings are easy to interpret and allows operationalizing the complex concept of retail centre attractiveness. Publications including Nase, Berry, and Adair (2013) and Ooi and Sim (2007) derived a retail space related ordering on importance; respectively covering the influence of urban design quality on property value and determinants for mall choice. However no comparable publication was found using the Delphi ranking method. For deriving a ranking the structured approach of the Delphi method has been acknowledged as one of the most appropriate research methods (Safian, Nawawi, & Sipan, 2013). The Delphi ranking approach is a relatively structured method, opposed to a focus group or interviews. In a focus group the researcher has limited control over the proceedings of the research. This makes a focus group of particular interest when the researcher is interested in group interaction (Bryman, 2012, p. 501). However in this research a higher degree of control and focus on a number of known concepts was required. The structured character of quantitative research serves to maximize the reliability and validity of measured key concepts (Bryman, 2012, p. 470).

The Delphi technique has also been preferred over a focus group due to limitations of this group based method. One of the limitations is the arise of group effects (Bryman, 2012, p. 517). For example the loudest voice may dominate the discussion while more reticent participants may suppress their opinion. The limitations of the focus group are not only the arise of so called group think but there are also some practical difficulties. Bryman (2012, p. 517) mentions the method is difficult to organize because participants need to be persuaded to participate and need to turn up at a particular time. A Delphi on the other hand allows the involvement of a geographically spread out group of experts (Enserink et al., 2010, p. 122).

This research combines a quantitative method, the Delphi ranking approach, and qualitative method, semi-structured expert interviews. As Bryman (2012, p. 408) states quantitative research is typically structured by the researcher that enables the focus on precise concepts and issues. Qualitative research is invariably unstructured and the once being studied provide the focus of the research enabling to retrieve meanings and concepts out of the data. During the Delphi research respondents were encouraged to provide motivations for their responses. However to retrieve more in-depth (qualitative) data interviews were conducted prior to the Delphi. Combining the Delphi with interviews allows factors to be derived that are not present in the literature. In qualitative interviews research concepts and theory emerge from the data, while in the quantitative research a set of concepts is tested (Bryman, 2012, p. 408). By combining these two approaches the research can be focused without losing the possibility to retrieve new concepts and rich, deep data. The context independent findings that results from the interviews and Delphi research are finally tested in the context dependent case studies.

In Appendix I the research approach is conceptualized.

### **1.7.1 Literature research**

The literature research consisted of the studying of thesis research publications, professional publications, reports, books, and scientific articles. The literature used was derived both from real estate specific publications and non real estate specific publications. For example in the field of marketing and business economics many relevant publications are made concerning multi-channel

retailing. Also more general literature was used including publications covering the Experience Economy (Pine & Gilmore, 1998), the Entertainment Economy (Wolf, 1999), the creative class theory (Florida, 2002) and the fundamental of commercial real estate (Geltner et al., 2007).

Based on literature the concept of retail vacancy was explored and a list of area and object factors important for attracting consumers and retailers was derived. The list of factors derived through literature was connected to the findings from expert interviews to form the starting point for the Delphi-research. However, the research was an iterative process and literature research was conducted throughout the research.

### 1.7.2 Expert interviews

A number of expert interviews were conducted in order to gain a better understanding of vacancy in Dutch inner city retail space and extend the list of factors derived through literature. The interviews allowed the collection of rich, in-depth data. This qualitative data consists out the point of view and argumentation of experts concerning vacancy, factors import for retail space, the new way of shopping, and movements in the consumer economy.

This research consists out *semi-structured interviews* because there are a number of fairly specific topics to be covered in the interviews. In qualitative interviewing, in contrast to structured interviewing, there is greater interest in the participants point of view; by encouraging 'rambling' and asking follow up questions a qualitative interview can give better insight in what the interviewee sees as relevant Bryman (2012, p. 470). To structure the interviews there was made use of a so called interview guide (see Appendix III). However quoting Bryman (2012, p. 471): "Questions that are not included in the guide may be asked as the interviewer picks up on things said by interviewees. But, by and large, all the questions will be asked and a similar wording will be used from interviewee to interviewee.". The questions in the interviews left significant room for interpretation by the interviewees. This allowed the collection of information important for the interviewees. This rich data was used to set up the Delphi consisting of questions that are more narrowed down and were the answer possibilities are preset by the researcher.

Interviewees were selected based on expected (contradicting) insights to be gained from the interviews. In total nine expert interviews were conducted. The participants were selected in such a matter that both small and large companies where included. The interviews were recorded, this could trigger participants to become self-conscious or alarmed (Bryman, 2012, p. 483). However the research did not focus on sensitive information and this therefore was not considered an issue.

### 1.7.3 Main research method – Delphi method

After the derived factors were structured and clustered the empirical research can be set up. The Delphi method focused on a number of rather specific concepts that emerged in the before named expert interviews and literature research. The Delphi approach is a flexible expert based method that can include questions of any sort that involve judgment(Gordon, 1994, p. 4). Due to the feedback component of the Delphi-technique participants are forced to think about and possibly revise their view. In this way a more reliable and considered response can be derived from the research.

#### **An introduction on the Delphi method**

The Delphi is named after the ancient Greek temple and oracle. In the Greek monastery knowledge was accumulated, ordered, and prophecies were made concerning a variety of subjects. This is similar to the principles underlying the Delphi method. The Delphi technique originates from the late

1940's and was developed by the RAND, a US based 'think tank'(Sackman, 1974, p. 3). The reasoning behind the development of the Delphi was that, in comparison to nonexperts, experts are more likely to be correct concerning questions in their field of knowledge (Gordon, 1994, p. 1). However, when experts were brought together in a conference room factors that have little to nothing to do with the discussed topic were influencing the outcomes. Gordon (1994) sums up a number of examples: "the loudest voice rather than the soundest argument may carry the day; or, a person may be reluctant to abandon a previously state opinion in front of his peers"(Gordon, 1994, p. 1). The Delphi intends to remove these focus group related limitations but to provide a more reliable answer than a straightforward questionnaire. The systematic set up of the Delphi by the RAND was designed to increase the chance that the combined forecasts of different experts was better than any single expert opinion (Gordon, 1994, p. 1). For this the aspects of anonymity and feedback are considered crucial.

In Sackman (1974) published by the RAND the Delphi method was evaluated. The main recommendation of the report was that the use of the Delphi method should be dropped until improvements were made concerning the collection, analysis, and use of data retrieved from the technique to meet scientific standards (Sackman, 1974, p. 70). Over the years several research guidelines have been developed and extended concerning the use of the Delphi method (Remøy et al., 2007). Examples of these research guidelines are those published by Schmidt (1997) and Hasson, Keeney, and McKenna (2000). In their publication Hasson et al. (2000) stress the importance of a high degree of methodological precision and research rigour. The Delphi method is a group facilitation technique that seeks to transform expert opinion into group consensus through a series of structured questionnaires (Hasson et al., 2000). The guidelines presented by Schmidt (1997) are focused particularly on using the Delphi technique for deriving a certain ranking.

The use of the Delphi technique has gone far beyond its original focus on technological forecasting. This is possible because the Delphi method is a flexible approach and there are a number of different Delphi formats (Hasson et al., 2000). In this research the Delphi ranking approach will be used. For a research focused on deriving a certain ranking, the Delphi method is one of the most suitable research methods (Safian et al., 2013). There are a number of research publications in which the Delphi method has been used to create a ranking of building and location factors in the field of real estate including Remøy et al. (2007), Arkenbout (2012) and Safian et al. (2013).

### **Interview and questionnaires**

A Delphi survey consists of a number of rounds whereby structured questionnaires are presented and completed by the participants. Hasson et al. (2000) suggest the initial questionnaire might be used to collect qualitative comments that are fed back to the participants in quantitative form in the second round. An alternative is to collect qualitative data through interviews prior to the first round of the Delphi as done in the research by Remøy et al. (2007).

Hasson et al. (2000) states that before a Delphi research is conducted there should be a pilot test with a small group of individuals. The results from the first round help to formulate the second round and this is repeated for the following rounds. Group members are informed concerning the status of their collective opinion by sending statistical information concerning the previous round to indicate the group collective opinion. Participants are given the opportunity to change their opinions and are therefore stimulated to rethink their responds and issues that were initially missed or not regarded as important are being reconsidered (Hasson et al., 2000).

The number of rounds of the Delphi should be at least two since there needs to be a feedback round. The number of rounds before the Delphi is finalized is less clear. Hasson et al. (2000) for example state the process of controlled feedback should be repeated until consensus is reached or until the number of returns for each round decreases. Hasson et al. (2000) state that the meaning of "consensus" in relation to the studies aims should be clearly determined. For expressing consensus the Kendall's W coefficient was used (see data analysis).

To improve convenience and speed of data gathering a web survey was deployed. Studies have indicated that an online survey typically has a lower response rate compared to for example postal questionnaires (Bryman, 2012, p. 674). However the participants were contacted by the researcher and asked about their willingness to participate, reducing the risk of non-response.

### **Set up of the Delphi survey**

The first round in a Delphi research can have varying functions. Schmidt (1997) for example used the first round of his Delphi to derive a long list of choice possibilities. Remøy et al. (2007) used literature to derive the list of choice possibilities and let the experts rank the factors in the first round. This research combined these two research approaches. The Delphi was set up according to the following structure:

Round 0: This round formed by interviews with a selection of the participating experts. The set up of the interviews is explained earlier in this chapter. This round took place from the middle of July 2014 till the first week of September 2014.

Pilot study: Before round 1 was set up the questionnaire was tested using a group of master students of the Delft University of Technology.

Round 1: A list of factors was derived from the interviews of round 0 and literature study. In round 1 this consolidated list of issues was presented to the participating experts. Participants were asked to make a personal top-15 on area and object level. A brief description was given for each factor and the factors were presented in random order. This round took place from the end of September 2014 till the end of October 2014.

Round 2: The participants were informed about how the expert group as a whole ranked the factors in round 1. The expert panel was asked to rethink their choice and rank the factors again. This round took place from the end of October 2014 till the end of November 2014.

One expert dropped out between the first and second Delphi round. Consequently the participant was removed from the Delphi panel and the responds of the first Delphi round was removed as well.

During the Delphi rounds, interaction between researcher and participant was kept to a minimum. However the participating experts were encouraged to provide a motivation for their ranking. Anonymity is an important aspect of the Delphi and the participants need to be assured none of their responses will be attributed to them by name (Gordon, 1994, p. 3). The anonymity in a Delphi could be described as "quasi-anonymity" considering that participants are known to the researcher but their opinions and judgement remain strictly anonymous (Hasson et al., 2000).

### **Panel composition**

The reliability of a Delphi research is influenced by quantity, quality, and diversity of the participating experts. The key to a successful Delphi according to Gordon (1994, p. 6) is the selection of

participants. This research used a panel of 19 experts. Hasson et al. (2000) gives examples of research publications providing representative information by the use of a Delphi with as few as 15 participants or as many as 60 participants. Whereas Gordon (1994, p. 6) defines a typical Delphi to consist out of 15 to 35 participants. More participants obviously results in more data to be analysed. The size of the Delphi panel can be quite modest because the Delphi does not depend on statistical power but rather on group dynamics for creating consensus amongst experts (Remøy et al., 2007). The research by Remøy et al. (2007) was based on 18 participating experts and Safian et al. (2013) included 10 experts.

As mentioned before, this research included interviews conducted before the Delphi was set out hereby gaining support and increasing the chance of a high responds rate. Remøy et al. (2007) states that non-response is typically very low in a Delphi because participants most of the time personally confirm their participation. Face-to-face contact before the Delphi is started can be very useful, as Hasson et al. (2000) state: "the Delphi, unlike other methods, requires a continued commitment from participants being questioned about the same topic over and over again, using a slightly modified questionnaire each time."

The participants of a Delphi are often selected using non-probability sampling techniques (Hasson et al., 2000). Experts are not selected randomly but are selected for a purpose. The quality of the participants is important and should be carefully considered. The research requires non-representative knowledgeable persons (Gordon, 1994, p. 6). So called snowballing by asking participants to recommend other experts was avoided. As Bryman (2012, p. 203) states snowball sampling has been criticised for validity and ability to generalize. Instead quota sampling was applied based on the participants role in the real estate sector. With quota sampling the researcher determines if somebody is suitable for a particular subgroup.

One of the criterion for the Delphi was that the experts should by properly diversified in order to form a representative reflection of multi-actor environment in which real estate is being shaped. This research used one panel consisting out of experts from six groups: architecture, real estate development, real estate advisory, property investment, retailers, and academics. A quota of four participants per expert group was used to ensure the panel composition would not rely too much on one or a few groups. Safian et al. (2013) intended to incorporate all the concepts of building and location characteristics by including experts from the valuation sector, architecture, property management and quantity surveyors. Remøy et al. (2007) used a similar diversified group of participants with experts from architecture, real estate developers, facility advisors, real estate agents, and property investors as well as academics and government officials.

Linking the six groups to the conceptual model shown in figure 1, investors are active in the asset market and the space market. Investors make up both the supply and demand side of the asset market and are positioned at the supply side of the space market as building owner (Geltner et al., 2007). The assessed risk and cash flows an investor expects to receive in the future are dependent on the physical characteristics of a property. Knowledge concerning the qualitative characteristics of retail space should therefore be present at parties investing in retail. The development industry links the asset market and the space market by converting financial capital into physical capital (Geltner et al., 2007). The qualitative characteristics of real estate is one of the key concerns of developers. Architects are included because they are the designers of the built environment and are expected to stress the importance of other aspects than the cash flow driven investor or developer. Retailers are

positioned at the demand side of the retail space market and translate consumer wishes and demands derived from their business process into physical requirements. Advisors and experts from the academic world form a more independent role in the retail space market. Advisors are positioned in the middle of the before named parties and academics form an overarching expert group.

### Data analysis

The rounds were analysed to indentify convergence and the level of consensus. From one round to another participants were given feedback concerning the overall group judgment. The mean ranks of the factors were calculated for the first and second round. If two factors tied the size of the standard deviations was used to solve this. The Kendall's W coefficient was used to express group consensus. The Kendall method of measuring current agreement is the most popular for this purpose, mainly because it is very simple to apply (Schmidt, 1997). Schmidt (1997) provides an overview of how Kendall's W reflects reliability of a ranking of issues created trough a Delphi (see table 1.1). Kendall's W is a coefficient by which agreement can be measured.

Table 1.1: Interpretation of Kendall's W (Schmidt, 1997)

Kendall's W	Interpretation	Confidence in Ranks
0.1	Very weak agreement	None
0.3	Weak agreement	Low
0.5	Moderate agreement	Fair
0.7	Strong agreement	High
0.9	Unusually strong agreement	Very high

Following the recommendation of Schmidt (1997) ties were avoided in the ranking. The Kendall's W was calculated with the use of the software *IBM SPSS Statistics 22*. The consensus concerning the responses of the multiple chose questions will be expressed with descriptive statistics also generated with the use of SPSS.

#### 1.7.4 Case studies vacant properties

Cases are used to test if the findings from literature, interviews and Delphi research can be traced back in practice. In other words if the derived area and object characteristics actually show a relation with vacancy in the selected cases. Where the expert interviews and Delphi research derive context-independent knowledge, context-dependent knowledge is derived from the case study. As mentioned by Flyvbjerg (2006) case studies can function to test scientific propositions, possibly leading to a revision or even rejection.

The case study examine the (mis)match between the demand for physical retail space and the existing retail stock. The case study research followed a so called comparative design, see Bryman (2012, p. 72), making use of: structured observation, document analysis, and analysis of the database of Locatus. Locatus is a company that gathers retail space related data for all retail centres in the Netherlands. For the selection a what Flyvbjerg (2006) refers to 'information-orientated selection'' was used to select three case areas: Rotterdam, Schiedam and Vlaardingen.

The case studies consist out of two parts: test between the retail areas to check if the attractiveness attributes of the area show a relation to vacancy, and a test within the selected retail areas to check if there are patterns between object characteristics and vacancy. Considering vacancy is a complex problem with multiple causes retail areas are ideally selected that only vary in vacancy level and the

area and object attributes. However in real life this is unfeasible, therefore areas are selected that form each other's competitors.

The factors ranked in the Delphi research formed the starting point of the case studies. The factors were made operational by identifying indicators/raw variables for each of the theoretical variables (see Appendix VI).

## **1.8 End result**

The proposed research will conclude in a twofold end result. A result positioned at the demand side of retail space, this will be connected to the supply side to be able to make conclusion concerning the (mis)match between those two. The main interim result is positioned at the demand side and consists of a list of characteristics that are important in the demand for retail space. The factors are divided into two categories:

- Area; Factors related to retail centre attractiveness. These area characteristics are considered from the consumers point of view.
- Object; Aspects directly related to the subject property. These object characteristics are considered from the retailers point of view.

The elements that make up the qualitative demand will be ranked on importance for attracting consumers on area level and attracting retailers on object level. The list of important factors that form the qualitative demand can be used in a number of ways for multi-attribute decisions for actors active in the field of retail real estate. The list could for example be used for a number of so called "noncompensatory" decision making strategies. When confronted with complex choices among a number of alternatives people typically use "noncompensatory" strategies (Plous, 1993, p. 103). One of these strategies is the conjunctive rule: "Decision makers using the conjunctive rule eliminate any alternatives that fall outside certain predefined boundaries"(Plous, 1993, p. 103). For example a building owner might only consider a redevelopment alternative if the adjustment would influence at least the three highest ranked factors. Another decision making strategy where the list could be useful for is the lexicographic strategy:" a decision maker using this strategy begins by identifying the most important dimension for comparison and choosing the most desirable alternative or alternatives on this dimension. If more than one alternative remains, the alternatives are compared on the next most important dimension, then the next, and so on until only one alternative is left." (Plous, 1993, p. 104). The ordinal ranking on importance derived in the proposed research is crucial for this.

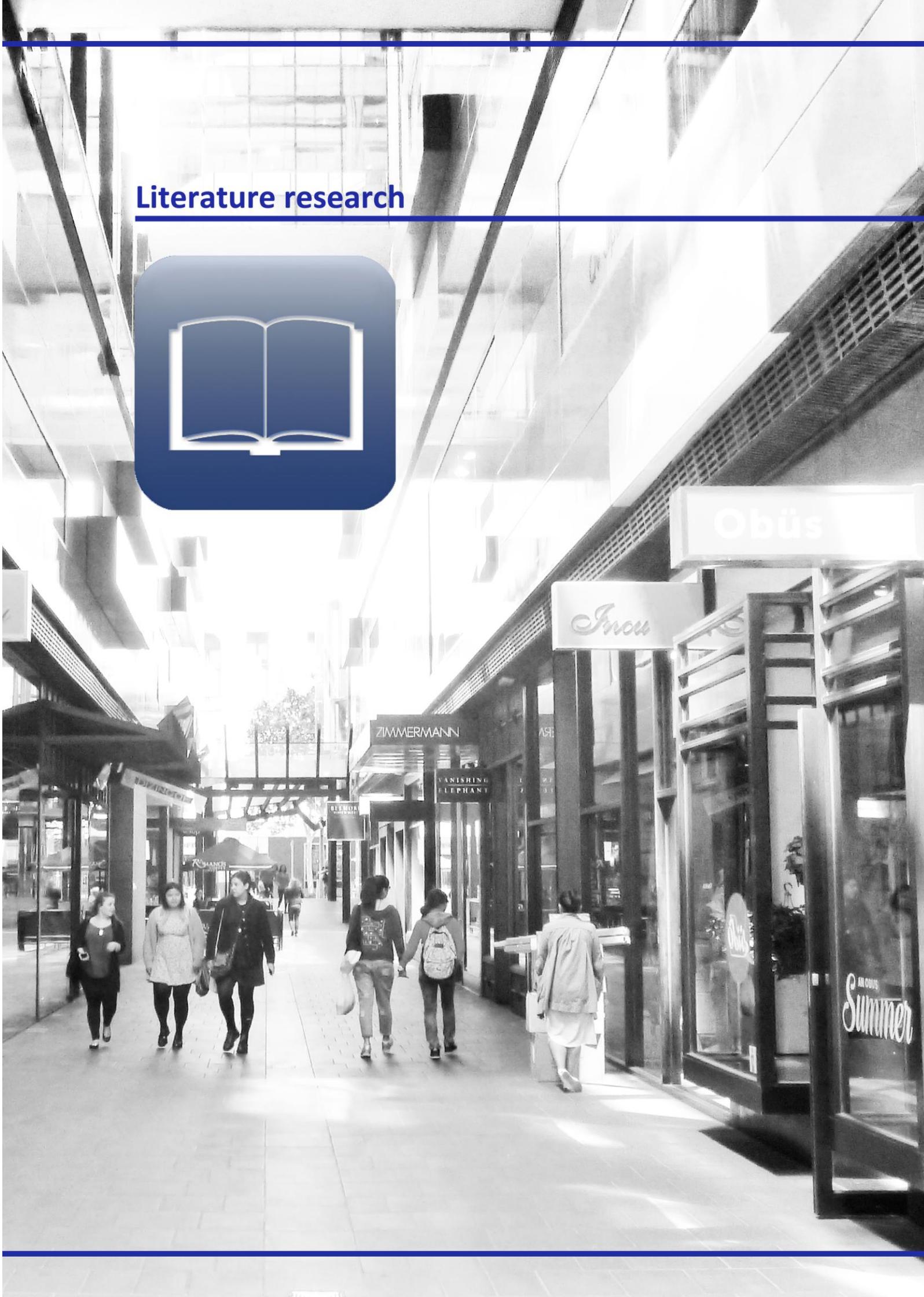
Another important result will be a number of case studies. Cases are analysed to see if the area and object profiles that emerge from the ranked factors, show a relationship with vacancy in the selected cases. Together with findings from literature and expert interviews this results in conclusions on the relationship between the ranked area and object factors and vacancy in Dutch inner city retail space.

## **1.9 Structure of this report**

The report follows the following structure: First a number of theories will be discussed in chapter 2 after which the rest of the report is structured on research method. Each chapter covers one research method. Every chapter is structured in three main topics: vacancy, area factors, and object factors. First the literature research will be presented (chapter 2), followed by the semi structured experts interviews (chapter 3), the Delphi research (chapter 4), and finally the case studies (chapter

5). This sequence reflects the general chronological order in which the research was conducted, however some additional literature research was performed throughout the time span of the research. If all four research methods indicate the same conclusion, a reliable answer can be provided for the main research question: 'To what extent is there a relationship between area and object characteristics and vacancy in Dutch inner-city retail space?'. In the final chapter the conclusions are drawn, the research findings will be further discussed, and recommendations are made.

## Literature research



## 2 Literature

The theoretical framework forms the basis of the empirical part of the research. This information is important for understanding the research area and be able to embed the findings of the empirical part in the wider theoretical context. The chapter will start with a section covering retail vacancy in the Netherlands. This is followed by a number of fundamental theories on the functioning of retail centres. The chapter will be finalized by presenting publications that were used to derive the area and object factors for the empirical part of this research.

### 2.1 Vacancy

Measured on number of vacant outlets the national vacancy rate is approximately 6,9% (Locatus, 2014b). A certain level of vacancy also allows the real estate space market to function (Geltner et al., 2007, p. 105). This is sometimes referred to as friction vacancy or natural vacancy. Platform31 (2014, p. 41) indicate this type of vacancy ranges between 2% for A1-locations and 4% for C-locations. The vacancy rate on the retail space market is still modest compared to the vacancy on the office market, however there are large differences in vacancy rate between and within shopping centres (Evers et al., 2011, p. 147).

#### **Demand and supply of retail space**

The supply of real estate space is very inelastic (Geltner et al., 2007, p. 6). Buildings have a high longevity and if demand drops space cannot easily be reduced in the short to medium term. “The vacancy rate is one indicator that reflects the current balance between supply and demand in the market (the other is the current market rent level)” (Geltner et al., 2007, p. 105). The increasing vacancy rate indicates there is an imbalance on the Dutch retail space market. Retail vacancy is not an autonomous trend; the retail space market is influenced by conjectural fluctuations, changes in society, and changes in the retail sector including the rise of online shopping (PBL & ASRE, 2013, p. 20). However vacancy on itself can also negatively influence footfall rates and contribute to the decay of an area, hereby forming a self-stimulating effect (Platform31, 2014, p. 63).

Before the economic downturn the increase in average spendable income caused an increased demand for retail space (PBL & ASRE, 2013, p. 19). In the period between 1985 and 2005 the increasing in scale in the retail sector, population growth in urban areas, and an increased number of retail concepts with city centres as preferred location, caused an increased demand for retail space (Speeltjens & van der Post, 2012, p. 37). Another driver behind the space demand in the city centre retail locations was the restrictive policy of the Dutch government. Due to this policy during the eighties and neigh ties recreational shopping remained a shopping motive exclusively focused upon in city centre retail areas, in contrast to some other countries (Speeltjens & van der Post, 2012, p. 38). Over the years policy has been relaxed but restrictions remain for out of town developments.

Currently the economic downturn has the biggest impact on shopping areas on this moment (Platform31, 2014, p. 35). Macro-economic changes have an effect on consumer spending that on its turn is a determinant of the demand of retail space. The economic downturn and rise of online shopping have put consumer spending under pressure, especially in the non-food sector. Especially the retail branches typical for inner city and city district retail centres show relatively high online sales (Speeltjens, 2012, p. 88). This report will not go into depth concerning this aspect however it is important to realise non-food retail sector has witnessed decreasing consumer spending since 2008 (Platform31, 2014, p. 37). Also demographic trends like the ageing of the population lead to decreased consumer spending (NRW, 2014, p. 3). Retailers can no longer rely on the increase in

market size as an effect of population growth. Instead of focussing on market growth retailers need to focus their strategies on gaining market share (Rabobank, 2012). Experts expect the vacancy will continue increasing over the coming years (PBL & ASRE, 2013, p. 9; Platform31, 2014, p. 42). Since a declining population growth and the changed way of shopping will most probably cause a further decrease of the retail space demand (PBL & ASRE, 2013, p. 16).

Not only a fallback in demand has triggered vacancy rates to increase; the stock of retail space in the Netherlands has been growing strong over the past decennia. Since the year 2000 the retail floor space per inhabitant has increased with more than 10% (NRW, 2014, p. 5). For a long period more retail space was added then withdrawn however the last years this gap has been narrowing (PBL & ASRE, 2013, p. 49). PBL and ASRE (2013) reflect on the overproduction on the commercial real estate market of the Netherlands over the past decades. PBL and ASRE (2013, p. 20) state the space market are loosely coupled from the asset market and the development industry; the supply of commercial real estate responds insufficient and slow on chances in the space demand. This is one of the drivers of the increased vacancy rate in office and retail properties. The cyclical character of demand and supply of real estate results in periods of oversupply sequenced by periods of undersupply. This is caused by longitude character of real estate as mentioned by Geltner et al. (2007, p. 6). This cyclical character is inevitably linked to real estate.

However PBL and ASRE (2013, p. 9) argue the system of the Dutch property market and area development was key in the increased vacancy rate on the commercial real estate market. In comparison to other investment assets real estate seemed a profitable and relatively investment over the past decade. Especially retail property offered high returns and relatively low volatility (PBL & ASRE, 2013, p. 21). Also from the perspective of Modern Portfolio Theory investing in real estate is stimulated. Caused by this there was a strong demand for real estate from the asset market and there was a very low incentive to withdraw bad functioning properties from the market (PBL & ASRE, 2013, p. 21). Not only the asset market but also municipal policy stimulated new developments. Policy of local governments were land sales for commercial developments were an important source of income for municipalities and commercial developments were used to compensate less profitable components of area developments (PBL & ASRE, 2013, p. 26). Also valuation practice, rent incentives, high leverage ratios stimulated by low interest rates, and bad risk management contributed to the expansive development of (new) real estate .As Geltner et al. (2007, p. 22) state: "the addition of new increments to the stock of built space is primarily required only by economic growth or by structural changes in the economy and activity patterns.". However as indicated by PBL and ASRE (2013), the system of real estate development caused an oversupply of retail space.

### **Competition amongst retail agglomerations**

In the demand driven market the consumer is the most important player and the preferences of consumers are therefore of increased importance (Ploegmakers & Verwaaijen, 2012, p. 124). As mentioned by Geltner et al. (2007, p. 4) real estate markets are highly segmented geographically and by property type. Real estate space markets are local markets. This is also reflected in the vacancy rates. Some areas like the centre of Schiedam face serious issues, while shopping areas like the city centres of Amsterdam, Utrecht and Rotterdam have a shortage of retail space (NRW, 2014, p. 5). The threat for rising vacancy rates is currently causing a shift of capital being divested from locations with a less certain future perspective and invested in A1-locations in the large cities (Platform31, 2014, p. 43). Especially the large investment institutions focus on these prime locations, hoping these offer

more stable future cash flows. This functions as a self fulfilling prophecy, however this also creates opportunities due to decreased property prices (Platform31, 2014, p. 43).

I&O Research (2011b, p. 65) states there has been a fundamental change in orientation process of consumers and there was a strong decline in binding of consumers to shop in their own municipality. Binding power refers to the ability of an area to bind its population to shop in their home area. Large cities often have a relatively strong binding power. In line with Central Place Theory (Bolt, 2003, p. 17). However in regions with a relative evenly distributed population there are also municipalities that have a significantly higher binding power compared to other municipalities in the region (I&O Research, 2011b, p. 47). Apparently some shopping areas are able to offer the aspects consumers are looking for while others fail in doing so.

Especially for the non-daily sector binding power of shopping areas has decreased since 2004 (I&O Research, 2011b, p. 44). The retail sector selling daily products also witnessed a decrease in binding percentage although this was only a small change compared to the non-daily sector (I&O Research, 2011b, p. 44). One of the key variables influencing the decreased binding power of shopping areas is the increased mobility of consumers. According to I&O Research (2011b, p. 52) the average distance consumers travel for a shopping trip has increased from 2004 to 2011, this is confirmed by Gianotten (2013, p. 43). In other words competition amongst retail centres has increased. This while the retail structure already has a relatively meshed character<sup>1</sup>. Due to the densely meshed retail structure the competition amongst retail facilities is very high in the Netherlands (Bolt, 2003, p. 42). Evers et al. (2011, p. 83) argue that due to the increase in scale in retailing and the increased willingness to travel of consumers it is likely the densely meshed character will decrease.

For daily shopping most consumers go to locations that meet their demands and are not too far from home. For fun-shopping distance is an important factor but the completeness of the retail offering is of even higher importance (I&O Research, 2011b, p. 94). I&O Research (2011b, p. 46) indicates strong inner city shopping areas are attracting consumers from a wide range of regions. For more functional shopping trips that are performed more frequently inhabitants from larger cities are increasingly going to easy accessible, but complete, shopping centres in smaller municipalities (I&O Research, 2011b, p. 62).

### **Replacement market**

The retail space market is increasingly becoming a replacement and displacement market (NEPROM, 2010, p. 86). Hek, Kamstra, and Geraedts (2004) mention floor size and layout (open plan), appearance of the building, and location to be key drivers in the replacement market of retail properties. The increase in floor space per store (mentioned in chapter 1) is reflected in retail vacancy: vacant properties on average have a smaller floor space compared to occupied stores (PBL & ASRE, 2013, p. 52). Municipalities and developers contributed to the emergence of the replacements market. PBL and ASRE (2013, p. 53) mention that due to the fragmented ownership an interregional approach is difficult to achieve in existing retail area, and therefore both developers and municipalities sometimes prefer to develop new areas instead of redeveloping the existing supply.

The vacancy problem on the retail space market is predominantly linked to specific locations (NRW, 2014, p. 5). Both Evers et al. (2011) and Platform31 (2014, p. 41) expect vacancy issues to become

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<sup>1</sup> Fijnmazigheid

apparent for an increasing number of secondary and tertiary shopping locations. Inner cities are mainly focused on fun-shopping, experience value is therefore important (Evers et al., 2011, p. 90). Retail locations that are not able to offer convenience and enhance fun-shopping will face increasing pressure on the retail market (NRW, 2014, p. 7). Especially secondary and tertiary shopping locations have troubles enhancing the shopping experience. Furthermore these locations have problems concerning the perceived level of safety, are not optimally connected to walking lines, are badly accessible, and the size of the stores do not match with the demand of retailers (Evers et al., 2011, pp. 90-91). Walen and Ruiter (2011) indicate location, size as well as condition of the property are related to vacancy. When an object in the core of the retail centre becomes vacant a new retailer moves in or a retailer already present in the centre, but located in a worse location, tries to move (Walen & Ruiter, 2011).

## 2.2 Urban hierarchy and attractiveness

Cities and elements of urban agglomerations are not isolated places. "Rather, each city has a place and a role as an element in a system of cities, which serves a functioning economy and geographic region." (Geltner et al., 2007, p. 39). Central Place Theory is one of the most fundamental concepts of urban geography and spatial economics (Geltner et al., 2007, p. 39). The following section will outline the concept of urban hierarchy and how the attractiveness of retail centres is related to this.

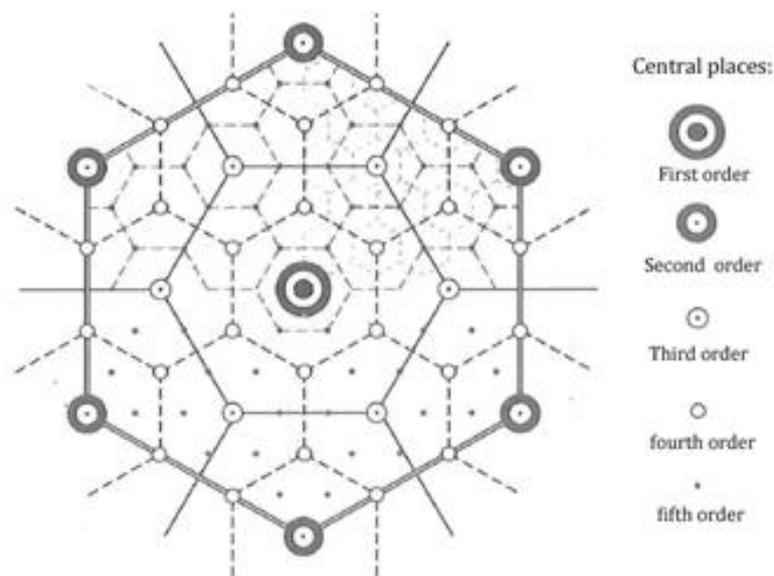


Figure 2.1: Christaller's inter-city service structure Source: (Bolt, 2003)

### Urban hierarchy

The basis of Central Place Theory is foremost laid down by August Losch and Walter Christaller. Central Place Theory is "a geographical urban hierarchy, in which higher-order cities (those containing functions that require more centralisation) are fewer and further apart than lower-order cities." (Geltner et al., 2007, p. 45). According to Christaller different products have different service areas; an exclusive fashion store (high order) has a larger service area compared to a baker (low order) (Bolt, 2003, p. 17). The functions in the higher order places have a higher threshold 'service area'. Shopping goods are higher order goods opposed to convenience goods that are considered lower order goods (Lee & Lee, 2014). Quoting Geltner et al. (2007, p. 46): "Lower-order cities contain less specialized and more ubiquitous producers of goods and services that are characterized by either denser markets, lower scale economies, or higher transportation costs relative to the value

of the product.”. In the theory of Christaller the boundaries of a market area of a particular good are set by the distance that shoppers are willing to travel to acquire a good (outer limit) and the minimum market area needed for an economic feasible offering (inner limit) (Dennis, Marsland, & Cocket, 2002). Figure 2.1 illustrates the central place theory.

As mentioned in chapter 1, the Dutch retail structure has a relatively strong hierarchy with the city centre as central retail area surrounded by supportive centres. Supportive centres offer predominantly convenience goods while the central retail centre also offers higher order shopping goods. Convenience shopping also takes place in central retail centres, but in terms of percentages only in supportive centres this shopping motive is dominant (Evers et al., 2011, p. 75). The hierarchy of town centre and supportive centres is based on Central Place Theory in the intra city context (Bolt, 2003, p. 18). Also on inter city level there is a hierarchy of retail centres. A perfect hierarchy based on the function of retail centres does not exist, but based on the location behaviour of retailers and shopping behaviour of consumers one can identify a hierarchy on inter city level (Bolt, 2003, p. 18). The centres lower in the order have a lower ability to bind spending of the local consumer resulting in an outflow of consumer spending. The higher order central places on the other hand have a high binding power and sizable influx of consumer spending (Bolt, 2003, p. 17).

It should be noted that Central Place Theory makes a number of radical assumptions. For example it assumes a flat plane with an evenly distributed population with identical travel possibilities in all directions (Larsson & Öner, 2014). “For an urban space, the isotropic plain assumption cannot be adequate due to traffic convenience, regional preference, and the unevenness of urban development in addition to the geographical elements.”(Lee & Lee, 2014). Even though Central Place Theory is based on a number of assumptions it is a useful theory for explaining urban hierarchy. As indicated by Lee and Lee (2014) retail structures in real life do follow the principle of hierarchy, the core concept of Central Place Theory. Larsson and Öner (2014) confirm the strong dependency of retailing on proximity to demand, also in line with Central Place Theory.

### **Attractiveness and hierarchy**

Central Place Theory relies predominantly on distance as the choice criterion of consumers. However when deciding where to shop consumers obviously take more criteria into account. Reilly developed a model emphasizing the importance of the principle of proximity and attractiveness from the point of view of a consumer. The model of Reilly is a so called gravity model (Lee & Lee, 2014). Fundamental to the theory is that based on size and attractiveness, consumers do not per definition choose the retail centre that is located closest to them. Dennis et al. (2002) also argue that the strict economic assumptions of classic Central Place Theory should be relaxed and attractiveness should be taken into account. In their publication Dennis et al. (2002) provide empirical support for using attractiveness to determine the hinterland boundaries of retail centres. The research also showed a correlation between attractiveness score and sales turnover. The relation between distance and attractiveness is best illustrated by quoting Dennis et al. (2002): “The frequency with which residents trade with a town is postulated to be directly proportional to the attractiveness and inversely proportional to some power of the distance that they travel.”.

A shopping centre can be considered a multidimensional set of characteristics ranging from width and breadth of products offered to perceived safety (Gianotten, 2010). This set makes a certain attraction to a consumer. For a retail centre, it be a mall or a town centre, of sufficient attractiveness consumers will come even if they need to travel long distances (Dennis et al., 2002). I&O Research

(2011b) show willingness to travel is related to the purpose of a shopping trip. For daily goods consumers show a lower willingness to travel large distances than for non-daily purchases, in line with the classification of convenience goods and shopping goods as respectively lower and higher order goods. A number of publications have been made concerning the attractiveness attributes of retail agglomerations (Ooi & Sim, 2007; Sit, Merrilees, & Birch, 2003; Teller & Elms, 2010; Teller & Reutterer, 2008). Attractiveness attributes are factors determining the attractiveness of a retail centre. Examples are the size of a retail centre, food and beverage facilities, and the perceived atmosphere in a retail area.

Gianotten (2010) stresses that for the appreciation of a retail centre not only functional aspects but also (personal) experience is important. The attractiveness of a retail centre is influenced by the so called 'sense of a place'. For this 'sense of place' both cognition and emotions are important (Gianotten, 2010). Both functional dimensions and emotional dimensions are important for the consumer appreciation of a retail centre (Gianotten, 2010; Haringsma, 2008). This emotional dimension concerns ambience stimuli and other factors stimulating the experience of a consumer, for example a clean and safe environment as well as interesting specialty stores or a Christmas market (Haringsma, 2008). The emotional dimension of a shopping centre can be enhanced by for example optimising the variety of stores, public space, atmosphere stimuli as well as micro-factors such as service level and renewed assortments (Gianotten, 2013, p. 49). According to (Gianotten, 2010) the "comfort of the known" and the "excitement of the new" are important determinants for the emotional perception of a consumer. On the one hand consumer need to be stimulated and on the other hand consumers long for comfort. Gianotten (2010) indicates Dutch consumers experience the comfort of the known stronger than the excitement of the new.

### 2.3 Shopping motives

Bolt (2003, p. 32) makes a rough split between convenience shopping and shopping<sup>2</sup>. According to theories these two shopping motives also require two different mental states; convenience shopping only requires a shallow cognition while shopping requires a more deep processing of new and known information (Bolt, 2003, p. 23). In the Netherlands central retail centres, including inner cities and regional centres, are predominantly focused on shopping. While supportive centres are predominantly focused on convenience shopping. Gianotten (2013, p. 33) identifies a trend towards efficiency whereby shopping and convenience shopping are increasingly being combined by consumers. This is in line with the convenience focused consumer mentioned in the introduction (see chapter 1). These two main motives can however be split into numerous shopping motives including: comparative shopping, purposeful shopping, recreational shopping, purposeful comparative shopping, and so on (Bolt, 2003, p. 32). There are many different ways of identifying and classifying the various shopping motives of consumers. The classifications used by DTNP is included in Appendix X to get an impression of one of the possible classifications.

Comparative and convenience shopping are rather rational orientated shopping motives. However more recently also recreational orientated shopping motives have become important (Evers et al., 2011, p. 45). These experience focused shopping motives are in line with Florida (2002), that focuses on the high educated and economically powerful creative class and their drive for authentic experiences, Pine and Gilmore (1998), that argue experience is an important factor throughout

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<sup>2</sup> Dutch: "Boodschappen doen en winkelen"

society, and Wolf (1999), that emphasized the importance of fun and entertainment in the consumer economy. For the (post)modern consumer shopping is more than satisfying a functional need; it is often considered a leisure activity (Evers et al., 2011, p. 45). In the Netherlands shopping is ranked in the top three favourite ways to spend free time (Gianotten, 2013, p. 32).

In retail centres different shopping trips take place, dividing retail centres based on shopping type is therefore only possible based on the predominant shopping motive (Bolt, 2003, p. 33). Often stores and retail centres are strong in one or a few shopping motives (BRO, 2012, p. 71). Comparative shopping for example per definition can only be properly done in large retail centres (Bolt, 2003, p. 26). In general larger retail centres also have a higher portion of stores focussed on recreational shopping (Evers et al., 2011, p. 76). The large inflow of consumer spending on non-daily products in the large retail centres illustrates the importance of fun-shopping for these centres (I&O Research, 2011b, p. 61).

## 2.4 Agglomeration effects

The very notion of why retail stores are clustered is fundamental for the attractiveness of a retail areas. A retail agglomeration is a group of retail stores that are located in close proximity to each other. Since the early days of retail trade it has been acknowledged that advantages and economic benefits arise when retail activities are clustered (Damian, Curto, & Pinto, 2011). Clustering a number of stores, hereby forming a retail centre, offers advantages for both consumer and retailer. Consumers are attracted to retail agglomerations because these centres have a wide offering of products and a richer shopping experience for example due to the presence of facilities and non-retail functions (Teller & Elms, 2010). For retailers advantages include sharing infrastructure and benefitting from the overall stream of consumers. Spill-over effects of profits amongst stores form an incentive for retailers to locate in retail clusters (Shanmugam, 2013).

Konishi and Sandfort (2003) discuss two incentives for retail stores to cluster in an retail agglomeration. The first one concerns the aspect of convenience related to multi-purpose shopping trips. For a consumer that intends to purchase products from different categories it is convenient to visit a cluster of stores that offers all these products. Clusters of stores selling different but complementing goods therefore benefit from agglomeration effects.

The second incentive is that having multiple stores offering the same product category can provide the consumer more variety of this product. The offering of a wide variety in price, size, and style of a particular product group can make a strong attraction to consumers (Guy, 2003, p. 100). Comparative shopping is a kind of risk minimisation; by comparing products on type, price, quality, colour, and so on, a consumer increases the certainty of making the right decision (Bolt, 2003, p. 23). Fitting the personal preferences and contributing to an image can be very important in this comparison. According to the theory of Nelson some products have a high emotional value and can be considered "ego-intensive" products (Bolt, 2003, p. 23). Consumers for example place high hedonic value to fashion products (Fernie et al., 2010). According to Nelson the will of consumers to compare products leads to a clustering of retailers selling comparable products, especially for ego-intensive goods (Bolt, 2003, p. 23).

Stores may benefit from collocating even when they sell substitutes instead of complements when search costs for consumers are high (Konishi & Sandfort, 2003). Visitors of retail centres make a trade-off between the expected utility and search costs, in the form of required time and

transportation costs, associated with the visit. The utility in this is influenced by store quality levels, prices, and the size of the retail centres which is an important determinant for the breadth of products offered (Shanmugam, 2013). As concluded by Konishi and Sandfort (2003) the underlying factor for collocation benefits is that the presence of a type of retailer contributes to the increase in consumer traffic.

These are the basic concepts behind the clustering of retail stores, what can be explained in a rather rational maximum utility based matter. However retail agglomerations also offer less utilitarian benefits include the enhancement of the shopping experience by non-retail tenant mix, events and promotions, offering attractive public space, and so on. This holds for planned and controlled retail agglomerations like suburban shopping malls, where ambience and other shopping experience related factors are often steered, as well for emerged retail centres like the city and town centres, that form part of the wider innercity urban network.

### **Anchor stores**

Of all retailers, anchor stores have the strongest contribution to customer spill-over effects (Damian et al., 2011). According to Damian et al. (2011) an anchor store contains all or at least most of the following characteristics: it is large<sup>3</sup>, it is a chain store, has a strong brand, generates significant footfall, and has a widespread appeal. The importance of a strong brand is also mentioned by Konishi and Sandfort (2003). They state that consumers are attracted by the name of an anchor store and are therefore more likely to visit the shopping location, causing a spill-over effect for stores nearby. Damian et al. (2011) mention the placement of anchor stores to be important to encourage comparative and multipurpose shopping in a centre. They mention that in many planned retail centres anchor stores are located away from each other, on the periphery, to generate a flow of consumers for stores that are placed along this route.

The relationship between anchors and non-anchors is further complicated by competition between anchor and non-anchor stores (Konishi & Sandfort, 2003; Shanmugam, 2013). An anchor store can offer complementary products however this does not have to be the case. If a consumer would really be purely attracted by the anchor tenant, then locating nearby the anchor would unlikely result in positive effects for the non-anchor store. However because consumers make a trade-off between expected utility from a visit and search costs and an anchor store offers the consumer a kind of guaranteed minimum level of surplus, more consumers are likely to choose the retail agglomeration (Konishi & Sandfort, 2003). On the moment the effect on traffic increase is larger than the reduced profit due to competition on the same products, it is interesting for a non-anchor to locate in the presence of a department store or other anchor offering a comparable product. Department stores as 'De Bijenkorf' and the 'V&D' traditionally form important anchors in Dutch retail centres (Evers et al., 2011, p. 55).

## **2.5 Location strategy retailers**

Location strategies of retailers make an impact on the demand for retail space since retailers form the demand side on the retail space market. "A decision on store-location is one of the most important strategic decisions the retailer has to make for its long term success." (Turhan, Akalin, & Zehir, 2013). Turhan et al. (2013) identify seven categories of criteria used for selecting a store: population structure, economic factors, competition, saturation level, store characteristics and

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<sup>3</sup>In the setting of Portugal Damian et al. (2011) mention usually above 600m<sup>2</sup> GLA

magnet. Economic factors are related to the population structure. Competition and saturation level are both retail branch specific; these concepts respectively refer to competing stores selling similar products and the saturation of a market. With "magnet" Turhan et al. (2013) refer to elements that attract more trade from greater distances such as cultural organizations and anchor stores. The following paragraph will focus on the population structure. Store characteristics will be discussed later this chapter.

The population structure of the market is arguably the most important variable in the decision making process of retail managers (Turhan et al., 2013). However since binding power of centres are decreasing, the willingness to travel is increasing, and the differences in catchment of consumers between centres is growing, the population structure of "the market" is changing. Consumer demand is an important factor in the location strategy of retailers since this is related to the revenue potential of a store. Consumer demand can be assessed by retailers in a variety of ways, but Guy (2006, p. 120) outlines two main methods. The first is a rather straightforward method using data concerning population, driving times and comparable stores to model the likely sales. These predicted sales are based on a competitive situation where the store takes market share from other stores present in the area (Guy, 2006, p. 120). Based on the saturation of a market indications are derived to assess to which extent the consumer demand for the products of the particular retailer is being met by the existing stores in an area. This method can be applied most successfully by retailers selling rather similar product ranges at similar prices using similar retail methods (Guy, 2006, p. 120). The second method of assessing consumer demand usually uses the strength of a retail centre as the main criterion, indicated by the size and retail characteristics (Guy, 2006, p. 121). This assessment is mostly used by retailers selling comparison goods such as fashion retailers. According to Speeltjens (2012, p. 73) retailers increasingly differentiate between "good" and "bad" retail centres. Consequently retail centre attractiveness is increasingly important. Especially in areas where cities are located near each other retailers select the "strongest" retail centre (Speeltjens & van der Post, 2012, p. 51). Meaning the retail centre with the highest footfall numbers.

## 2.6 Literature on area factors

The following section will focus on the attributes that make up an attractive retail agglomeration from a consumers perspective. A significant portion of retail literature is focused on planned shopping centres. This does not have to be a problem since Teller and Elms (2010) show that many aspects that are important for explicitly planned shopping centres are generic and therefore relevant for other retail agglomeration types as well. However the expert interviews presented in chapter 4 are important to derive factors that are specific for Dutch town centre retail space.

In their publication Ooi and Sim (2007) defined the magnetism of a shopping centre as its ability to "first, promote frequent visits from local residents, second, entice "outshoppers" to travel to the mall and finally, encourage both groups to stay longer and spend more during their visit". Outshoppers are consumers that move across markets. Teller and Elms (2010) identify three dimensions of attractiveness: satisfaction, retention proneness, and patronage intention. In other words attractiveness is important for a retail area for attracting both local consumers and "outshoppers", stimulate them to spend more time and money during their visit, and stimulate patronage intentions.

Through a literature research a number of overviews of retail agglomeration attractiveness attributes were identified. Teller and Elms (2010) published a research on attractiveness determinants for a

number of different retail agglomeration types, including town centre retail areas. Teller and Reutterer (2008) focused on perceived attractiveness of consumers of an peripheral shopping mall and an inner city shopping street. Ooi and Sim (2007) conducted a research on what they describe as the magnetism of shopping centres. Sit et al. (2003) focussed on attributes that represent shopping centres image. Image is of importance for a retail agglomeration because it is “a critical determinant in consumer patronage behaviour” (Sit et al., 2003). All these publications used a consumer survey.

In addition to these scientific publications two professional publications were found providing a useful summaries of retail agglomeration attributes: Van der Krabben, Glaudemans, and Buck (2005) and NRW (2014). These professional publications are described in Appendix II.

**Attractiveness of retail agglomerations - Teller and Elms (2010)**

Teller and Elms (2010) researched the factors determining attractiveness for three types of retail agglomerations: a town centre, a strip centre, and a regional shopping mall. The evaluated attractiveness effects patronage behaviour and is therefore very important for shopping centres. From statistical analysis of a survey amongst consumers, five aspects were derived that could be considered important for the attractiveness of a town centre: retail tenant mix, atmosphere, orientation, infrastructure facilities, and product range. Whereby retail-related factors and atmosphere influenced attractiveness most significant. With atmosphere Teller and Elms (2010) unite consumers perception of a set of stimuli including light, temperature, cleanliness, and architecture. The factors are summarized in table 3.

Table 2.1: Factors influencing retail agglomeration attractiveness (Teller & Elms, 2010)

Factors significant for town centre retail Areas	Description
<b>Product range</b>	Factor of retail tenant mix and retail centre size.
<b>Retail tenant mix</b>	The composition, the number and type of retail tenants.
<b>Atmosphere</b>	Function of light temperature, cleanliness, and architecture.
<b>Infrastructure facilities</b>	Public facilities including ATM’s, bathrooms, and the like.
<b>Orientation</b>	Convenience of searching, locating, and accessing stores. Influenced by layout and ease of orientation.

The literature study conducted by Teller and Elms (2010) also derived the factors accessibility and parking conditions while these two issues did not show a significant correlation to attractiveness in the consumer survey. An explanation for this could be that these factors are dissatisfiers. Consumer are unlikely to recommend a shopping area to somebody they know because the parking facilities were so amazing. However if these facilities are below a certain standard it will negatively influence attractiveness. Non-retail tenant mix (including bars, eateries, entertainment facilities) was also a variable taken into account in the research, however this attribute only appeared to be significant for regional malls. Teller and Elms (2010) do note that a historic view of the development of all the three researched cluster types shows retail and non-retail are increasingly complimenting each other.

**Evolving concept of retail attractiveness - Teller and Reutterer (2008)**

The research of Teller and Reutterer (2008) included an consumer survey covering the evaluation of retail agglomerations. The survey consisted of over 2,000 on-site interviews with customers of a out of town shopping mall and an inner city shopping street. In the study Teller and Reutterer (2008) attempted to study the relative importance of what they call the marketing mix components of retail

agglomerations. This marketing mix is physically reflected in retail agglomeration characteristics. According to Teller and Reutterer (2008) the evaluation of the attractiveness of a retail agglomeration does not only depend on these characteristics, also the so called buying situation plays a role. Teller and Reutterer (2008) identified two buying situation related factors: perceived distance (distance between starting point of the trip and the retail agglomeration) and involvement (perceived importance of the shopping trip). One of the conclusions of the research was that aspects of the individual shopping situation significantly affects on-site evaluation.

The literature research by Teller and Reutterer (2008) resulted in eight retail agglomeration characteristics that were taken into account in the research: accessibility, parking, retail tenant mix, merchandise value, non-retail tenant mix, orientation, ambience, and atmosphere. The empirical part of the research showed significant impact on the evaluation of attractiveness for the shopping street setting for five of these factors. These characteristics are listed and described in table 4.

Table 2.2: Factors influencing retail agglomeration attractiveness (Teller & Reutterer, 2008)

Characteristics significant for shopping street evaluation	Description
<b>Accessibility</b>	Perceived distance and convenience to overcome this distance regarding the shopping endeavour
<b>Retail tenant mix</b>	The mix of stores in the retail agglomeration
<b>Merchandise value</b>	Perceived price-quality ratio of merchandise offered by the stores in the agglomeration
<b>Ambience</b>	Sensual stimuli
<b>Atmosphere</b>	Atmosphere stimuli

According to Teller and Reutterer (2008) the findings of the research suggest that the marketing activities of retail agglomerations should focus on the core function of retail agglomerations: providing a broad and deep mix of stores. "Furthermore, the results emphasize the particular relevance of anchor stores within the tenant mix." (Teller & Reutterer, 2008). Even though a number of attractiveness attributes that were retrieved in the literature review showed no significant impact on attractiveness in the empirical part of the research, Teller and Reutterer (2008) did identify a number of (inter-)correlations among these factors suggesting these factors might indirectly influence perceived attractiveness. An example of such a factor is the non-retail tenant mix of a retail agglomeration.

#### **Magnetism of shopping centres - Ooi and Sim (2007)**

Ooi and Sim (2007) conducted a research focused on the magnetism of shopping centres. The research aimed to answer two questions: does the physical size of the retail agglomeration matter, and what are the effects of accommodating a Cineplex in a shopping centre. The research was focused on suburban shopping centres in Singapore and included a survey with nearly 1,300 consumers. Outcomes of the research can therefore not be simply copied to the Dutch setting. However Ooi and Sim (2007) do provide a useful overview of factors important for the magnetism of a shopping centre.

The magnetism of a shopping centre can be defined as the ability to: promote frequent visits from local residents, attract consumers that move across markets, and encourage both groups to spend more time and money during their visit (Ooi & Sim, 2007). The following factors are mentioned by

Ooi and Sim (2007) to influence magnetism of a shopping centre: accessibility, parking, visibility, size of the shopping cluster, quality of facilities, expected utility from visit (proxied by the size of the centre), travel costs for consumer (proxied by distance), enhancement of shopping experience by providing exciting trade types and activities, image of the centre, tenant mix, tenant placement, and retail and non-retail anchor tenants.

Ooi and Sim (2007) conducted a survey amongst consumers. Part of this empirical research was asking the respondents which shopping mall they patronized and the main reasons for their choice (see table 3.3).

Table 2.3: Determinants of mall choice (Ooi&Sim, 2007)

	Determining factors	% of responses
<b>Spatial factors</b>	Proximity	64.2
	Centre size	26.5
	Car park	8.6
<b>Tenant mix</b>	Variety of tenants	62.7
	Complementary services	30.9
	Cineplex	29.3
<b>Branding strategy</b>	Management and promotions	32.8
	Reasonable prices	23.9
	Quality and prestige	14.1

Based on the number of consumers mentioning mall size as key determinant for mall choice this aspect seems to rank 6<sup>th</sup> in terms of importance. However larger shopping centres can offer a greater variety of shops with more anchor stores and create a more pleasant shopping environment (Ooi & Sim, 2007; Yiu & Xu, 2012). Centre size is therefore arguable one of the most important factors. The importance of providing complementary services such as banking, libraries, and food facilities and leisure functions such as a Cineplex, indicates the social function suburban shopping centres fulfil in Singapore.

Ooi and Sim (2007) found that the presence of a Cineplex attracts a group of consumers to visit the shopping centre more frequently and also positively influences the time spend per visit. Centre size as well influenced the drawing power of the centres and duration of visits: “Larger shopping centres have a greater ability to firstly, attract those staying outside its captive market to visit it and secondly, hold the visitors longer within the shopping centre.” (Ooi & Sim, 2007). Both centre size and Cineplex positively influenced duration of visit and in turn had an indirect effect on money spend in the shopping centre.

**Image attributes in retail agglomerations - (Sit et al., 2003)**

Sit et al. (2003) mention retail image to be critical in creating sustainable competitive advantages; as it is strongly associated with consumer preferences, frequency of visits, amount of purchase and related to it dollar spend, desire to stay, and re-patronage intention. Part of the research by Sit et al. (2003) was the creation of a model of image attributes.

According to Sit et al. (2003) previous studies on shopping centre image focused primarily on what they call the big four: merchandise, accessibility, service, and atmospherics. In their literature study Sit et al. (2003) found entertainment, food and security to be essential attributes that however were

neglected in many shopping centre studies. The “entertainment mix” of a shopping centre, as Sit et al. (2003) call it, consists of specialty entertainment such as movie theatres, special event entertainment, and catering including food courts and cafés.

The literature study of Sit et al. (2003) was quite extensive, covering 14 publications concerning image attributes published in the period from 1977 up to 2001. Based on their literature research and additional investigations Sit et al. (2003) made a grouping of image attributes. This grouping together with a brief description is presented in table 3.4.

Table 2.4: Grouping of attributes representing shopping centre image (Sit et al., 2003)

Image attribute	Description
<b>Merchandise</b>	Depth and breadth of products offered
<b>Macro-Accessibility</b>	Proximity to consumers home and access road condition
<b>Micro-Accessibility</b>	Convenience of accessing centre including: parking spaces, orientation, and appropriateness of trading hours
<b>Personal services</b>	Service provided by employees of the shopping centre
<b>Amenities</b>	Restrooms and overall cleanliness of centre
<b>Ambulance</b>	Involves adequate escalators and lifts and sign boards
<b>Atmospherics</b>	Stimuli including music, colour scheme, decoration, lighting and air condition
<b>Specialty entertainment</b>	Specific venues for entertainment
<b>Special event entertainment</b>	Occasional entertainment
<b>Food</b>	Food products/services offered
<b>Security</b>	Safety of vehicle, personal safety and safety of amenities

Sit et al. (2003) derived six consumer types: the “serious” shopper, “entertainment” shoppers, “demanding shoppers, “convenience” shoppers, “apathetic” shoppers, and “service” shoppers. Even though the shopper types placed different importance on the factors all 11 attributes were considered important. However three of the six shopper types (serious, convenience and apathetic shopper) indentified in the research placed relatively low importance on both specialty entertainment and special event entertainment. Two of these three types (the convenience and apathetic shopper) also did not consider food an important image attribute.

## 2.7 Literature on object factors

The following section will focus on the object characteristics that are important for retailers in their location decision. The object characteristics of retail space should be in line with the retail operations of the occupier. These are often functional aspects as floor space needed to display the product range offered. But can also have to do with experience offering since the store is the place where the retail brand and costumer meet. In line with the experience economy (Pine & Gilmore, 1998), Kent (2007) mentions the “evolution of retailing towards stores as three dimensional experiences spaces”. Property characteristics as design and layout influence consumers’ in-store experience (Bäckström & Johansson, 2006; Kent, 2007). This is typified by the strong focus on store design in so called flagship stores. These stores are focused on brand building rather than profitability (Varley, 2006, p. 176).The importance of property characteristics for attracting consumers is stipulated by Varley (2006, p. 4) that stated that: “The actual location, layout, and design of a retailer might be considered a service”. As mentioned in the introduction of this report, the dominance of retail chains on the retail market

has increased over the past few decades. In line with this Kent (2007) mentions a greater emphasis and standardisation of the interior design of stores.

The amount of publications covering the decision making process of retailers is relatively limited. Strijker (2014, p. 43) indicated this is mainly caused by the reluctance of retailers to participate in research projects. Therefore the most important source of information for deriving object characteristics in this research were the expert interviews (see chapter 3). The literature research resulted in two relevant publications identifying object characteristics important for retailers: Strijker (2014) and Nase et al. (2013). However a number of object characteristics were derived through a variety of sources, summarized in Appendix II. These are: layout, appearance, character, accessibility for goods supply, and quality of surroundings.

#### **Location preferences of retail chains - Strijker (2014)**

Part of the thesis of Strijker (2014, p. 39) focused on location preferences of retail chains. The research was focused on retailers that are found on A1 retail locations in Dutch retail centres<sup>4</sup>. Through a literature research Strijker (2014) retrieved the following factors: extension possibilities, structural factors (including floor height, columns, etc.) character of the property / monument, front-width, size of sales space, size of storage space, service fee, footfall, initial investment, rent level, possibility for turnover rent, and flexibility of rental contract. Rent level and contract conditions are subject to market conditions. As mentioned in the research design (Chapter 1), market aspects form the context for the research however are not focused upon in the empirical part of this research. A critical note to the factors identified by Strijker (2014) is that the research seems to be strongly depending on one source: Van der Krabben et al. (2005) (see Appendix II). Based on interviews with A1-retail chains, Strijker (2014, p. 52) scored different retail branches on the before named factors. This showed store size, front-width, footfall and rent level were most often cited by the retailers.

#### **Property value - Nase et al. (2013)**

Nase et al. (2013) conducted a hedonic regression on the relationship between urban design quality and the value of high street retail space in Belfast. The research did not specifically focus on solely area and object factors. The research however did reveal a connection between value and some object characteristics. Architectural characteristics including the material and design of the exterior as well design appropriateness to surrounding objects showed significant relation to value. Footfall numbers and other location related factors showed a significant relation to property value as well. Surprisingly the research indicated a negative relation to value for the frontage/perimeter ratio of an object, while creating a prominent frontage was found to be highly valued by tenants. This might be explained by the positive influence on value by facade harmony, something associated with relatively narrow store fronts (Nase et al., 2013). The size, finishing, height, and condition of a store were mentioned to be variables influencing value as well. These variables were however not included in the hedonic regression.

## **2.8 Conclusions**

Real estate is highly segmented and the supply of real estate is very inelastic; when the local demand for retail space changes the space stock cannot be easily adjusted. As an effect of an imbalance between supply and demand the Netherlands has witnessed an increase in vacancy on the retail

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<sup>4</sup> A1 retail locations are the shopping streets within a retail centre with the highest amount of footfall; between 75 to 100% of the maximum footfall level of a retail centre (Platform31, 2014).

space market over the past decade. Due to the structure of the real estate development process new developments were stimulated and withdrawal of properties was discouraged. While there was a strong demand for inner city retail space in the period between 1985 en 2005, recently demand has dropped; demographic changes, decreased consumer spending, and the rise of online shopping. The oversupply of retail space has created a replacement market. Real estate markets are local markets and there are large differences in vacancy rate between retail centers. Also the differences in ability to bind local consumer spending have increased.

The clustering of retail activities is based on agglomeration effects. There are two main incentives for clustering retail stores: multi-purpose shopping and comparative shopping. Especially for ego-intensive products it is important to cluster together. Both on inter and intra city level there is a hierarchy of retail centres. With few large high order centres and many smaller low order centres. Attractiveness and distance are key determinants for the service area of central places. Higher order centres offer higher order shopping goods and have large service areas. Lower order centres that have a stronger focus on more frequent purchases. The ability to bind local consumers and attract consumers from outside the primary catchment area is related to the order of a centre.

Many consumers consider shopping as more than the acquisition of goods; shopping is often even considered a leisure activity. The inner city is the place where (fun)shopping takes place opposed to the supportive centres that are focused on more functional convenience shopping motives.

Attractiveness attributes of retail areas are of growing importance to attract and bind consumers. The attractiveness of a retail agglomeration affects the ability to attract consumers, stimulate them to spend more time and eventually money, and stimulate patronage intentions. For the attractiveness of a retail centre not only functional dimensions are important, also emotional dimensions are important. This relates to aspects of these functional characteristics, for example streets with special (independent) retailers as part of the functional characteristic of retail mix, but also to atmosphere stimuli as architecture and cleanliness.

This research is focused on meso-factors however micro-factors, the quality of individual stores within a retail centre, are important for the attractiveness of a retail centre as well. The literature study provided the following list of area factors to be used in the Delphi research:

Table 2.5:Area level Delphi factors derived from literature

Factor - Area level	Description
<b>Retail mix</b>	The percentages of store space occupied by different store types in a retail centre.
<b>Centre size</b>	The size of the retail centre.
<b>Car parking</b>	Parking facilities for visitors of the centre that come by car.
<b>Accessibility</b>	Ease of accessing the retail centre by public and private transport.
<b>Atmosphere</b>	The perception of the atmosphere in a retail centre influenced by stimuli as: odour, temperature, light, architecture, cleanliness, etc.
<b>Food and beverage facilities</b>	Food and beverage facilities located in the retail centre.
<b>Orientation</b>	Convenience of searching, locating, and accessing stores.
<b>Safety</b>	Perceived level of safety in the retail centre

\*A more elaborate description of the factors is provided in chapter 4.

Some of the factors found in literature are rather specific for planned retail centres. The expert interviews presented in the following chapter are useful to place these factors in the context of Dutch inner city retail centres. This applies for the following factors: “infrastructure facilities” (Teller & Elms, 2010), “amenities” (Sit et al., 2003), “complementary services”, “Cineplex” (Ooi & Sim, 2007), “specialty entertainment” (Sit et al., 2003), and “special event entertainment” (Sit et al., 2003).

The literature review resulted in the following preliminary list of factors on object level important in the location decision process of retailers:

Table2.6: Object level Delphi factors derived from literature

Factor - Object level	Description
<b>Location</b>	The physical location in the retail centre, closely linked to footfall.
<b>Store size</b>	The floor area of the retail property.
<b>Layout</b>	The shape of the retail space as well the presence of any objects or columns limiting the flexibility of the store interior.
<b>Floor height</b>	The ceiling height; distance from the top of the floor to ceiling.
<b>Front-width</b>	The front with of the object.
<b>Facade</b>	The design of the facade including signage possibilities.
<b>Supply accessibility</b>	The ease of supplying the store including regulatory limitations.
<b>Quality of surrounding</b>	The perceived quality level of the surrounding public space and properties in the vicinity.
<b>Character of the property / monument</b>	If it is a property with a special character, for example a monument.
<b>Technical state</b>	The technical condition of the object including maintenance state.

\*A more elaborate description of the factors is provided in chapter 4.



# Empirical research



### 3 Expert interviews

In the following section the findings from the nine expert interviews are presented. In this chapter the main findings from the interviews are structured by theme and some quotes are provided. The most important function of the interviews was to confirm and supplement findings from literature presented in the previous chapter and consequently derive the factors to be taken into account in the Delphi research. The nine semi structured interviews consisted out open questions in order to let the information arise from the interviewees. Hereby limiting the influence of the researcher in this part of the thesis research. All participants were asked the same main questions and depending on the responds follow up questions were asked. Focused on topics mentioned by the experts additional literature was read and connected to the statements of the experts. The interview guide can be found in Appendix III. The interview consisted out the following questions:

- Which features does an inner city retail centre needs to meet to successfully attract consumers?
- Which features does an retail property needs to meet to successfully attract retailers in the non-daily sector?
- Do you expect retail vacancy is related to the object and area characteristics we just discussed?
- Which object and area characteristics do you expect to be of increasing importance in the location decisions of retailers in the non-daily sector?
- Do you expect the role of the physical store to significantly change in the coming five years?
- How does the demand for retail space change as an effect of the changed role of physical shopping?

Retrieving area and object factors was the focus of the interviews (the first two questions). The other questions were included to gain a better understanding of vacancy and trends in the retail structure.

The focus of the research was narrowed down as a result of the interviews. To increase the validity of the research the scope has been reduced from the three largest central retail centres to only the two largest central retail centre types, using the definition of Locatus (2014b)<sup>5</sup>. This are inner city retail areas with over 200 stores; the 53 biggest central retail areas of the Netherlands. During the interviews it was mentioned that in smaller centres retailing of daily products plays a more significant role. It was furthermore mentioned that these two area types are in competition with each other.

#### 3.1 Vacancy

During the interviews the topic of retail vacancy was discussed. The open questions allowed qualitative data to be retrieved from the interviews. In the following section the main findings from the interview related to retail vacancy are summarized.

##### **Catchment area**

Demographic trends including population growth/reduction, an ageing population, and household income were mentioned to affect the primary catchment area and consequently retail vacancy. For the demand of retail space the catchment area of a retail centre is vital. To quote one of the interviewees: "Does it have sufficient catchment area and therefore future potential? You can see that the large cities with a large catchment area, within those centres the top streets are doing very

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<sup>5</sup> 'City centre' and 'Regional centre large'. Dutch: '*Binnenstad*' and '*Hoofdwinkelgebied groot*'.

well; little vacancy. While in the small villages the stores are no longer lettable. Generally speaking.”<sup>6</sup>. This is in line with NRW (2014) that indicates the minimum size of the catchment area is growing. In relation to this two experts explicitly mentioned it is too short-sighted to state smaller cities are per definition performing worse in terms of retail vacancy compared to larger cities. According to them also retail centres in smaller cities can be attractive for consumers and retailers when the retail centre is well structured.

However the catchment of a retail centres is wider than only the inhabitants of a municipality, also so called ‘out shoppers’ can be attracted. The interviewees indicated consumers are rather mobile and are willing to travel to retail centres for fun-shopping purposes. At least if the centre is attractive enough. One of the experts stated that attractive attributes are especially important for retail centres other than the large inner city centres since consumers in these centres can choose to visit a higher order centre or a neighbouring centre. The increased mobility of consumers results in increased competition amongst retail centres. Furthermore experts mention that the economic downturn and increased internet sales put pressure on the demand for retail space.

### **Existing supply of retail space**

The size of the retail space stock in relation to the number of inhabitants of a municipality was mentioned a number of times during the interview. Experts indicate some retail centres simply have too much retail floor space and triggered by a decreased demand for retail space gaps are falling in the retail structure. In the zones around the core of the retail centre fragmentation is occurring. Some areas within retail centres are losing their function. A number of interviewees therefore argue in favour of more compact retail centres. The indicated oversupply of retail space is in line with PBL and ASRE (2013) (see chapter 2).

### **Revenue potential and rent**

demand for real estate space is a derived demand (Geltner et al., 2007, p. 65). The relation between rent level and revenue potential was mentioned by a number of experts. Since the number of consumers visiting a centre influences this revenue potential, attractiveness attributes are important. One of the experts for example mentioned atmosphere in relation to this matter: “If it does not have that atmosphere, renders that warmth – there is a typical Dutch word for: “*gezelligheid*” - than the consumer will come less often, will spend less, resulting in that the retailer is not able to afford the rent anymore. On a certain moment the retailer can not cope with it anymore. Then he will pull the plug and say: guys for this rent, that is simply too high, I am leaving.”<sup>7</sup>. Related to this it was mentioned that some independent retailers, mostly located in smaller retail units, are unable to attract sufficient consumer for example because they have not made sufficient investment in the past. However the rent level has increased over the years because of rent indexation. On a certain moment such a retailer can not afford the rent anymore and will need to close its business. In

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<sup>6</sup> Sander van Oss, interview, Gouda, 18 August 2014, Dutch original: “*Heeft het voldoende verzorgingsgebied en dus toekomst perspectief? Je ziet dat de grotere steden met een groot verzorgingsgebied en daar in de topstraten doen het supergoed, weinig leegstand. Terwijl in de kleine dorpjes de winkeltjes niet meer te verhuuren zijn. Dat kun je in het algemeen zeggen.*”

<sup>7</sup> Jasper van de Weerd, interview, Utrecht, 20 August 2014, Dutch original: “*Als het niet die uitstraling heeft, die warmte uitstraalt - daar is een typisch Hollands woord voor: *gezelligheid* - dan komt die klant ook minder vaak langs, gaat minder besteden, met als gevolg dat de retailer de huur niet meer kan betalen. Op een gegeven moment trekt hij het niet meer. Dan trekt hij de stekker er uit en zegt, 'Jongens, deze huur, die is gewoon te fors. Ik vertrek.*”

relation to vacancy therefore the connection between revenue potential and rent is important as well. This research however does not focus on the aspect of rent level.

### **Increasingly critical retailer**

According to the interviewees, retailers have become increasingly critical towards their real estate. Decreased consumer spending and the rise of online shopping have strengthened the qualitative demands of retailers. "Due to the internet retailers are less expansive and on the moment they make an investment offline they want the best property that fits them best"<sup>8</sup>. Retail properties have to fit the formula of a retailer, to quote one of the experts: "Therefore on the moment a property does not completely match, a retailer is not likely to settle on that location. While a few years ago that same location was less of an issue because inner-city was inner-city and A1 was A1. Now it is really about the location and one could notice large differences even within a main shopping street"<sup>9</sup>. The stronger demands of retailers in relation to their location strategy is something being confirmed in the master thesis of Peralta (2015).

In relation to the demands of retailers the location within the retail centre is indicated to be the most important object characteristic. Location is connected to footfall numbers. Experts also mention location to have a strong affect on vacancy. When an object is located on a main retail street in a good functioning retail area, vacancy is not an issue according to most interviewees. Not even when the object is in bad technical condition. During the interviews it was also mentioned it can be quite problematic to find a new tenant when an object above or below ground level becomes vacant. Furthermore interviewees indicated abnormal dimensions of an object have a relation to vacancy. Referring to ceiling height, front width, depth, and floor size. This is in line with the standardization of the store interior of retail chains, indicated by Kent (2007).

A number of the interviewed experts indicated in some retail centres retailer have a strong negotiation position as a result of the fallback of demand for retail space. Retailers that would have settled in the outskirts of retail areas before the economic downturn, are now able to locate on better locations. To quote one of the experts: "What do you see in relation to vacancy: that occurs less often in the core of the centre and if that happens somebody from a secondary retail street, that is also able to negotiate a bit, moves to the core. Thus vacancy also often occurs in the streets adjunct to the core."<sup>10</sup>. In line with the replacement market indicated in the literature (see chapter 2).

### **Self-stimulating effect**

The before mentioned gaps in the retail structure, predominantly occurring in B and C locations, can sometimes stimulate a negative spiral. By a number of experts it was indicated that vacancy has a self-stimulating affect. A number of different processes connected to a so called negative spiral were

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<sup>8</sup> Karen Strijker, interview, Utrecht, 15 July 2014, Dutch original: "De retailer is minder expansief door het internet en op het moment dat hij een investering doet offline dan wil hij wel het beste pand hebben dat hem het beste schikt."

<sup>9</sup> Patricia Bos, interview, Alphen aan den Rijn, 27 August 2014, Dutch original: "Dus op het moment dat de locatie al niet helemaal aansluit dan zullen ze zich daar niet zo snel gaan vestigen. Terwijl een paar jaar terug was die locatie misschien minder een issue want binnenstad was binnenstad en A1 was A1. Nu gaat het echt om de locatie en kun je zelfs in een hoofdwinkelstraat grote verschillen tegenkomen."

<sup>10</sup> Bert Enting, interview, Den Bosch, 19 August 2014, Dutch original: "Maar wat zie je door leegstand: dat gebeurt minder vaak in de kern en als het wel gebeurt dan gaat iemand van een aanloopgebied, die kan ook wat onderhandelen, naar het kerngebied. Dus vaak zie je ook leegstand gebeuren in de straten er naartoe."

cited: when gaps in the retail structure become apparent consumers are less likely to be attracted to such an area, vacancy has spill-over effects on the perceived safety and quality level of an area, and retail chains are unlikely to settle in vacant space in a retail centres with a high vacancy rate.

### 3.2 Future role of real estate

During the interviews the experts were asked about their expectation for the coming five years concerning the changes on the retail market and the role of real estate. These questions were included as an indication of the future demand for retail space, but most importantly it allows a better understanding of processes that are already relevant today. The following section briefly outlines the most important findings.

#### Online and offline

Virtually all experts indicated the relationship between offline and online retailing to be increasingly important. "Somewhere there is a balance between what people like to see, taste, and touch and what you order online. For some branches and products this will have a larger effect than for others."<sup>11</sup>. Another experts pointed out the fact that an increasing number of people have grown up in the internet age, being used to Smartphone's and the like. Eventually that generation will also become the shoppers of the inner city. The growth of online shopping is therefore expected to continue. As mentioned in chapter 1, online channels have a double effect: it is an alternative for purchases in physical stores, and it influences the orientation process of consumers. The interviewed experts indicate this already changed the shopping trips of the consumer; for some shopping motives consumers make more focused visits to retail centres since they already gathered product and price information beforehand.

#### Increasing polarisation

Shopping is more than simply the distribution of goods, "Already for a while shopping is considered one of the most important recreational activity and this is increasingly the case."<sup>12</sup>. The importance of fun-shopping, indicated in chapter 2, is confirmed by the interviewees. To quote one of the experts: "The coming five years the attractiveness of the inner city is the most important. If the consumer does not feel like spending its shopping day-trip there, you are simply going to lose it."<sup>13</sup>. A number of the experts questioned the role of the retail centres of the middle sized cities: large retail centres are strong in recreational shopping, functional shopping is increasingly done on the internet, and supportive centres are also focused convenience shopping. Some of the experts expect that there will be a stronger split between centres for 'shopping' and centres for 'acquiring goods'. One of the experts stated the following: "Take those 17 City Centres<sup>14</sup>, those are maybe the retail centres of the future. A few extra and a few less. The rest becomes a convenience centre. That is

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<sup>11</sup> Sander van Oss, interview, Gouda, 18 August 2014, Dutch original: "*Er zit ergens een evenwicht tussen wat mensen willen voelen proeven en aanraken en wat je op internet besteld. Voor sommige branches en producten zal het een groter effect hebben dan voor anderen.*"

<sup>12</sup> René Vierkant, interview, Amsterdam, 25 August 2014, Dutch original: "*Winkelen is al een tijdje een van de belangrijkste recreatieve tijdsbestedingen en dat wordt het steeds meer.*"

<sup>13</sup> Karen Strijker, interview, Utrecht, 15 July 2014, Dutch original: "*De komende vijf jaar word de aantrekkelijkheid van de binnenstad het allerbelangrijkste. Als je er als consument niet een dagje wil winkelen dan ga je het gewoon verliezen.*"

<sup>14</sup> There are 17 retail centres in the category 'City Centre' according to Locatus

maybe a bit oversimplified but just the facilities for the local population”<sup>15</sup>. Also Speeltjens and van der Post (2012, p. 50) question to what extent some centre typologies are future proof and indicate a further polarisation of the retail landscape might be expected.

### **Location strategy**

Three experts brought up the topic of the coverage rate of retailers. All three of them expected a reduction in the number of retail chains outlets. One expert indicated that consisted with the new role of physical stores it's not hard to imagine these retailers will choose for opening only a shop in the main centre of a region that functions as a display case. "Where you are able to return products, pick up products, try on goods. Where you are able to do all of that and therefore (these retailers) are less likely to choose to open stores in all towns. This concerns (fashion) retailers that also display all products from the website and not only a selection. Otherwise the consumer will be disappointed and is less likely to patronise the store.”<sup>16</sup>.

### **3.3 Area factors**

In the interviews the participants were asked about what they as experts perceive as the most important factors for the attractiveness of an inner city retail centres. The following section discusses the findings.

#### **Accessibility and Parking**

The importance of accessibility by car and public transport was mentioned during the interviews. As mentioned by some interviewees, accessibility and parking facilities for bicycles are also relevant in the Dutch situation. The experts furthermore articulated the importance of low parking fees. The success of so called Park & Ride concepts was questioned. Also according to Speeltjens and van der Post (2012, p. 39) parking alternatives at the outskirts of cities do not seem to catch on.

#### **Retail tenants**

As mentioned in the interviews, a retail centre should offer a wide array of branches and within those branches retailers should be present varying in price and quality. This retail mix directly affects agglomeration effects, it be complimentary or substitution based. Experts indicated that for an attractive retail mix of an inner city retail centre especially fashion retailers are important. During the interviews something of a split in the retail demand became apparent; on the one hand discounters are doing very well while niche retailers focussing on experience or lifestyle are also popular. This is in line with the literature (discussed in chapter 1). Lifestyle retailers offer an extended product range that reflects a way of life and the likely choices of a particular customer type (Varley, 2006, p. 174). Brands and products are increasingly connected to a particular lifestyle or group and consumer goods are increasingly used to create communal feelings (Wolf, 1999, p. 38).

In the interviews a specific part of the merchandise offer, attractive secondary retail streets, was mentioned by six of the nine experts. Secondary retail streets are the streets just outside the core

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<sup>15</sup>Peter Nieland, interview, Woerden, 4 September 2014, Dutch original: "Noem maar even die 17 binnensteden, dat zijn misschien de winkelgebieden van de toekomst. Een paar er af en een paar er bij. De rest worden boodschappen centra. Dat is iets te kort door de bocht maar wel gewoon de faciliteiten voor jouw bevolking."

<sup>16</sup>Sander van Oss, interview, Gouda, 18 August 2014, Dutch original: "Waar je dus die producten kan terug brengen, op kan halen, waar je kan passen, waar je dat allemaal kan doen en (retailers) zullen er dus minder snel voor kiezen om in alle dorpjes ook nog eens een vestiging te hebben. Het gaat hier om winkels (mode) die ook alle producten van de website tonen en niet een deel. Anders wordt de consument teleurgesteld en komt hij minder snel terug."

area of a retail centre. These are the so called B and C locations<sup>17</sup>. According to the interviewed experts such an area can enhance the atmosphere in a retail centre and adds to the variation of retailers in the area. Concepts mentioned in connection to such these secondary retail streets where: wander environment, special stores, niche retailing, independent retailers, and authenticity. According to the interviewees it is important that in contrast to the core retail area the secondary streets are occupied predominantly by independent retailers.

Anchor stores were not taken as separate factors in the publications on attractiveness attributes discussed before, however are mentioned specifically by six of the nine experts during the interviews. Experts indicate anchor stores are important for attracting consumers to a retail centre and also have a strong influence on the main routing within a retail centre. According to Evers et al. (2011, p. 55) department stores traditionally form important anchors in Dutch retail centres. Interestingly during the interviews especially fashion chains were named to be important anchors in Dutch inner city retail centres. Besides the department stores 'V&D', 'HEMA' and 'De Bijenkorf' the retailers 'Primark', 'Zara', 'H&M', 'Mango', and 'Action' were mentioned by the interviewees. Many experts did note that the stores that function as anchors change over time. The before mentioned retail chains are important anchors on this moment but some of them might lose this function over time. The fact that experts predominantly mentioned retailers selling relatively low priced products is in line with the price focused consumer. As Evers et al. (2011, p. 55) and I&O Research (2011b, p. 95) indicate: an important trend in consumption is the increased price awareness.

A number of experts mentioned the size of the centre as an important determinant for the attractiveness of a retail area. Quoting one of the experts: "The amount of stores in a certain area partly determines the strength of the service area. The larger the amount of stores, the larger the circle around the point of the compasses"<sup>18</sup>.

### **Non-retail functions**

During the expert interviews also functions other than retailing were brought up in the discussion. In the interviews non-retail functions including leisure and catering were mentioned by a number of experts. In particular the library, theatre, cinema, fitness centres, and housing were mentioned often by the interviewed experts. During the interviews experts made seemingly contradicting statements. Some experts argued there is no synergy between leisure and retailing. Others claimed it is important to have functions as a theatre and cinema in the retail centre.

The expert interviews indicate that in the Netherlands leisure components primarily have an indirect effect on inner city retail areas. It seems to be more about the effect on liveliness and about functions sharing the same infrastructure facilities than about combining going to the cinema or library and shopping. As one of the interviewees stated: "The city can be considered a kind of onion model with in the core(inter)national retail and around this a decreasing portion of retail and more diversification. This makes a city attractive for more purposes than only shopping. The function of retail is also more than the distribution of goods and mainly forms the experience of a day out. This

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<sup>17</sup>Streets with footfall numbers below 50% of the highest footfall number reached in a retail centre.

<sup>18</sup> John Vos, interview, Laren, 1 September 2014, Dutch original: "*Het aantal winkels in een bepaald gebied bepaalt mede de kracht van het verzorgingsgebied. Hoe ruimer het aantal winkels, zoveel groter is de cirkel rondom de passerpunt.*"

experience is created by all these factors that are in the urban life.”<sup>19</sup>. The mix of functions affects the liveability of a centre and also indirect effects on image and social safety were mentioned by the interviewees. The interviews indicate leisure functions should not be seen as a separate element but should be considered in the wider context of multi functionality.

As mentioned before, the importance of food and beverage functions was stipulated during the interviews. The importance of catering was often mentioned by the experts in connection to fun shopping. Day-time catering was mentioned by the interviewees by referring to concepts like: supporting food and beverage facilities, coffee places, lunch places, and terraces. Also food and beverage facilities not specific to daytime were mentioned including fast-food chains and restaurants. Fastfood outlets support the shopping activity by providing low-priced food products. During the interviews it was mentioned that just as for retailing also for food and beverage facilities in an area it is important to offer a variety in price and type.

### **Activities and events**

The interviewed expert indicate that activities and events that are being organized do contribute to the attractiveness but are of limited importance. The interviewees mention activities and events do not make a direct contribution to the functioning of the retail centre. Experts indicate it is not so much about events attracting visitors that will also shop, but more about the indirect effect that there is something going on. The connection between activities that are being organized and non-retail functions is illustrated by the following two citations: “Of course it contributes if there is a cinema or library in the area or that there are a lot of things being organized. It does contribute however it’s not something that attracts you to a city.”<sup>20</sup>.

### **Historical city centres, facades, and atmosphere**

Atmosphere was mentioned by Teller and Elms (2010), Teller and Reutterer (2008), and Sit et al. (2003) unsurprisingly this concept was also mentioned in a number of interviews. In connection to atmosphere the typical Dutch word “gezelligheid” was coined by a striking amount of experts. Without mentioning or asking specifically for the concept five of nine experts used this word. There is no exact English translation for “gezelligheid” however it could be best translated as cosy or convivial.

A number of interviewees mentioned facades of the buildings in the retail area to play an important role in the shopping experience of the consumer. Materialisation and variation in store fronts were mentioned to be important. Also the type of facade design is important, for example small scaled residential like designs are appreciated by most consumers nowadays. Giving a retail area a theme was mentioned as a possibility means of differentiating a retail area from its competitors.

A number of interviews stated that a historical town or city centre is a key attractiveness attribute for Dutch city and town centre retail centres. This is an interesting aspect considering in the literature

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<sup>19</sup> René Vierkant, interview, Amsterdam, 25 August 2014, Dutch original: “De stad is te bezien langs een schillenmodel met in het hart de (inter)nationale retail en daar omheen steeds minder retail en meer gediversifieerd. Dat maakt een stad aantrekkelijk voor meer zaken dan alleen maar winkelbezoek. De functie van retail is ook niet alleen meer distributie van goederen maar vormt voor het belangrijkste deel de beleving van een dagje uit. Die beleving wordt versterkt door al die factoren die in een stedelijk leven zitten.”

<sup>20</sup> Karen Strijker, interview, Utrecht, 15 July 2014, Dutch original: “Natuurlijk helpt het of er een bioscoop of bibliotheek in de buurt is of dat er veel georganiseerd wordt. Het telt wel iets maar het is niet waar je wel voor naar een stad toe gaat.”

study this was not named by any of the (international) studies on attractiveness attributes. Only NRW (2014) (see Appendix II), mentioned something they called cultural and historical significance. When respondents were asked why they consider this an important factor many experts were not able to give a clear and direct answer. The interviewees named a number of concepts in relation to the historic inner city: ambience, soul, facade impression, small scaled facades, and authenticity. To quote one of the interviewees: "The fact that this are buildings that are a bit older also contributes. How crazy that might sound. It has been lived, these buildings have a soul and that is also being emitted"<sup>21</sup>.

### **Perception of safety**

The concept of perceived safety was mentioned during the interviews. A number of interviewees indicated vacancy and visible decay of retail properties negatively influence consumers feeling of safety. This is linked to the self-stimulating effect of vacancy mentioned earlier this chapter.

### **Public space, routing and orientation**

The importance of public space and the design of it can be illustrated by quoting one of the interviewees: "It is the pavement, what kind of paving stones have been used? It are the facades, is there a variety in the facades, it are the pots with flowers. It's actually very simple. It is the type of street lights. Once again it does not make THE difference, but it does contribute"<sup>22</sup>. Public greenery and squares were mentioned to be important elements of the public space as well.

Routing was mentioned by a number of interviewees to be of importance. Most experts mentioned a circle or an eight shaped figure to be the ideal layout for an inner city retail area. Furthermore tenant placement, in specific the placement of anchor tenants, the location of rest areas and squares, and the location of food and beverage facilities were mentioned in connection to routing. As well the compactness of a centre is important for a good routing since it is related to the distance consumers need to walk. Partly influenced by the routing in a retail centre is the concept of orientation in a retail centre. During the interviews the importance of ease of orientation was mentioned a few times.

## **3.4 Object factors**

When deciding where to locate the first and foremost aspect retailers look at is the retail centre where they want to settle. After selecting the area where it's interesting to settle retailers look at the specific objects where they could locate. Area factors are far more important in the decision making of a retailer, since this influences the number of potential customers. As one of the interviewees stated: "If a retailer does not want to settle in a city, he also will not look at the property. ...We always say area, object, user."<sup>23</sup>. However when no suitable object can be found a retailer might not settle in a retail area.

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<sup>21</sup> Jasper van de Weerd, interview, Utrecht, 20 August 2014, Dutch original: "*Het feit dat dat wat oudere panden zijn draagt er ook aan bij. Hoe gek het ook klinkt. Er is in geleefd, er zit een ziel in die gebouwen en dat straalt het ook uit.*"

<sup>22</sup> Jasper van de Weerd, interview, Utrecht, 20 August 2014, Dutch original: "*Het is het straatsteentje, wat voor straatstenen zijn er gebruikt? Het is de gevel, is er variatie in het gevelbeeld, het zijn de bakken met bloemen. Het is eigenlijk heel simpel. Het is de type lantaaripaal. Nogmaals het maakt niet HET verschil, maar het draagt gewoon bij.*"

<sup>23</sup> Karen Strijker, interview, Utrecht, 15 July 2014, Dutch original: "*Als men niet naar de stad toe wil dan gaat men ook niet naar het pand kijken ... We zeggen altijd gebied, gebouw, gebruiker.*"

Even though a number of experts indicated retailers use different criteria for selecting store locations, a number of factors could be derived. The relative importance of these factors will result from the Delphi research.

### **Location**

The well known real estate quote "Location, location, location" seems to apply to inner city retail space as well. Location was mentioned by all nine experts when asked about the object factors important for retailers. The amount of footfall is the most important product of the location factor. Especially for impulsive purchases this is very important, to quote one of the interviewees: "If you want to have impulse purchases than you need to be located where most people walk. With purpose orientated people will find you and footfall is a slightly less important."<sup>24</sup>. Not only horizontal location is important as well vertical positioning. The interviews indicate ground floor levels are in general preferred by retailers.

### **Structural characteristics**

Size was one of the most cited object attributes. Retailer are looking for objects that best fit their formulas space demand. In line with literature many of the interviewed expert mentioned retailer chains show an increased space demand per store. Especially anchor tenants like fashion chains as Zara, H&M and Primark demand huge floor spaces that only a few objects are able to offer.

One specific part of the layout of a store was mentioned often by the interviewed experts: a column free floor area. Layout of a store has mainly to do with the ease of exploiting the retail outlet. During the interviews it was mentioned retailers usually prefer rectangle shaped spaces. The layout of a building also refers to any possible differences in height in the floor, like sub levels.

The ratio between the width and the depth of the retail unit was mentioned as an important object characteristic. The width-depth ration can be related to the ease of fitting in a formula. Furthermore a narrow but deep store is expected to negatively influence consumers state of mind. Ceiling height is also expected to influence consumer state of mind, since during the interviews it was mentioned mostly in connection to in store experience / atmosphere. A high floor height is a symbol of luxury, openness affects consumer state of mind, and allows more freedom to place lighting installations. Also a functional aspect was mentioned: being able to place merchandise shelves.

### **Exposure and character**

The term exposure was mentioned a number of times during the interviews. Exposure is important for a retailer because it influences the drawing power of a specific retail outlet. The front width was mentioned to be an important determinant for the exposure of a store. According to the experts, retailers have a strong preference for a width front. The facade design of the property is a characteristic that was also mentioned during the interviews.

Even though the factor was mentioned in literature, an extraordinary character of a building does not appear to be a major factor in the decision process of retailers. To quote one of the experts: "There

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<sup>24</sup> Peter Nieland, interview, Woerden, 4 September 2014, Dutch original: "*Als je impuls aankopen wilt hebben dan moet je op de locatie vestigen waar mensen lopen. Bij doelgericht weet men je wel te vinden en zijn passanten iets minder belangrijk.*".

are a few retailers that look very specifically at the character and architecture of the building, however most retailers focus on location and the dimensions of the property”<sup>25</sup>.

### **Supply accessibility**

The accessibility for goods supply is a factor directly influencing the business process. However as one of the interviewees stated: “Of course accessibility is important for being able to supply the store. However often it is the case that when a retailer chooses for an inner city location he knows there might be restricting factors concerning accessibility.”<sup>26</sup>.

### **Surrounding area**

The direct surrounding area of a property also seems to influence the location decision of retailers. Besides the technical state of the own building also the quality of the surrounding objects and public space was mentioned during the interviews. The physical decay of an area negatively influences the attractiveness of a retail object arguably for both consumer and retailer. Not only the quality of the direct surrounding properties was mentioned to be important, also the function of these objects. A connecting sequence of store fronts was mentioned to be an important aspect. Especially fashion retailers prefer to be positioned in close vicinity to each other. This is in line with the theory of ego-intensive products mentioned in Bolt (2003, p. 23). Neighbouring functions can also have a negative effect; during the expert interviews it was mentioned retailer preferably do not locate next to a terrace or other catering service.

Street width was also mentioned to influence the location selection of a retail, quoting one of the experts: “A street has a pleasant width for the consumer when that consumer can adequately observe the display windows on both sides of the street”<sup>27</sup>. Even being located on the “sun side” of the street was mentioned by one expert to be reflected in the rent level.

## **3.5 Conclusion**

Vacancy is a complex multifaceted problem whereby experts recognise the importance of area and object characteristics but stipulate the importance of factors underlying the demand for retail space: conjectural fluctuations, decreased consumer spending, demographic trends and the rise of online shopping. Area characteristics influence the attractiveness of an retail cluster. The number of consumers consequently drawn to a retail cluster influences the demand for retail space. Experts indicate some retail centres have a clear oversupply of retail space and areas within those centres are losing their retail function. The interviewed experts also indicate a split between centres focused on recreational shopping, predominantly the large City Centres, and town centres that are moving towards a function as convenience centre.

Secondary retail streets, facade impression and historical city centres are examples of factors that were not derived from the literature research but seem to play an important role in the Dutch

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<sup>25</sup> René Vierkant, interview, Amsterdam, 25 August 2014, Dutch original: “*Er zijn er enkele retailers die heel specifiek kijken naar uitstraling en architectuur van het pand, maar de meeste retailers focussen op locatie en maatvoering van het pand.*”

<sup>26</sup> Patricia Bos, interview, Alphen aan den Rijn, 27 August 2014, Dutch original: “*Bereikbaarheid moet er natuurlijk wel zijn om te kunnen bevoorraden. Maar goed vaak is het ook zo dat als een retailer kiest voor een binnenstadslocatie dan weet hij ook dat er misschien beperkingen zijn aan de bereikbaarheid.*”

<sup>27</sup> John Vos, interview, Laren, 1 September 2014, Dutch original: “*Een behaaglijke breedte van de winkelstraat voor de consument is aanwezig wanneer die consument voldoende zicht heeft op de etalages aan beide zijden van de straat.*”

situation. The list of factors derived from literature, presented in the conclusion of chapter 2, is extended with the following area factors:

Table 3.1: Area level Delphi factors derived from interviews

Area factor	Description
<b>Anchor stores</b>	The presence of anchor stores
<b>Routing</b>	The routing in the retail centre; the street pattern, walkability, and placement of retailers along the routing.
<b>Public space</b>	The structure and the fitting out of the public space.
<b>Multi functionality</b>	The diversity of non-retail functions including theatres, cinema's, libraries, fitness centres, residential and so on.
<b>Historical</b>	If the retail area is positioned in a historical city centre.
<b>Markets &amp; Events</b>	Markets events and other activities organised in the retail centre.
<b>Facade Impression</b>	The design and materialization of the facades in the retail centre.
<b>Secondary retail streets</b>	The presence of secondary retail streets. In these areas special and often independent retailers are located.

\*A more elaborate description of the factors is provided in chapter 4.

Retailers are increasingly critical in their location decisions. On object level this means its becomes more important that object are able to fit the formula of a specific retailer. For retail objects footfall numbers are indicated to be the most important factors since this is related to the revenue potential. However to fit a formula, characteristics concerning the physical dimensions and layout of retail objects are also important. Furthermore it's important for a retailer to generate sufficient exposure; the front width of a store is important in this. The drop in demand for retail space has given retailers a stronger negotiation position and experts indicate there is a replacement market creating gaps in the retail structure, especially outside the core retail area.

The list of factors derived from literature, presented in the conclusion of chapter 2, is extended with the following object factors:

Table 3.2: Object level Delphi factors derived from interviews

Object factor	Description
<b>Ground floor</b>	If the retail unit is located on ground floor.
<b>Function of surrounding objects</b>	The function of surrounding properties: retail, catering, residential, and so on.
<b>Width-depth ratio</b>	The ratio between the width and the depth of the retail floor space.
<b>Street width</b>	The width of the street(s) on which the object is located.
<b>Sun side</b>	If the object is positioned on the side of the street that has the most sun during store opening times.

\*A more elaborate description of the factors is provided in chapter 4.

The identified area and object factors are interrelated concepts. During the interviews a number of relations between these factors were mentioned. There will be further elaborated on this in the next chapter.

## 4 Delphi research

The previous chapters has outlined how area and object characteristics are related to retail vacancy. Based on nine expert interviews and a literature research a list of area and objectfactors was derived. An expert panel of 19 experts active in different segments of the retail space market, was asked to rank these factors. Area factors were ranked on importance for attracting consumers, retaining consumers, and extending the visit duration of consumers. Object factors were ranked on importance in the location decision of retailers. In this chapter this Delphi research is discussed.

### 4.1 Delphi factors

Fifteen factors were derived related to retail space on area level and fifteen factors were derived on object level.

#### Delphi factors

Chapter 1 and chapter 2 of this report have respectively discussed literature and interviews. In the following section the factors that are taken into account in the Delphi research are explained. These factors were derived by linking the literature research and the performed expert interviews.

#### Area factors

The following fifteen area factors were identified:

Table 4.1: Summary of area factors in alphabetical order

Area factor	Description
<b>Accessibility &amp; Parking</b>	Perceived cost of time and money to overcome this distance regarding the shopping endeavour.
<b>Anchor stores</b>	The presence of anchor stores. This are retail chains, often with large scale units, that have a strong attractiveness to consumers. Of all retailers, anchor stores generate the most spill-over effects.
<b>Atmosphere</b>	The perception of the atmosphere in a centre influenced by stimuli as: odour, temperature, light, cleanliness, architecture and so on.
<b>Centre size</b>	The size of the retail centre. A larger retail centre is able to facilitate a greater variety in retail outlets and more anchor stores.
<b>Facade Impression</b>	The design and materialization of the facades in the retail centre.
<b>Food and beverage facilities</b>	The composition and variety of supportive food and beverage facilities in the centre. Day time food and beverage facilities including lunch places, coffee establishments, fastfood restaurants, and terraces.
<b>Historical</b>	If the centre is positioned in a historical centre; an area of socio-cultural significance.
<b>Markets &amp; Events</b>	Markets, events, and other activities organised in the retail centre.
<b>Multi functionality</b>	The mix of urban live. The diversity of non-retail functions that do not directly support the shopping activity such as: theatres, cinema's, libraries, fitness centres, residential and so on.
<b>Orientation</b>	Convenience of searching, locating, and accessing stores. Influenced by layout and ease of orientation.
<b>Public space</b>	The structure of all public spaces and the fitting out of it. Including squares and other rest areas, greenery, the pavement, the design of the fitting out, amenities such as ATM's and public toilets, and so on.
<b>Retail Mix</b>	The composition and variety of the retailers in the centre. A variety of sectors is important because of multi-purpose shopping trips. For comparison shopping it is important to have a spread in price/quality

	and type, this is especially the case for ego-intensive products.
<b>Routing</b>	The routing in the retail centre including the the street pattern, positioning of squares and rest areas, as well as the placement of retailers and terraces along the routing. The main routing in a retail centre is formed by the streets that have the highest footfall numbers.
<b>Safety</b>	Perceived safety level in the retail area.
<b>Secondary retail streets</b>	The presence of secondary retail streets. In these areas adjunct to the core retail streets, special and often independent retailers are located.

The selection of these fifteen factors will be discussed in the following section.

### **Accessibility and Parking**

Teller and Reutterer (2008) refer to accessibility as “a measure of perceived distance and convenience to overcome this distance”. Sit et al. (2003) talk about both parking facilities and road conditions in their reference to the accessibility factor of the “big four” attractiveness attributes. The interviews furthermore indicate the importance of accessibility by public transport and bicycle. Parking facilities and accessibility issues have the same effect: time, money, and effort spend to arrive at the stores. Therefore parking and accessibility issues (a1) are combined in one factor in the Delphi research.

### **Retail tenants**

Publications on retail centre attractiveness indicate the merchandise offering is one of the most important factors (Ooi & Sim, 2007; Sit et al., 2003; Teller & Elms, 2010; Teller & Reutterer, 2008). The product range offered in a retail centre directly affects agglomeration effects, it be complimentary or substitution based (discussed in chapter 2). As mentioned in the interviews the retail mix should offer a wide array of branches and within those branches retailers should be present varying in price and quality. The width and breadth of retail offer is a result of the retail mix and the size of a retail centre.

A larger retail agglomeration is able to cluster a larger amount of stores and consequently is able to realize greater agglomeration benefits. A key advantage of having a large amount of retailers in a shopping centre is that this increases the chance of finding a suitable specialized commodity, hereby providing an incentive to invest time and travel costs in a visit to a retail cluster (Konishi & Sandfort, 2003; Shanmugam, 2013). In line with what is being indicated in the interviews, Ooi and Sim (2007) show larger suburban shopping centres are able to: “attract a higher percentage of ‘out-shoppers’ who take a longer time to travel to the shopping centres.”.

In the publications found on attractiveness attribute the importance of secondary retail streets was not mentioned, however this concept was mentioned in the majority of the interviews. In line with what was indicated by the interviewed experts, Walen and Ruitter (2011) indicate independent retailers with a special product offer are located in these streets. To compete with the retail chains these retailers often offer a specialised product range or superior customer service (Guy, 2006, p. 153). The concepts of secondary retails streets with specialised, independent, and authentic retailers fits the theories of Pine and Gilmore (1998), Florida (2002) and the importance of the “excitement of the new” coined by Gianotten (2010).

Anchor stores where not taken as separate factors in the discussed publications on attractiveness attributes (Ooi & Sim, 2007; Sit et al., 2003; Teller & Elms, 2010; Teller & Reutterer, 2008) however

are mentioned specifically in the majority of the interviews. Anchor-tenants have a great influence on the attractiveness of retail centres (Damian et al., 2011). Anchor stores play an important role because they have the ability to attract consumers and non-anchor tenants. Some retailers are destinations by themselves and have the ability to transform a local retail structure (Burt & Sparks, 2003, p. 14).

Considering their specific role in the functioning of a retail agglomeration the retail offer, or merchandise offer as it has been called in some publications, has been split up into: centre size, retail mix, anchor stores, and secondary retail streets.

### **Non-retail tenant mix**

According to Speeltjens and van der Post (2012, p. 48) there have been a number of attempts of market parties to improve the quality of Dutch retail centres by adding leisure functions. With leisure one can think of cinema's, theatres, bowling centres, and so on. Adding leisure is in line with the 'entertainment economy' of Wolf (1999). Ooi and Sim (2007) argue that by incorporating non-retail tenants in a retail agglomeration such as leisure and complementary services, a shopping centre can fulfil its secondary role of providing lifestyle and recreational facilities for a local community. However the centres of Dutch cities historically have been the place where functions other than retailing such as cinemas, libraries, and theatres are located.

Shopping and leisure activities are however rather separate activities in the Dutch culture (Ploegmakers & Verwaaijen, 2012, p. 136). The before mentioned additions of leisure components in Dutch retail centres, then also did not always led to the creation of added value (Speeltjens & van der Post, 2012, p. 48). The importance of entertainment advocated by Wolf (1999) does not seem to apply to Dutch central retail areas, or should at least be nuanced. From both literature and the expert interviews there are strong indications that for the attractiveness of Dutch inner city retail centres, leisure functions should not be seen as a separate element but should be considered in the wider context of multi functionality.

Many interviewees explicitly mentioned food and beverage facilities to be important for the attractiveness of Dutch inner city retail areas. Sit et al. (2003) also identified food as a special non-retail tenant category. The research of Shanmugam (2013) showed a positive relationship between the size of food courts and mall traffic and profit. In line with this Howard (2007) states that while the spill-over effects of leisure functions such as cinemas and fitness areas are questionable, catering and retailing do have clear synergy effects.

During the interviews a variety of food and beverage facilities were mentioned ranging from restaurants to fastfood and lunchrooms. The supportive role of food and beverage facilities for retailing was also stipulated during the interviews. I&O Research (2011b, p. 97) states that in connection to fun shopping especially day-time catering is important. However restaurants show a far lower synergy with retailing. Ploegmakers and Verwaaijen (2012, p. 136) argue that in contrast to some other cultures, in the Netherlands dining and shopping are activities that are rarely combined. In this research restaurants were therefore considered in the factor multi-functionality whereby food and beverage facilities solely retail supportive food and beverage functions.

The mix of non-retail tenants was split into 'food and beverage facilities' and 'multi-functionality'. The factor catering functions is a dimension complementary to the retail provision of the centre. The

functions grouped in the factor multi-functionality do not or barely complement retailing directly; this factor refers to the mix of functions that make up an lively urban area.

### **Activities and events**

Ooi and Sim (2007) state exciting trade types and activities can enhance the shopping experience and consequently affect the attraction of consumers towards a retail agglomeration. Sit et al. (2003) use the term “special event entertainment” for events and activities aimed at inducing a fun or exciting shopping experience. During the interviews mention activities and events do not make a direct contribution to the functioning of Dutch retail centres. Experts indicate it is not so much about events attracting visitors that will also shop, but more about the indirect effect that there is something going on. A special type of event being organized in city and town centres is the market. Both events and activities and the market are temporary and provide liveliness and possibly enhance consumer experience by offering a kind of leisure aspect. Therefore these are clustered in one factor for the Delphi research.

### **Historical city centres, facades, and atmosphere**

The attractiveness attribute atmosphere was mentioned in both the interviews and literature (Ooi & Sim, 2007; Sit et al., 2003; Teller & Elms, 2010; Teller & Reutterer, 2008). Atmosphere is the result of a range of stimuli including cleanliness, light and temperature (Teller & Elms, 2010). The interviews indicate a relation between a historical city centre and atmosphere, this is also confirmed by Speeltjens and van der Post (2012, p. 37).

However the effect of historical buildings goes further than enhancing atmosphere in a retail centre; real estate has multiple functions, one if it is a social and symbolic function (De Jonge et al., 2009, p. 11). One of the interviewees stated new developments lacked the soul historical centres have. This relates to what De Jonge et al. (2009, p. 12) refer to as a “socio-cultural vacuum”: the lack of a social and symbolic function. Quoting De Jonge et al. (2009, p. 12): “The city, with its streets and squares, buildings, train stations and access roads, is a civilisation’s collective memory. Through its history, a city constitutes the collective structure of its community”. As one of the interviewees said: “Everything eventually becomes historical of course”<sup>28</sup>.

Atmosphere, facade impression and historical town centres are interrelated factors. However these factors were explicitly mentioned by a significant number of interviewed experts and these factors also have a different effect on the consumer experience. Therefore ‘atmosphere’, ‘facade impression’ and ‘historical city centre’ are included separately in the Delphi research.

### **Perception of safety**

In some Town Centre Management initiatives in the UK increasing the feeling of safety was one of the main focus point (Paddison, 2003). The concept of perceived safety was mentioned by a number of interviewees and also Sit et al. (2003) mention this concept explicitly. Therefore the factor ‘safety’ was included in the Delphi research.

### **Public space, routing and orientation**

The attractiveness attributes “infrastructure facilities” mentioned by Teller and Elms (2010) and “amenities” coined by Sit et al. (2003) in essence describe the same aspect: public facilities including ATM’s, bathrooms, and the like. These communal services are important for a consumer because

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<sup>28</sup>René Vierkant, interview, Amsterdam, 25 August 2014, Dutch original: “*Alles wordt vanzelf historisch natuurlijk.*”

they support the core product of a retail agglomeration (the merchandising) and add value to the customers shopping experience (Sit et al., 2003). These aspects were however not mentioned during any of the expert interviews. During the interviews the importance of the design of the public space was stressed. Since these public facilities are part of the fit out of the public space, they are incorporated in the factor 'public space'.

Routing was mentioned in a number of the expert interviews. Where accessibility and parking facilities refer to external mobility, routing represents the internal mobility. As mentioned in chapter 3, routing is related to the structure of the public space as well as the compactness and spread of functions in the centre. Orientation is partly influenced by the layout/routing of a retail agglomeration. However more factors play a role including signing, landmarks, street profile and so on. During the interviews the importance of the ease of orientating was mentioned a few times and it was also mentioned explicitly by Teller and Elms (2010) and Teller and Reutterer (2008). Both 'orientation' and 'routing' are factors included in the Delphi research.

### Object factors

The following fifteen object factors were identified:

Table 4.2: Summary of object factors in alphabetical order

Object factor	Description
<b>Character of the building</b>	If it is a property with a special character, for example a monument.
<b>Facade</b>	The facade impression including (limitations on) signage possibilities, materialisation, and the design.
<b>Floor height</b>	The ceiling height; distance from the top of the floor to the ceiling.
<b>Front-width</b>	The width of the store front of the property.
<b>Function of surrounding objects</b>	The function of surrounding properties. Preferably a retail function since those generate spill-over effects. For retailers selling ego-intensive products it is important to locate in the vicinity of retailers of the same sector. If the object is located next to a terrace or other catering facility this can form a dissatisfier.
<b>Ground floor</b>	If the unit is located on ground floor level; vertical location.
<b>Layout</b>	The shape of the retail floor including any height difference in the form of sub levels. As well the presence of columns and/or other objects in the space that limit the flexibility of the property.
<b>Location</b>	The physical/geographic location of the retail property in the retail centre. Due to the close link to the footfall level this factor has a strong relation to the revenue potential.
<b>Quality of surrounding</b>	The perceived quality level of the surrounding public space and properties in the vicinity.
<b>Size</b>	The size of the unit measured in floor area.
<b>Street width</b>	The width of the street(s) on which the object is located.
<b>Sun side</b>	If the object is positioned on the side of the street that has the most sun during store opening times.
<b>Supply accessibility</b>	The accessibility for supplying the store. This factor including any physical and regulatory limitations.
<b>Technical state</b>	The technical condition of the object including maintenance state.
<b>Width-depth ratio</b>	The ratio between the width and the depth of the retail floor area.

The selection of these fifteen factors will be discussed in the following section.

### **Location**

The research of Strijker (2014) and Nase et al. (2013) emphasize the importance of footfall. Footfall is influenced by the location of the object within the retail centre. Besides footfall, the research of Nase et al. (2013) included a number of location characteristics such as a "connectivity index" and the distance to the centre of the retail area. During the interviews these two aspects were not explicitly mentioned. While the importance of location was stipulated by all experts. Therefore footfall and all other location related characteristics were clusters in one factor in this research. Not only horizontal location is important as well vertical positioning. The interviews indicate ground floor levels are in general preferred by retailers. Therefore both the factors 'location' and 'ground floor' were used in the Delphi research.

### **Structural characteristics**

Based on the interviews and literature the following structural factors were identified: 'size', 'width-depth ratio', 'layout', and 'floor height'. All of these factors were already derived from the literature review except from the factor 'width-depth ratio'. Nase et al. (2013) used a similar concept: the frontage/perimeter ratio, but in the interviews experts referred to the width-depth ratio.

### **Exposure and character**

During the interviews the importance of generating exposure for retailers was mentioned by a number of experts. In this research exposure is considered a product of the facade and the width of the store front. The factors 'front-width' was often mentioned during the experts interviews and in the research of Strijker (2014, p. 39) this appeared as one of the most important object characteristics. The factor 'facade' includes the design of the facade including any signing, influences by rules and legislation.

An extraordinary character of a property, such as a monument, was mentioned during the interviews but experts indicate this aspect is of limited importance. This factor was however also mentioned in the literature and was therefore included in the Delphi research.

### **Surrounding area**

Related to the surroundings of a retail property two factors were identified: 'function of surrounding objects' and 'quality of the surrounding'. The perceived quality level of the surrounding public space and properties in the vicinity was mentioned in both the interviews and the literature. The function of the surrounding objects was however only explicitly mentioned in the expert interviews. However this factor is related to the basic concept of agglomeration effects: positive effects of collocation of stores.

### **Technical condition**

The research of Strijker (2014, p. 39) includes service fee and initial investment retailers need to make. These aspects are indirectly included in this research through the factor 'technical state'; the technical condition affects the initial investment and periodical service fee. Nase et al. (2013) explicitly mentioned the technical condition of an object to influence value.

A specific element of the technical state of a property is the aspect of sustainability. During the interviews no expert mentioned sustainability to be an important object characteristics from the point of view of a retailer. When the topic was discussed the experts indicated some property owner do take into account this topic, but for most retailers sustainability is not considered in their location decision. The publication of Vlasveld, Marquard, and Op 't Veld (2013) is in line with these

statements. Their research indicates energy labels do not have a significant relation to vacancy in Dutch retail space. Therefore no sustainability factor was included in the Delphi research.

Based on the literature 'supply accessibility' was included as a factor. Solely based on the interviews also the factors 'street width' and 'sun side' were included in the Delphi research.

## 4.2 Delphi set-up

Before the Delphi research was started a pilot study amongst students from the TU Delft was set up. This pilot was used to reformulate some descriptions and fine-tune the design of the Delphi. In the Delphi rounds a brief description, based on literature and the expert interviews, was provided for all the factors. In the first Delphi round experts were asked to rank the fifteen area and fifteen object factors and provide a motivation for their personal ranking. The factors were presented in random order. The set-up of the first round is presented in Appendix IV.

After the first Delphi round the experts were provided descriptive statistics, concerning the group opinion and consensus. In the form of an overview sheet the experts were informed about the minimum rank, maximum rank, mean rank and range by providing information concerning the middle 50% of the responses for each factor. This allowed the participants to relate their ranking to the group responses. To obtain a more reliable group responds the experts were asked to rethink and possibly revise their ranking. In the following section the results of the Delphi research are presented.

## 4.3 Expert ranking

In total 19 experts participated in the Delphi ranking. As indicated in chapter 1 this panel size is sufficient for a reliable Delphi research. Based on the responses the following rankings were derived:

Table 4.3: Results Delphi ranking approach

Mean ranking first and second round Delphi research							
Area factors	1e round	2e round	Change	Object factors	1e round	2e round	Change
Anchor stores	2	1	↑	Location	1	1	=
Retail mix	1	2	↓	Ground floor	2	2	=
Centre Size	4	3	↑	Size	3	3	=
Accessibility & parking	3	4	↓	Function of surrounding objects	4	4	=
Atmosphere	5	5	=	Front-width	5	5	=
Food & beverage facilities	6	6	=	Width-depth ratio	6	6	=
Public space	7	7	=	Quality of surrounding	7	7	=
Routing	8	8	=	Layout	8	8	=
Multi functionality	10	9	↑	Floor height	9	9	=
Historical	9	10	↓	Supply accessibility	10	10	=
Safety	11	11	=	Facade	11	11	=
Orientation	12	12	=	Character of the building	12	12	=
Markets and events	13	13	=	Technical state	13	13	=
Facade impression	14	14	=	Street width	14	14	=
Secondary retail streets	15	15	=	Sun side	15	15	=
Kendall W	0,47	0,63	0,15	Kendall W	0,65	0,74	0,09

Comparing the first round of the Delphi to the second round shows a slight improvement of the group consensus concerning the object factors (see table 4.3). The ranking of object factors did not change between the first and second round. In the ranking of area factors there were some slight changes in the ranking and also the consensus rate showed a sizeable improvement. The spread in the expert rankings is visualised in the box-plots (see Appendix V).

#### 4.4 Ranking of area factors

The group consensus of the ranking of area factor was 0,63 for the final round. According to Schmidt (1997) this falls in between of a moderate and strong agreement. In comparison to the ranking on object level this is a relative modest consensus. A possible explanation for this is the strong interrelation between the different area characteristics; it's the overall profile that determines the attractiveness of an inner city retail centre. These relations are discussed later this chapter.

##### **Retail offering**

The Delphi shows retail offer related factors (retail mix, anchor stores and centre size) are clearly the most important factors. Many of the participating experts mentioned retail offering related factors to be the most fundamental aspects in consumer choice. Atmosphere related factors are secondary, to quote the argumentation for the provided ranking of one of the experts: "In the basis people come to an area with sufficient retail offering, this means the offering should be large enough and a right mix. People in the end come to buy. Subsequently the area should have a good atmosphere, this can be achieved for example through the fit out of the public space or good food and beverage facilities. The historical core can also establish this atmosphere."<sup>29</sup>.

An interesting extreme position was found related to the retail offering: four experts ranked centre size as one of the least important factors in the first Delphi round. The provided motivations show these experts did acknowledge the importance of a good retail offering, but stress that it is not about the number of outlets but about the variety and quality of the retailers in the centre. The extreme position of these experts illustrates the importance of the presence of some retailers, since all four experts did rank anchor tenants as the first or second most important factor. One of the experts made an interesting quote illustrating the importance of the individual stores within a retail centre: "The success of a retail centre is dependent on the success of each store"<sup>30</sup>. This quote and the high rank of anchor stores, underlines the importance of what Bolt (2003, p. 60) refers to as micro-factors; the individual qualities of the stores in the retail centre.

##### **Atmosphere**

Atmosphere was ranked high in the ranking of the expert panel. In the final ranking this aspect was ranked fifth. Furthermore many other factors possibly also influence the atmosphere in an area. The motivations of the Delphi experts indicate aspects influencing atmosphere include: public space, food and beverage facilities, and historical elements. During the expert interviews facade impression and secondary retail streets were mentioned in connection to atmosphere as well. One of the experts explicitly mentioned atmosphere related aspects to stimulate shopping trip duration: "Extension of

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<sup>29</sup> Remco Dijkmans, Delphi research, September 2014, Dutch original: "*In de basis komen mensen naar een gebied met voldoende winkelaanbod, dat betekent dus dat er voldoende aanbod moet zijn en van een goede mix. Mensen komen immers om te kopen! Vervolgens moet het gebied de juiste sfeer uitstralen, dat kan bijvoorbeeld door de openbare inrichting of de aanwezigheid van goede horeca. Ook een historische kern kan deze sfeer in het winkelgebied bewerkstelligen.*"

<sup>30</sup> Wim de Bruijn, Delphi research, September 2014, Dutch original: "*Het succes van een winkelcentrum is afhankelijk van het succes van elke winkel*".

the trip is subsequently stimulated by factors that enhance the atmosphere<sup>31</sup>. The importance of atmosphere indicated in the Delphi research is in line with Gianotten (2010) and theories as the experience economy of Pine and Gilmore (1998).

### **Food and beverage facilities and public space**

The supporting role of food and beverage facilities, in particular daytime catering, indicated in the expert interviews is being confirmed in the Delphi ranking. Food and beverage facilities was ranked 6th from the 15 factors. Also the factor 'public space' was ranked relatively high. Public space includes the fitting out of the public space and rest areas. Both public space and food and beverage facilities can be considered supportive for particularly recreational shopping motives and is in line with the growing importance of fun-shopping.

### **Secondary retail streets**

An interesting aspect mentioned often in the expert interviews was the aspect of "secondary retail streets". In the Delphi this factor was however ranked as the least important factor. In the first round a number of expert did rank this factor significantly higher than the group as a whole, as shown in the box-plot (Figure 5.1). While secondary retail streets rank low in the Delphi this does not mean this aspect is of no importance; as mentioned in the interviews these kind of retail areas can contribute to the overall retail mix and atmosphere of a retail centre (see figure 5.1). Quoting one of the experts shows a possible explanation of the low ranking of secondary retail streets: "Secondary retail streets often draw specific consumers that make the choice to walk into a specific street. Most people however walk on the main streets"<sup>32</sup>.

## **4.5 Ranking of object factors**

In both the expert interviews and in the Delphi, many experts claimed making a ranking was hard since the importance of the different aspects varies amongst retailers. However the group consensus of the provided rankings is high: in the first round a Kendall's W of 0,65 and a final Kendall's W of 0,74. The confidence in the ranking is high since there was a strong agreement using the interpretation of Schmidt (1997). This indicates the parameters of the factors may differ from retailer to retailer, however concerning the importance of the factors experts show a high consensus.

The motivation provided by one of the experts illustrates the demand for retail space and is in line with the ranking of the expert panel: "In the current time in which footfall is decreasing and parts of retail centres lose their relevance, location is increasingly important. In addition to this retailers increasingly use their properties to enhance their brands. The store itself and the direct surrounding have to seamlessly fit the image of the brand. Technical aspects are still important, but have slightly moved to the background because of this."<sup>33</sup>.

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<sup>31</sup>René Vierkant, Delphi research, October 2014, Dutch original: "*Verblijfsduur verlenging wordt vervolgens ingegeven door zaken die sfeerbepalend werken.*"

<sup>32</sup>Micha Candel, Delphi research, October 2014, Dutch original: "*De aanloopstraten trekken vaak specifieke consumenten welke de keuze maken om bepaalde straten in te lopen. Het gros van de mensen loopt echter door de hoofdstraten.*"

<sup>33</sup>Marrit Laning, Delphi research, October 2014, Dutch original: "*In de huidige tijd waarin de footfall terugloopt en stukken winkelgebied hun relevantie verliezen wordt de locatie van het pand steeds belangrijker. Verder gebruiken retailers hun panden steeds meer om hun merk te versterken. De winkel zelf en de directe omgeving moeten daarom naadloos aansluiten op de uitstraling van het merk. Technische factoren blijven wel belangrijk, maar schuiven iets meer naar de achtergrond hierdoor.*"

The top five of the Delphi ranking on object level is formed by: 'location', 'ground floor', 'size', 'function of surrounding', and 'front-width'. The following section will reflect on each of these aspects and there will be briefly reflected on the lowest ranked factors.

### **Location**

The famous real estate phrase "location, location, location" seems to hold for retail space. As shown in the box-plot (figure 5.2) nearly all the participants ranked location as the most important factor from the point of view of a retailer. This is in line with the expert interviews. As indicated in the motivation provided by the Delphi experts, location is an important determinant of the revenue potential of a retailer since it is related to the number of consumers passing by an object. As indicated in the expert interviews, the location of an object is linked to the rent level. "Specialised retailers/independent retailers will often chose a worse location because of the rent level."<sup>34</sup>. The Delphi ranking furthermore indicates there is a strong preference of retailers for being positioned on ground floor level. This might be explained by exposure and accessibility issues.

### **Size**

The Delphi ranking indicates size is a crucial factor in the demand for retail space. This is in line with the expert interviews; this aspect was one of the most often mentioned factors. The average floorspace per store increased over the past ten years (Platform31, 2014, p. 42). According to Tromp and Ploegmakers (2005) retail chains increase the size of their stores to improve their formulas.

### **Function of surrounding**

Another aspect ranked in the top five of the Delphi, is the function of surrounding objects. This is in line with the basic principle of a retail cluster. Retailers are eager to locate near other retailers because of agglomeration effects (see chapter 3). In both the interviews and the Delphi, experts mentioned that in particular fashion retailers are keen on locating in the vicinity of other fashion retailers. This is in line with the importance of comparative shopping for ego-intensive products (Bolt, 2003, p. 23). An interesting aspect is that the reluctance of retailers to locate adjacent to a catering service, mentioned in the interview round, was mentioned by another expert in the Delphi research.

### **Front-width**

The factor 'front width' is ranked as one of the highest factors in the Delphi ranking. The width of a storefront is very important for creating enough exposure, a concept mentioned often in the expert interviews. The factor 'front-width' is per definition related to the factor 'width-depth ratio'. This factor was also ranked fairly high by the Delphi panel. During the interviews it was mentioned retailers generally prefer rectangle shaped spaces, that are not too deep, and have a wide storefront.

In their motivations the Delphi participants mentioned the real estate demand of retailers is formula specific. Aspects as size, front-depth ratio, and layout can be related to this ability to 'fit in' a formula. The Delphi research indicates that especially the factors 'front-depth ratio' and 'size' are rather important in the demand for retail space. This is in line with the emphasis and standardisation of the interior design of stores indicated by Kent (2007).

### **Bottom factors**

A number of Delphi participants referred to a division between factors that are hard to change (like location, size, and front width) and aspect that are relatively easy to change (like technical state and

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<sup>34</sup>Piet Smit, Delphi research, October 2014, Dutch original: "Specialistische zaken/zelfstandigen zullen vaak een mindere locatie kiezen vanwege de hoogte van de huur".

facade). In line with this, technical state and facade are both ranked amongst the bottom five factors. The factors 'Street width' and 'sun side' were included based on solely the interviews. Based on the expert ranking these two factors seem to be of limited importance.

**4.6 Interrelations**

In the research a number of relations between the identified factors were mentioned. Based on literature, expert interviews, and the Delphi research these interrelations are visualised in figure 5. and figure 5.2. The size of the circles reflects the importance of the factor, based on the Delphi ranking.

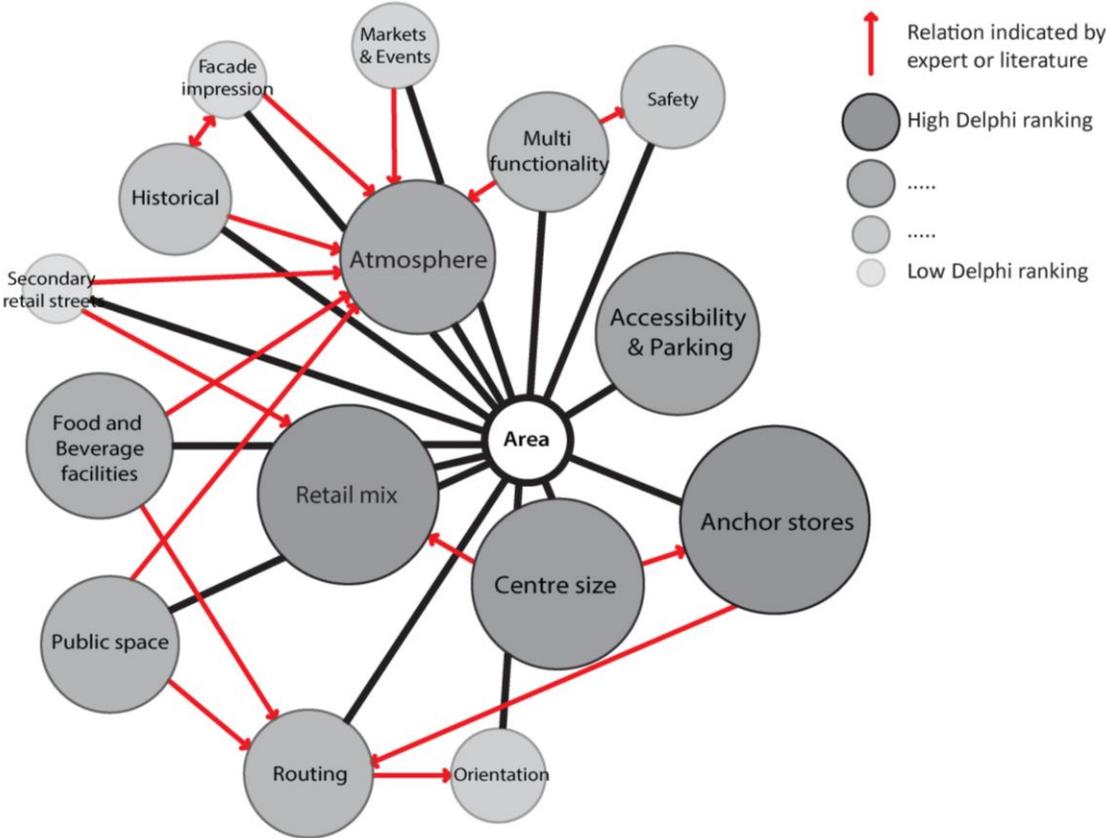


Figure 4.1: Relations between factor on area level

As mentioned before, on area level the profile of a retail centre is important. In this research this profile was split up into 15 area factors. As illustrated by figure 5.1, there are many relations between these 15 factors. Even though the profile is important, the high consensus rate of the Delphi ranking indicates these factors do differ in importance.

Atmosphere in a retail area is influenced by many other area factors such as historical elements, facade impression, and the design of the public space. The Delphi indicates secondary retail streets are of relative low importance for the attractiveness of a retail centre. However this factor can influence the high ranked factors 'retail mix' and 'atmosphere'.

Figure 5.2 indicates that on object level there are less interrelations between the factors. This might be one of the explanations why the Delphi ranking on object level showed a higher consensus rate.

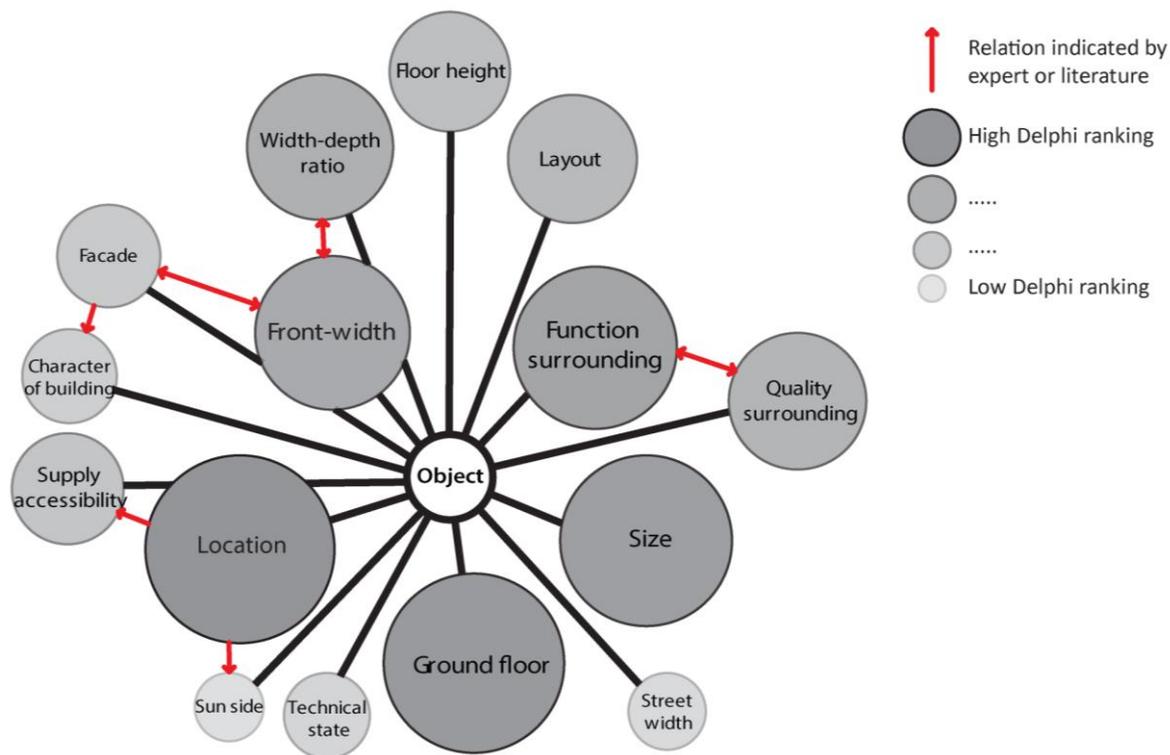


Figure 4.2: Relations between factor on object level

#### 4.7 Conclusions

The Delphi ranking is in general in line with the expectations from the literature research and expert interviews. Retail offering related factors were mentioned to be key determinants in consumer choice on area level. The top five is being formed by retail mix, anchor stores, accessibility & parking, centre size and atmosphere. Followed by food and beverage facilities and public space. This ranking is in line with the “Big four” mentioned by Sit et al. (2003); merchandise, accessibility, service, and atmospherics. Since food and beverage facilities and public space can be considered a service in the case of inner city retail areas.

Even though experts indicate all retailers have a different demand for retail space, there was a high group consensus for the object factors. On object level location, being located on ground floor level, size of the retail floor area, the front-width, and the function of surrounding object were identified as the five most important factors. Location is identified as the most important factors since it has a strong link to the revenue potential of a retailer just as being located on ground floor level. The factors ‘sun side’ and ‘street width’ seem to be of limited importance.

There are a number of relations between the identified factors. Based on the ranking, secondary retail streets seem to be of limited importance for the attractiveness of a retail centre. These streets can however contribute to the overall retail mix and atmosphere in an area, two factors ranked high in the Delphi research.

The rankings of area and object factors presented in this chapter form the basis for the case studies presented in the following chapter. These case studies were conducted to test the findings from the literature research, presented earlier in this report, and the Delphi research.

## 5 Case studies

In this chapter the findings of the literature, interviews and Delphi research are tested on three cases to check if the findings are confirmed in practice. The case study allowed the collection of context dependent data to test the research findings from the interviews and Delphi research, possibly leading to a revision or even rejection of these findings. The fifteen area and fifteen object factors ranked in the Delphi research form the basis of the case analysis. For the case study consisted out the analysis of the database of Locatus, structured observation, as well as the analysis of research publications and policy documents.

### 5.1 Outline of the case study

The fifteen area and object factors (theoretical variables) are made operational by defining indicators/raw variables based on literature and the expert interviews. As indicated in the previous chapters, the profile of retail centres and properties are multidimensional bundles of characteristics whereby the fifteen theoretical variables can be broken down into various raw variables. The indicators/raw variables used in the case studies are simplified, however the approach used is sufficient for the purpose the case studies serve in this research.

The case study part on area level served to retrieve insight in the differences in vacancy and area factors between the three case areas. Therefore the study involved an analysis of the three case areas on all fifteen factors (theoretical variables) and the connecting indicators (see Appendix VII). The case analysis focused on the object factors served to retrieve insight in the relation between vacancy and object factors, within the three case areas. Therefore the analysis focused on retrieving patterns. For this there was mainly, but not exclusively, made use of the Locatus database and maps derived from this database (see Appendix VI). The findings derived from the area and object analysis are connected to a number of research reports and policy documents. Before the results are presented the following section will describe the case areas.

### 5.2 Case areas

The selected case areas are the inner cities of Vlaardingen, Schiedam, and Rotterdam (see figure 5.1). Since three retail centres within the urban agglomeration of Rotterdam are selected, a link with urban hierarchy theories (see Chapter 2) can be made. Furthermore in this way three cases with reasonably comparable demographics could be selected (see Appendix VI). Since centre size is considered a retail centre attractiveness attribute, retail centres of different sizes were chosen.



Figure 5.1: Map of case areas, source: (DTNP, 2014)

Schiedam and Vlaardingen both have a historical city centres and fall in the category “regional centre large” in the retail area typology of Locatus. Following this same classification, the centre of Rotterdam falls in the category “city centre”. Using the case study selection strategies as defined by Flyvbjerg (2006), the selection of the case was information oriented and based on “maximum variation”. The demand for retail space is relatively strong in the centre of Rotterdam, while Schiedam has one of the highest vacancy rates of the Netherlands.

Table 5.1: Summary of retail space by retail centre, source: (Locatus, 2014a)

Retail centre	Retail floor space (m <sup>2</sup> )	Retail Vacancy (m <sup>2</sup> )				Vacancy rate floor space <sup>35</sup>	Adjusted vacancy rate <sup>36</sup>
		Friction	Long term	Structural	Total		
<b>Rotterdam centre</b>	210 643	22233	9 035	5 561	36 829	12,4%	4,7%
<b>Schiedam centre</b>	45 492	697	7 042	7 293	15 032	24,8%	23,5%
<b>Vlaardingen centre</b>	42 893	1 714	3 307	1 313	6 334	10,4%	7,4%

Since 2006 the retail space stock of Rotterdam centre has increased from around 201.500m<sup>2</sup> to over 210.600m<sup>2</sup> by 2014 (Locatus, 2014a). Over the same period vacancy rates went up from 7,1% to 12,4% of the retail floor space. Rotterdam shows a relatively high vacancy rate (see table 5.1). However the majority of the vacancy in Rotterdam is friction vacancy. The recently completed Markthal is one of the clusters of friction vacancy (see Appendix VI). In the centre of Schiedam vacancy rates historically have been high. Since 2006 the vacancy rate has been steadily increasing from around 15,5% to 24,8% of the retail floor space by 2014. Even though vacancy rates were high the retail space stock has increased in that period from around 42.800m<sup>2</sup> to almost 45.500m<sup>2</sup>(Locatus, 2014a). In Vlaardingen on the other hand, the retail space stock decreased with over 10% over that period (Locatus, 2014a). Also the vacancy rate went down; 12,6% in 2006 to 10,4% of the retail floor space by 2014. See Appendix VI for the vacancy development in the three retail centres since 2006.

Table 5.2: Binding power by municipality , source: (I&O Research, 2011a)<sup>37</sup>

Municipality	Years	Binding power		Inflow	
		Daily sector	Non-daily sector	Daily sector	Non-daily sector
<b>Rotterdam</b>	2004	94%	83%	7%	n.a.
	2011	90%	67%	10%	37%
<b>Schiedam</b>	2004	87%	52%	5%	n.a.
	2011	84%	40%	13%	20%
<b>Vlaardingen</b>	2004	93%	73%	6%	n.a.
	2011	88%	67%	7%	25%

<sup>35</sup> Calculated using the method of Locatus, see Appendix IX

<sup>36</sup> Vacancy rate calculated using the method of Locatus but reduced with the fraction vacancy.

<sup>37</sup> The binding percentage and the percentage of outflow together form 100%, this is the total retail spending of the local consumer. The inflow is calculated as a portion of the total retail turnover in the area.

In all three areas the binding power decreased from 2004 to 2011, see table 6.2. This is in line with the general trend in the Netherlands (I&O Research, 2011b, p. 65). The portion of online purchases has grown significantly from 2004 to 2011; currently forming a very relevant alternative for physical shopping. Especially for the non-daily sector binding power decreased significantly, this is in line with the increased willingness to travel for fun-shopping and the larger portion of online sales in this sector. There are however large differences between the three centres; compared to Rotterdam and Vlaardingen, the ability to bind local consumers is very low in Schiedam.

Table 5.3: Turnover by retail centre, source: (I&O Research, 2011a)

Retail centre	Year	Turnover daily sector		Turnover non-daily sector		Total
<b>Rotterdam centre</b>	2004	€ 162 mln	17%	€ 777 mln	83%	€ 939 mln
	2011	€ 152 mln	26%	€ 435 mln	74%	€ 587 mln
<b>Schiedam centre</b>	2004	€ 46 mln	37%	€ 77 mln	63%	€ 123 mln
	2011	€ 50 mln	54%	€ 43 mln	46%	€ 93 mln
<b>Vlaardingen centre</b>	2004	€ 61 mln	34%	€ 114 mln	65%	€ 175 mln
	2011	€ 56 mln	45%	€ 68 mln	55%	€ 123 mln

In all three case areas retail turnover dropped from 2004 to 2011, this is in line with the reduced consumer trust and spending since the economic downturn. In all three centres the turnover of the non-daily sector as a portion of the total turnover increased. A possible explanation for this is that the food sector is less volatile for conjectural chances and the portion of online sales in the food sector is still low compared to the non-daily sector.

#### **Rotterdam centre**

Rotterdam is the second largest city in the Netherlands. The municipality has a diverse retail structure consisting out the inner city, three sub regional centres, four inner urban shopping streets, two city district centres, and two big box retail centres (BRO, 2012, p. 64). The total retail floor space in the municipality of Rotterdam is over 870.000m<sup>2</sup>(BRO, 2012, p. 64) for a population of around 616.000 inhabitants (CBS, 2014). Where Vlaardingen en Schiedam are primarily trying to counter vacancy, Rotterdam is still in a process of expanding the retail space stock in the city centre (Stadsregio Rotterdam, 2013, p. 5). Vacancy rates have however increased as noted before. I&O Research (2011a) shows Rotterdam centre has a large catchment area; significant consumer spending is attracted from surrounding municipalities and a large portion of the non-daily retail turnover is derived from consumer from outside the neighbouring municipalities (see Appendix VI). Compared to other surrounding municipalities, an above average portion of the retail sales in the city centre of Rotterdam is generated by inhabitants of Schiedam.

#### **Schiedam centre**

Schiedam has a retail structure consisting out the town centre, three district centres, four neighbourhood centres, and a few shopping strips (Gemeente Schiedam & DTNP, 2009, p. 7). The total retail floor space in the municipality of Schiedam is over 81.000m<sup>2</sup>(BRO, 2012, p. 67) for a population of around 76.000 inhabitants (CBS, 2014). According to Gemeente Schiedam and DTNP (2009, p. 5) the retail space stock in Schiedam is modest in comparison to cities with a comparable size and position near a higher order retail centre (in this case the inner city of Rotterdam). Most influx of retail spending originates from Rotterdam and Vlaardingen (I&O Research, 2011a). However as indicated by table 5.3, the total retail turnover of Schiedam centre is relatively modest. The fast majority of the retail turnover originates from local consumers.

### **Vlaardingen centre**

Vlaardingen has a retail structure consisting out the town centre, three district centres, five neighbourhood centres, and two retail centres in the periphery (Gemeente Vlaardingen, 2012, p. 9). The total retail floor space in the municipality of Vlaardingen lays around 105.000m<sup>2</sup>(BRO, 2012, p. 69) for a population of around 71.000 inhabitants (CBS, 2014). As indicated before, over the past years the total retail floor space of Vlaardingen decreased. In Vlaardingen a sizeable portion of the retail floor space has been converted to leisure (including the cinema in the centre) and services (Gemeente Vlaardingen, 2012, p. 10). As many centres in the region Vlaardingen lost market share, it however still has a regional service function (Gemeente Vlaardingen, 2012, p. 10). Influx of retail spending from outside Vlaardingen primarily originates from Schiedam, Midden-Delfland, Maassluis and Rotterdam (I&O Research, 2011a). However the primary source of consumer spending is the local consumer.

### **5.3 Findings on area level**

Changes on the retail market affect the retail centres in the urban agglomeration of Rotterdam: visits are less frequent and more focused, in most centres the middle segment of the non-daily sector is struggling, and in most centres vacancy is increasing (DTNP, 2014). DTNP (2014) furthermore indicates a kind of split between the city centre of Rotterdam and the historical centres surrounding it (including Vlaardingen and Schiedam); the centre of Rotterdam remains interesting for new concepts and international chains while the historical centres have a retail space stock that's too large. As an effect some (secondary) retail streets are losing their relevance in both the inner city of Vlaardingen and Schiedam.

#### **Vacancy**

Of the three centres if adjusted for friction vacancy, the centre of Rotterdam has the lowest vacancy rate, followed by Vlaardingen, with Schiedam clearly having the highest vacancy rate (see table 5.1). The demographics of the three case areas do not seem to form a full explanation for these difference: compared to Rotterdam the average household income in Schiedam is higher and the portion of non-western minorities is lower. Also the ratio of retail floor space per inhabitant does not seem an adequate explanation. The retail floor space in Schiedam is quite modest in comparison to Rotterdam and Vlaardingen. Comparing the ratio of retail floor space in the city centre and the number of inhabitants in the municipality, shows that the size of the centre of Schiedam is comparable to the centre of Vlaardingen.

The differences in vacancy rate are however in line with the binding power of the retail centres (see table 5.2). The differences in ability to retain consumer spending of local consumers on its turn is in line with the analysis of the case areas on the fifteen attractiveness attributes (see Appendix VII). The case analysis indicates that from the three case areas, Schiedam is the least attractive centre. The binding power of Rotterdam and Vlaardingen is however comparable. While the case analysis clearly indicates the centre of Rotterdam has a far stronger attractiveness. This attractiveness of Rotterdam centre is confirmed by the large inflow of consumer spending from direct surrounding municipalities and from elsewhere in the Netherlands. According to I&O Research (2011a) almost a fourth of the retail turnover in Rotterdam centre was derived from visitors outside the direct surrounding municipalities. In Vlaardingen this was below five percent.

Based on the vacancy rate the centre of Vlaardingen seems to be functioning relatively good. Conversely the centre of Schiedam functions poorly as a retail area. This is the affect of competition

within the region on the one hand and a narrow and small scaled retail offering, with limited presence of national chains, on the other hand (Gemeente Schiedam & DTNP, 2009, p. 1). There is a low orientation on the centre by the local population influenced by improvements in retail centres in the region (Rekenkamercommissie Schiedam-Vlaardingen, 2014, p. 17). In other words the centre of Schiedam has a low attractiveness compared to especially Vlaardingen and Rotterdam. Something confirmed in the case analysis on the fifteen identified factors (Appendix VII): Schiedam only performs better on the factors 'Parking & Accessibility' and 'Historical'.

Experts states that the connection of Schiedam on the metro network of Rotterdam and the construction of the tram connection has weakened the position of Schiedam; the Centre of Rotterdam has become better accessible for consumers living in Schiedam (Rekenkamercommissie Schiedam-Vlaardingen, 2014, p. 32). The reverse is of course also the case; for people living in Rotterdam it has become easier to go to Schiedam centre. However the outflow of consumer spending is much stronger than the inflow of consumer spending in the case of Schiedam (I&O Research, 2011a). Vlaardingen is not part of the tram or metro network and therefore is less well connected to the centre of Rotterdam. This might be a partial explanation for the stronger binding power of Vlaardingen.

#### **Confirmation of ranking**

In comparison to Vlaardingen centre, Schiedam centre has lower parking fees and is better accessible. The Delphi panel ranked 'Parking & Accessibility' as the fourth most important factor. Schiedam does score high on the lower ranked factors 'Markets & Events' and 'Historical' (see case analysis Appendix VII). The structure of the inner city can be traced back to the very first settlements of Schiedam (Gemeente Schiedam, 2012, p. 14). There are many historical elements in the city centre including historical facades, monuments, and old harbours. However despite the historical character of the city centre, the retail centre hardly attracts consumers from the region (Gemeente Schiedam & DTNP, 2009, p. 23). The clearest difference between Schiedam and Vlaardingen are the factors 'Retail mix', 'Anchor stores', and 'Atmosphere' (see Appendix VII). Vlaardingen centre performs better on these aspects. These factors were ranked respectively first, second, and fifth in the Delphi research. Considering the functioning of the centre of Schiedam and Vlaardingen these findings are in line with the Delphi research.

Rekenkamercommissie Schiedam-Vlaardingen (2014) conducted a research on the retail vacancy issue of Schiedam centre. In the publication a number of recommendations are made including the advice to steer on the retail mix of the centre and try to actively attract stores that can function as anchors. A clear illustration of the importance of anchor stores is the presence of the V&D in Vlaardingen centre, something that differentiates this retail centre from Schiedam. In 2004 the V&D closed its store in Vlaardingen. Speeltjens (2012, p. 72) states that the departure of this department store was an important reason for consumers to literally drive further to a centre with a broader retail offering (in this case Rotterdam). After a number of years of absence the V&D moved back to Vlaardingen, hereby improving the attractiveness of the retail centre (DTNP, 2014).

In comparison to the centres of Schiedam and Vlaardingen, the inner city of Rotterdam has a large number of anchors. Almost all fashion anchors mentioned during the experts interviews are present. These anchors are located on high footfall locations. For example the 'Lijnbaan' is dominated by large fashion retailers as Mango, Zara, Bershka and H&M (Stadsontwikkeling Rotterdam, 2012a). However

these are not the only stores that function as anchors, there are more strong fashion chains with large floor areas located in the centre of Rotterdam including Pull & Bear and Hollister.

In the expert interviews fashion retailers were mentioned to be of great importance in the retail mix of inner city retail centres. This seems confirmed in the case areas; in all three centres footfall number are relatively high in the areas where fashion retailers are clusters. Causality in this is however unclear: one could argue that these retailers draw consumers but on the other hand the consumers also draw the retailer. As mentioned in chapter 2, the business strategy of fast fashion retailers requires them to be located on high footfall locations. In Rotterdam centre fashion retailers have a strong presence, in Vlaardingen centre the portion of fashion retailers is lower but still substantial, and in Schiedam centre the retail floor space in the fashion sector is far lower (see Appendix VII). Gemeente Schiedam and DTNP (2009, p. 23) also state that a substantial addition of fashion and other recreational retail offerings is of great importance for the attractiveness of the centre of Schiedam.

The importance of retail chains for the attractiveness of a retail area, something Gianotten (2010) refers to as the "comfort of the known", seems confirmed in the case areas. Retail chains cause so called spinoff effects benefiting neighbouring stores and the retail centre as a whole (Gemeente Schiedam & DTNP, 2009, p. 24). In Schiedam retail chains are predominantly located in the 'Nieuwe Passage' and the 'ABC-Complex'. In the period from 1992 until the year 2000, after completion of these developments, the binding power of Schiedam initially showed an increase. However due to the lack of renewal this binding power dropped again in the period between 2000 and 2004 (Rekenkamercommissie Schiedam-Vlaardingen, 2014, p. 19).

In comparison to Schiedam and Vlaardingen, Rotterdam centre accommodates a significantly higher number of retail chains. No less than 205 retail chains are located in Rotterdam centre (Locatus, 2014a). The centre of Rotterdam has a wide retail offering. Ranging from well known (inter)national retail chains to experience focused retailers and stores in the high-end market. These types of retailers are found less in Vlaardingen and Schiedam. Some retail chains even open multiple stores in the centre of Rotterdam. The average number of stores per chain is high compared to Schiedam and Vlaardingen: on average 1,7 stores per chain opposed to 1,1 (see appendix VII).

### **Secondary retail streets**

During the expert interviews secondary retail streets were mentioned to be important for the attractiveness of retail centres. However in the Delphi research this aspect was ranked relatively low. As indicated before, these streets have the possibility to affect the higher ranked factors 'Retail mix' and 'Atmosphere'. As well these retailers often have a strong focus on customer service to differentiate themselves from retail chains (Guy, 2006, p. 153), related to the micro-factor of Bolt (2003, p. 60). For example in de 'Hoogstraat' of Vlaardingen a number of second hand stores settled down, for real renewing concepts the catchment area of Vlaardingen is however too small (DTNP, 2014). The inner city of Rotterdam on the other hand has a number of rather successful secondary retail streets. This is in line with the central place theory that implies specialised retailers need to be located in high order central places since these retailers need a large service area (Bolt, 2003, p. 16). As well members of the "creative class", the group of which Florida (2002) stipulates that appreciates these independent retailers, are more likely to live in the high urbanized city of Rotterdam than in Vlaardingen or Schiedam.

On the core retail streets of Rotterdam (Lijnbaan, Binnenwegplein and Beurstraverse) predominantly retail chains are located, including flagshipstores and multiple anchor stores (Stadsontwikkeling Rotterdam, 2012a). The secondary retail streets compliment this offering. An example of such an area is the 'Meent'. Here one can find retailers mainly in the middle and high segment, including lifestyle focused retailers and (chain)retailers that have an extra focus on brand experience (Stadsontwikkeling Rotterdam, 2012b). In this street property owners have made agreements concerning the retail mix. They searched for suitable retailers and other entrepreneurs fitting the branding of the street (Stadsontwikkeling Rotterdam, 2012b). This resulted in an interesting mix of extraordinary shops, cafés and other functions. Many of the entrepreneurs located on the 'Meent' have build up a good relation with their customers (Stadsontwikkeling Rotterdam, 2012b). In Rotterdam the secondary retail streets seem to add to what Gianotten (2010) refers to as the "excitement of the new". The case study indicates that what Bolt (2003, p. 60) refers to as micro-factors, the qualities of the individual retailers, are very important for good functioning secondary retail streets.

### **Function in the hierarchy**

For retail centres in the region, the city centre of Rotterdam forms the biggest competitor concerning recreational shopping (Gemeente Vlaardingen, 2012, p. 23). Rotterdam has a wide and deep retail offering: there are experience focused retailers (for example Lush or Rituals), brandstores, lifestyle retailers, and a wide range of (inter)national retail chains. In Rotterdam many chains are located that are not found in Vlaardingen or Schiedam (see Appendix VII). Chains that are located in lower order centres as Vlaardingen or Schiedam sometimes have a flagship store in the centre of Rotterdam. For example 'Hunkemöller' has stores in all three case areas: two rather standardized stores in Schiedam and Vlaardingen of respectively 140m<sup>2</sup> and 112m<sup>2</sup>, and a flagshipstore of around 250m<sup>2</sup> in the centre of Rotterdam (Locatus, 2014a).

The presence of flagship stores, brandstores, and lifestyle retailers adds to the retail mix of the inner city of Rotterdam as well it is related to the micro-factors mentioned by Bolt (2003, p. 58). Flagship stores are more about brand building than about functional trading of products. "They are usually large and located in high footfall, prestigious locations." (Varley, 2006, p. 176). Brandstores are related to flagship stores. Some manufacturers have strong brand names and online channels have made it easier for producers to sell directly to consumers. A number of manufacturers have grabbed their chances and moved into retailing (Rabobank, 2012). Consumers are also more loyal concerning brand than concerning retailer (Speeltjens & van der Post, 2012, p. 56). Just as a flagship store a brandstore can serve marketing purposes to attract and retain costumers (Evers et al., 2011, p. 29). The presence of lifestyle retailers adds to the retail mix of a centre since these stores have a specialized product offering. Lifestyle retailers offer an extended product range that relates to the way of life and likely choices of a particular customer type (Varley, 2006, p. 174).

Retail chains and independent retailers create a width and deep retail offering in Rotterdam centre. Besides these retail offer related factors, also supportive catering services such as lunchrooms, fastfood outlets, and terraces are well presented in the centre of Rotterdam (see Appendix VII). As indicated in the interviews, these facilities are important to facilitate fun shopping.

According to Gemeente Vlaardingen (2012, p. 11) the case of Vlaardingen is typical for a middle sized municipality in the Randstad area; local retail centres are affected by the highly attractive city centres of the large cities (Amsterdam, Utrecht, The Hague, and Rotterdam). "However Vlaardingen does

have the potential quality that offer possibilities to improve the competitive position, especially focused on the spending of the local population.”<sup>38</sup>(Gemeente Vlaardingen, 2012, p. 11).

Gemeente Schiedam and DTNP (2009, p. 11) state that since Schiedam centre has a relatively small retail space stock compared to surrounding centres it plays an inferior role in the hierarchy of recreational retail centres. For a daytrip of shopping many inhabitants of Schiedam go to centres other than the centre of Schiedam (Gemeente Schiedam & DTNP, 2009, p. 1). The conclusion that Schiedam takes an inferior place in the hierarchy is confirmed by the low binding power, low influx of consumer spending from outside the municipality, and the relatively large portion of sales in the daily sector (see table 5.3). Gemeente Schiedam and DTNP (2009, p. 24) state that if no substantial improvements are made, the retail centre will further tone down to possibly a function as a city district centre focused on functional and convenient shopping. For properties on streets that already lay outside the main routing it will than become even harder to fulfil a retail function.

The Delphi research showed that centre size does play a rather important role in this attractiveness but is not the most important factor. Experts ranked ‘Centre size’ as third most important factor. As Dennis et al. (2002) indicate, the hierarchy of retail centres is not solely based on size but is based on the attractiveness of the centre. A comparison of Schiedam and Vlaardingen confirms this. The two centres are very similar in size but the binding power (see table 5.2), retail sales in the non-daily sector (see table 5.3), and the presence of recreational branches including fashion, indicate Vlaardingen takes a higher place in the hierarchy of retail centres. Comparing the retail chains that entered the local market between 2007 and 2014, reveals that in Vlaardingen centre more than double the amount of chains entered the market compared to Schiedam centre (DTNP, 2014). In both centres however there were more chains that exited than that entered the market<sup>39</sup>.

According to Stadsregio Rotterdam (2013, p. 6) the city centre of Rotterdam is likely to profit from the changed preferences of consumers. Centres with a regional or core service function, like Vlaardingen en Schiedam, should focus on daily and frequently bought non-daily products. In this lower service function the role of supermarkets as an anchor increases (Stadsregio Rotterdam, 2013, p. 7). In supportive centres daily goods is the dominant sector (Evers et al., 2011, p. 75). Shopping in the sense of watching, comparing, experiencing and buying is increasingly taking place in centres other than the local town centre (Stadsregio Rotterdam, 2013, p. 4). This division already seems the case for Rotterdam and Schiedam. In the city centre of Rotterdam fashion retailers and departments stores take up the majority of the retail space and the fast majority of retail turnover is generated by the non-daily sector. In the centre of Schiedam food, frequently non-food, and living & DIY retailing is far more dominant. The majority of retail turnover in Schiedam is generated in the daily sector. From a functional point of view Vlaardingen is positioned in the middle of these two. Based on the distribution of retail floor space by retail sector (see Appendix VII) and the portion of sales in the daily versus the non-daily sector (see table 6.3), the role of Schiedam centre seems to have changed from a central shopping location towards a supportive centre. The development of the vacancy over the past 8 years (Appendix VI) also indicates the centre of Schiedam is a different centre type than

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<sup>38</sup> Dutch original: *“Vlaardingen heeft daarentegen wel de mogelijke kwaliteiten die ruimte bieden tot verbetering van de concurrentiepositie, vooral gericht op de bestedingen van de eigen bevolking.”*

<sup>39</sup> In Schiedam centre 20 chains exited the market while there were 7 new entrants. In Vlaardingen centre 23 chains exited while 17 entered the market.

the centres of Vlaardingen en Rotterdam. This is in line with the split between shopping and convenience centres indicated in the expert interviews.

#### **5.4 Findings on object level**

In the case study indications of a relation between object factors and vacancy was found. Areas with relatively large units with width store fronts, in high quality surroundings, with open floor plans, and well kept facades have a low vacancy rate. While areas with small scaled objects, narrow stores fronts, low quality surroundings, outdated facades, and properties in bad technical condition are left vacant. In Schiedam and Vlaardingen some of these areas almost completely lost their function in the retail structure. This is the case for a part of the 'Hoogstraat' in Schiedam and a part of the 'Hoogstraat' in Vlaardingen.

Retail chains in all three case areas are predominantly located in objects of relatively high quality. This is in line with the importance of fitting the formula, indicated earlier in this report. This relation is not one sided for a number of factors, since the retailer moving into the property influences the facade and technical state of the object. However there are a number of factors that are hard to adjust. Most units located on the 'Hoogstraat' or 'Broersvest' are unsuitable for (large) stores of retail chains (Gemeente Schiedam & DTNP, 2009, p. 10). This seems not only related to the floor size of the objects but as well with the front width, width-depth ratio, the layout of the object including the placement of columns, and the ceiling height. Gemeente Schiedam and DTNP (2009, p. 24) states it's important to create units suitable for retail chains in order to be able to attract national retail chains hereby improving the retail mix of the centre.

In Schiedam most chains are located in the 'Nieuwe Passage' and the 'ABC-complex'. Here the quality level of the units is high compared to most other objects in the centre of Schiedam. The development of the 'Nieuwe Passage' and the "ABC-complex" seems to have altered the location of vacancy in the centre of Schiedam. Rekenkamercommissie Schiedam-Vlaardingen (2014, p. 19) states that before the completion of these developments, most vacant objects were located near the 'Passage' while afterwards most vacancy was found in streets as the 'Hoogstraat', 'Broersvest', and 'Broersveld'. Confirming the replacement market suggested in the literature and expert interviews.

#### **Confirmation of ranking**

A number of object characteristics showed patterns with the distribution of vacancy within the case areas. Location showed a very clear relation to vacancy. Objects located on the main routing with high footfall rates show low vacancy rates (see Appendix VI). In Schiedam most vacant objects are located in the secondary retail streets and these streets also show the highest vacancy duration (Rekenkamercommissie Schiedam-Vlaardingen, 2014, p. 21). As well in Rotterdam and Vlaardingen location is strongly related to vacancy. This seems logical since footfall rates are related to the revenue potential of a retailer, as mentioned earlier in this report.

Size shows a relation to vacancy in all the case areas. The average retail floor space of a vacant object is lower in all three retail centres (see table 6.4). When examining the vacancy more closely this becomes even more apparent; there are a number of large units located outside the main routing registered as vacant that push up the average size of a vacant unit. That these larger units are however vacant, is in line with the Delphi research since 'Location' was ranked higher than 'Size'.

Table 5.4: Average store size, source: (Locatus, 2014a)

Retail group <sup>40</sup>	Rotterdam centre	Schiedam centre	Vlaardingen centre
Vacancy	205 m <sup>2</sup>	131 m <sup>2</sup>	132 m <sup>2</sup>
Daily goods	140 m <sup>2</sup>	154 m <sup>2</sup>	158 m <sup>2</sup>
Fashion & Luxury	292 m <sup>2</sup>	170 m <sup>2</sup>	234 m <sup>2</sup>
Free time	244 m <sup>2</sup>	129 m <sup>2</sup>	167 m <sup>2</sup>
In/around the house	233 m <sup>2</sup>	180 m <sup>2</sup>	176 m <sup>2</sup>
Other retailing <sup>41</sup>	144 m <sup>2</sup>	103 m <sup>2</sup>	88 m <sup>2</sup>
<b>Average</b>	<b>233 m<sup>2</sup></b>	<b>146 m<sup>2</sup></b>	<b>174 m<sup>2</sup></b>

In all three cases there seems to be a relation between vacancy and the location below or above ground level (see Appendix VI). In the case areas outlets located on these levels have a higher vacancy rate than outlets on ground floor level. However the sample size is rather low and through qualitative research its hard, if not impossible, to isolate the relation between vertical location and vacancy.

There are indications for a relationship between: the vicinity of terraces and fastfood outlets and vacancy (function of surrounding), quality of surrounding and vacancy, front width and vacancy, front-depth ratio and vacancy, and columns or other objects placed in the floor area and vacancy. However for these factors the case studies did not reveal patterns with significant backing. The relation to vacancy of these factors could not be sufficiently isolate to make grounded statements and/or the sample was too low to be representative. Often vacant objects have multiple characteristics that do not meet the perfect picture from the point of view of a retailer. The factors 'sunside', 'street width', and 'supply accessibility' did not show any relation to vacancy in the analysed case areas.

## 5.5 Findings on connections

From the case analysis a number of connections between the area level and object level became apparent. These connections are related to the self-stimulating effect of retail vacancy, the importance of routing, and the ability to attract retail chains.

### Self-stimulating effect

The self-stimulating effect of vacancy is clearly confirmed in the centre of Schiedam. Vacancy affects a number of both area factors and object factors creating a negative spiral. Roots, Locatus, and Rekenkamercommissie Schiedam-Vlaardingen (2014, p. 3) acknowledge the spill-over effects of vacancy. According to them vacancy effects the value of surrounding retail properties since retail areas with high vacancy rates are less often visited by consumers. Decay and decreased perceived safety possibly even affects the value of surrounding residential objects (Roots et al., 2014, p. 3). In Schiedam vacancy negative influences the atmosphere in the retail area (DTNP, 2014).

On object level vacancy affects the factors 'function of the surrounding' and 'quality of the surrounding'. Vacancy can lead to decay in an area possibly causing negative spill-over effects. In the expert interviews it was mentioned that retailers prefer to located next to other retailers so a connecting storefront is formed. Being located next to a well known (chain)store can have spill-over

<sup>40</sup> Groups using the classification of Locatus

<sup>41</sup>Other retailing includes shop-in-shops and therefore it seems logical this group has a very low average store size.

effects (Gemeente Schiedam & DTNP, 2009, p. 24). For so called ego-intensive products it is even more important to be located near stores selling comparable products (Bolt, 2003, p. 23). Vacancy takes away this positive spill-over effect. When there is a high vacancy this might lead to lower rent levels. Retailers that otherwise would not have settled on such a location get the (financial) possibility to locate in areas with high vacancy rates. This is the reversed effect of what in chapter 2 was described to have led to an increasing presence of (fashion) retail chains on A1 locations. This is for example the case in Schiedam: on the parts of the 'Hoogstraat' where many vacant objects are clustered, also retailers are located that sell low-grade goods such as bathroom tiles or mattresses. These purpose orientated retailers have low spill-over effects on surrounding retailers.

High vacancy rates make it harder to attract new retailers to settle in the centre (Gemeente Vlaardingen, 2012, p. 16; Roots et al., 2014, p. 5). In this way vacancy becomes a self-stimulating effect. The town centre of Schiedam is in such a downwards spiral with a decreasing binding power and an increasing vacancy rate (Roots et al., 2014, p. 1).

### **Routing**

The Delphi panel ranked the factor 'routing' 7th of the 15 area factors. This area factor is related to the quality of the location on object level; the most important factor according to the Delphi experts. During the interviews anchor stores were mentioned to be very important in the routing, this is confirmed in the case study. During the interviews also a good connection between the different parts of a retail centre was mentioned. This aspect was confirmed in the case analysis as well, for example in Vlaardingen the connection between the lower positioned core retail street and the 'Hoogstraat' is problematic (Gemeente Vlaardingen, 2012, p. 14). This directly influences footfall numbers and in that way is related to vacancy.

The case study indicates that also chain stores and what Rekenkamercommissie Schiedam-Vlaardingen (2014, p. 18) refers to as source points (parking garages and entrances to the city centre) are important factors in the forming of a routing in a retail centre. In Schiedam the 'Nieuwe Passage' and the "ABC-complex" are the points where most retail chains, anchor stores, and source points are clustered. Unsurprisingly the main routing in the centre leaves out the 'Hoogstraat' and runs straight from the 'Nieuwe Passage' to the "ABC-complex". As a result, footfall number in the 'Hoogstraat' are relatively low (see Appendix VI).

The relation between retail chains and routing can be a negative spiral as well: since an area is not part of the main routing it is unlikely that retail chains will locate in an object in such an area, but because no chains are present it will also not likely become part of the main routing. Gemeente Schiedam and DTNP (2009, p. 24) also state it is important to strategically locate retail units in order to let the retail centre as a whole benefit. Object characteristics also play a role in this since some objects do not meet the demands of retail chains, as mentioned before.

## **5.6 Conclusions**

The case studies are in line with the findings of the literature, expert interviews, and Delphi study. Retail centre area factors showed a relation to the vacancy rate in the three case areas. The case studies indicate retail centre attractiveness is related to the ability to bind local consumers and attract consumer spending from outside the primary catchment area. The case study indicates that for lower order centres it is primarily about binding the local consumer. For higher order centres influx of consumer spending is also relevant. This is in line with the Central Place Theory that implies

low order centres have a low binding power while higher order centres have a high binding power and larger influx of consumer spending (Bolt, 2003, p. 17).

The findings from the case study are in line with urban hierarchy theories discussed in chapter 2. These theories imply a hierarchy between retail centres, where higher order centres have a larger service areas and have a product offering including higher order goods (Bolt, 2003, p. 17). The case study indicates that retail centres of comparable size do not need to take a comparable role in the urban hierarchy. Attractiveness attributes seem to determine the place of a centre in the hierarchy of retail centres. Where the attractiveness of a certain retail centre is relative to its competitors. The place in the hierarchy affects the demand for retail space. The profile of a retail agglomeration should fit the shopping motives of the users of the centre (Gianotten, 2010) and offers an opportunity for the centre to differentiate from its competitors (Haringsma, 2008).

The expert interviews indicated a split between inner city retail centres that facilitate shopping and centres that are moving towards a role as convenience centre. This split was confirmed in the case study. On the area of recreational shopping motives the centres of Schiedam and Vlaardingen are both affected by the inner city of Rotterdam. These lower order retail centres are located in the agglomeration shadow of the central place (Geltner et al., 2007, p. 48). In order to be viable centres lower in the hierarchy should have a retail mix appropriate to their position (Dennis et al., 2002). The case analysis indicates the centre of Schiedam scores low on the identified area factors and seems to have moved towards a function as supportive centre.

The case study indicates the presence of retail chains and fashion retailers is important for an attractive retail mix in inner city retail centres. In the central place Rotterdam, retail outlets requiring a large service area can be found that are not located in the lower order centres of Vlaardingen and Schiedam. Examples of such stores are specialty retailers and flagshipstores of (inter)national chains. Also "authentic" and independent retailers with a strong focus on experience are more likely to locate in a high order centre. These retailers need a large service area and also their main target group; the "creative class" (Florida, 2002) can be found in these highly urbanised centres. With their specialised product range or superior customer service, retailers in secondary retail streets can contribute to the attractiveness of the centre as a whole. The case study indicates that the qualities of the individual retailers and an interesting mix of stores, are very important for good functioning secondary retail streets. On the moment these qualities are missing and these streets are not well connected to the main routing, these areas are likely to see high vacancy rates or maybe even completely lose their relevance.

The case study confirms the relationship between object characteristics and vacancy. The findings are also in line with the Delphi ranking. Object factors ranked high by the Delphi panel showed clear relations to vacancy. Lower ranked factors showed a less clear or even an absence of a relation to vacancy. The location, position above or below ground level, and size of the unit showed clear relations to the vacancy pattern in the three case areas. In many cases vacant object do not have one characteristics clearly causing the vacancy but a multitude of object characteristics that do not meet the perfect picture.

The routing in a retail centre is crucial in relation to the location quality and therefore affects the placement of vacancy in a retail centre. The placement of retail chains, especially anchor stores, and source points is important for the routing in a retail centre. For being able to attract retail chains

objects need to meet a certain size, width-depth ratio, and layout to fit the specific formula. In this way object characteristics affect the routing in a retail centre. Furthermore the case study confirms the self-stimulating effect of vacancy. Vacancy influences both object and area factors. Areas with high vacancy rates and low object quality can even completely lose their relevance in the retail structure of a centre.



## Conclusions & discussion



## 6 Conclusions and discussion

This chapter will outline the most important findings of the previous chapters. The chapter connects the different research methods used in this research: a literature review, expert interviews, a Delphi research, and a case study. The findings on the formulated research questions are discussed followed by recommendations for practice, indications for further research, and a reflection on the master thesis.

### 6.1 Conclusions

The following section will discuss the four identified sub-research questions. These sub-research questions lead to the answer on the main research question.

#### **Q1: What is the cause of retail vacancy; what roles do area and object characteristics play?**

Consumption has changed from functional goods towards services and more recent there has been a growing demand for experiences. Many consumers consider shopping as more than the functional acquisition of goods. The inner city is the place where (fun)shopping takes place and consumers show an increased willingness to travel for fun-shopping purposes. This increased willingness to travel increases the competition between central retail areas. The attractiveness of a retail agglomeration comprises the ability to attract consumers. In this the attractiveness of a retail centre is relative to the attractiveness of competing retail centres.

The attractiveness of a centre determines the place within the broader hierarchy of retail centres. Lower order retail centres are located in the agglomeration shadow of retail centres with a high attractiveness. For lower order centres retail centre attractiveness is primarily important for binding local consumer spending. For higher order centres stimulating an influx of consumer spending is very important as well. There seems to be something of a split between central retail areas with sufficient attractiveness, that function as recreational centres, and less attractive retail areas, that are moving towards a role as centre for convenience shopping. Experts furthermore indicate retailers are increasingly critical concerning where to locate.

Over the past decade the Netherlands has witnessed an increase in vacancy on the retail space market. One of the causes behind this is the oversupply of retail space that has been developed. The structure of real estate development in the Netherlands stimulated new developments of commercial real estate. While over the past decade the retail space stock increased, a number of macro factors caused a drop in the demand for retail space. Conjectural fluctuations, decreased consumer spending, demographic trends, and the rise of online shopping all have contributed to a decreased space demand.

Real estate is highly segmented and the supply of real estate is very inelastic; when the local demand for retail space changes the space stock cannot be easily adjusted. As an effect of the oversupply and a fall back in the demand on the retail space market, retailers have a stronger negotiation position. The research indicates there is a replacement market creating gaps in the retail structure, especially in the streets outside the core retail area. Retail streets with objects that do not meet the requirements of retail chains and are not well connected to the main routing, have a high risk of vacancy. In retail centres that have a retail space stock that is too large, these streets might even completely lose their relevance in the local retail structure.

Vacancy itself affects both object and area factors. Vacancy can negatively influence the atmosphere in an area and feeling of safety. Gaps in the retail structure might furthermore result in an unclear routing. Vacancy also results in reduced spill-over effects on surrounding objects and decay affects the quality of the surrounding. In these ways vacancy has a self-stimulating effect.

**Q2: What area and object characteristics are driving the demand for inner city retail space?**

For retail centers the overall profile of the centre is important to attract consumers. This research this profile was split up in 15 key factors: 'Retail Mix', 'Anchor stores', 'Centre size', 'Accessibility & Parking', 'Atmosphere', 'Food & beverage facilities', 'Routing', 'Public space', 'Multi functionality', 'Historical', 'Safety', 'Orientation', 'Markets & Events', and 'Facade Impression'.

Inner city retail areas need to facilitate various shopping motives including fun-shopping. In line with the importance of recreational shopping motive this research indicates atmosphere, food & beverage facilities, and the public space are rather important aspects. Retail offering related factors are however indicated to be the most important determinants for the attractiveness of a retail centre. Especially anchor stores seem to play an important role in drawing consumers. The Delphi ranking indicates the five most important factors for retail centre attractiveness are: 'Anchor stores', 'Retail Mix', 'Centre size', 'Accessibility & Parking', and 'Atmosphere'.

Retail space comes in bundles of characteristics. The research derived 15 object factors to describe these bundles: 'Location', 'Ground floor', 'Size', 'Function of surrounding objects', 'Front-width', 'Width-depth ratio', 'Quality of surrounding', 'Layout', 'Floor height', 'Supply accessibility', 'Facade', 'Character of the building', 'Technical state', 'Street width', and 'Sun side'.

Retail chains are dominant in the retail structure; the number of independent retailers has declined while the presence of (inter)national retailers has grown. In line with the demand for standardization of the interior, design aspects such as the: size, layout, and width-depth of the store are important. Retailers furthermore prefer a wide store front to generate sufficient exposure. However the most important factor remains location. According to the Delphi ranking the five most important object characteristics from the point of view of a retailer are: 'Location', 'Ground floor', 'Size', 'Function of surrounding objects', and 'Front-width'.

**Q3: Is there a relation between area characteristics and vacancy in the selected case areas?**

Retail centre attractiveness attributes showed a relation to the vacancy rate in the three case areas. Attractiveness attributes were in line with the ability to bind local consumers and attract consumer spending from outside the primary catchment area. The findings on case level were also generally in line with the Delphi ranking. Also the self-stimulating effect of vacancy and the hierarchy of retail centres, based on attractiveness, were confirmed in the case studies. Lower order retail centres face an outflow of consumer spending towards the nearby located high order centre. The attractiveness proposition a centre makes towards the consumer seems to determine the role of the centre. Rotterdam and Vlaardingen seem to function relatively well as central retail areas. Schiedam on the contrary seems to have moved towards a role as supportive centre.

**Q4: Is there a relation between object characteristics and vacancy within the selected case areas?**

The case studies indicate that object characteristics are related to vacancy. The location, position above or below ground level, and size of the unit showed clear relations to the vacancy pattern in the three case areas. For a number of factors there were indications for a relation to vacancy but the relationship could not be isolated; in many cases a multitude of object characteristics can be pointed

out to underlay the vacancy of an object. The street width or being located on the sun side of the street did not seem to have a relation to vacancy.

In the case studies the routing in the retail centres was of crucial importance in relation to the location quality; for a good functioning retail centre a balanced distribution of footfall is important. In the case study routing therefore showed a clear relation to the placement of vacancy in the retail centre. Routing is however not a static aspect. The location of anchor stores and retail chains influence the main routing in a retail centre. Object characteristics were found to be related to the location of retail chains in the centre and in that way influence the routing in a centre.

The findings are in line with Walen and Ruiter (2011). Walen and Ruiter (2011) mentioned vacancy was almost exclusively occurring in properties with a small floor space and vacancy rates of low quality objects was substantially higher compared to high quality objects. However the concept of "high" and "low" quality was not further specified. This research on the other hand provides insight in the factors important for quality on object level.

**Main research question: How are area and object characteristics related to vacancy in Dutch inner-city retail space?**

The research indicates there is a relationship between area and object characteristics and vacancy in Dutch inner-city retail space. Retail in inner city retail centers is far from only the functional trading of goods. The competition between retail centres has increased; for fun-shopping consumers are looking for places with a high attractiveness and are willing to travel further distances for these centres. Central retail areas with a low attractiveness have problems competing with attractive centers for recreational shopping purposes. Retail centre attractiveness comprises the ability to bind local consumer spending and attract consumers from outside the primary catchment area. Both functional aspects and sensory aspects play a role in the consumer perception of the retail centre. This research has operationalised the concept of retail centre attractiveness by identifying a number of factors that are important in the profile of the retail centre. The most important aspects for a central retail area to attract consumers are: aspects related to the retail offering, functional aspects related to external accessibility of the retail centre, and atmosphere enhancing aspects. The quality of the individual stores within the retail centre is important as well.

The oversupply on the retail space market and the fall in demand put the retailer in a stronger negotiation position. Object characteristics are of importance to attract the increasingly critical retailer. Object characteristic are related to the location of vacancy within a retail centre. In areas with high vacancy rates there is a high risk of the arise of the self-stimulating effects of vacancy. Vacancy affects both object and area level and can even affect the attractiveness of a centre as a whole. In this research the demand for retail space was structured by identifying object characteristics important in the space demand of retailers. The most important aspects are the quality of the location, the size of the object, the function of properties in the direct surrounding the store, and a wide storefront.

## **6.2 Recommendations for practice**

By clustering expert knowledge and testing the findings on case study base, this research has formed a building block for evidence based decision making. The research has also provided an insight in the importance of specific object and area factors. Based on the findings a number of recommendations were made for practice.

### **Focus on important factors**

The research provides a clear outline of the relationship between area and object characteristics and vacancy. The Delphi rankings provide a simple to understand overview of the factors important on area and object level. This can be used for determining the focus point of for example town centre management schemes. As simple as it might sound; there should be focused on the most important aspects. Focusing on low ranked factors, for example on area level by improving the facade impression or markets and events, is unlikely to make a significant impact on the attractiveness of a retail centre. Based on the findings of this research a grounded indication concerning the appropriateness of measures can be formed. The initiative “Werk aan de winkel” in Schiedam for example focuses on improving the technical state and facades of vacant retail properties. These are two factors ranked low in the Delphi ranking of object factors. Based on this research there could be concluded that when more important factors as the location, size, front-width, and front-depth ratio of these properties are not adjusted, this policy is unlikely to significantly improve the quality of the property. The recommendation is rather simple: focus on the object and area factors ranked high in the Delphi research.

### **Focus on quality while taking into account place in hierarchy**

The research shows that in the profile of a fun focused centre the retail mix, presence of anchor stores, and centre size are the most important area factors. For lower order retail areas this implies competing with a nearby located high order city centre is difficult. As indicated in the research, anchor stores are predominantly (international) fashion retailers. Fashion retailers also play an important role in the overall retail mix of retail centres primarily focused on recreational shopping. The thesis research of Peralta (2015) shows that after the crisis in 2008, fashion retailers changed their location strategy on national level towards more focused strategies. Resulting in a move out of many middle sized cities. The pressure on central retail areas in middle sized cities is in line with the indicated polarisation in the retail landscape and increased competition between retail centres.

In order to attract consumers and ensure the long term viability of the inner city, a focus on the quality of the retail centre is important. The attractiveness of a retail centre is relative to the attractiveness of competing centres. Therefore the place of the centre within the hierarchic structure of retail centres should be taken into account when considering any adjustments to the retail structure. For shopping as a pure leisure activity in the form of a shopping daytrip, large city centres make a strong attraction towards consumers. The central retail area in middle sized cities should therefore predominantly focus on more frequently made shopping trips and binding local consumer spending. As indicated before: in order to be effective the policy of local municipalities, building owners, and other actors involved in the management of retail centres should focus on area characteristics that have a relatively high importance for the attractiveness of a centre. Considering the presence of a replacement market, improvements within the retail centre should take into account the so called waterbed effect; improving properties somewhere in the centre might cause problems elsewhere in the retail area.

### **Proactive approach**

Retail vacancy can negatively influence the liveability in an area since it has strong spill-over effects on perceived safety and image. Furthermore retail vacancy affects area and object characteristics and a high vacancy rate can trigger a negative spiral. Actors must be aware of the self-stimulating effect of vacancy. Some retail areas have a retail space stock that is simply too large. Considering the negative effects of vacancy it might be preferable in some cases to aim for a more compact retail

centre. Some areas within retail centres have lost their relevance in the retail structure. As well there are objects that do not fit the demands of retailers, resulting in gaps in the retail structure. For these objects transformation to a different function should be seriously considered. Assessing vacant stores on the most important object characteristics (derived from the Delphi ranking) provides an indication of the extent to which the object is suitable for retail. Often the narrow and small scaled retail properties in the streets adjunct to the core retail area were originally residential objects. Transforming these back to housing could be a possibility.

The ownership of inner city retail properties in the Netherlands is fragmented and this could form an obstacle for improvements in the retail structure. Urban re-allotment could cluster retail functions and be a step towards the creation of objects that can 'fit in' retail chains; merging properties results in larger stores with wider storefronts. Urban re-allotment and transformation could be ways to create more compact retail centres and counter the self-simulative effects of vacancy.

### **6.3 Recommendations for further research**

The conclusions from the proposed research can form the starting point of further research. In the following section a number of recommendations for further research are provided.

#### **Retail centre profile**

This research made use of a Delphi approach. In this way expert opinion could be retrieved and structured to get insight in the relative importance of area and object characteristics, respectively from the point of view of the consumer and retailer. A different approach for gaining insight in the profile of retail centres could be a satisfier/dissatisfier approach. The list of factors retrieved in this research could form a starting point such a research. Some of the factors ranked in this research can be both satisfiers and dissatisfiers, for example atmosphere, while others are clearly dissatisfiers, such as parking facilities and accessibility.

Extending the research approach taken in this research, to other retail centre types is another possibility for further research on retail centre profiles. This thesis research focused on central retail areas of over 200 stores. In this report it was mentioned a number of times that some of central retail areas are moving towards a role as supportive centre. It would be interesting to investigate the area factors important for this kind of relatively large supportive centres. The preformed literature research and factors derived through the expert interviews form a useful base upon which such a research could build on.

#### **Hedonic regression**

A quantitative study on retail vacancy could be set up using the factors found in this research. A hedonic regression could quantify the extent to which area and object characteristics are related to retail vacancy. Nase et al. (2013) conducted a hedonic regression of high street retail properties in the UK. However there was not specifically focused on the area and object factors derived in this research.

#### **Research on important area factors**

A number of the area factors ranked high in the Delphi are interesting areas for further research. Especially the factors 'Retail mix' and 'Atmosphere'. The research indicates retail chains, fashion retailers, and a variety in price/quality and retail sectors are of particular importance for the retail mix in the subject retail centre types. However further research is needed to come to a better

understanding of the retail mix. Yiu and Xu (2012) indicate there is a lack of empirical research on the optimum mix of retailers.

As indicated in the research atmosphere is an important but hard to objectively measure factor. For example Gianotten (2010) made a publication covering this topic. However since this is one of the most important factors for an attractive retail area, further research on this topic is important.

### **Decision making tool**

The development of a decision making tool could be useful to help policy makers. Walen and Ruiters (2011) argue that clear choices have to be made concerning on which streets and objects initiatives should focus; there should be invested in locations with a high potential for a retail function, while transformation seems inevitable for some other streets. The Delphi ranking of area factors and findings from the interviews can be used to assess the added value of a measure on area level. While the Delphi ranking on object level provides a starting point for assessing object specific adjustments.

Guy (2006, p. 243) mentions five key criteria to assess retail policies: use of research evidence, balance of cost and benefits, feasibility, transparency, and consistency within different policies. Ideally such a decision making tool would cover all these aspects. As mentioned before, the results from this research could be useful in balance of cost and benefits.

## **6.4 Reflection**

In the following section there will be critically reflected on the master thesis.

### **Process**

Since the research proposed at the P2 assessment the research has changed quite a bit. During the feedback on P2 presentation, the tutors made the comment that the proposal was focused on two aspects: new types of retail stores and how vacancy is related to area/object characteristics. I still believe the topic of new store types would have been an interesting topic. However considering the relevance of the topic of retail vacancy, I think I made the right choice.

Reflecting back shows that throughout the master thesis the focus of the research has been continuously changing until somewhere between the P2 and P3 assessment. Sometimes this change was a nuance, but especially in the beginning the changes were sometimes abrupt. These changes were made conscious and are part of a learning process.

### **Research method**

There was chosen for an expert based research method since a number of rather specific concepts were subject to research and experts deal with these issues on a daily base. As well the focus on real estate characteristics advocated the expert based approach. The chosen research method however did not fit the research question used at the P3: "To what extent are area and object characteristics influencing vacancy in Dutch inner-city retail space?". To answer this research question the research should have included a hedonic regression. Therefore the research question was rephrased to: "How are area and object characteristics related to vacancy in Dutch inner-city retail space?".

### **Literature research**

The conducted literature research revealed sufficient literature concerning general theories related to retail space. For the retail centre attractiveness attributes predominantly international publications were found; literature specific for the Netherlands is limited. This however does not

form a problem since the expert interviews were used to link the findings from literature to the current situation in the Netherlands.

Concerning object factors there was a lack of useful literature. The literature that was found includes a thesis research from the Amsterdam School of Real Estate. Based on the found publications no reliable list of factors could be derived and therefore the role of the expert interviews was crucial.

### **Expert interviews and Delphi research**

In total 9 semi structured expert interviews were conducted. These interviews retrieved useful data and allowed the creation of a grounded list of factors on both area and object level. The interviews experts were nicely spread out over the six identified categories. Furthermore almost all interviewees had a position as director or adjunct-director.

In total 19 experts participated in the Delphi research. Initially there was opted for a maximum of 24 experts. However due to time constraints there was chosen to settle for an expert panel that was smaller in size. However this did not per definition negatively influence the reliability of the research since: the Delphi method is not based on statistical power but rather on group dynamics, the Delphi panel was rather even spread out over the identified categories, and the Kendall W values for both the area and object ranking was high. One expert dropped out between the first and second Delphi round. Consequently the participant was removed from the Delphi panel and the responds of the first Delphi round was removed as well.

### **Case Studies**

The case studies were used to test the findings from the other research methods in practice. About the vacancy issue in Schiedam a number of useful reports were found. For Rotterdam and Vlaardingen there were no reports found of recent data that specifically target the subject of retail vacancy. However many policy document did have a relation to retail vacancy. The Locatus data was very useful in the analysis. The database of Locatus gives a quick and consisted overview of the distribution of retail space and footfall numbers in the retail centres.

During the research I intended to include the Retail Risk Index. This is a product of Locatus that gives an index rating concerning the risk of a certain retail property. Initially this seemed an interesting index since it to some extent is related to vacancy. However the Retail Risk Index does not focus on vacancy directly; it gives an index based on the expectation that the current tenant of an object will still occupy the property in a year. A number of sub indexes of the Retail Risk Index could be interesting to include; however, the index as a whole has a fairly low predictive value (in only around 30% of the cases that received the highest risk score the retailer actually left the object in a year) and the academic grounding of some assumptions made can be questioned. Therefore there was not tried to include the Retail Risk Index in this thesis research.

### **End result**

The results from literature, expert interviews, Delphi research, and case studies are in line with each other. However the results of the case study are context dependent and can not be generalised to national level. The link between the object characteristics and vacancy is centre specific since all centres have different objects. This does not mean that no generic knowledge can be gained from the case studies. The Delphi ranking however can be generalised since the experts filled in the survey based on a generic inner city retail centre with over 200 stores and the ranking has a high Kendall W.

**Research limitations**

The research implications are limited to the Dutch situation. Due to the meshed character of the Dutch retail structure and considering the importance of local (shopping)culture, the conclusions can not be reflected on a different setting without first being critically assessed. Furthermore the case study used case areas that are located in the same urban agglomeration. A different context will possibly result in different outcomes.

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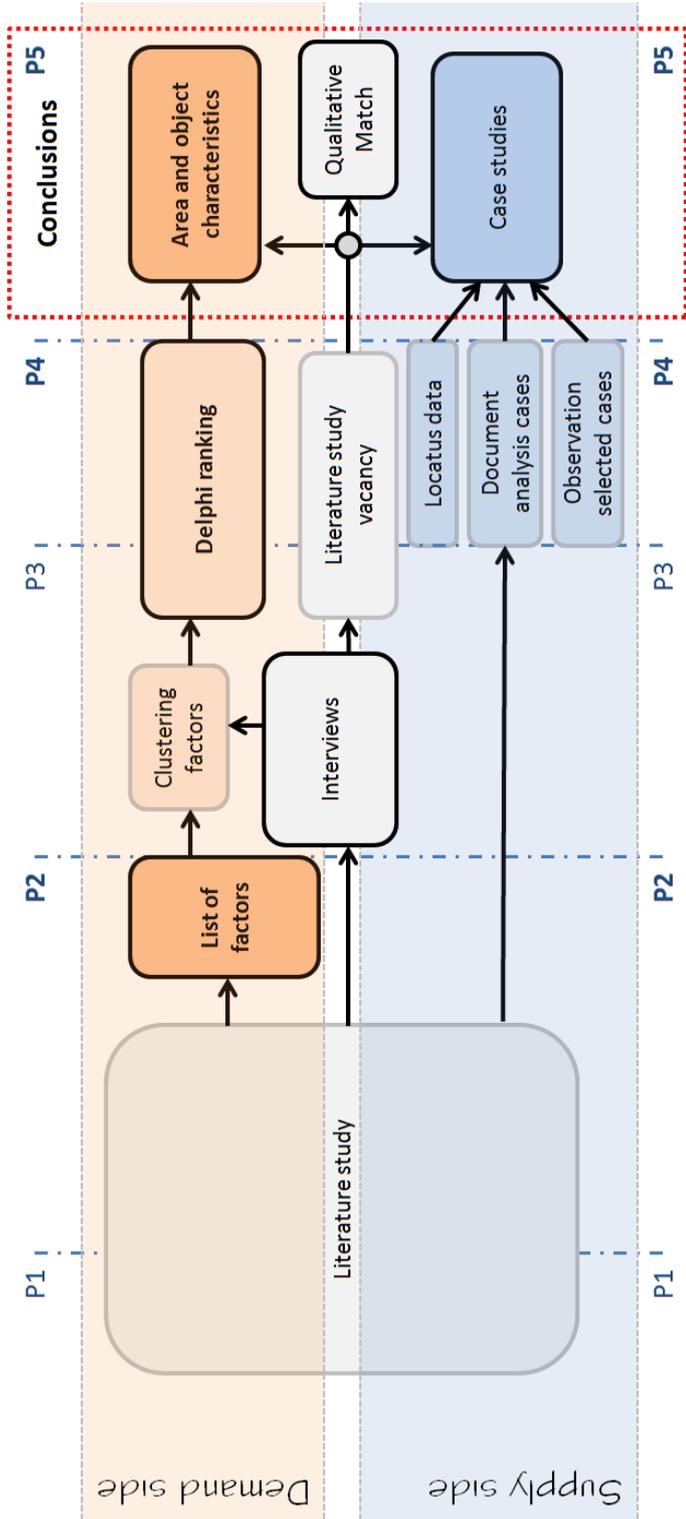
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### Appendix I – Research approach

The figure below conceptualizes the research approach. The figure indicates the difference between the research part that is focused on the demand side (orange tint) and the research part that focuses on the supply side (blue tint). The qualitative match is the place where these two meet. The demand side of the research is context independent while the supply side, in the form of a case study, was context dependent. An indication of the research chronology is given by including the various assessment moment (P1 until P4) in the figure.



## Appendix II – Summary of literature area and object attributes

	Factors	(Hek et al., 2004)	The Retail Book (2003)*	(NRW, 2014)	(I&O Research, 2011b)	(Van der Krabben et al., 2005)
<b>Area level</b>	Parking	X	X		X	X
	Access by public and private transport	X	X	X	X	X
	Character	X				
	Cleanliness		X			
	Facilities	X				
	Leisure & entertainment		X			X
	Retail mix		X			X
	Pedestrianised zones		X			
	Image		X			
	Perceived Safety		X		X	
	Vacancy rate		X			
	Place marketing		X			
	Atmosphere				X	
	Information value			X		
	Functional diversity			X		
	Multi functionality			X		
	Special facilities			X		
	Spatial diversity			X		
	Contrast and integrity			X		
	Architectural design			X		
	Rest areas			X		
	Comfort			X		
	Dissatisfiers			X		
	Food & Beverage				X	X
	Economic profile					X
	Urbanisation grade					X
Legislation					X	
<b>Object level</b>	Footfall					X
	Storage space					X
	Store size	X	X			
	Layout (open floor)	X				
	Single floor		X			
	Appearance	X				
	Character of property		X			
	Accessibility for goods supply		X			
	Rent level					X
	Contract flexibility					X
	Extension opportunities					X
	Quality of surroundings	X				

\*The Retail Book refers to the book sections written by Burt and Sparks (2003) and Guy (2003).

### Experience characteristics - NRW (2014)

According to NRW (2014, p. 6) offering experience is increasingly important for shopping centres. This is in line with Pine and Gilmore (1998). Competition between retail centres is increasing and especially for fun-shopping consumers show a willingness to travel larger distances to shop at retail centres fitting their needs. According to NRW (2014, p. 6) the experience characteristics of a retail centre greatly determine the ability to attract and retain consumers. In a report discussing the future proofing of Dutch retail centres a list of these experience characteristics is presented, see table 1.

Table 1: Experience characteristics of successful retail centres (NRW, 2014)

Experience characteristic	Description
<b>Information value</b>	Significance of area on cultural and historical level
<b>Functional diversity</b>	Diversity of retail branches and formulas as well as non-retail functions
<b>Multi functionality</b>	Mix of retail, services, F&B, residential, and so on
<b>Special facilities</b>	Differentiating factors from comparable retail centres
<b>Spatial diversity</b>	Layout and articulations
<b>Contrast and integrity</b>	Distinction from direct surroundings
<b>Architectural design</b>	Design in combination with function and furnishing of area
<b>Rest areas</b>	Including squares and terraces
<b>Comfort</b>	Ease of shopping, walkability
<b>Dissatisfiers</b>	Vacant properties, cleanliness, safety

### Consumer evaluation retail areas - I&O Research (2011b)

The success of shopping centres is dependent on the appreciation by consumers. I&O Research (2011b) conducted a survey amongst Dutch consumers to get insight in the consumer appreciation of retail areas. Respondents were asked to rate the shopping centre they most frequently visit for daily products or for non-daily products. I&O Research (2011b) used seven criteria for evaluating shopping centres, see table 2.

Table 2: Ranking criteria retail areas (I&O Research, 2011)

Criterion
<b>Completeness retail offer</b>
<b>Safety shopping area</b>
<b>Accessibility by car</b>
<b>Accessibility by public transport</b>
<b>Atmosphere of area</b>
<b>Parking</b>
<b>Daytime F&amp;B offer</b>

The survey of I&O Research (2011b, p. 97) shopping centres visited for the purchase of daily goods are particularly appreciated for their accessibility by car and parking facilities. While completeness of the retail offer, the atmosphere of the area, and accessibility by public transport received higher marks for fun-shopping.

**Location preferences of retailers - (Van der Krabben et al., 2005)**

The demand for retail space is an effect of the location preferences of retailers. These location preferences should be aligned to consumer behaviour and are therefore dynamic. Based on interviews with retailers Van der Krabben et al. (2005) made a ranking of location factors important for international retailers. Considering the growing internationalisation of the retail landscape, the location preferences derived by Van der Krabben et al. (2005) give a good insight in the qualitative demand for retail space. However the research was conducted almost ten years ago. As a result of shifts in retailing location preferences presumably changed significantly since the research was conducted. Figure 1 shows the results of Van der Krabben et al. (2005).

Location factors	Divergent	Convergent
Economic profile		● →
Urbanization grade	← ●	
Legislation and closure times		● →
Retail mix	← ●	
Car accessibility		← ●
Parking		← ●
Footfall	← ●	
Catering and leisure		← ●
Property prices	← ●	
Contract flexibility	← ●	
Expansion possibilities		● →
Storage space		● →

Figure 1: Location preferences non-food sector by Van der Krabbener al. (2005) published in(Evers et al., 2011)

## Appendix III – Expert interviews

In the first empirical part of the research nine expert interviews were conducted, see table below. The interviews were conducted in Dutch.

Interviewee	Company	Function	Date	Place
<b>Karen Strijker</b>	DTZ Zadelhof	Deputy Director, Retail	15 July 2014	Utrecht
<b>Sander van Oss</b>	Multi Vastgoed	Deputy Director	18 Aug 2014	Gouda
<b>Bert Enting</b>	GDAi architects	Architect / Owner	19 Aug 2014	Den Bosch
<b>Jasper van de Weerd</b>	Kaufhaus NesVast	Co owner Owner	20 Aug 2014	Utrecht
<b>Maarten van Lit</b>	LMBS retail	Managing Director	21 Aug 2014	Utrecht
<b>René Vierkant</b>	SyntrusAchmea	Director retail investments	25 Aug 2014	Amsterdam
<b>Patricia Bos</b>	GREEN Real Estate	Asset-/Development manager	27 Aug 2014	Alphen aan den Rijn
<b>John Vos</b>	Blokker Holding	Director real estate	1 Sep 2014	Laaren
<b>Peter Nieland</b>	Locatus Nederland	Director	4 Sep 2014	Woerden

### Interview guide: Semi-structured interview

Datum:

Plaats:

#### Facesheet

Naam:

Bedrijfsnaam:

Functie:

---

#### Introductie:

Het komende interview is onderdeel van mijn afstudeeronderzoek aan de TU Delft. Alle vragen hebben betrekking tot binnensteden en hoofdwinkelgebieden in Nederland. Dit zijn de centrale winkelgebieden vanaf 100 winkels. In het interview zullen eerst de factoren die belangrijk zijn voor winkelvastgoed op zowel gebouw en gebiedsniveau besproken worden. Waarna het interview zal worden afgesloten met een aantal vragen over de toekomst van het winkelgebied.

---

Q1: Aan welke kenmerken moet een binnenstedelijk winkelgebied voldoen om succesvol consumenten en retailers aan zich te binden?

Q2: Aan welke kenmerken moet een winkelobject voldoen om succesvol retailers aan zich te binden in de niet-dagelijkse sector?

Q3: Verwacht u dat de leegstand in winkelvastgoed samenhangt met object en gebiedskenmerken die we net hebben besproken?

Q4: Van welke object en gebiedskenmerken verwacht u dat zij in toenemende mate een onderscheidende rol spelen in het locatiekeuze proces van retailers in de niet-dagelijkse sector?

Q5: Verwacht u dat de rol van fysiek winkelen significant zal veranderen in de komende 5 jaar?

Q6: Op welke manieren verandert de vraag naar winkelvastgoed onder invloed de veranderende rol van fysiek winkelen?

Bedankt voor het interview. Heeft u nog vragen of opmerking?

## Appendix IV – Delphi set up

The Delphi ranking approach presented in chapter 5 of the report was set-up as an online questionnaire. The following image is a screenshots from the Delphi survey, illustrating the procedure participants followed. The factors were presented to the participants in random and differing order.

Screenshot Delphi round 1 – Area level

**Delphi onderzoek winkelvastgoed - Alstudeeronderzoek L. van der Wal, TU Delft**  
Gebiedsfactoren

**\* 2. Aan welke eisen dient een winkelgebied te voldoen om aantrekkelijk te zijn voor de consument?**

Hiermee wordt een winkelgebied bedoeld dat succesvol consumenten aantrekt, waar de consument graag terugkomt, lang verblijft en zijn Euro's uitgeeft. Nogmaals, het gaat hier om centrale winkelgebieden vanaf 200 winkels, de 53 grootste centrale winkelgebieden. Dit zijn de stadscentra van de grote en middelgrote steden in Nederland.

**Rangschik de onderstaande factoren op volgorde van belangrijkheid: van meest belangrijk bovenaan (positie 1) tot minst belangrijk onderaan (positie 15).**  
*(De rangschikking kan worden gemaakt door het verslepen van de factoren naar hun positie in de ranglijst, de positie in de ranglijst kan ook handmatig ingevoerd worden door middel van het selectie vakje voor de factor)*

- Gevelbeeld:** Het ontwerp en materialisatie van de straatgevels in het gebied en de variatie hiern.
- Grootte van winkelgebied:** De grootte van het winkelgebied uitgedrukt in het aantal winkels.
- Oriëntatie:** Zoelgemak en oriëntatiegevoel in het gebied.
- Horeca:** Het aanbod aan eet- en drinkgelegenheden in het winkelgebied.
- Markten en evenementen:** Markten, evenementen en overige activiteiten georganiseerd in het winkelgebied.
- Retail mix:** De variatie in het type winkels, variatie in branchering (type product dat wordt verkocht) en variatie in prijs en kwaliteit (van goedkoop tot hoogsegment).
- Aanloopgebied:** De aanwezigheid van een zwermilieu; een gebied buiten de hoofdwinkelstraten met verrassende en andersoortige winkel formules, veelal zelfstandige winkeliers.
- Historische elementen:** Of het winkelgebied gelegen is in een historische binnenstad.
- Routing /lay-out:** De lay-out van het winkelgebied: het stratenpatroon, de verdeling van de verschillende winkels en de plaatsing van horeca faciliteiten.
- Steer:** De perceptie van de steer in een winkelgebied bijvoorbeeld beïnvloed door geur, temperatuur, licht, netheid en architectuur.
- Functie menging:** De mix van stedelijk leven; van woningen tot voorzieningen zoals een theater, bibliotheek, bioscoop, et cetera.
- Openbare ruimte en faciliteiten:** Het geheel van publiek toegankelijke ruimte en de invulling hiervan: straten en pleinen, bestrating, groen, straatmeubilair, openbare toiletten, en andere faciliteiten.
- Bereikbaarheid en parkeren:** De bereikbaarheid van het winkelgebied voor de verschillende vormen van mobiliteit (auto, openbaar vervoer, fiets, etc.) en parkeerfaciliteiten.
- Trekkers:** De aanwezigheid van trekkers. Dit zijn veelal grootschalige winkels van winkelketens die een sterke trekkracht uitoefen op de consument. Voorbeelden hiervan zijn Primark, Bijenkorf en Zara.
- Veiligheid:** Het overal gevoel van veiligheid in het gebied.

50%

**Delphi onderzoek winkelvastgoed - Afstudeeronderzoek L van der Wal, TU Delft**

Objectfactoren

**\* 4. Aan welke eisen dient een binnenstedelijk winkelpand te voldoen om aantrekkelijk te zijn voor retailers?**

Hiermee worden de fysieke objectfactoren bedoeld waarop een retailer zijn keuze voor een winkelpand baseert. Dit is nadat de retailer het winkelgebied als geheel heeft geëvalueerd op geschiktheid. Nogmaals, het gaat hier om winkelgebieden in winkelgebieden vanaf 200 winkels; de stadcentra van de grote en middelgrote steden in Nederland.

**Rangschik de onderstaande factoren op volgorde van belangrijkheid: van meest belangrijk bovenaan (positie 1) tot minst belangrijk onderaan (positie 15).**  
(De rangschikking kan worden gemaakt door het verslepen van de factoren naar hun positie in de ranglijst, de positie in de ranglijst kan ook handmatig ingevoerd worden door middel van het selectie veldje voor de factor)

- Bereikbaarheid voor bevoorrading:** Hoe makkelijk is de winkel te bevoorraden. Hierbij gaat het zowel om de fysieke mogelijkheid als om eventuele beperkingen vanuit regelgeving.
- Straatbreedte:** De breedte van de straat waaraan het pand zich bevindt.
- Technische staat:** De technische conditie van het pand; de onderhoudsstaat.
- Kolomvrij en lay-out:** De vorm van het winkelpand, de openheid van het vloer oppervlak (een kolomvrije vloer bijvoorbeeld) en eventuele hoogteverschillen in het winkelvloer oppervlak.
- Breedte-diepte verhouding:** De diepte van het pand ten opzicht van de breedte.
- Frontbreedte:** De breedte van de pui.
- Locatie:** De fysieke plek in het winkelgebied.
- Functie omliggend panden:** De functies in de direct omliggende panden; zijn dit ook winkels, zo ja welke retailers, of zit er een terras naast het pand, of een woonfunctie, et cetera.
- Kwaliteit van de directe omgeving:** De technische staat en uitstraling van zowel de openbare ruimte als de panden in de directe omgeving
- Verdiepingshoogte:** Vrije hoogte; dit is de afstand tussen de bovenkant van de vloer en de onderkant van het daarboven gelegen constructiedeel.
- Karakter van het gebouw:** Of het pand een bijzonder karakter uitstraalt. Bijvoorbeeld omdat het een uniek of historisch pand is.
- Zonkant:** Of het betreffende pand zich aan de kant van de straat bevindt waarop tijdens de openingstijden van de winkel de zon het langst schijnt.
- Grootte:** Het vloeroppervlak van de winkel.
- Gevel:** Het gevelbeeld van het pand inclusief reclame-uitingen en de beperking hierop vanuit andere regelgeving.
- Begane grond:** Bevindt het winkelobject zich op de begane grond of gaat het om een winkel geheel of gedeeltelijk op verdieping (of kelder).

75%

## Appendix V – Delphi results

In the following section the results of the Delphi ranking are presented.

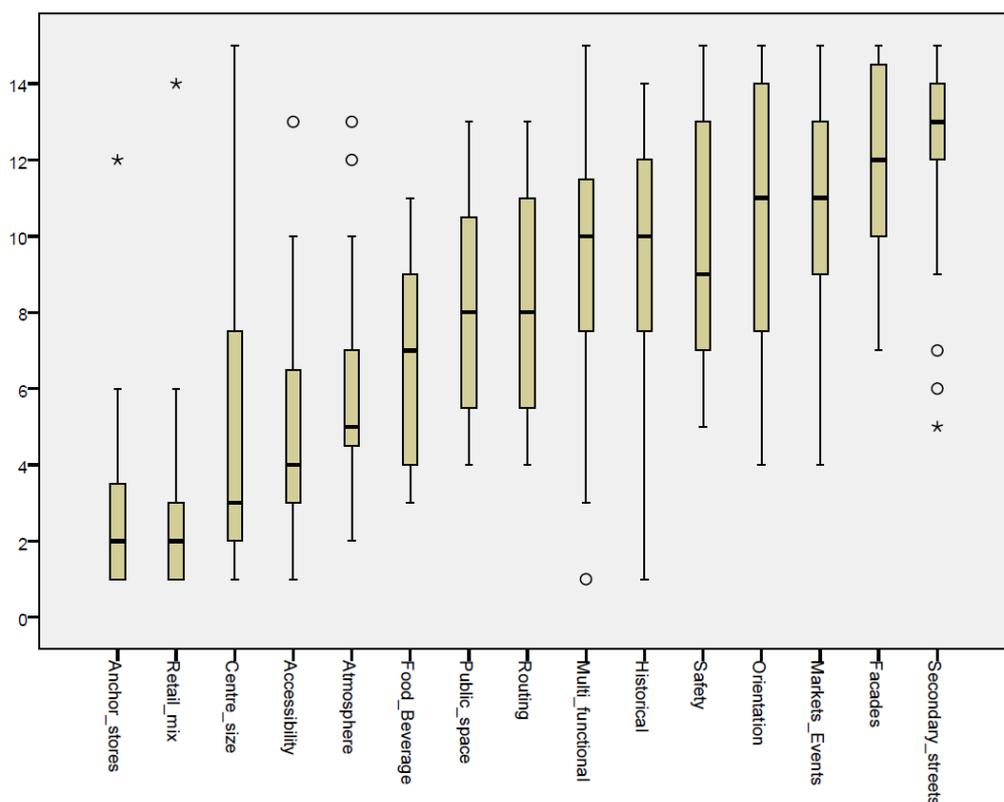
### Delphi panel

Advisors & brokers	Architects	Developers	Investors	Retailers	Researchers & academics
Maarten van Lit LMBS Retail	Bert Enting GDA Architects	Abdel Salemi SENS Real Estate	René Vierkant Syntrus Achmea	Eric Meijer Bristol	Peter Nieland Locatus
Léon Overhorst CBRE	Wim de Bruijn Wim de Bruin Architecten	Remco Dijkmans AM RED	Patricia Bos GREEN Real Estate	Ron Dekker Charles Vogele	Piet Smits HBD
Wilbert Kroesen Kroesen Winkel Concepts Ecorys NVBO		Frans Rijns Kikx development	Marrit Laning Redevco Kristel van Dam Corio	Micha Candel Zeeman	Henk Gianotten Garma Arjan Raatgever Platform 31

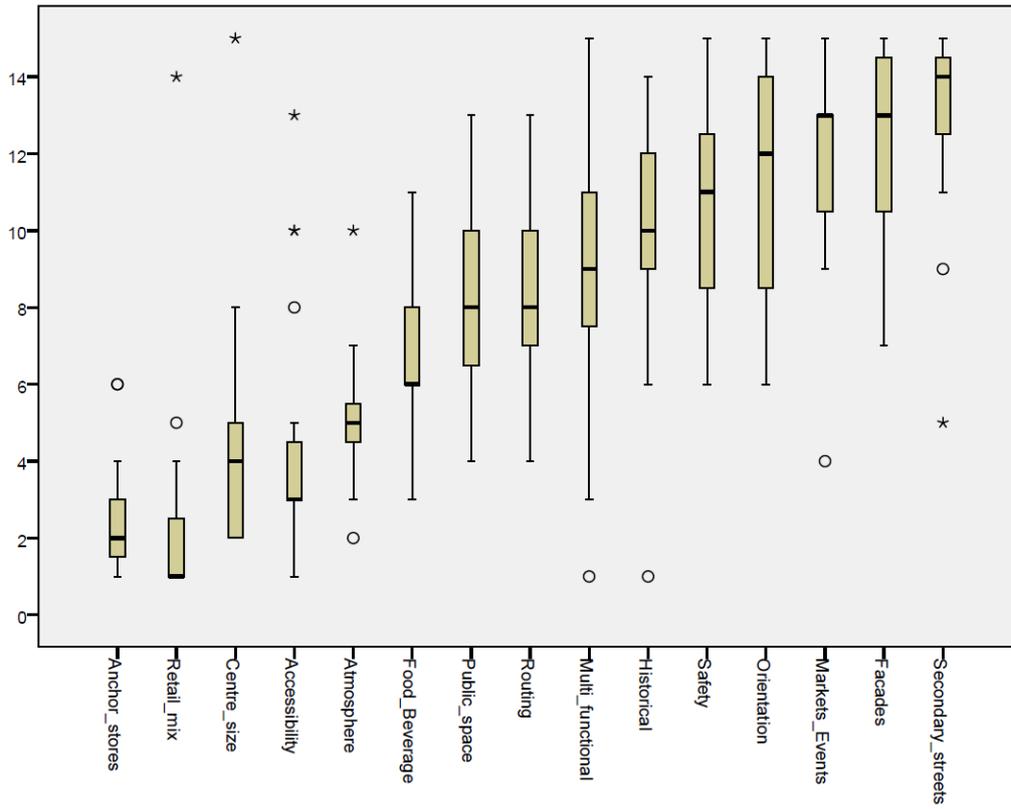
### Boxplots

Box-plots graphically show the spread in expert response and consist out: a box (representing the middle 50% of observations), lines (indicating the the highest and lowest value of the responses). However the maximum length of the lines is 1,5 times the length of the middle 50%, in other words no les than 1,5 times the length of the box), circles (indicating outliers; values that are between 1,5 and 3 times the length of the box away from the box edge), and asterisks (indicating extremes; values that are positioned more than 3 times the length of the box from the box edge).

**Area level:**

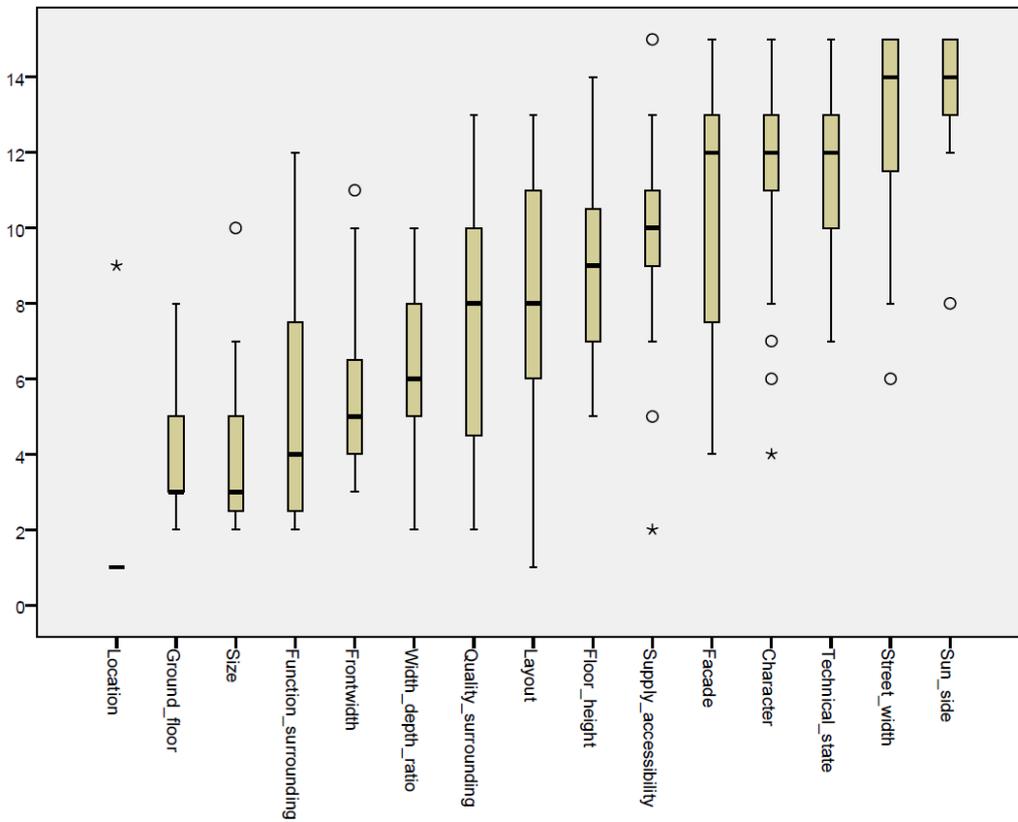


Box plot Delphi ranking round 1: area level

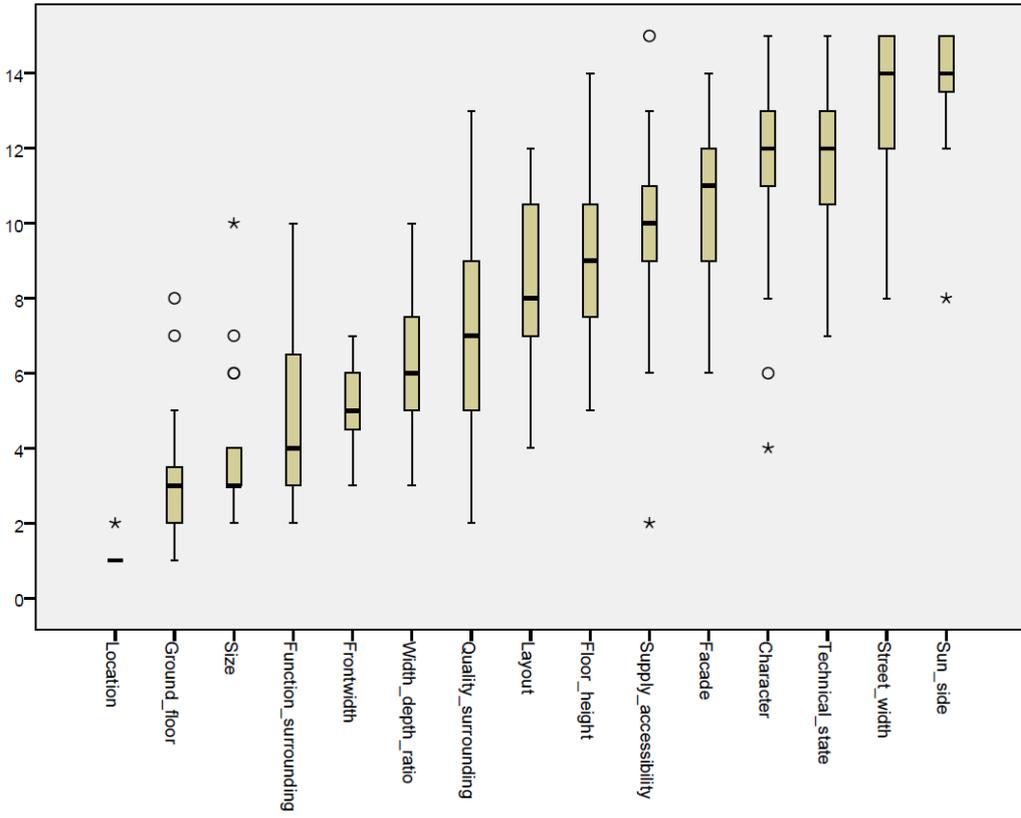


Box plot Delphi ranking round 2: area level

**Object level:**



Box plot Delphi ranking round 1: object level



Box plot Delphi ranking round 2: object level

## Appendix VI: Case study information

The following section covers information concerning the case studies of chapter 6.

### Outline of the case study: variables and indicators area level

Theoretical variable: Area level	Indicator/raw variable
<b>Retail mix</b>	Distribution of retail space by product group
	Presence of retail chains
<b>Anchor stores</b>	Presence of fashion anchors
	Presence of department stores
	Presence of other retail anchors
<b>Parking &amp; Accessibility</b>	Parking spaces within 500m radius
	Parking fees
	Public transport
<b>Size</b>	Number of retail outlets
<b>Atmosphere</b>	Atmosphere score in "Koopstroomonderzoek"
<b>Food and beverage facilities</b>	Distribution of food and beverage facilities
	Number of lunchrooms
	Number of fast-food outlets
	Number of café restaurants
<b>Public Space</b>	Quality level and technical state
	Squares and other rest areas
	Presence of public greenery
<b>Routing</b>	Routing structure/shape
	Placement of anchors
	Placement of food and beverage facilities
<b>Multi functionality</b>	Presence of fitness centres
	Presence of cinemas
	Presence of theatres
	Presence of libraries
<b>Historical</b>	Historical city centre
<b>Safety</b>	Perceived feeling of safety
<b>Orientation</b>	Perceived ease of orientation
<b>Markets &amp; Events</b>	Size and frequency of markets
<b>Facade impression</b>	Unity and technical state
<b>Secondary retail streets</b>	Success of secondary streets

### Outline of the case study: variables and indicators object level

Theoretical variable: Object level	Indicator/raw variable
<b>Location</b>	Footfall numbers
	Proximity to parking facility
<b>Ground floor</b>	Unit registered on ground floor, in basement, or on story
<b>Size</b>	Retail floor space
<b>Function surrounding</b>	Retail branch
	Food and beverage facilities
	Vacancy or other function (gap in retail sequence)
<b>Front width</b>	Width in meters
<b>Front-Depth ratio</b>	Proportions of floor area
<b>Quality of surrounding</b>	Visible deterioration of objects
	Cleanliness of public space

	Fitting out of public space
<b>Layout</b>	Column free
	Shape of floor area
	Height differences in floor
<b>Floor height</b>	Floor height estimation
<b>Supply accessibility</b>	Access roads
<b>Facade</b>	Perceived physical state of facade
<b>Character</b>	Monument
	Other extraordinary object
<b>Technical state</b>	Presence of visible deterioration object
<b>Street width</b>	Width in meters
<b>Sun side</b>	Direction towards south

### Case areas: Demographics

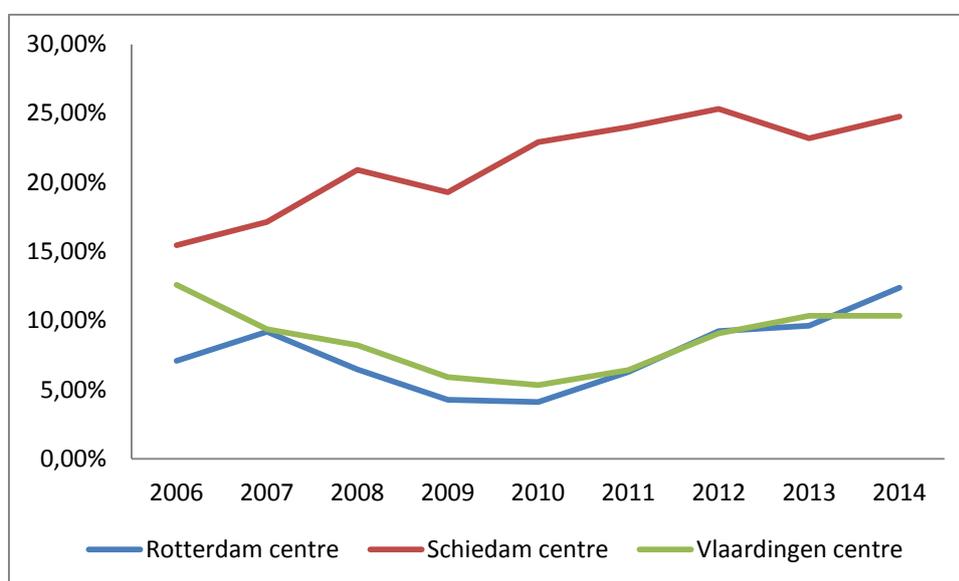
Demographic information Based on: (CBS, 2014)

Municipality	Population	Number of households	Average household income	% of people above 65 years	% of non-western minorities
<b>Rotterdam</b>	616 294	313 103	28 100	14,7%	37,1%
<b>Schiedam</b>	76 216	35 885	30 200	16,2%	26,6%
<b>Vlaardingen</b>	70 905	33 501	31 100	19,7%	18,4%

*\*All data is by 1 January 2013. Except from average household income, this is measured over 2012.*

### Case areas: Vacancy

Vacancy rate (retail floor space) based on (Locatus, 2014a)



*\*Vacancy rate calculated using the vacancy definition of Locatus, see Appendix IX*

### Case areas: Origin of retail turnover

Turnover daily products split out into source area (in %)

Turnover non-daily products split out into source area (in %)

#### Inner city of Rotterdam



#### Centre of Schiedam

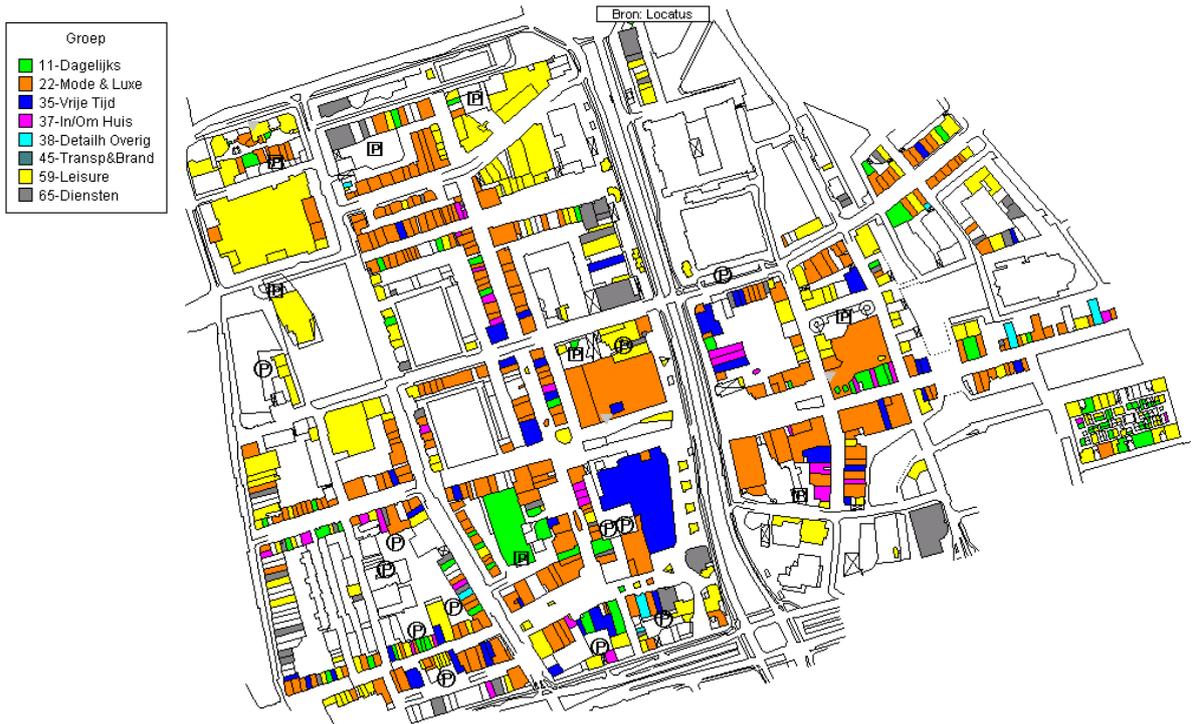


#### Centre of Vlaardingen



Shopping streams Source: (I&O Research, 2011a)

Case areas: Locatus maps – Overview



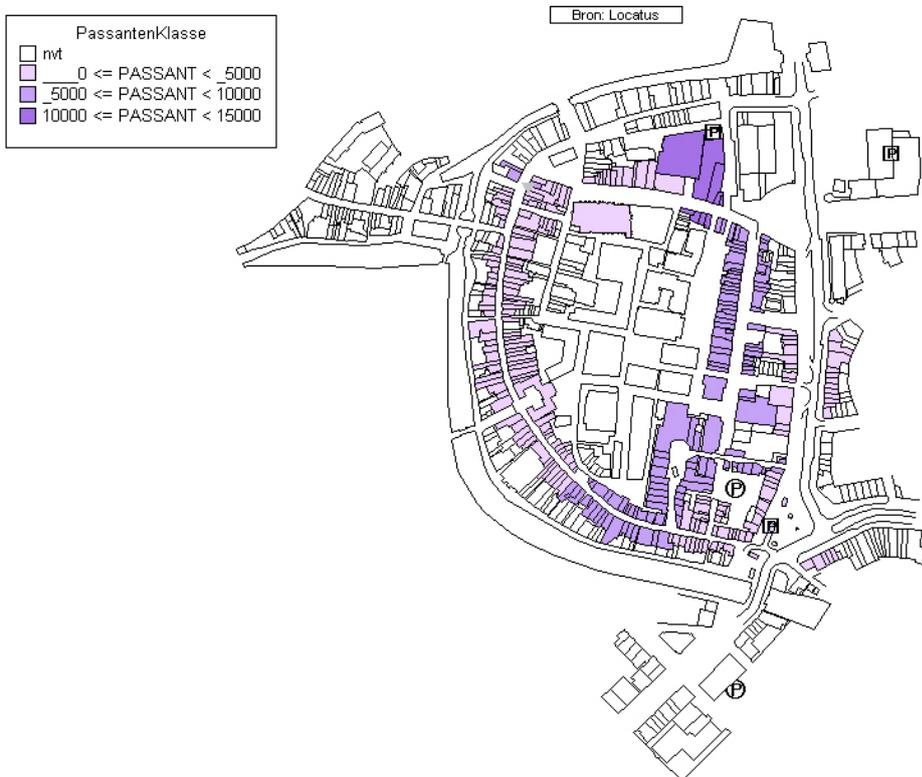
Overview retail branches in Rotterdam City centre Source: (Locatus, 2014a)



Overview footfall in Rotterdam City centre Source: (Locatus, 2014a)



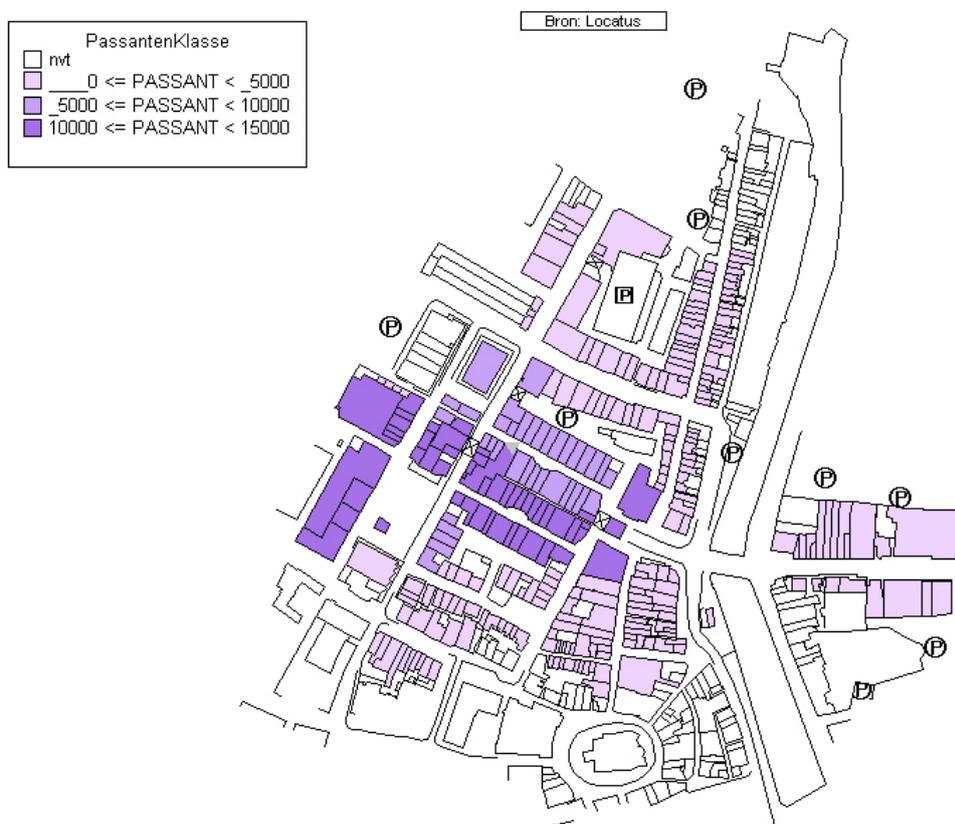
Overview retail branches in the centre of Schiedam Source: (Locatus, 2014a)



Overview footfall in the centre of Schiedam Source: (Locatus, 2014a)



Overview retail branches in the centre of Vlaardingen Source: (Locatus, 2014a)

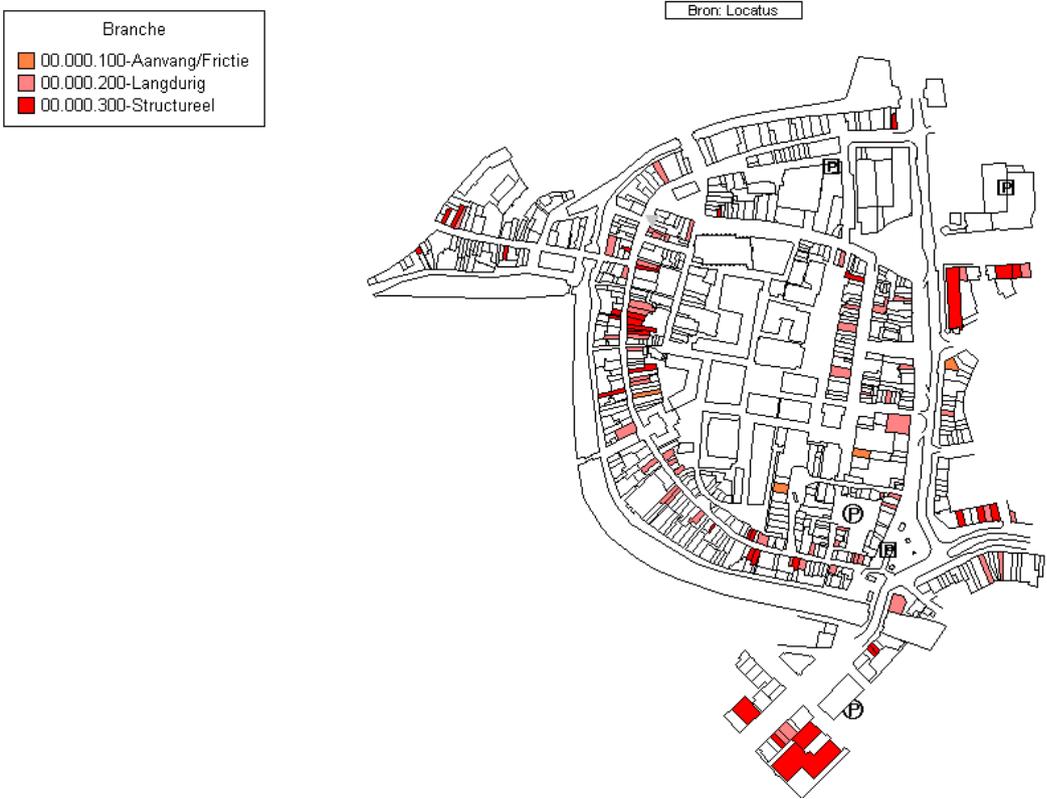


Overview footfall in the centre of Vlaardingen Source: (Locatus, 2014a)

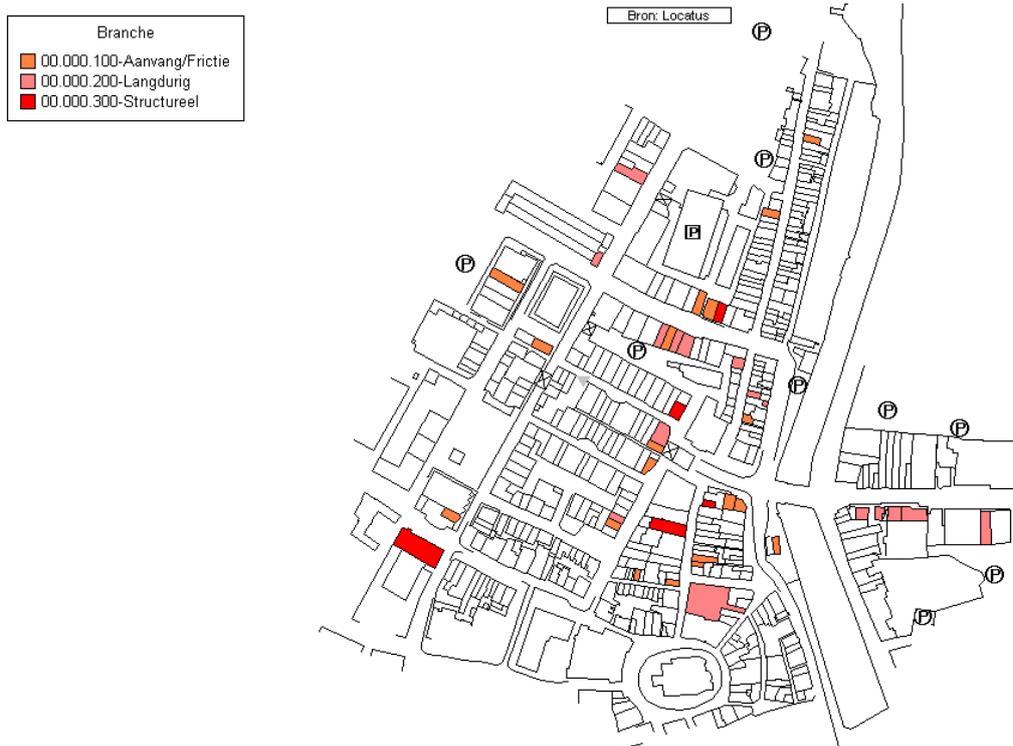
**Case areas: Locatus maps – Vacancy**



Vacancy in the centre of Rotterdam Source: Locatus (2014a)



Vacancy in the centre of Schiedam Source: Locatus (2014a)

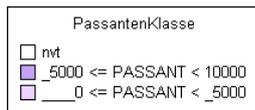


Vacancy in the centre of Vlaardingen Source: Locatus (2014a)

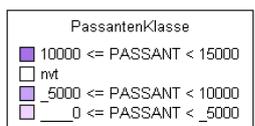
### Object level: Location– Vacancy



Footfall numbers vacancy Rotterdam Source: Locatus (2014a)



Footfall numbers vacancy Schiedam Source: Source: Locatus (2014a)



Footfall numbers vacancy Vlaardingen Source: Source: Locatus (2014a)

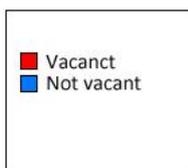
### Object level: Groundfloor– Vacancy



Vacancy -1 level Rotterdam based on Locatus (2014a)



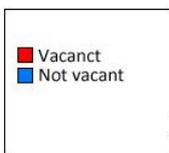
Vacancy -1 level Schiedam based on Locatus (2014a)



Bron: Locatus



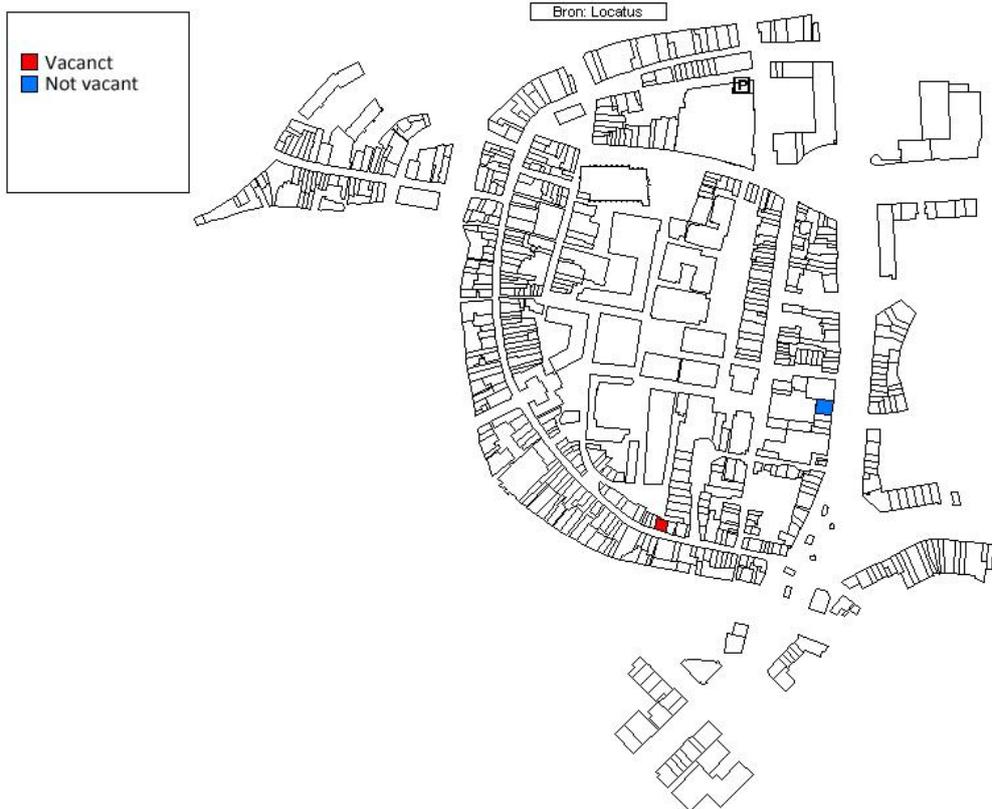
Vacancy -1 level Vlaardingen based on Locatus (2014a)



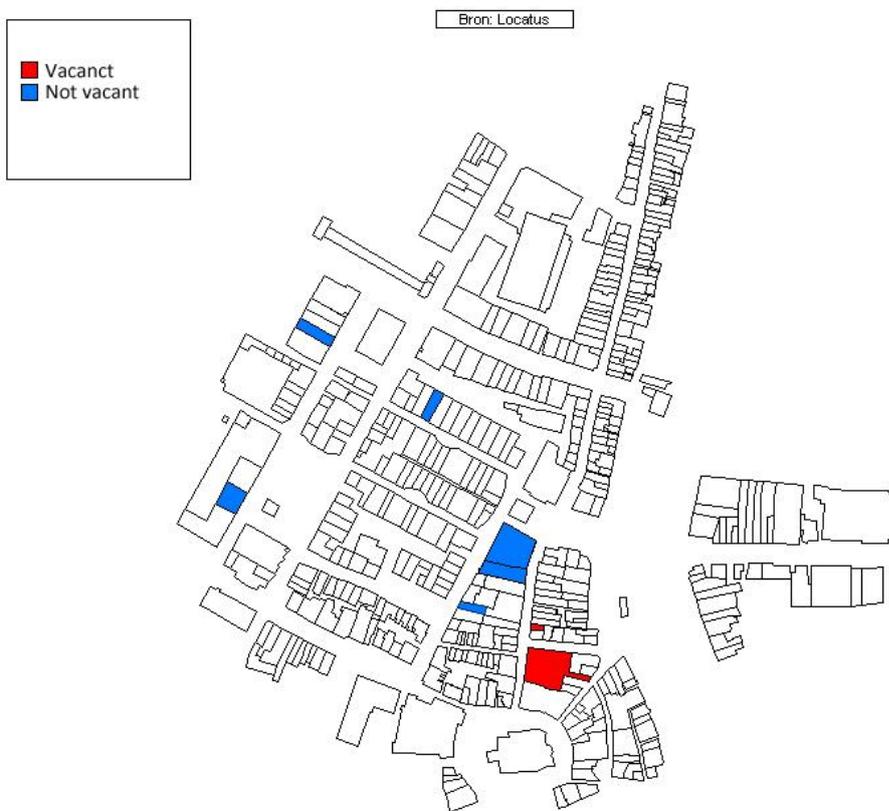
Bron: Locatus



Vacancy +1 level Rotterdam based on Locatus (2014a)



Vacancy +1 level Schiedam based on Locatus (2014a)



Vacancy +1 level Vlaardingen based on Locatus (2014a)

Vacancy rates by vertical location Source: (Locatus, 2014a)

Retail centre <sup>42</sup>	Total centre	-1 level (cellar)	+1 level
Rotterdam centre	11,2%	23,1%	13,6%
Schiedam centre	23,0%	45,5%	50%
Vlaardingen centre	11,5%	20%	25%

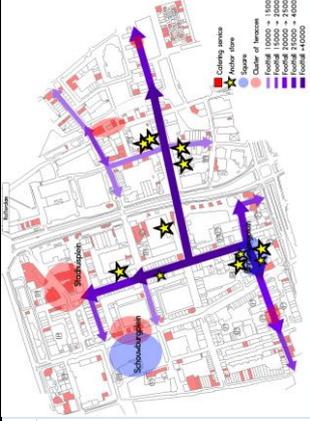
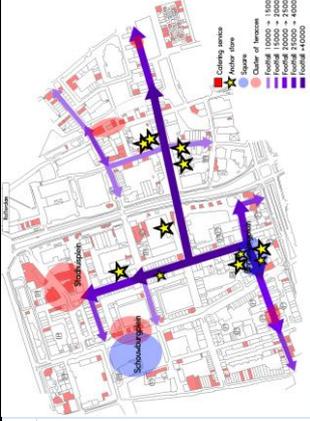
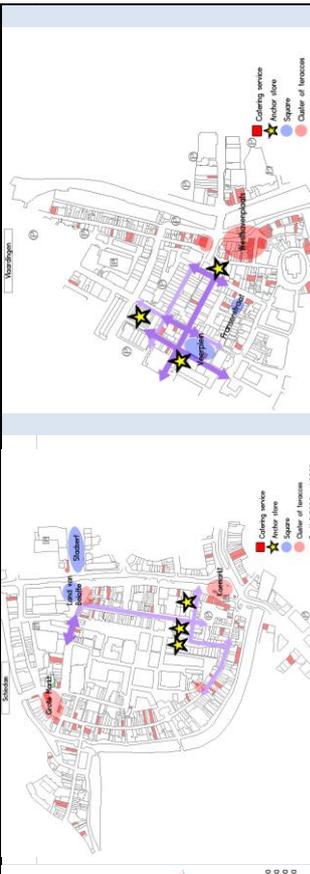
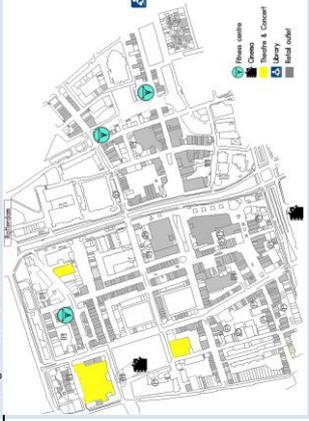
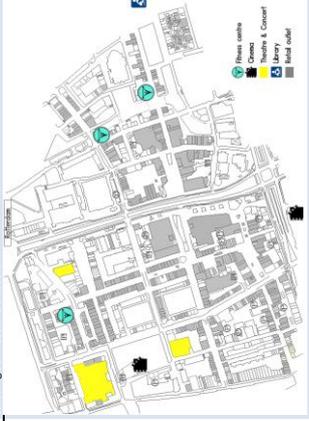
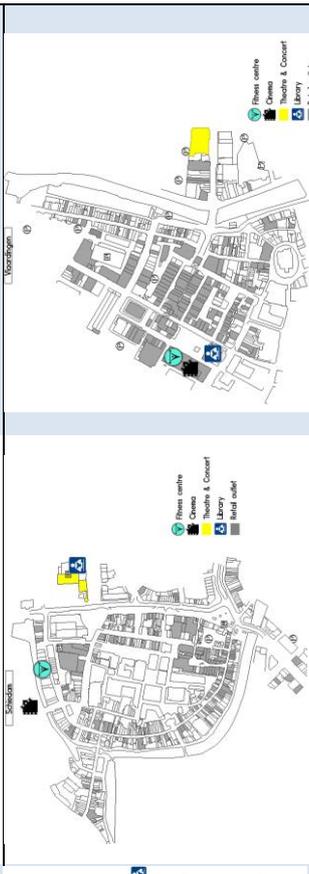
\* Vacancy rate as a percentage of outlets

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<sup>42</sup> Groups using the definition of Locatus

# Appendix VI - Case study

Factor	Indicator / raw variable	Value / Note	Rotterdam centre	Schiedam centre	Vlaardingen centre
1. Retail mix	1.1 Distribution by product group	By number of outlets incl. vacancy <sup>1</sup>	<p>Donut chart showing retail mix for Rotterdam: Vacancy (180), Daily (219), Fashion &amp; Luxury (353), Vrije Tijd (478), In/around the house (338), Other retailing (70), Trans&amp;Retail (5), Leisure (381), Services (7).</p>	<p>Donut chart showing retail mix for Schiedam: Vacancy (89), Daily (115), Fashion &amp; Luxury (41), Vrije Tijd (98), In/around the house (28), Other retailing (43), Trans&amp;Retail (15), Leisure (69), Services (7).</p>	<p>Donut chart showing retail mix for Vlaardingen: Vacancy (80), Daily (48), Fashion &amp; Luxury (45), Vrije Tijd (90), In/around the house (120), Other retailing (38), Trans&amp;Retail (18), Leisure (77), Services (7).</p>
			By retail floor area excl. vacancy <sup>2</sup>	<p>Donut chart showing retail floor area for Rotterdam: Food (3%), Fashion (5%), Department stores (4%), Frequently non-food (9%), Jeweller &amp; Optician (1%), Sport&amp;Hobby (7%), Multimedia (7%), White &amp; Brown goods (18%), Living &amp; DIY (41%), Other retailing (1%).</p>	<p>Donut chart showing retail floor area for Schiedam: Food (16%), Fashion (12%), Department stores (19%), Frequently non-food (2%), Jeweller &amp; Optician (2%), Sport&amp;Hobby (4%), Multimedia (1%), White &amp; Brown goods (10%), Living &amp; DIY (4%), Other retailing (1%).</p>
2. Anchor stores	2.1 Presence of fashion anchors	H&M, ZARA, Bershka, Mango, Primark	376	143	121
		Independent retailers	352	55	78
3. Parking & Accessibility	3.1 Parking facilities	Garages within 500m radius	48,4%	27,8%	39,2%
		Number of chains	205	51	72
4. Size	4.1 Number of retail outlets	Average number of stores per chain	1,72	1,08	1,08
		Public transport	995 parking spaces; 21,9 parking spaces per 1000m <sup>2</sup> retail floor area	608 - 613 parking spaces per 1000m <sup>2</sup> retail floor space	964 parking spaces; 22,5 parking spaces per 1000m <sup>2</sup> retail floor space
5. Atmosphere	5.1 Atmosphere score in "Koopstranenonderzoek"	Central station (400m), Blaak (200m)	7,6	6,8	7,3
		Central station (400m), Stadhuis (250m), Beurs (200m), and Blaak (200m)	7,6	6,8	7,3
6. Food and beverage facilities	6.1 Distribution of F&B facilities	By number of outlets excl. vacancy <sup>3</sup>	<p>Donut chart showing F&amp;B facilities for Rotterdam: Bar (112), Fastfood (54), Icecream (25), Lunchroom (6), Cafe+restaurant (68), Restaurant (77).</p>	<p>Donut chart showing F&amp;B facilities for Schiedam: Bar (21), Fastfood (20), Icecream (9), Lunchroom (6), Cafe+restaurant (6), Restaurant (6).</p>	<p>Donut chart showing F&amp;B facilities for Vlaardingen: Bar (21), Fastfood (19), Icecream (6), Lunchroom (7), Cafe+restaurant (2), Restaurant (6).</p>
		Day-time catering	68 outlets; 9,3 per 100 retail outlets (excl. vacancy and services)	60 outlets; 3,0 per 100 retail outlets (excl. vacancy and services)	70 outlets; 3,5 per 100 retail outlets (excl. vacancy and services)
6.2 Number of lunchrooms	6.3 Number of fastfood outlets	Day-time catering	25 outlets; 3,4 per 100 retail outlets (excl. vacancy and services)	60 outlets; 3,0 per 100 retail outlets (excl. vacancy and services)	60 outlets; 3,0 per 100 retail outlets (excl. vacancy and services)
		Day-time catering	77 outlets; 10,6 per 100 retail outlets (excl. vacancy and services)	9 outlets; 4,5 per 100 retail outlets (excl. vacancy and services)	6 outlets; 3,0 per 100 retail outlets (excl. vacancy and services)

7. Public space	7.1 Quality level and technical state	Public space of the core retail area is in good state (Stadsontwikkeling Rotterdam, 2022a). Especially the quality level of the 'Beurstraverse' is high. The quality of the public space in the streets adjacent to the core retail area is high.	Varying character of public space. (DTNP, 2014).	Varying character of public space, predominantly well-kept state, unity is missing (DTNP, 2014)
	7.2 Squares and other rest areas	On the 'Binnenwegplein' the public space is being put to good use. (Stadsontwikkeling Rotterdam, 2022a). Here there are benches and catering services. The 'Stadhuisplein' is a square with a cluster of terraces. The 'Schouwburgplein' offers both terraces and public sitting facilities. On the 'Lijnbaan' there are also sufficient rest areas with benches.	Lack of benches in the retail centre. The square 'Stadsplein' is an empty plain. The 'Land van Belofte' is a small square with benches and some catering facilities. The 'Koemarkt' is a rest area with fastfood and terraces.	Liesvelt' is a large central placed square. There is also a small square on the 'Fransenstraat'. Besides this there are virtually no benches or restplaces.
	7.3 Greenery	Greenery on Lijnbaan, 'Binnenwegplein', and streets leading towards Lijnbaan.	The 'Kerkstraat' has trees on both sides of the street furthermore there are flowerpots attached to street lighting in the 'Hoogstraat'. In addition to this there is virtually no greenery in the retail area.	Trees on the square 'Veerplein'. In addition to this there is virtually no greenery in the retail area.
8. Routing	<p>* Figures are own illustrations based on maps of Locatus.</p> <p>* Main routing based on footfall data from Locatus. Squares indicated in blue or squares with public sitting facilities.</p>			
	8.1 Routing structure/shape	Lijnbaan, 'Binnenwegplein', and 'Beurstraverse' form the core. But also the secondary retail streets 'Meent' and 'Aert van Nesstraat' have high footfall numbers.	Very lengthy structure with many secondary retail streets (DTNP, 2014). Main routing is almost a straight line from the 'ABC Complex' to the 'Passage'. The 'Land van Belofte' is situated directly on the main routing.	'Mediole functional and spatial connection between the planned part (retail chains and anchor stores) and the historical street (secondary retail street)' (DTNP, 2014). The main routing resembles the 8-shape referred to by experts. The main squares, 'Veerplein', is located within the main routing.
	8.2 Placement anchors	Anchors placed at the ends of the walkways with the highest footfall numbers. Anchors are clustered together on 'Binnenwegplein' and at the end of the 'Beurstraverse'.	All three anchors are located in the 'Passage'.	The anchor stores are spread out over the retail area. One anchor store (Action) is located just outside the city centre, near the train station.
	8.3 Placement catering services	Catering services are located both on the main routing and in the secondary retail streets leading towards the core retail area. Clusters of terraces are located right adjacent to the main routing. Also in the 'Markthal' a number of catering services are clustered.	Many catering services are located on the 'hoogstraat', rather far from the main routing. The clusters of terraces and other catering services on the 'Koemarkt' and 'Land van Belofte' lay relatively close to the main routing.	Within the main routing there are some lunchrooms and other catering services. Clusters of terraces are however located towards the old harbour, outside the core retail area.
9. Multi functionality				
	9.1 Fitness centre	Three fitness centres located near busy retail streets.	Fitness centre located behind the main retail area.	Fitness centre located in the middle of the core retail area.
	9.2 Cinema	Two cinemas located behind the main retail streets.	Cinema located outside the retail area.	Cinema located in the middle of the core retail area.
	9.3 Theatre	Three theatres/concert buildings are located behind the core retail streets.	Theatre located right outside the retail area.	Theatre located outside the retail area.
	9.4 Library	Library adjacent to the retail area.	Library located right outside the retail area.	Library in the middle of the core retail area.
10. Historical	10.1 Historical city centre	Not a historical city centre	Historical city centre.	Historical city centre, however most retail outlets are located outside the historical part.

1 All categories are translations of the definitions of Locatus.

2 The categories are based on the following categories of Locatus: Food (Levensmiddelen), Fashion (Kleding & mode, Schoenen & Lederwaren), Department stores (Warenhuis), Frequently bought non-food (Persoonlijke verzorging, Huishoudelijke- & Luxe Ar, Plant & Dier), Jeweller & Optician (Juwelier & Optiek), Sports & H obby (Sport & Spel, Hobby), Multimedia (Media), Living and DIY (Doe-Het-Zelf, Wonen), Other retailing (Antiek & Kunst, Auto & Fiets, Detailhandel Overig)

3 All categories are translations based on the definitions of Locatus, except from the categorie “Restaurant”. This is a cluster of the Locatus categories: “Pancakes”, “Grillroom”, and “Restaurant”.

4 Source: [www.hollandsemarkten.nl](http://www.hollandsemarkten.nl)

11. Safety	11.1 Feeling of safety	No consequent method for expressing the perceived safety in the three case areas was found.	n.a.	n.a.	n.a.
12. Orientation	12.1 Ease of orientation		Special shopping streets are hard to find (Stadsontwikkeling Rotterdam, 2012).	Simple orientation due to the straightened main routing. Also on the Hoogstraat it's simple orientating due to the connecting facades. However due to the high vacancy rate in the 'Hoogstraat' the boundary of the retail area becomes vague.	Compact core retail area makes it simple to orientate.
13. Markets & events	13.1 Size and frequency of markets *		Every Tuesday and Saturday around 450 stands (binnenotte).	Every Friday around 100 stands (Lange Kerkstraat/Land van Beolofte/Stadsert).	Every Wednesday around 86 stands and Saturday around 45 stands (Veeplein).
14. Facade Impression	14.1 Unity and technical state		There is unity in the facades on the core retail streets and object are in predominantly well kept state. Also the objects in the retail streets adjacent to the core retail areas are predominantly in a well kept state.	"Varying character of objects" (DTNP, 2014). Especially on the 'Hoogstraat' there are a considerable amount of poorly maintained facades. High vacancy rate creates gaps in the sequencing store fronts.	"Varying character of objects, predominantly well kept state, unity is missing" (DTNP, 2014).
15. Secondary retail streets	15.1 Success of secondary streets		The centre of Rotterdam has a number of secondary retail streets. These streets host a range of specialty stores. There are even streets that have some kind of overlapping theme (Stadsontwikkeling Rotterdam, 2012).	The 'Hoogstraat' functions as a secondary retail street. However the street is rather lengthy, football numbers are low, vacancy rates are high, and there are retailers located offering slow moving goods like bathroom tiles.	The 'Hoogstraat' and 'Comfistraat' function as secondary retail streets. Here the majority of the stores are run by independent retailers and the concentration of services is high, football numbers are low in these streets and there is some vacancy.

## Appendix VIII –Dutch retail vacancy

### Vacancy in the Netherlands per type of shopping area

Retail Area Type	Total RFS (x 1.000)	Number of Outlets	Avg. RFS per Outlet	% Outlets i.c.w. total*
City Centre	226	1.494	151	6,7
Regional Centre Large	347	1.956	177	10,7
Regional Centre Small	337	1.980	170	10,0
Subregional Centre Large	311	1.838	169	9,3
Subregional Centre Small	277	1.660	167	7,7
Subregional Convenience Centre	2	10	151	4,7
<b>Total city &amp; town centres</b>	<b>1.500</b>	<b>8.938</b>	<b>168</b>	<b>8,8</b>
Inner Urban Shopping Street	101	845	120	7,4
City District Centre	42	215	195	7,2
District Centre Large	78	527	147	7,5
District Centre Small	154	975	157	8,0
Neighbourhood Centre	63	447	140	8,1
Mini Convenience Centre	18	70	254	5,5
<b>Total supportive centres</b>	<b>455</b>	<b>3.079</b>	<b>148</b>	<b>7,6</b>
Big Box Retail Park	451	350	1.287	8,0
Specialty Centre	10	34	282	4,8
<b>Total residual centres</b>	<b>460</b>	<b>384</b>	<b>1.198</b>	<b>7,6</b>
Solitary Outlets	881	2.916	302	3,9
<b>Total/Average</b>	<b>3.296</b>	<b>15.317</b>	<b>215</b>	<b>6,9</b>

### Vacancy in the Netherlands per place population size

City Population Class	Total RFS (x 1.000)	Number of Outlets	Avg. RFS per Outlet	% Outlets i.c.w. total*
< 1.000	12	62	199	1,7
1.000 - 1.500	17	91	190	2,8
1.500 - 2.000	26	138	192	3,9
2.000 - 2.500	35	153	230	4,1
2.500 - 3.500	47	240	195	5,7
3.500 - 5.000	93	490	190	5,5
5.000 - 7.500	144	705	205	6,2
7.500 - 10.000	133	613	217	6,6
10.000 - 15.000	300	1.253	239	7,3
15.000 - 20.000	201	921	218	7,3
20.000 - 30.000	321	1.357	237	7,2
30.000 - 50.000	508	2.243	227	8,2
50.000 - 100.000	638	2.709	235	8,5
100.000 - 175.000	328	1.674	196	6,9
>175.000	492	2.668	184	6,3
<b>Total/Average</b>	<b>3.296</b>	<b>15.317</b>	<b>215</b>	<b>6,9</b>

### Figures for the Netherlands per place population size

City Population Class	Total RFS (x 1.000)	Number of Outlets	Avg. RFS per 1.000 inh.	Avg. RFS per Outlet
< 1.000	209	941	1.075	222
1.000 - 1.500	290	1.099	1.229	264
1.500 - 2.000	381	1.230	1.228	310
2.000 - 2.500	338	1.410	1.153	240
2.500 - 3.500	431	1.639	1.268	263
3.500 - 5.000	884	3.671	1.378	241
5.000 - 7.500	1.444	5.144	1.895	281
7.500 - 10.000	1.161	4.157	1.767	279
10.000 - 15.000	2.379	8.192	2.248	290
15.000 - 20.000	1.733	5.975	2.361	290
20.000 - 30.000	2.963	9.057	2.538	327
30.000 - 50.000	3.982	13.029	2.567	306
50.000 - 100.000	4.717	14.874	2.193	317
100.000 - 175.000	2.967	11.414	2.016	260
>175.000	4.074	18.359	1.750	222
<b>Total/Average</b>	<b>27.952</b>	<b>100.191</b>	<b>1.671</b>	<b>279</b>

Source: (Locatus, 2014b)

## Appendix IX – Locatus vacancy definition

For the calculation of retail vacancy rates based on Locatus data, a calculation is deployed that corrects for the fact that the registered vacancy number of Locatus includes properties that are or might get a function in the Food&Beverage or service sector. Locatus gives the following definition and approach to calculate vacancy rates based on their data (original text provided by locatus):

### “Definitie leegstand

Een pand wordt als leegstand geregistreerd indien het redelijkerwijs de verwachting is dat in het (leegstaande) pand een verkooppunt in de detailhandel, horeca of consument gerichte dienstverlening zal terugkomen.

Daarnaast geldt dat binnen een winkelgebied:

- Het pand was als winkel in gebruik en staat nu daadwerkelijk leeg.
- Of het pand is op dat moment niet meer als winkel of horeca in gebruik, maar op het pand staat wel aangegeven dat het te koop/te huur is (als verkooppunt).

Buiten winkelgebieden moeten beide criteria gelden:

- Er moet een verkooppunt ingezet hebben én er moet daadwerkelijk te koop/te huur of verkocht/verhuurd op het pand staan.

### Berekening leegstand detailhandel

Binnen de ‘categorie Leegstand’ is de verhouding tussen detailhandel en niet-detailhandel ongeveer fiftyfifty (aantal panden). De panden in de detailhandel zijn echter groter dan de panden in de niet-detailhandel. Om de leegstandsoppervlakte per groep te berekenen wordt de gemiddelde grootte van de leegstaande panden berekend en als factor gebruikt.

### Voorbeeld

Op 1 januari 2014 is het aantal vierkante meter leegstand 3.295.883. In de totale detailhandel (inclusief leegstand) is dit 31.249.496 vierkante meter. De berekening ziet er als volgt uit:  
 $(\frac{2}{3} * 3.295.883) / (31.249.496 - (\frac{1}{3} * 3.295.883)) = 7,3\%$

Indien de cijfers op deze manier worden berekend is een gedegen basis gelegd voor een juiste vergelijking en beslissing over winkelvastgoed.”

As shown in the example calculation, the registered surface area is corrected with a factor of 1/3.

## Appendix X – Shopping motives

The following section is quoted from Platform31 (2014, pp. 31-32) and concerns the shopping motives defined by Dutch consultancy firm DTNP.

**Recreatief winkelen:** Het motief van de consument is ontspanning en vermaak, waarbij veel verschillende winkels worden bezocht, vaak zonder voorgenomen koopdoel. Verrassing en entourage dragen bij aan het doen van (impuls)aankopen. Een onderscheidende ambiance (verrassing) en goede horeca dragen bij aan de verblijfsduur. Een bijzonder karakter (aanbod, ambiance) en lange verblijfsduur rechtvaardigen een grote inspanning om er te komen (reistijd, etc.). Bij recreatief winkelen zijn vooral de smaakgevoelige (keuzegevoelige) assortimenten en een grote diversiteit (verrassing, vermaak) van belang. Dit type winkelgedrag vindt veel plaats in (historische) binnensteden.

**Boodschappen doen:** Het motief van de consument is om frequente aankopen te doen, vaak levensmiddelen, die men al kent en/of niet keuzegevoelig zijn. Boodschappen doen lijkt daarom op doelgericht aankopen doen. Ook hier zijn gemak en efficiëntie (alles bij elkaar, snel bereikbaar) belangrijker dan de ambiance of de keuze binnen een assortiment. In tegenstelling tot het type winkelgedrag dat wij definiëren als 'doelgericht aankopen', vindt 'boodschappen doen' plaats bij meer dan één winkel in dezelfde kooptrip. Veelal worden de dagelijkse boodschappen op deze wijze gekocht (als supermarkt en overige winkels bij elkaar liggen), maar bij voorbeeld ook spullen voor een feestje of een weekendje klussen.

**Vergelijkend winkelen:** Het motief van de consument is oriëntatie en/of aankoop van een specifiek type artikel, waarbij de precieze keuze nog gemaakt moet worden. Een grote keuze aan betreffende artikelen en deskundig advies zijn belangrijk bij dit type winkelgedrag. Efficiëntie (veel zien in weinig tijd) is vaak belangrijker dan de entourage. Voor een groot en/of een onderscheidend aanbod is men bereid grote inspanningen te doen (reistijd, etc.). Ook bij dit type winkelgedrag gaat het primair om smaak- en dus keuzegevoelige artikelen. In tegenstelling tot recreatief winkelen wil de consument hier vooral veel aanbod in één specifiek thema: zijn bezoekdoel. Dit type winkelgedrag vindt veel plaats in themacentra als woon- of autoboulevards. Ook algemene centra met voldoende aanbod in een bepaald assortiment kunnen voor dat type thematisch winkelen aantrekkelijk zijn (schoenen kopen).

**Doelgericht aankopen:** Het motief van de consument is om in een specifieke winkel of specifiek winkelgebied een specifiek artikel (of artikelen) te kopen. De zekerheid het artikel te kunnen verkrijgen staat centraal. Efficiëntie is belangrijker dan ambiance of overig assortiment. Combinatiebezoek is geen doel, in principe worden alle aankopen in de kooptrip in de betreffende winkel of winkelgebied gedaan. Afhankelijk van de uniciteit van het artikel is men bereid tot inspanning (reistijd, etc.). Bij dit type winkelgedrag gaat het veelal om assortimenten die relatief weinig smaak- en keuzegevoelig zijn. Ook artikelen die men frequent koopt (al kent) of waarvan men reeds alles weet (oriëntatie via internet) lenen zich voor dit type winkelgedrag. Dit winkelgedrag kan in veel type centra plaatsvinden, mits de juiste winkel er maar (efficiënt) te bezoeken is. Naarmate men artikelen als minder 'bijzonder' (keuzegevoelig) beschouwt, of men de keuze thuis al heeft gemaakt (internet) zullen zij vaker op deze (efficiënte) wijze worden gekocht ('nieuwe stofzuiger halen', of 'een nieuw paar Van Bommelschoenen').

**Ondergeschikte aankopen:** Dit type winkelgedrag is ondergeschikt aan een andere activiteit. De consument gaat niet op pad voor een aankoop, maar verricht deze (soms impulsief) als ondergeschikte activiteit. Soms gebeurt dit om redenen van efficiëntie (op weg naar het werk of naar huis), soms als vorm van recreatie (bezoek aan een attractie). Voor dit type aankopen wil men nauwelijks extra inspanningen verrichten. Afhankelijk van het (dominante) bezoekmotief passen bij dit winkelgedrag juist wel of juist geen keuzegevoelige assortimenten. Vaak vindt dit type winkelgedrag plaats op stations, langs de snelweg, in musea en andere vrijetijdsvoorzieningen.

## Appendix XI – Creative, experience and entertainment

The following section provides a brief summary of the creative class theory of Florida (2002), the experience economy of Pine and Gilmore (1998), and the entertainment economy of (Wolf, 1999).

### **The Creative Class**

Florida (2002) observed a fundamental change in economy and the way developed societies are arranged. Central in his theory is the growing importance of the creative class as the key economic driver. The creative class is a high educated and well-paid segment of society active in a wide variety of industries, from arts to finance. The members of the creative class do not consciously consider themselves as a class but they do have a shared appreciation for creativity, individuality, difference, and merit (Florida, 2002). The creative class consists out of member hat draw on complex bodies of knowledge for solving specific problems and produce new forms that are transferable and can be used throughout society.

Real and authentic experiences in the real world is what the creative class is looking for (Florida, 2002). The creative class is not attracted to streets filled with chain stores, chain restaurants, and nightclubs. Florida (2002)states places are valued for their authenticity and uniqueness what comes from historical and renovated buildings, hip neighbourhoods, street culture, and original experiences.

### **The Entertainment Economy**

According to Wolf (1999, p. 4) entertainment content has become a key differentiator throughout the whole consumer economy. According to Wolf (1999, p. 26)we are living in a world of commerce where the lines between entertainment and non-entertainment are more and more blurring; an increasing number of products and services are being commoditized in the crowded marketplace requiring consumer businesses to be partly about entertainment in order to stand out.

One of the most visible example of the growing importance of entertainment content in the broader economy is in retail (Wolf, 1999, p. 61). Entertainment content can help generating traffic to stores. Once consumer traffic is generated entertainment content can contribute making people spend more time and ultimately spend more money (Wolf, 1999, p. 61).Wolf (1999, p. 68) also talks about a transformation of stores from pure retail environments to brand-building environments. Creating a feeling about a brand ultimately leads to long-term allegiance to the brand, in other words repeated sales.

### **Experience economy**

The service economy emerged when goods were increasingly being commoditized. Now when the same is happening to services, staging experiences is the next differentiating factor (Pine & Gilmore, 1998). This is in line with the vision of Wolf that stated that by providing engaging experiences by amusing, arousing, and informing customers companies can stand out from their competitors (Wolf, 1999, p. 54).

According to Pine and Gilmore (1998) an experience occurs when a company uses services as a stage, and goods as props, to engage individual customers in such a way a memorable event is created. Experiences are created in the interaction between the staged event and the mind of the engaged individual. An important difference is the makeable character of what Wolf (1999) describes attracts people, while Pine and Gilmore (1998) as well Florida (2002) talk about the importance of authenticity.