



Vacancy in inner city retail space

The relationship between area and object characteristics and vacancy in Dutch city centres

Léon van der Wal

26-11-2014

P4 Report – Draft Report

TU Delft Master of Real Estate & Housing

Personal Data



Name: Léon van der Wal

Student number: 4014065

Address: Rotterdamseweg 139 - B25,
2618AL, Delft

Email: l.vanderwal@student.tudelft.nl

Delft, 26-11-2014

University of Technology Delft, the Netherlands, Faculty of
Architecture, Department of Real Estate and Housing

Master Thesis - MSc Real Estate and Housing

Adaptive Reuse – A Sustainable Real Estate Strategy

First-tutor: Dion Kooijman

Second-tutor: Hilde Remøy

Additional guidance: Patricia Bos (GREEN Real Estate)

Preface

This report presents the master thesis part of the graduation track of the Master of Real Estate and Housing program of the University of Technology Delft. It is the fourth report in a series of five mandatory reports that document the graduation research from subject selection and draft research proposal to a final report elaborating on the then completed research. In this report I will elaborate and ground my research proposal and give some insight in the subject through a literature review. The research is 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 through discussion on the research matter and by giving me 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 educational and scientific. Educational in the sense both process and content related knowledge is gained by conducting the research. Scientific because the research aims to make a useful addition to the body of knowledge on retail space and contribute to creating a better understanding of retail vacancy.

Personally 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. In my opinion one of the most interesting real estate types due to the many actors and factors involved. Developing and managing an optimal functioning retail centre requires specialist knowledge and expertise.

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 area 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 that are bound to expand in the near future and assess the mismatch between demand and supply.

Léon van der Wal

Delft, 26-11-2014

Summary

The research explored the mismatch between the characteristics demanded for retail space and the existing retail stock in Dutch inner-city retail centres. The presented research consists of a mixed method research of four methodologies: literature research, interviews, a Delphi research, and a test of demand and supply. Based on literature and semi structured interviews with retail real estate experts a Delphi research as set up. The Delphi resulted in a ranked list of area and object factors important for the demand for retail space. These factors together with the connecting parameters form a kind of profile on area and object level. These findings were linked with a number of case studies to test if these factors show a relationship with vacancy.

Shifts in the retail sector

Shifts on 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. While new concepts emerge Dutch retail centers are witnessing increased vacancy rates. The increasing number of alternative shopping destinations puts pressure on inner city retail areas; the competition between inner-city retail areas is increasing, there is competition from retail agglomerations at the periphery and out of town developments, and online shopping is a growing alternative for physical shopping.

A literature review focused on the shifts in the retail sector showed a number of key changes: the emergence of multi-channel retailing, supply chain integration, dominance of large retail chains and internationalisation of the retail market. As an effect of several changes in society including increased digitalisation and a drive for experience, consumer behaviour has significantly changed. Experience has become increasingly important for physical stores as well for shopping areas as a whole this aspect is of growing importance. Key in this is the shift from functional more and more towards leisure orientated shopping.

Changes on the retail market and increased competition amongst retail centres are affecting retail areas unequally; some retail clusters witness a strong increasing vacancy rate while the A1-locations in other cities show a shortage of high quality retail space. A number of factors on object and area level show are relation with the increase in vacancy on specific locations.

Vacancy and the relation to property characteristics

While over the past decade the retail space stock was increased a number of macro factors caused a drop in the demand for retail space; conjunctural fluctuations, decreased consumer spending, demographic trends, and the rise of online shopping have contributed to a decreased space demand. As an effect of the oversupply and a fall back in the demand on the retail space market retailers are in a stronger negotiation position. 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. Experts indicate there is a replacement market within retail centres creating gaps in the retail structure, especially outside the core retail area.

Consumer willingness to travel for funshopping has increased and consequently competition amongst retail centers has increased. Attractiveness attributes of retail areas is of growing importance due to increased competition between retail centers. 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. Attractiveness attributes hereby 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. There seems to be a split between attractive centres focused on recreational shopping and less attractive town centres that are moving towards a role as convenience centre.

Retailers are increasingly critical concerning where to locate. On object level this means it becomes more important to locate on high footfall locations since this is strongly related to the revenue potential, the physical dimensions and layout of a retail object should fit the formula, and it's important to generate sufficient exposure. On the moment a retail street is filled with objects that don't meet these requirements and isn't well connected to the main routing, this street has a higher risk of vacancy and can even completely lose its relevance in the retail structure.

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. Gaps in the retail structure furthermore 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 and the quality of the direct surrounding might be affected as well.

Delphi research

Through expert interviews and a literature review fifteen area and fifteen object factors were derived to be important for the demand for retail space by respectively the consumer and the retailer. In total 20 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 1: Results final Delphi round

Mean ranking first and second round Delphi research			
Area factors	Rank	Object factors	Rank
Retail mix	1	Location	1
Anchor stores	2	Ground floor	2
Centre Size	3	Size	3
Accessibility and parking	4	Function of surrounding objects	4
Atmosphere	5	Front-width	5
Catering services	6	Width-depth ratio	6
Routing	7	Quality of surrounding	7
Public space	8	Column free and 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	0,61	Kendall W	0,73

Different consumers have different demands on retail agglomerations as well differing retail formulas have a differing demand for retail space, as well these demands are changing over time. 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 of real estate to a dynamic demand for real estate.

Case studies

Schiedam, Vlaardingen, and Rotterdam were analysed to test 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 area. Attractiveness attributes 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 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 couldn't be isolated; in many cases a multitude of object characteristics can be pointed out to underlay the vacancy of an object.

Conclusion

The research has shown there is a relationship between area and object characteristics and vacancy in Dutch inner-city retail space.

Retailing in city centre retail centers is far from only the functional trading of goods. The competition between retail centres is increasing; for funshopping consumers are looking for places with a high attractiveness to spend their scarce time. Central retail centers with a low attractiveness have problems competing with attractive centers for recreational shopping purposes. Retail centre attractiveness is related to the ability to bind local consumer spending and attract consumers from outside the primary catchment area.

Object characteristics are of importance to attract the increasingly critical retailer. Object characteristic showed a relation to the location of vacancy within a retail centre. Revenue potential, fitting in the formula, and creating sufficient exposure are important.

In areas with high vacancy rates there is a high risk of the arise of the self stimulating effects of vacancy. Vacancy effects both object and area level and can even affect the attractiveness of a centre as a whole.

Table of Contents

Preface	3
Summary	4
Readers guide	10
1 Research design	11
1.1 Introduction	11
1.1.1 Personal motivation	11
1.1.2 Problem analysis	11
1.1.3 Problem statement	14
1.2 Research objective	14
1.2.1 End result	15
1.2.2 Target groups	15
1.3 Research questions	16
1.3.1 Research scope	16
1.4 Conceptual model	17
1.5 Relevance	18
1.6 Research Methods	19
1.6.1 Literature research	20
1.6.2 Expert interviews	21
1.6.3 Main research method – Delphi method	21
1.6.4 Case studies vacant properties	25
1.7 Structure of this report	25

2	Theoretical framework	26
2.1	Real estate space and asset market	26
2.2	Urban hierarchy and attractiveness	26
2.3	Shopping motives	29
2.4	Shifts in economy and society	29
2.5	Shifts in the retail sector	32
2.6	Shifts in consumer behaviour	35
2.7	Conclusion	36
3	Literature research	38
3.1	Vacancy	38
3.2	Retail areas	41
3.3	Retail objects	46
3.4	Conclusion	47
4	Expert interviews	49
4.1	Vacancy	49
4.2	Future role of real estate	51
4.3	Retail area	52
4.4	Object characteristics	58
4.5	Conclusion	60
5	Delphi research	62
5.1	Delphi set-up	62
5.2	Expert ranking	62
5.3	Retail area	63
5.4	Object characteristics	64
5.5	Visualisation	Fout! Bladwijzer niet gedefinieerd.
5.6	Conclusion	65

6	Case studies	67
6.1	Outline of the case study	67
6.2	Case areas	67
6.3	Findings area level	70
6.4	Findings object level	74
6.5	Findings connections	76
6.6	Conclusion	77
7	Conclusion, further research and reflection	79
7.1	Conclusion	79
7.2	Utilisation	82
7.3	Recommendations for further research	83
7.4	Reflection	83
	Literature	85
	Appendix I – Summary of remaining literature area and object attributes	89
	Appendix II – Expert interviews	92
	Appendix III – Delphi set up	93
	Appendix IV – Delphi results	94
	Appendix V: Case study information	97
	Appendix VI – Case study	108
	Appendix VII – Das-frame	111
	Appendix VIII – Dutch retail vacancy	112
	Appendix IX – Shopping motives	113

Readers guide

This document is an interim report presenting the research proposal, theoretical framework and preliminary research results. It forms a reference point to check the progress for the thesis research that will be conducted in the period until the end of January 2015.

The report is split up in two 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 the conducted research. This part of the report starts with the exploration of a number of theories related to the topic, presented in chapter 2: Theoretical framework. Chapter 3 presents the findings of the literature research focused on retail vacancy, retail centre attractiveness attributes, and object characteristics. The expert interviews outlined in chapter 4 connected the literature findings 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 5. The findings from literature, interviews, and Delphi were tested on three case areas. This case study is presented in chapter 6. In the appendix a number of supporting documents can be found.

Chapter 7 connects all the preceding chapters and presents the final conclusion of the research and answers the research question outlined in chapter 1.

1 Research design

In this chapter the research proposal is presented. The chapter starts with a personal introduction after which the problem analysis, the research focus and research methodology are presented. The first chapter provides an introduction to the research area and elaborates on the research design.

1.1 Introduction

In the following section the personal motivation that led to the research topic is discussed as well the problem focused on in this research is outlined.

1.1.1 Personal motivation

During the regular course of studies in Delft there isn't specifically focussed on retail real estate. However in my opinion retail space is one of the most intriguing property classes in which many elements come together: consumer behaviour, footfall patterns, catchment areas, local retailers, international retailers, and so on. Spending two semester researching is an unique opportunity to gain insight in this fascinating subject. One of my personal study targets for the graduation thesis is therefore to gain knowledge concerning commercial real estate and more in specific retail space.

By conducting a research covering topics like the rise of E-commerce, experience economy, and other trends I aim to acquaint myself with an exciting and dynamic area. Many publications have been made concerning vacancy on the Dutch office market, including research focused on adaptive reuse of these vacant properties. However also the retail space market witnesses growing vacancy rates and with the rise of E-commerce this trend is expected to hold. A personal study target is to anticipate on current trends and conduct a thesis research that is relevant for practice.

A final personal study target is to gain experience and expertise in setting up and conducting a research. The master thesis allows to further develop many skills including organisational, analytical, communication, and academic reading and writing skills.

1.1.2 Problem analysis

In the following section gives an introduction to the problem area targeted in this research.

Vacancy in Dutch retail space

Over the past years the Netherlands has witnessed an increase in retail vacancy. The national average vacancy rate lies 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).

The direct impact of vacancy lies at the owner of the subject property and surrounding properties. Cashflow from rental income isn't 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 don't solely affect private parties. A high vacancy rate on the commercial real estate market can have negative effects for municipalities due to the spillover 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 is changing as well: there has been a strong decline in the ability of shopping centres to bind local consumers (I&O Research, 2011b, p. 65). Consumers are showing an increased willingness to travel for their shopping trip, for non-daily products, and the differences in ability to attract and retain consumers between retail centres have increased. In other words: competition between shopping centres has increased.

The retail real estate market is increasingly becoming a replacement and displacement market (NEPROM, 2010, p. 87). Outdated real estate and properties that don't fit the demands of retailers and consumers are left vacant. On the same time redevelopments of existing stock are taking up a growing portion of the development activities (NEPROM, 2010, p. 94).

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.

Shifts in society

Shifts in society and changes in consumer behaviour influence the retail landscape. The rise of online shopping is one of the main drivers altering the shopping behaviour of consumers (Platform31, 2014, p. 5). The way we shop is changing and this clearly affects physical retail space. The rise of online shopping isn't an autonomic trend but is part of the digitalisation of society as a whole (Platform31, 2014, p. 41). Internet has altered consumer behaviour: consumers switch easily between various retail channels, they are well informed, and transparency of product and price has significantly increased (Rabobank, 2012).

Online shopping isn't the only factor influencing the way we shop: "Consumers' wishes, requirements and expectations, their dietary behaviour and the value attached to leisure and consumption are changing constantly." (Jos de Vries The Retail Company, 2002). An important trend is the shift from functional to funshopping (Luijten, 2012). Shopping itself is seen as leisure. Experience is of growing interest in the postmodern society including in the retail environment (Kooijman & Sierksma, 2007). The individualisation of society is mingled with a growing demand for entertainment and experience (Wolf, 1999, p. 172).

Changes in the retail sector

The retail market is very dynamic and over the past decade trends like the globalisation of the retail market and innovations lowering the time-to-market of products have drastically changed the retail market (DTZ, 2013). Rabobank (2012) states that partly due to limited economic growth, retailers have to and are shifting their strategy from market growth to gaining market share. The retail sector is undergoing an evolution in which vertical integration and Multichannel retailing play a key role (Rabobank, 2012). Vertical integration in the supply chain has a number of effects including producers selling directly to customer and becoming retailers. Multi-channel strategies are strongly influenced by the development of new technology and involves offering of a multitude of retail channels to the consumer ranging from internet, smart phones, social media to physical stores.

With the development of online shopping pure play internet retailers emerged, for example Amazon and Coolblue. First many physical store based retailers opened online channels, now a new shift can be witnessed where online players are starting to move into offline retailing (EIU, 2012, p. 7).

Customers are increasingly wanting everything: the advantages of digital channels such as price transparency, consumer reviews, and a broad selection, and the advantages of physical stores such as feeling touching and trying products, and personal service (Rigby, 2011). Multi-channel strategies have a number of benefits compared to a single retail channel strategy. Research for example suggests that multi-channel shoppers purchase more frequently, spend more per purchase and have a bigger loyalty to the retailer (Piercy, 2011). These benefits offer an explanation for the trend of online players entering physical retailing.

Predictions concerning the extend and pace of changes in the retail sector should be put in perspective. For example the significance of online shopping is far smaller than many professionals initially predicted (Evers, Kooijman, & van der Krabben, 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 specific the percentage of online versus total retail sales, has been lower than Bakos (2001) expected. Borenstein and Saloner (2001) even talked about the emergence of hybrid stores with a very broad range of items, but only a few of each particular product, acting as showrooms with online delivery possibilities. Mahler (2000) and Alexander and Freathy (2003, p. 302) already mentioned multi-channel shopping almost fifteen years ago.

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).

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). The current situation shows strong resemblance to this; popularity of discount retailers, increase in online sale, and a focus on convenience for daily products while consumers show an increased willingness to travel for their funshopping activities.

Changing role of retail space

Changes in the way we shop and changes in the retail sector are reflected in the demand for retail space. The new way of shopping affects both shopping area and individual property. 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). According to NRW (2014, p. 5) there is an increasing need for renewed concepts for retail space to compete with online shopping. For instance the growing importance of offering experience is something mentioned in many publications including Pine and Gilmore (1998) and Parker and Weber (2013). An example of a response on the growing importance of experience in

modern day society is the opening of so called flagship-stores. Here customers can test products in stores that are focused on experience and brand building (NEPROM, 2010, p. 95). However as noted by Dawson, Findlay, and Sparks (2008, p. 17) the importance of highly differentiated retail spaces like experience focused stores shouldn't be overestimated considering much retailing remains functional; price and convenience are still key determinants in consumer decisions.

One of the important changes of the role of physical retail has been the shift from functional shopping to funshopping. 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). Online retailing has not replaced physical retail however it has changed the role of physical retailing.

1.1.3 Problem statement

Based on the problem analysis of 1.1.2 the following problem statement was formulated:

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. Optimization of the existing stock of retail space is therefore important for the functioning of urbanized areas.

- ▶ The emergence of online retailing has given the consumer an alternative for physical shopping and consumers show an increased willingness to travel for a shopping trip causing increased competition between retail areas.
- ▶ The dynamics on the retail market is changing location preferences of retailers and new shopping concepts have emerged (Evers et al., 2011, p. 87). The role of physical retail space is changing, the function of inner-city retail space is increasingly focused on fun-shopping, and there are several shifts in society like the increased demand for experiences.
- ▶ The large amount of new developments over the past decades combined with decreased demand for retail space stimulates a replacement market and has put the retailer in a stronger negotiation position.

The changed requirements for inner city retail space from both consumer and retailer forms a potential explanation for the increased vacancy rate in some areas. However the relationship between area and object characteristics and vacancy is unclear.

1.2 Research objective

As shown in the problem analysis there have been a number of fundamental shifts on the retail market and vacancy rates on the retail space market are increasing. That retail is increasingly becoming multi-channel and the role of physical shopping is changing is something stated by many authors including Rigby (2011), EIU (2012), and Luijten (2012). The importance of qualitative aspects for retail space is confirmed by the decreased ability of many retail centres to bind local consumers (I&O Research, 2011b, p. 44). 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.

An academically grounded exploration of the key issues important for inner city retail space enables statements to be made concerning the potential for reusing vacant properties for retail purposes and can guide initiatives for area revitalisation. Consequently the research could contribute to a better fit between demand and supply of retail space.

1.2.1 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 for retail space. The factors are divided into two categories:

- Area Factors related to the subject retail agglomeration
- Object Aspects directly related to the subject property

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 an investor can decide not to invest in properties that don't meet the five most important factors on area and object level. 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 and corresponding parameters, 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.

1.2.2 Target groups

Managing the built environment is an important but complex challenge. "Addressing this challenge requires detailed knowledge of real estate supply and demand on different scale levels"(Prins et al., 2013, p. 5). 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 findings from the research give insight in the reuse potential of the existing retail stock of Dutch inner city retail centres. This is reuse in the sense of reuse for retail reposes. As well it provides an understanding of the key area and object characteristics for attractive retail space. Key target groups are therefore: building owners of (vacant) retail space, redevelopers, investors, real estate advisors, municipalities and town centre managers.

For example when advising building owners to determine a building or area adjustment strategy for properties that are vacant. Also during investment analysis the research is relevant considering it gives insight in the (future) potential of investment opportunities. For (re)developers knowledge concerning the qualitative demand is essential. Because the proposed research also gives insight in the importance of the different factors, possible alternatives can be considered to determine which steps could best be taken to make a property or retail area fit for use. The research is of particular interest for Town Centre Management schemes since it provides an indication on the activities these organisations should primarily focus.

1.3 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: To what extent is there a relationship between area and object characteristics and vacancy in Dutch inner-city retail space?

Sub research questions:

- ▶ Q1: What have been the most important trends in the Dutch retail market over the past decade?
- ▶ Q2: What is the cause of retail vacancy; what is the role of market factors and what is the role of property characteristics?
- ▶ Q3: What area and object characteristics are driving the demand for retail space?
- ▶ Q4: Is there a relationship between area characteristics and vacancy in the selected case areas?
- ▶ Q5: Is there a relationship between object characteristics and vacancy within the selected case areas?

1.3.1 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 underlay property vacancy and in this way forms the context of the proposed research.

The research will focus on inner-city retail space in the Netherlands. Defined by two retail area typologies in the retail area classification of Locatus: City centre and Regional Centre Large. This are city and town centre retail area with over 200 stores. On the moment of writing 53 retail agglomerations fall in this category (Locatus, 2014b). Retail agglomerations are clusters of retail stores located in a nearby geographical area". The research is focused on a specific shopping centre

type because different type of locations have different rationales. Central shopping locations have a different function than other retail centres as well as a different branch composition (Evers et al., 2011, p. 75).

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 interior design. However some aspects of interior design influence object specific requirements of retail space and are thus indirectly included in the research.

1.4 Conceptual model

The following conceptual model illustrates the topic of this research:

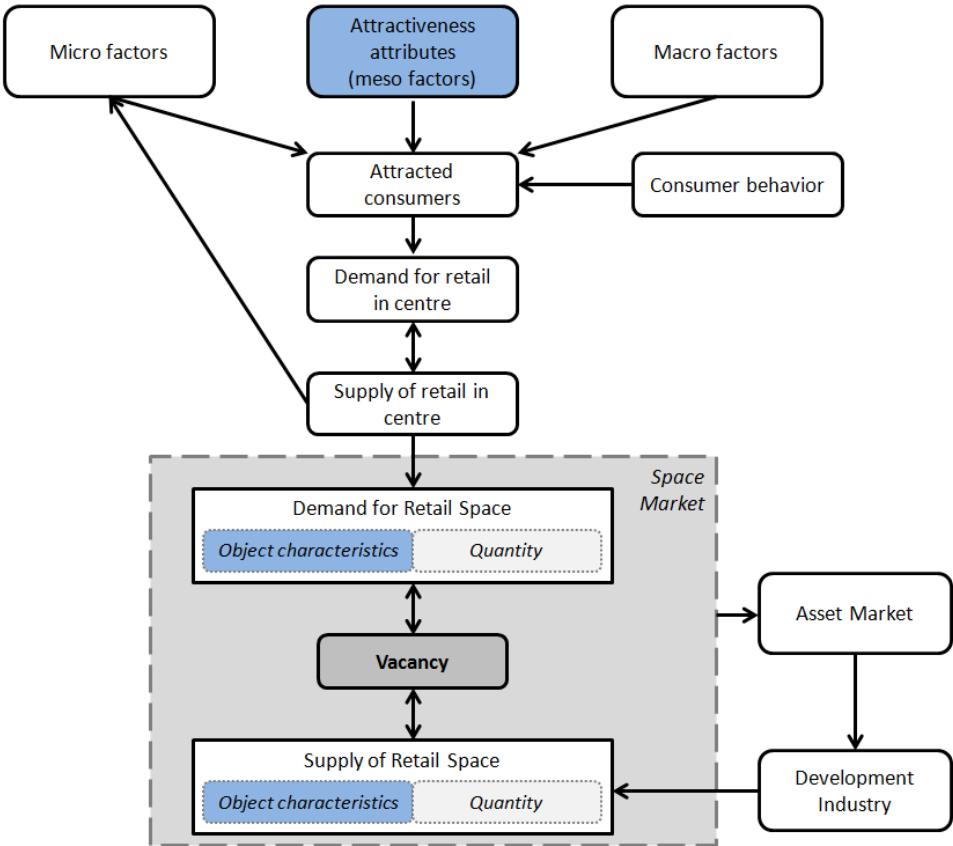


Figure 1.1: Conceptual model

The research is focused on the blue marked aspects: area characteristics (retail centre attractiveness attributes) 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 based on Bolt (2003). Both theories are discussed in chapter 2.

1.5 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

Limited publications focus on the relation between area and object characteristics 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. By exploring these aspects more into depth this research will contribute to the body of knowledge on retail vacancy. 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. Literature on object characteristics important in the location choice of retailers on the other hand 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 its thesis research Arkenbout (2012) used the Delphi technique 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.

Societal relevance

Retail takes a prominent role in the functioning of urban areas (Evers et al., 2011, p. 16) and 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). 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.

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). A crowded shopping street is a sign of a successful and lively city (Evers et al., 2011, p. 16). Retailing is of great 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). With the growing influence of e-commerce the pressure on inner city locations is expected to increase even more. 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 retail properties.

With 10,7% vacant outlets regional centres show the highest vacancy rate on national average of all retail centre types (Locatus, 2014b). 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).

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. The research findings can be used for determining the focus point for town centre management schemes, redeveloping retail properties and areas, and evaluating investment alternatives.

Relating the research with the DAS-Frame of De Jonge et al. (2009) (see Appendix VII) structures the utilisation potential. The research focuses on the current demand and explores the changing demand for retail space in Dutch central retail space. On case level the current supply is examined. The research findings can be utilised in the process of weighing and selecting alternatives and the determination of a step-by-step plan to go from the current supply to the desired future supply.

1.6 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 technique has been preferred over a focus group considering 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).

Another reason for preferring a Delphi is that a ranking of real estate related factors forms an important research outcome. 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).

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.

Figure 2 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 test on the qualitative match is the place where these two meet. The supply part of the research will eventually result in a number of case studies. In these case studies the area and object profiles derived in the demand side of the research will be tested on the characteristics of the existing supply of retail space to see if the cases show a relationship between vacancy and these characteristics.

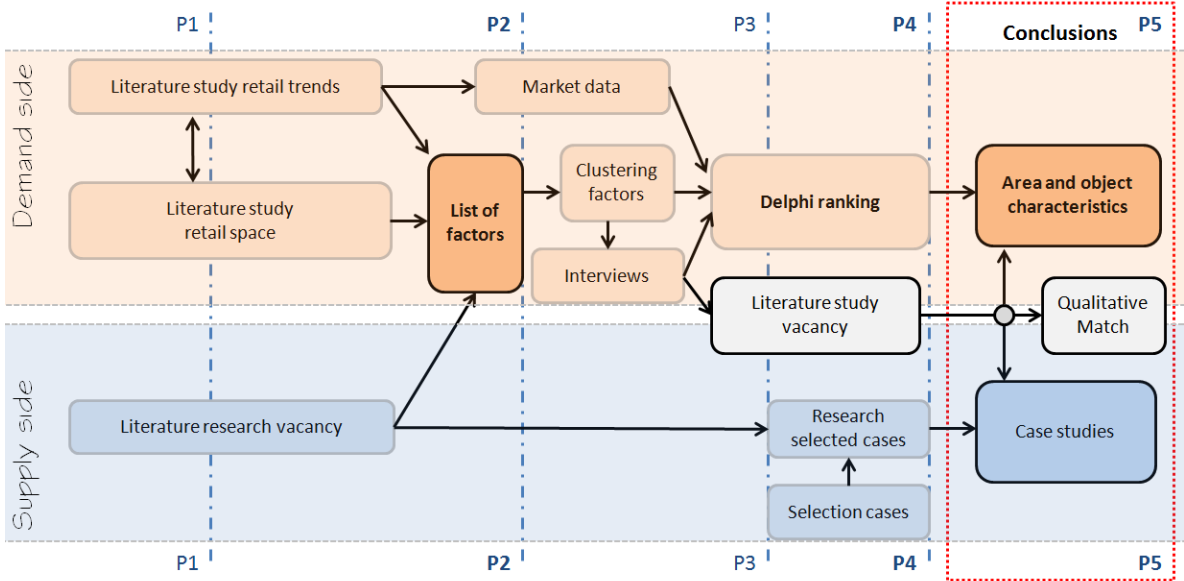


Figure 1.2: Conceptualisation of research

1.6.1 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.

1.6.2 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 II). 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 didn't focus on sensitive information and this therefore wasn't considered an issue.

1.6.3 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 thank'(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 intents to remove these focus group related limitations but to provide a more reliable answer then 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 responses 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 Delphi research is by for example (Schmidt, 1997) used to derive a long list of choice possibilities. In this research the expert interviews fulfil this function. During the Delphi rounds, interaction between researcher and participant was kept to a minimum. However the participating experts will be encouraged to provide a motivation for their ranking. 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.

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 will be presented to the participating experts. Participants will be asked to make a personal top-15 on area and object level.

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. Where possible the amount of factors will be reduced by eliminating the lower ranked factors that always show the same kind of rank. By giving less factors to rank the reliability of the response is expected to increase.

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. 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 doesn't 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. This research used a panel of 20 experts.

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. As mentioned before, this research will include interviews to be conducted before the Delphi is set out hereby gaining support and increasing the responds rate. 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 nonprobability 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 be properly diversified in order to form a representative reflection of multi-actor environment in which real estate is being shaped. 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. This research used one panel consisting out of experts from six groups: architecture, real estate development, real estate advisory, property investment, retailers, and academics. With a quota of 4 participants per expert group.

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 identify 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 through 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.

1.6.4 Case studies vacant properties

Cases are used to examine the (mis)match between the demand for physical retail space and the existing retail stock. The case studies 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. The case study research followed a so called comparative design, see Bryman (2012, p. 72), making use of: 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.

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.

1.7 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 3), followed by the semi structured experts interviews (chapter 4), the Delphi research (chapter 5), and finally the case studies (chapter 6). 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 these conclusions are drawn and are further discussed.

2 Theoretical framework

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 following section discusses the space and asset market, central place theory, a number of theories concerning the reshaping of the (consumer)economy, followed by a more specific exploration of changes in the retail sector and changes in consumer behaviour.

2.1 Real estate space and asset market

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. Each of the space markets has different kind of tenants forming the demand side, and differ in physical, location, and architectural characteristics on the supply side (Geltner et al., 2007, p. 4).

The demand side of the real estate asset market is formed by investors looking for future cash flows. While building users are seeking for physical assets, investors are seeking for financial assets and in principle do not care from which assets these cash flows are generated (Geltner et al., 2007, p. 11). The real estate asset market is part of the wider capital market and real estate therefore also has to compete with other forms of capital assets. The supply side of the real estate asset market is formed by developers, individuals, or investors that want to sell real estate.

The real estate space market and asset market are linked and related to each other. Direct and short run because the space market determines the cash flows a property can generate and structurally on the medium to long term by the property development industry (Geltner et al., 2007, p. 21). The role of the development industry is to convert financial resources into physical 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. 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."

2.2 Urban hierarchy and attractiveness

To provide a basic understanding of location of retail activities the concept of Central Place Theory will be discussed.

Central Place Theory

Central Place Theory is one of the most fundamental concepts of urban geography and spatial economics (Geltner et al., 2007, p. 39). Connected to Central Place Theory is the concept of urban hierarchy. Cities and elements of urban agglomerations aren't 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).

The basis of Central Place Theory is foremost laid down by August Losch and Walter Christaller (Geltner et al., 2007, p. 45). Losch developed a geographic model based on the "service area" of cities taking into account optimal transportation costs and economies of scale, resulting in a

honeycomb kind of structure of hexagons (Geltner et al., 2007, p. 45). Christaller added economic functions differing in degree of scale economies and transportation costs to this model. This results in “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 product have different service areas; an exclusive fashion stores (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’. Related to retailing 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).

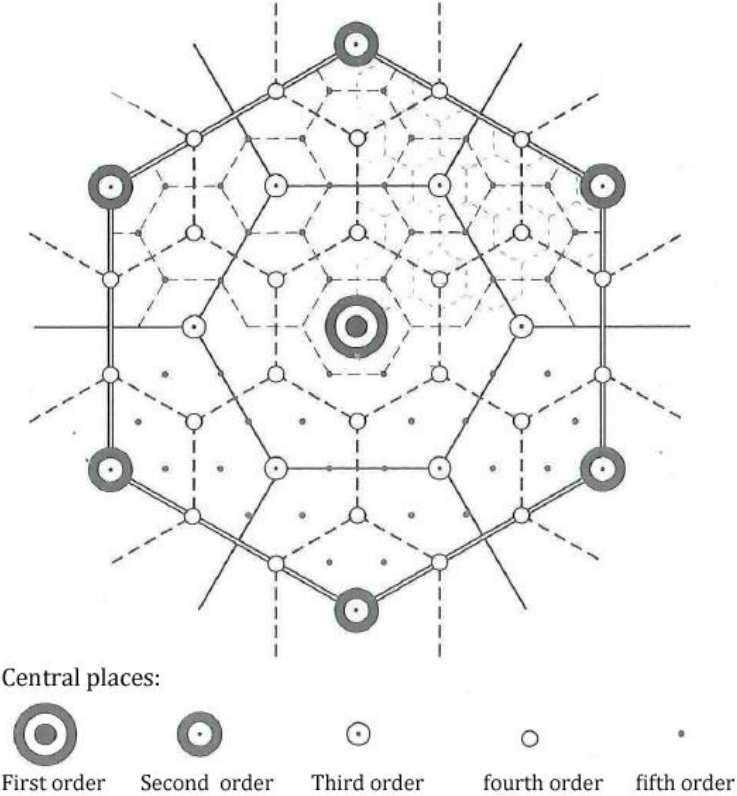


Figure 2.1: Christallers inter city service structure Source: (Bolt, 2003)

It should be noted that the theories of these two German geographers make a number of radical assumption. 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.

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 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 the hierarchy of retail centres applies. A perfect hierarchy based on the function of retail centres doesn't 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).

Attractiveness in relation to central places

As mentioned before the Central Place Theory makes a number of rather unrealistic assumptions. For example in the theory of Christaller the attractiveness of a retail area is not taken into account for consumer choice. Dennis et al. (2002) argue 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) also provide empirical support for using attractiveness to determine the hinterland boundaries of retail centres.

When deciding where to shop consumers obviously take more criteria into account than only distance. 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, if 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.

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. Macro is 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. Meso-factors includes retail centre characteristics as the size of the centres, the presence of anchor stores, and so on. Micro-factors include factors that are related to the

individual quality of the stores and other services in the centres. This research is focused on the meso-factors.

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). 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 consumers, for example a clean and safe environment as well as interesting specialty stores or a Christmas market (Haringsma, 2008). According to (Gianotten, 2010) the "comfort of the known" and the "excitement of the new" is an important determinant 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 shopping¹. 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). 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 IX to get an impression of one of the possible classifications.

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 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.

2.4 Shifts 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). Shifts in society inevitably influence the retail sector and ultimately impact the demand for retail space. The following section will examine three theories concerning the reshaping of the economy. The first theory that will be discussed was formed by Florida (2002) and primarily concerns the emergence of a new key factor driving the economy. The two other theories discussed in this chapter originate from Wolf (1999) and Pine and Gilmore (1998). These publications have a stronger focus on the reshaping of the consumer

¹ Dutch: "Boodschappen doen en winkelen"

economy. The theories show a lot of similarities and concerning some topics they complement each other. Together these theories form a broad background to which many trends witnessed today can be traced back.

The Creative Class

With the help of findings from interviews and focus groups as well as the analysis of trends, Florida (2002) observed a fundamental shift 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 is made up of a so called 'super creative core' that consists out of member that produce new forms that are transferable and can be used throughout society, and 'creative professionals' that draw on complex bodies of knowledge for the solving of specific problems. According to the theory of Florida (2002) it is of great importance for companies as well as places to attract and retain people from the creative class. Florida (2002) identified a large-scale re-sorting of people among cities and regions. Some places are becoming centres for the creative class while others are bypassed or even witness an outflow of this group.

Location choices of members of the creative class are strongly determined by lifestyle related issues. This includes the presence of a vibrant nightlife with music venues as well as theatres, facilities for cycling and outdoor activities, parks, and other lifestyle amenities. Real and authentic experiences in the real world is what the creative class is looking for (Florida, 2002). They are attracted to places with a range of cafes, sidewalk musicians, bistros, and art galleries. The creative class isn't 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. Entertainment is increasingly influencing all buying decisions we make; from buying cloths, to which airline we use, and how we relate to political candidates. Marketing of successful brands, products, and services is one of the most important techniques that the entertainment industry has passed on to the rest of the economy (Wolf, 1999, p. 6). 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. To quote Wolf (1999, p. 27): "Companies now have to do something else with their businesses beyond instituting just-in-time inventory control or SAP enterprise automation. They have to create experience; they have to inform and amuse; they have to build a destination."

A fundamental factor driving the entertainment economy is the fun-focussed consumer. Entertainment content enables products to speak directly to the emotions and "people do not naturally migrate from fun to not-fun" (Wolf, 1999, p. 47). However consumers aren't only looking for fun, society has witnessed a process of social fragmentation and this has strengthen the need to feel part of a larger community (Wolf, 1999, p. 172). Individuals all have a different taste, different

needs, and different norms and values. However now and then trends arise when large groups of consumers decide to all buy the same product. Part of the explanation according to Wolf (1999) is that people want to feel part of a group. Targeted audiences that offer a high level of commitment to a specific lifestyle, buying behaviour, and sometimes even set of beliefs are increasingly important for marketing purposes. Brands and products are increasingly connected to a particular lifestyle or group and consumer goods are increasingly used to create communal feelings. Giving consumers a sense of belonging to a community of consumers (Wolf, 1999, p. 38).

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). The shift in retail developments during the 90s in the United States illustrates the importance of entertainment in retailing. After years of declining popularity of shopping malls, a new kind of retail centre made its introduction. Instead of the stores, entertainment including comedy clubs, theatres, and sometimes even theme parks had become the magnet to draw people.

But it is not only about attracting people and making people spend more time in store. Another role of entertainment content is illustrated by the emergence of experience focused large retail stores where decoration, lights, music, furniture, and employees take the consumer to the world according to Ralph Lauren or Tommy Hilfiger (Wolf, 1999, p. 68). These kind of stores are focused on making people relate to the particular brand rather than making direct sales. Wolf (1999, p. 68) is talking 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

Pine and Gilmore (1998) argue that after the agrarian economy, industrial economy, and service economy, the experience economy is emerging. Economists have typically lumped experiences with services. However according to Pine and Gilmore (1998) these are distinct economic offerings and the experience economy forms a long-term fundamental shift in the structure of advanced economies. 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).

Many of the examples named by Wolf (1999) are as well mentioned by Pine and Gilmore (1998). For instance theme restaurants like the Hard Rock Cafe and brand building stores like Niketown. Pine and Gilmore (1998) talk about stores drawing in consumers by offering fun activities, displays, and promotional events. So called 'shoppertainment' or 'entertailing'. However experiences are more than entertainment; experiences are staged whenever customers are engaged in a memorable way (Pine & Gilmore, 1998). 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.

In a recent publication Pine and Gilmore reflect on the current state of the experience economy. Over the past two decades the offering of businesses has increasingly become intentionally experiential (Pine & Gilmore, 2014). While Wolf (1999, p. 228) talks about the importance of advertising through multiple channels, Pine and Gilmore (2014) classify advertising as “a phoniness-generating machine”. According to them companies should allocate their marketing budget on placemaking of both virtual and physical experience places. According to Pine and Gilmore (2014) authenticity is very important in these places considering authenticity is the new consumer sensibility. This vision is in line with the importance the creative class puts on real and authentic experiences (Florida, 2002).

Even though authenticity is important there are a number of generic principles important for the staging of an experience. Pine and Gilmore (1998) identify five key experience-design principles: theme the experience, harmonize the impressions with positive cues, eliminating negative cues, adding memorabilia, and engaging all five senses. The named theme and cues deserve additional explanation. According to Pine and Gilmore (1998) because a well-defined theme is important because without a theme around which to organize the encountered impressions, the experience will not result in a lasting memory. In these themed experiences cues are very important in communicating the experience. Cues range from physical architecture to the interaction with employees.

The creation of a theme as mentioned by Pine and Gilmore (1998) could relate to a lifestyle by focussing on lifestyle amenities and a retail mix fitting the lifestyle. In order to attract the economically powerful creative class a place should fit their lifestyle and offer the kind of experience this group is looking for (Florida, 2002). The importance of focussing on lifestyles is also confirmed by Wolf (1999, p. 107). The creative class is looking for a real street level culture including hip bars, local coffee places, experimental stores, and the like. The presence of historic buildings, architecture, and urban design are important in creating a vibrant environment that is able to attract the creative class (Florida, 2002).

2.5 Shifts in the retail sector

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. There are generally speaking three systems of retail: a model with four actors (manufacturer, wholesaler, retailer, and consumer), a model with three actors (manufacturer, retailer, and consumer), and a model with only two actors (manufacturer and consumer). The retail sector has witnessed a shift from the four actor system towards a more integrated retail structure with less actors (Evers et al., 2011, p. 29). Over the past decades retail chains have been dominating the supply chain and often steer production (Evers et al.,

2011, p. 29). 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).

Recently the use of the model with only two actors has been growing. 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). For example a brandstore can serve marketing purposes to attract and retain costumers (Evers et al., 2011, p. 29). Unsurprisingly the number of brandstores in Dutch cities has notably increased over the last decade (DTZ, 2013).

Besides supply chain integration there is also an integration of retail branches and between retail and non-retail (Evers et al., 2011, p. 44). The distinction between retail sectors is blurring (Dawson et al., 2008, p. 275; Varley, 2006, p. 4). For example supermarkets have a growing offering of non-food products and lifestyle focused stores have a wide product range. Examples of blurring boundaries between retail and non-retail are the clustered of retail with leisure or catering functions, both on area and individual store level.

Fast fashion and internationalisation

Retailing is increasingly becoming a global market (CBRE, 2013). 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".

Another driving force changing core shopping areas is the reduced economic lifespan of some products (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 affordable and rapidly changing collections counterbalances the decreased store loyalty of the modern consumer (Tromp & Ploegmakers, 2005). Because 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). This puts pressure on prices on the rents of stores on the best locations. According to DTZ (2013) this has 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.

Increase in scale

While the presence of international retailers is increasing the number of independent retailers is declining (Evers et al., 2011, p. 87). 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). Real estate investors also prefer these kind of retailers as tenants over independent retailers (Evers et al., 2011, p. 65). As a result the number of independent retailers on the main shopping areas has significantly decreased. In large cities in the Netherlands independent retailers are often found in the small and compact shopping areas adjacent to the A1-shopping area (DTZ, 2013). 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. This trend has been criticized by professionals to negatively affect the diversity of shopping centres. However

amongst consumers the growing dominance of retail chains isn't so much considered an issue (Evers et al., 2011, p. 65). In line with the "comfort of the known" coined by Gianotten (2010).

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 m² in 2004 to 265 m² in 2013 (Platform31, 2014, p. 42). The increased demand for larger units is witnessed in both inner city retail centres and clusters in the periphery (Tromp & Ploegmakers, 2005).

Online retailing and the digitalisation of society

Consumers are increasingly using online retail channels. The emergence of online retailing isn't an autonomous trend but is part of a more general digitalisation of society (Platform31, 2014, p. 45). 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. 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). Convenience forms one of the key motivations for customers to shop online (Jian, Yang, & Jun, 2013). The growth of online shopping puts pressure on retail prices and has led to declining revenues in physical stores, especially for retailers offering easily comparable products (Overbosch, 2012, p. 14). 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). 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).

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. Dawson et al. (2008, p. 336) refer to the online retailing as a ultra-competitive market and this is confirmed by the large number of online retailers. And considering the growing demand of consumers Rigby (2011) refers to, offline presence could form a means for online retailers to distinguish themselves from their competitors.

Piercy (2011) showed consumers show positive cross channel behaviour. 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). A

study of Bhatnager and Siddhartha (2014) consisting out of a simulation, for example indicated the profitability of a multi-channel retailer is higher when a larger portion of sales are generated through the online channel. This however depends on a number of factors including the relative price elasticity.

But internet doesn't only has a transaction function. It also increases the possibility to compare products and prices. One of the effects of this increased transparency is an increased pressure on prices. These possibilities have significantly altered the orientation and purchase process of consumers (Platform31, 2014, p. 48). However Goodrich and De Mooij (2011) show shopping behaviour is still culture dependent and consumers show similar behaviour in online retailing as via conventional channels.

Online retailing isn't new and even almost fifteen years ago the concepts of multi-channel was already described by Mahler (2000). As Alexander and Freathy (2003, p. 299) argue: "Just because there is a technological capacity in existence does not mean consumers will automatically want to use it.". Physical stores are able to offer the experience of physically shopping and online shopping didn't make the physical store redundant. However the online retailing has structurally changed the retail structure. And developments in online store format are far from over and retailers are still experimenting with the different possibilities this form of retailing offers (Evers et al., 2011, p. 114).

2.6 Shifts in consumer behaviour

It is vital for retailers to be embedded in the culture of the economy and society in which they operate (Burt & Sparks, 2003, p. 5). As it is important that retailers understand and fit local consumers, it is important the space in which these retailers operate fits the current shopping culture and consumer preferences.

Price focused

An important trend in consumption is the increased price awareness (I&O Research, 2011b, p. 95). The economic downturn has shifted consumption towards discounters (Evers et al., 2011, p. 55). This increased price awareness also influences consumer behaviour concerning where to shop. For example shopping centres with discount supermarkets are increasingly attracting consumers from neighbouring municipalities (I&O Research, 2011b, p. 60).

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 funshopping. 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. Home delivery and retail at railway stations can also be linked to the convenience focused consumer (Burt & Sparks, 2003, p. 10).

Experience focused

Shopping isn't solely about the distribution of products but also about all kind of social aspects (Burt & Sparks, 2003, p. 5; Evers et al., 2011, p. 29). Looking at shopping as a social rather than a pure functional activity is the basis of funshopping. Wolf (1999, p. 48) argues: "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. As Wolf (1999, p. 61) argues: 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 funshopping (Evers et al., 2011, p. 90). When consumers are funshopping 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 funshopping is an increased demand for day time food and beverage facilities (Platform31, 2014, p. 59). Platform31 (2014, p. 38) indicates butchers, grocery stores and other kind of functional retailers are disappearing from the shopping streets while the presence of coffee places, delicates stores and chocolate stores is increasing.

2.7 Conclusion

There are two markets important for retail real estate: the space market and the asset market. On the space market retailers form the demand side for retail space and property owners the supply side. 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.

Retail centres are part of a structure of retail centres. Both on inter and intra city level there is a hierarchy between retail centres. With few large high order centres and many smaller low order centres. Higher order centres have larger service areas. The ability to bind local consumers and attract consumers from outside the primary catchment area is related to the order of a centre. For the success of retail centres macro, meso, and micro factors are important. Whereby attractiveness attributes are the meso factors. For an attractive centre both functional and emotion dimensions are important.

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. A game changer in the retail sector is 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.

Offering experience is becoming increasingly important for retail centres since online channels offers a convenient and often price conscious alternative. Following the theories of Wolf (1999) and Pine and Gilmore (1998) consumption has shifted from functional goods towards services and more recent there has been a growing demand for experiences. Many consumers consider shopping as more than the acquisition of goods. The city centre is the place where (fun)shopping takes place opposed to the supportive centres that are focused on more functional convenience shopping motives. Consumer behaviour seems to have shifted into a paradox: on the one hand consumers are convenience focused and price sensitive while on the other hand experience and authenticity are important.

This chapter has outlined a number of generic theories and provided an answer to the first sub research question: "What have been the most important trends in the Dutch retail market over the past decade?". This chapter forms the theoretical background for the following chapters and makes it possible to relate the empirical finding to existing theories.

3 Literature research

In this chapter the findings from the literature research are presented. In the previous chapters the research design was outlined and a number of related theories were discussed. This chapter presents a brief literature review concerning three topics: vacancy on the retail space market, area characteristics, and object characteristics.

3.1 Vacancy

Measured on number of vacant outlets the national vacancy rate is approximately 6,9% (Locatus, 2014b). A certain level of vacancy is however also needed to allow 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).

Market condition

The economic downturn has the biggest impact on shopping areas on this moment (Platform31, 2014, p. 35). 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).

Demand and supply of retail space

“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. Recently the economic downturn and rise of online shopping has put consumer spending under pressure, especially in the non-food sector. 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). Before the economic downturn the increase in average spendable income caused an increased demand for retail space (PBL & ASRE, 2013, p. 19).

Retail vacancy is not an autonomous trend; the retail space market is influenced by conjectural fluctuations, changes in society (discussed in chapter 2), and changes in the retail sector including the rise of online shopping (PBL & ASRE, 2013, p. 20). However vacancy on itself can negatively influence footfall rates and contribute to the decay of an area, hereby forming a self stimulating effect (Platform31, 2014, p. 63). Retail centres located in underperforming parts of the Netherlands are logically more volatile for vacancy.

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 long time 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 where 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.

Vacancy versus area size

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).

Comparing vacancy rates with the size of cities shows cities between 30.000 and 100.000 inhabitants witness the highest vacancy rate (see appendix XIII). This shows a relation to the ability of retail agglomerations to bind local consumers. Over the past decade binding power has on average decreased for all area types and especially municipalities with less than 50.000 inhabitants saw a significant decrease in consumers shopping in their home town (I&O Research, 2011b, p. 60). The larger cities show a negative flow of consumer spending on daily products. Especially for cities with more than 200.000 inhabitants the outflow of consumers exceeds the inflow from consumers out other municipalities. However this is more than compensated for by the positive flow of consumer spending on non daily products (I&O Research, 2011b, p. 61). Illustrating the importance of fun-shopping for the retail structure of large retail centres.

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).

Competition amongst retail agglomerations

I&O Research (2011b, p. 65) states there has been a fundamental shift 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, this is for example the case in Gorinchem (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 shift 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; I&O Research (2011b, p. 52) indicates the average distance consumers travel for a shopping trip has increased from 2004 to 2011. In other words competition amongst retail centres has increased. This while the retail structure already has a relatively meshed character². Due to the densely meshed retail structure the competition amongst retail facilities is very high in the Netherlands (Bolt, 2003, p. 42).

But Cities aren't only competing with each other also within urban areas there is competition between shopping areas. In the larger cities in the Netherlands inner city shopping centres are competing with city district centres (NRW, 2014, p. 7). Especially when there isn't a clear distinction between functional shopping and funshopping. For daily shopping most consumers go to locations that meet their demands and aren't too far from home. For funshopping 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). Inner cities are mainly focused on funshopping, experience value is therefore important (Evers et al., 2011, p. 90). Retail locations that aren't able to offer convenience and enhance

² Fijnmazigheid

funshopping 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 with the perceived level of safety, aren't optimally connected to walking lines, are badly accessible and have parking issues, and the size of the stores don't match with the demand of retailers (Evers et al., 2011, pp. 90-91). Both Evers et al. (2011) and Platform31 (2014, p. 41) expect vacancy issues to become apparent for an increasing number of secondary and tertiary shopping locations.

3.2 Retail areas

A literature study was performed to retrieve publications focused on area factors that are important for the attractiveness of retail centres, from a consumers point of view. First the very notion of why retail stores are clustered in retail agglomerations will be discussed since this is fundamental for the attractiveness of retail areas. A significant portion of retail literature is focused on planned shopping centres. However 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.

Agglomeration effects

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 wants 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 affects.

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). Example of ego-intensive products are clothing, shoes, fashion accessory but also style sensitive furniture. 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.

Studies on attractiveness attributes in retail agglomerations

The following section will focus on the attributes that make up an attractive retail agglomeration from a consumers perspective. 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". 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 make these consumers come back to the retail agglomeration.

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 made use of consumer surveys.

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 I.

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

Factors significant for town centre retail Areas	Description
Product range	Factor of retail tenant mix and retail centre size
Retail tenant mix	The composition, the number and type of retail tenants
Atmosphere	Function of light temperature, cleanliness, and architecture
Infrastructure facilities	Public facilities including ATM's, bathrooms, and the like
Orientation	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 didn't 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 doesn't only depend on these characteristics, also the so called buying situation plays a role. Teller and Reutterer (2008) indendified two buying situation related factors: percieved distance (distance between starting point of the trip and the retail agglomeration) and involvement (percieved 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 of 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 3.2: Factors influencing retail agglomeration attractiveness (Teller & Reutterer, 2008)

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

According to Teller and Reutterer (2008) the findings of the research suggest that the marketing activities of retail agglomerations should focused 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 an 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 3.3: Determinants of mall choice (Ooi & Sim, 2007)

	Determining factors	% of responses
Spatial factors	Proximity	64.2
	Centre size	26.5
	Car park	8.6
Tenant mix	Variety of tenants	62.7
	Complementary services	30.9
	Cineplex	29.3
Branding strategy	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 6th 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). 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 3.4: Grouping of attributes representing shopping centre image (Sit et al., 2003)

Image attribute	Description
Merchandise	Depth and breadth of products offered
Macro-Accessibility	Proximity to consumers home and access road condition
Micro-Accessibility	Convenience of accessing centre including: parking spaces, orientation, and appropriateness of trading hours
Personal services	Service provided by employees of the shopping centre
Amenities	Restrooms and overall cleanliness of centre
Ambulance	Involves adequate escalators and lifts and sign boards
Atmospherics	Stimuli including music, colour scheme, decoration, lighting and air condition
Specialty entertainment	Specific venues for entertainment
Special event entertainment	Occasional entertainment
Food	Food products/services offered
Security	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 didn’t consider food an important image attribute.

3.3 Retail objects

The following section will focus on the object characteristics that are important for retailers in their location decision. 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. The findings from the interviews are presented in chapter 4, the following section will present the findings from the literature review.

Retail object characteristics

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. 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”.

In the literature research only one publication providing an overview of object characteristics important in the property selection of retailers were found: Strijker (2014). However a number of object characteristics were derived through a variety of sources, summarized in appendix I. These are: storage space, store size, layout, single floor, appearance, image, accessibility for goods supply, rent level, contract flexibility, extension possibilities, and quality of surroundings.

Part of the thesis of Strijker (2014, p. 39) focused on the relationship between object characteristics in the location choice of retail chains in Dutch on A1 retail locations. A1 retail locations are the shopping street(s) within a shopping area that has the highest amount of footfall; between 75 to 100% of the maximum footfall level (Platform31, 2014). Through a literature research Strijker (2014) retrieved the following factors: extension possibilities, structural factors (including floor height, columns, etc.) image 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. The factors identified by Strijker (2014) however indicate a strong dependence on one of the sources used by this research: Van der Krabben et al. (2005) (see Appendix X). Based on interviews with a number of 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.

The research is focused on the physical characteristics of the real estate object. As mentioned in the scope of this research, market aspects forms the context for the research however isn't the focus point. Rent level and contract conditions are subject to market conditions and the interplay between the property space market and asset market, and are therefore not focused upon in the empirical part of this research.

3.4 Conclusion

Over the past decade the Netherlands has witnessed an increase in vacancy on the retail space market. This is the effect of the imbalance between supply and demand on the retail space market. Due to the structure of the real estate development process new developments were stimulated and withdrawal of properties was discouraged. While there has been an oversupply on the one hand demand has dropped; demographic changes, decreased consumer spending triggered by the economic downturn, the rise of online shopping have contributed to a decreased space demand.

Real estate markets are local markets and there are large differences in vacancy rate between retail centers. Consumer willingness to travel for funshopping has increased and consequently competition amongst retail centers has increased. Attractiveness attributes of retail areas is of growing importance due to increased competition between retail centers and online retailing as an alternative for physical shopping. On object level the oversupply of retail space created a replacement market.

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. 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.

A number of studies were found presenting retail centre attractiveness attributes. These studies provide the following factors to be used in the Delphi research: retail tenant mix, atmosphere, orientation, accessibility, centre size, car parking, catering services, and security. Some of the factors mentioned in this chapter are rather specific for planned retail centres however the expert interviews presented in the following chapter is 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) and "amenities"(Sit et al., 2003), "complementary services" and "Cineplex"(Ooi & Sim, 2007), "specialty entertainment" and "special event entertainment"(Sit et al., 2003).

The literature review retrieved less studies on object characteristics important in the location decision process of retailers. The expert interviews presented in the next chapter are therefore important for deriving an extensive and reliable list of factors for the Delphi research. The literature review resulted in the following preliminary list of factors: store size, structural factors, layout, appearance, image of the property/monument, front-width, accessibility for goods supply, quality of surrounding, and footfall numbers.

4 Expert interviews

In the following section the findings from the nine expert interviews are presented. The nine semi structured interviews consisted out open questions in order to let the information arise from the interviewees them self. 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, the interview guide can be found in Appendix II. 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.

As a result of the interviews the focus of the research was narrowed down. To increase the validity of the research the scope has been reduced from the three largest central retail centres, using the definition of Locatus (2014b), to only the two largest central retail centre types³. This are inner city retail areas with over 200 stores; the 53 biggest central retail centres of the Netherlands. During the interviews it was mentioned these two area types are in competition with each other and for smaller centres a number of other factors play an important role.

4.1 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

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 well; little vacancy. While in the small villages the stores are no longer lettable. Generally speaking."⁴. This is in line with NRW (2014) that state 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. Demographic trends including population growth and reduction, an ageing population, and household income were mentioned to affect the primary catchment area and consequently retail vacancy.

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 funshopping purposes, 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 choice to visit a higher order centre or a neighbouring centre. The increased mobility of consumers results in increased competition amongst retail centres. Furthermore experts mentioned the economic downturn and increased internet sales to also put pressure on the demand for retail space.

³ 'City centre' and 'Regional centre large'. Dutch: '*Binnenstad*' and '*Hoofdwinkelgebied groot*'.

⁴ Sander van Oss: "*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 verhuren zijn. Dat kun je algemeen zeggen.*"

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), discussed in chapter 2.

Revenue potential and rent

The rent level was also mentioned by a number of experts: rent level should be in relation to the revenue potential. This is logical since demand for real estate space is a derived demand (Geltner et al., 2007, p. 65). 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 doesn't have the character and atmosphere, the typical Dutch word *"gezelligheid"*, then the consumer will come less often, will spend less and consequently a retailer is able to pay less rent. On a certain moment the retailer can't cope with it anymore. Then he will pull the plug and say: guys for this rent, that is simply too high, I am leaving."⁵ 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 haven't 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 that can't afford the rent anymore and will need to close its business. In relation to vacancy therefore the connection between revenue potential and rent is important as well. This research however doesn't 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"⁶. Retail properties have to fit the formula of a retailer, to quote one of the experts: "Therefore on the moment a property doesn't completely match, a retailer isn't 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."⁷ 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. Experts then also mention location to have a strong effect on vacancy. When an object is located on a main retail street in a good functioning retail area vacancy

⁵ Jasper van de Weerd: *"Als het niet die uitstraling heeft en die warmte uitstraalt, het typische Hollandse mooie woord gezelligheid, dan komt die klant ook minder vaak langs, gaat minder besteden en dan kan een retailer gewoon minder hoge huur betalen. Op een gegeven moment trekt hij het niet meer. Dan trekt hij de stekker er uit en zegt "Jongens voor deze huur. Die is gewoon te fors. Ik vertrek."*

⁶ Karen Strijker: *"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."*

⁷ Patricia Bos: *"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."*

isn't an issue according to most interviewees, even when the object is in bad technical condition. Location is connected to footfall numbers and "The lower the number of passers-by the less attractive and the higher the vacancy."⁸. 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. In relation to fitting a retail formula, interviewees indicated abnormal dimensions of an object referring to ceiling height, front width, depth, and floor size have a relation to vacancy.

A number of the interviewed experts indicated in some retail centres retailers 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 often doesn't happen in the core of the centre and if that happens somebody from a secondary retail street, these are able to negotiate, moves to the core. Thus vacancy often occurs in the streets outside the core."⁹.

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 that vacancy has a self stimulating effect. A number of different processes connected to a so called negative spiral were cited: when gaps in the retail structure become apparent consumers are likely to be less 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 that isn't attractive enough.

4.2 Future role of real estate

During the interviews the experts were asked about their expectation for the coming five years concerning the chances on the retail market and in connection to this 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."¹⁰. 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. 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.

⁸ René Vierkant: "Hoe minder passanten hoe minder aantrekkelijk en hoe groter de leegstand."

⁹ Bert Enting: "Maar wat zie je door leegstand: dat gebeurt niet 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."

¹⁰ Sander van Oss: "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."

Role of retail space

Shopping is more than simply the distribution of goods, "Already for a while shopping is considered a recreational activity and this is increasingly the case."¹¹ The importance of funshopping, 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 doesn't feel like spending its shopping day-trip there, you are simply going to lose it."¹² 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 and functional shopping is increasingly done on the internet. 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 (there are 17 retail centres in the categorie 'City Centre' according to Locatus), those are maybe the retail centres of the future. A few extra and a few less. The rest becomes a convenience centre. That is maybe a bit oversimplified but just the facilities for the local population"¹³.

Location strategy

Three experts brought up the topic of the coverage rate of retailers. All three of them expected a reduction the number of outlets of retail chains. One experts indicated that consisted with the new role of physical stores it's not hard to imagine these retailers will chose 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 chose to open stores in all towns."¹⁴.

4.3 Retail area

In the interviews the participants were asked about what they as experts perceive as the most important factors for retail centres. By linking literature and the expert interviews factors were derived to be taken into account in the Delphi research. The following section discusses the findings.

Accessibility

Teller and Reutterer (2008) refer to accessibility as "a measure of perceived distance and convenience to overcome this distance" and 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. Travel time from point of departure to the stores in the city or town centre is linked to accessibility of an area as well as the ease of finding a parking spot and the distance from the parking facility to the shopping streets, if travelled by car, and the distance from a public transport spot to the retail centre, if travelled by public transport. As mentioned by some interviewees, accessibility and parking facilities for bicycles are also important in the Dutch situation. Because both factors influence the same effect, namely time and money spend to arrive at the stores, parking and accessibility issues (a1) are combined in one factor in the Delphi research.

¹¹ René Vierkant: "Winkelen is al een tijdje een recreatieve tijdsbesteding en dat word het steeds meer."

¹² Karen Strijker: "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."

¹³ Peter Nieland: "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."

¹⁴ Sander van Oss: "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."

Retail tenants

The core function of a retail area is retailing. All four publications shown before showed the merchandise offer to be one of the most fundamental attractiveness attributes of a retail agglomeration. Looking at the agglomeration benefits discussed earlier in this chapter the width and breadth of merchandise offered plays an important role in the attractiveness of a retail centre. The width and breadth of retail offer is a result of the retail mix (a2) and the size of a retail centre (a3).

The product range offered in a retail centre directly affects the agglomeration effects, it be complimentary or substitution based. 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. Experts indicated that for an attractive retail mix of an inner city retail centre especially the fashion branch is important. During the interviews something of a split in the retail offering popular on this moment became apparent; on the one hand discounters are doing very well while on the other hand niche retailers focussing on experience or lifestyle are popular.

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). The catchment area of a retail agglomeration is positively related to centre size: "Overall, the survey results are consistent with the hypothesis that larger suburban shopping centres are able to attract a higher percentage of "outshoppers" who take a longer time to travel to the shopping centres." (Ooi & Sim, 2007). This is in line with the interviews quoting one of the experts: "Depending on the amount of stores in an area we conclude if the catchment area is larger or smaller. The amount of stores defines the circle in which you place your compasses, so to speak"¹⁵.

In the interviews a specific part of the merchandise offer, namely attractive secondary retail streets just outside the core retail area (a4), was mentioned by a number experts. According to the interviewed experts such an area can enhance the shopping experience of a consumer 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. In the attractiveness attribute literature this concept wasn't mentioned however it fits the experience economy of Pine and Gilmore (1998) discussed in chapter 2.

Anchor stores where not taken as separate factors in the publications on attractiveness attributes discussed before, however are mentioned specifically by 6 out of nine experts during the interviews. Anchor-tenants have a great influence on the effectiveness 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 local retail landscapes (Burt & Sparks, 2003, p. 14), something stipulated in the expert interviews as well.

¹⁵ John Vos: "Afhankelijk van de hoeveelheid winkels in een bepaald gebied constateren we of het verzorgingsgebied ruimer is of krapper is. De omvang van het aantal winkels bepaald, laten we zeggen de cirkel waarbinnen je bij wijze van spreke de passer neerzet."

According to Damian et al. (2011) an anchor store contains all or at least most of the following characteristics: it is large¹⁶, it is a chain store, has a strong brand, generates significant footfall, and has a widespread appeal and therefore would as well trade successfully as a stand-alone unit.

The importance of a strong brand is also mentioned by Konishi and Sandfort (2003). They state that consumers are attracted by an anchor's name and are therefore more likely to visit the shopping location, causing a spill-over effect for stores nearby. A common categorization of anchor-tenants is based on the quality of the goods sold by the retailer and the prestige of the brand (Shanmugam, 2013). Even though non-anchor tenants vary in quality level as well, in particular the anchor store quality is of high strategic importance in retail developments (Shanmugam, 2013).

The relationship between anchors and non-anchors is complicated because there can be competition between anchor and non-anchor stores (Konishi & Sandfort, 2003; Shanmugam, 2013). An anchor store can offer complementary products however this doesn't have to be the case. Shopping centres for example consist out of a number of specialty retailers of shoes and clothing, while a department store anchor also offers these products. If consumers 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 a department store anchor 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.

The agglomeration effects mentioned before also apply for the department store itself. Department stores offer the convenience of a wide offering of product categories and with the house of brands strategy offer a variety of comparable products. Hereby contributing to the overall depth and breadth of merchandise offering of a retail centre. Department stores as the Bijenkorf and V&D traditionally form important anchors in Dutch retail centres (Evers et al., 2011, p. 55). In the interviews a number of additional anchor stores were named: Primark, Zara, H&M, Mango, and Action. Interestingly especially fashion chains were named to be important anchors in Dutch inner city retail centres.

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 (a2), retail mix (a3), anchor stores (a4), and secondary retail streets (a5).

Non-retail tenant mix

Town and city centres don't solely consist out of retail functions. There are also other functions in these urban areas; in some publications the term non-retail tenants is being used. In the interviews non-retail tenants including leisure and catering functions were mentioned by a number of experts.

The growing importance of entertainment in the consumer economy stressed by Wolf (1999) is also reflected in shopping centres. Just as some retail stores, restaurants and entertainment destinations can function as anchors in retail centres, however contrary to anchor stores these functions do not

¹⁶ In the setting of Portugal Damian et al. (2011) mention usually above 600m² GLA

compete with non-anchor stores (Shanmugam, 2013). Entertainment has become more important for enhancing the shopping experience (Ooi & Sim, 2007; Wolf, 1999). Ooi and Sim (2007) argue that by incorporating non-retail tenants in a retail agglomeration, including leisure and complementary services, a shopping centre can fulfil its secondary role of providing lifestyle and recreational facilities for a local community.

A special category of the non-retail tenant mix is catering; Sit et al. (2003) also identified food as a separate tenant category. Shanmugam (2013) showed a positive relationship between the size of food courts and mall traffic and profit. In line with this stated Howard (2007) that while the spillover effects of leisure functions such as cinemas and fitness areas are questionable, catering and retailing do have clear synergy effects. The importance of food and beverage functions was stipulated in the interview; many interviewees explicitly mentioned food and beverage functions to be important for the attractiveness of Dutch inner city retail areas. Therefore the mix of catering services (a6) was considered a factor for the Delphi research. The importance of catering was often mentioned by the interviewed experts in connection to fun shopping I&O Research (2011b, p. 97) states that in connection to fun shopping especially day-time catering is important. Day-time catering was mentioned by the interviewees by referring to concepts like: supporting catering services, coffee places, lunch places, and terraces. However also catering services not specific to daytime were mentioned including fast-food chains and restaurants.

During 80s and early 90s Dutch city centres witnessed strong competition from retail clusters on the periphery of the city. However partly due to the combination of retail and leisure the inner city location survived (Evers et al., 2011, p. 44). In the suburban shopping centres in the research by Ooi and Sim (2007) leisure functions, to be specific the Cineplex, did contribute to the drawing power of the retail centres. The importance of complimentary services and leisure components as determinants for mall choice in the research by Ooi and Sim (2007) can be explained by the role these centres play in people's lives. Quoting Ooi and Sim (2007): "Suburban shopping centres have indeed become more than a retail place for the local community."

As emerged retail agglomerations the role of Dutch inner city retail centres is without any doubt far more than a retail place. From the expert interviews it can be concluded 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: "Nowhere its exactly this way but it is a kind of onion model with a core of hardcore retail and around that a decreasing percentage of retail and more diversification. This makes a city attractive for more purposes then only hardcore retail and shopping is also more than the distribution of goods it is mainly about having an experience of a day out. This experience is created by all these factors that are in the urban life."¹⁷.

¹⁷ Rene Vierkant: "Het is nergens precies zo maar het is een soort schillenmodel met in het hart zeg met het hardcore retail en daar omheen steeds minder retail en meer gediversifieerd. Dat maakt een stad aantrekkelijk voor meer dingen dan alleen maar hardcore winkelbezoek en winkelen is ook niet alleen meer distributie van goederen maar is voor het belangrijkste deel beleving van een dagje uit. Die beleving krijg je juist door al die factoren die in een stedelijk leven zit."

Teller and Reutterer (2008) did identify a number of (inter-)correlations among the factors that didn't show a significant impact, suggesting these factors might indirectly influence perceived attractiveness. An example of such a factor is the non-retail tenant mix of a retail agglomeration. In contrast to some publications on shopping malls, leisure functions aren't seen as a standalone component but are considered in the wider context of mixed functions (a7) in the empirical part of this research.

Markets, activities and events

The interviewed expert indicates that activities and events that are being organized do contribute to the attractiveness but are of limited importance. 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. However the interviewees suggest activities and events don't make a direct contribution to the functioning of the retail centre. It's more about the indirect effect that there is something going on than that the events attract visitors that will also shop.

The connection between activities that are being organized and leisure 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."¹⁸ and "The experience by adding a theatre, events, promotions and I don't know what is in my vision very needed for retail centres that have limited distinguishing capabilities."¹⁹.

A special type of event being organized in city and town centres is the market. In 2011 approximately one fifth of the consumers in the Randstad-area visited the market at least once a week whereby groceries and flowers were by far the most bought products (I&O Research, 2011b). A market nowadays fulfils a distribution function but arguably the market also provides a form of leisure. Both events and activities and the market are temporary and provide liveliness and enhance consumer experience by offering a kind of leisure aspect. Therefore these factors are clustered (a8) in the Delphi research.

Historical city centres, facades, atmosphere and safety

Atmosphere was mentioned by Teller and Elms (2010), Teller and Reutterer (2008), and Sit et al. (2003) and 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 the word (see chapter 6). There is no exact English translation for "gezelligheid" however it could be best translated as cosy or convivial. As stated by Teller and Elms (2010) atmosphere is the result of a range of stimuli including cleanliness, light and temperature.

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 is important in this and variation was also 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 and giving a retail area a theme was mentioned as a possibility means of differentiating a retail area from its competitors.

¹⁸ Karin Strijker: "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."

¹⁹ René Vierkant: "De beleving door middel van het toevoegen van een theater, evenementen, acties en weet ik veel allemaal is in mijn optiek heel nodig voor die winkelcentra die weinig onderscheidend van zichzelf zijn."

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 study this wasn't named by any of the studies on attractiveness attributes. Only in one professional publication: NRW (2014) shown in Appendix I, 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, authentic²⁰. To quote one of the interviewees: "The fact that this are buildings that are a bit older also contributes. How crazy that might sound. There has been lived and these buildings have a soul and that is also something being emitted"²¹.

The effect of historical buildings goes further than providing an atmosphere and historical facades; it is also about the social and symbolic function of these buildings. Real estate has multiple functions: it has a technical function in the sense of creating an artificial climate, it supports the activities taking place in buildings, it has an economic function, and it has 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, the interviewee considered this to be the result of a lack of variety in facades, signing and for example the lack of public greenery. However De Jonge et al. (2009, p. 12) mention another explanation; these projects are located in a so called socio-cultural vacuum and the only solution for this is to wait until a new "memory" has emerged. As one of the interviewees said: "Everything eventually becomes historical of course"²². "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." (De Jonge et al., 2009, p. 12).

Atmosphere, facade impression and historical town centres are interrelated factors. However these factors were explicitly mentioned by a significant number of interviewees and these factors also have a different effect on the consumer experience. Therefore atmosphere (a9), facade impression(a10) and historical city centre (a11) are included separately in the Delphi research. The feeling of safety (a12) is interrelated with atmosphere however these two are clearly separate factors. The concept of perceived safety was mentioned by a number of interviewees and also Sit et al. (2003) mention this concept explicitly. In some Town Centre Management initiatives in the UK increasing the feeling of safety was one of the main focus point (Paddison, 2003).

Public space, layout and orientation

The attributes infrastructure facilities named by Teller and Elms (2010) and amenities (Sit et al., 2003) in essence describe the same concepts. These factors were mentioned explicitly in these publications however weren't mentioned during any of the expert interviews. However these aspects are taken into account in the Delphi by clustering them with a factor that was mentioned in the interviews, namely public space (a13).

In inner city retail centres facilities including rest places, ATM's, public toilets and so on are part of the fitting out of the public space. These communal services are important for a consumer because they support the core product of a retail agglomeration (the merchandising) and add value to the

²⁰ Dutch words being used by many of the interviewees: sfeer, ziel, gevelbeeld, kleinschaligheid, authentiek

²¹ Jasper van de Weerd: "Het feit dat dat wat oudere panden zijn dat dat ook bijdraagt. Hoe gek het ook klinkt. Er is geleefd er zit een ziel in die gebouwen en dat straalt het ook uit."

²² René Vierkant: "Alles word vanzelf historisch natuurlijk."

customers shopping experience (Sit et al., 2003). 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 pavement, it are the facades, the coherence in the facades, it are the pots with flowers. It's actually very simple. It is the street lighting. To repeat myself it's not everything but these factors do contribute"²³.

Layout / routing (a14) is 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, and the location of catering services where mentioned in connection to routing / layout.

Orientation (a15) 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. Orientation was explicitly mentioned by Teller and Elms (2010) and Teller and Reutterer (2008), although orientation didn't show significant influence on attractiveness in the later. Sit et al. (2003) considered orientation part of the micro accessibility of a retail agglomeration.

4.4 Object characteristics

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 doesn't want to settle in a city they also won't look at the property... ...We always say area, object, user."²⁴. However when no suitable object can be found a retailer might not settle in a retail area.

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.

As stated in chapter 2 retail chains are increasingly dominating the Dutch retail landscape. Even though retail formulas differ in real estate demand many chains have comparable location selection processes. Besides that the real estate space market is also per definition a place where a multitude of changing demands connects with one physical and relative static supply. Even though a number of experts indicated retail chains 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 in this case as well. Location (o1) 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 fun-shopping and impulsive purchases this is very important, to quote one of the interviewees: "If

²³ Jasper van de Weerd: "Het is het straatsteentje, wat voor straat stenen. Het is de gevel, het is de eenduidigheid in het gevelbeeld, het zijn de bakken met bloemen. Het is eigenlijk heel simpel. Het is de lantarenpaal. Nogmaals het is niet alles maar dat draagt gewoon bij."

²⁴ Karin Strijker: "Als men niet naar de stad toe wil dan gaat men ook niet naar het pand kijken ... We zeggen altijd gebied, gebouw, gebruiker."

you want to have impulse purchases than you need to be located where most people walk. If your more purpose orientated your able to locate on a location where less people walk.”²⁵.

Not only horizontal location is important as well vertical positioning. Ground floor levels (o2) are in general preferred by retailers. This has to do with accessibility issues from the consumer perspective, as well with exposure since objects on eye height far more easily catch the sight of consumers passing by.

Size, layout, ceiling height, and ground floor

Size (o3) was one of the most cited object attributes. Retailer are looking for objects that best fit their formulas space demand. In line with literature(see chapter 2) 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.

Strijker (2014) clustered all property characteristics like floor height, columns and so on. In this research these aspects are analysed in more detail. The importance of a column free floor is something mentioned in both literature and during the interviews. This specific part of the layout (o4) of a store was mentioned most often by the interviewed experts. 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.

Width-depth ration (o5) can also 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 (o6) is also expected to influence consumer state of mind, since during the interviews it was mentioned mostly in connection to 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 named: being able to place merchandise shelves.

Exposure

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. In this research it was assumed exposure is a product of the facade (o7) and the front width (o8). Front width was an often mentioned factor and in the research of Strijker (2014, p. 39) this appeared as one of the most important object characteristics. Facade includes the design of the facade including any signing, influences by rules and legislation.

Image and character of the building

Even though the factor was mentioned in literature the image of a building (o9) doesn't appear to be a major factor in the decision process of retailers. To quote one of the experts: “There are a few that look specifically at the character and architecture of the building, however that are only a few.”²⁶.

²⁵ Peter Nieland: *“Als je impuls aankopen wilt hebben dan moet je op de locatie staan waar mensen lopen. Als je wat meer doelgericht bent dan kun je op een locatie staan waar wat minder mensen lopen.”*

²⁶ René Vierkant: *“Er zijn er een paar die heel specifiek kijken naar uitstraling en architectuur van het pand, maar dat zijn er maar een paar.”*

Accessibility and technical state

Storage space, a factor mentioned in literature, is an effect of store size and layout furthermore this factor wasn't mentioned during the interviews. The accessibility for goods supply (o10) is a factor directly influencing the business process. However as one of the interviewees stated: "Accessibility is of course important for being able to supply the store. However often it's the case that when a retailer chooses for an inner city location he knows there might be restricting factors."²⁷.

Service fee, mentioned by Strijker (2014, p. 39), is foremost an effect of the technical state (o11) of a building. Furthermore the technical state influences the initial investment retailers need to make to start operating the object.

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 (o12) 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 (o13). 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 don't locate next to a terrace or other catering service.

Street width (o14) was also mentioned to influence the location selection of a retail, quoting one of the experts: "Reasoning from the consumers perspective that the consumer considers it a pleasant width to walk a section on one side of the street and another section on the other. If he walks on the one side he is still able to adequately observe what is in the display window on the other side"²⁸. Being located on the "sun side" (o15) of the street was mentioned by one expert to even be reflected in the rent level.

4.5 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 amount of consumers consequently drawn to a retail cluster is related to 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.

²⁷ Patricia Bos: "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."

²⁸ John Vos: "Vanuit de consument gedacht in de zin van dat vind de consument een behaaglijke breedte om dan weer eens aan de ene kant van de straat te lopen dan weer eens aan de andere kant. Hij kan als hij aan de ene kant loopt toch voldoende waarnemen wat er zich in de etalage aan de overzijde zich bevind."

Based on literature and expert interviews fifteen attributes were defined to influence the attractiveness of Dutch inner city retail areas from the perspective of the consumer: accessibility, retail mix, centre size, anchor stores, secondary retail streets, catering services, multi functionality, markets and events, atmosphere, facade impression, historical city centres, safety, public space, layout / routing, and orientation. A number of these factors seem to have direct effects on attractiveness while others have an indirect effect. Secondary retail streets, facade impression and historical city centres are factors that weren't derived from the literature research but seem to play an important role in the Dutch situation.

Retailers are increasingly critical concerning where to locate. On object level this means it becomes more important that objects are able to fit the retail formula. 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 combination of literature research and expert interviews resulted in the following list of object factors to be used in the Delphi research: location, size, front-width, width-depth ratio, floor height, column free and layout, facade, sun side, function of surrounding objects, quality of the surrounding, street width, supply accessibility, image of the building, technical state, and ground floor.

The fifteen area and fifteen object factors identified in this chapter form the basis of the Delphi research presented in the following chapter.

5 Delphi research

In the previous chapters the relation between retail area attractiveness attributes and vacancy and the relation between object characteristics has been outlined. Fifteen factors were derived related to retail space on area level and fifteen factors were derived on object level. These factors are based on nine expert interviews and a literature research. An expert panel of twenty experts active in different segments of the retail space market was asked to rank the 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.

5.1 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 (see Appendix III) and provide a motivation for their personal ranking. After the first Delphi round the experts were provided descriptive statistics, concerning the group opinion and consensus. Though 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. The experts were asked to rethink and possibly revise their ranking to obtain a more reliable group responds. In the following section the results of the Delphi research are presented.

5.2 Expert ranking

In total 20 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 5.2: 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
Retail mix	1	1	=	Location	1	1	=
Anchor stores	2	2	=	Ground floor	2	2	=
Centre Size	4	3	↑	Size	3	3	=
Accessibility and parking	3	4	↓	Function of surrounding objects	4	4	=
Atmosphere	5	5	=	Front-width	5	5	=
Catering services	6	6	=	Width-depth ratio	6	6	=
Routing	8	7	↑	Quality of surrounding	7	7	=
Public space	7	8	↓	Column free and layout	8	8	=
Multi functionality	9	9	=	Floor height	9	9	=
Historical	10	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	0,46	0,61	0,15	Kendall W	0,66	0,73	0,07

Comparing the first round of the Delphi to the second round shows a slight improvement of the group consensus concerning the object factors. The ranking of object factors also didn't 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 IV).

5.3 Retail area

The group consensus of the ranking of area factor was 0,61 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.

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; in the end a consumer is there to shop. 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 that has sufficient retail offering, this means the offering should be large enough and a good 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 catering services. The historical core can also establish this atmosphere."²⁹.

An interesting extreme position related to the retail offering is the fact that four experts ranked centre size as one of the least important factors in their first 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"³⁰. This quote and 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, catering services, 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

²⁹ Remco Dijkmans: *"In de basis komen mensen naar een gebied met voldoende winkelaanbod, dat betekend dus dat er voldoende aanbod moet zijn en een goede mix. Mensen komen immers om te kopen. Vervolgens moet het gebied een goede sfeer hebben, dat kan bijvoorbeeld door openbare inrichting of horeca. De historische kern kan deze sfeer ook realiseren."*

³⁰ Wim de Bruijn: *"Het success van een winkelcentrum is afhankelijk van het success van elke winkel"*.

explicitly mentioned atmosphere related aspects to stimulate shopping trip duration³¹. 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).

Catering services and public space

The supporting role of catering services, in particular daytime catering, indicated in the expert interviews is being confirmed in the Delphi ranking. Catering services 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 catering services can be considered supportive for particularly recreational shopping motives and is in line with the growing importance of funshopping.

Secondary retail streets

An interesting aspect mentioned in the expert interviews was the aspect of "secondary retail streets", however in the Delphi this factor was 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 doesn't 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. 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"³².

5.4 Object characteristics

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 0,66 and a final Kendall's W of 0,73. 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 different 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 use their properties increasingly 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."³³.

³¹ René Vierkant: "Verblijfsduur verlenging wordt vervolgens ingegeven door zaken die sfeerbepalend werken."

³² Micha Candela: "De aanloopstraten trekken vaak specifieke concumenten welke de keuze maken om bepaalde straten in te lopen. Het gros van de mensen loopt echter door de hoofdstraten."

³³ Marrit Laning: "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, moet daarom naadloos aansluiten op de uitstraling van het merk. Technische factoren blijven wel belangrijk, maar schuiven iets meer naar de achtergrond hierdoor."

Location, location, 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.”³⁴.

Surrounding functions

An aspect ranked high in 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.

Fitting the formula

In their motivations the Delphi participants mentioned the demand a retailer makes on object level is formula specific and it is important that an object fits the formula. Aspects as being located on the ground floor, size, front width, front-depth ratio, floor height, column free and layout can be related to this ability to ‘fit in’ a formula. The factors ground floor, size and front-width are all three ranked in the top five. Front-width is also very important for creating enough exposure, a concept mentioned often in the expert interviews.

Facade and technical state

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 facade. Technical state and facade are both ranked amongst the bottom five factors.

5.5 Conclusion

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 catering services and public space. This ranking is in line with the “Big four” mentioned by Sit et al. (2003); merchandise, accessibility, service, and atmospherics. Since catering services and public space can be considered a service in the case of town centre retail areas.

Even though experts during the interviews indicated 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

³⁴ Piet Smits: “*Specialistische zaken/zelfstandigen zullen vaak een mindere locatie kiezen vanwege de hoogte van de huur*”.

located on ground floor level or not. The results of the Delphi on object level is generally in line with the research of Strijker (2014).

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.

6 Case studies

In this chapter the findings of the literature, interviews and Delphi research will be tested on three cases to check if the findings are confirmed in practice. The case studies don't intend to make a full and thorough analysis of the historical development of the retail structure or retail vacancy in the case area. The fifteen area and fifteen object factors ranked in the Delphi research form the basis of the case analysis that consisted out of the analysis of the database of Locatus, structured observation, and the analysis of research publications and governmental policy documents.

6.1 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 relation between 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 V). 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 V). The findings derived from the area and object analysis are connected to a number of research reports and policy documents. Before these results will be presented the following section will first describe the case areas.

6.2 Case areas

The selected case areas are the city centres of Vlaardingen, Schiedam, and Rotterdam. Three retail centres within the urban agglomeration of Rotterdam are selected so 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 V). Since centre size is considered a retail centre attractiveness attribute, retail centres of different sizes were chosen. 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".



Figure 6.2: Map of case areas Source: (DTNP, 2014)

Table 6.1: Summary of retail space by retail centre Based on Locatus data

Retail centre	Retail floor space (m ²)	Retail Vacancy (m ²)				Vacancy rate floor space ³⁵	Adjusted vacancy rate ³⁶
		Friction	Long term	Structural	Total		
Rotterdam centre	210 643	22 233	9 035	5 561	36 829	12,4%	4,7%
Schiedam centre	45 492	697	7 042	7 293	15 032	24,8%	23,5%
Vlaardingen centre	42 893	1 714	3 307	1 313	6 334	10,4%	7,4%

Rotterdam shows a relatively high vacancy rate. 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 V). Since 2006 the retail space stock of Rotterdam centre has increased from around 201.500m² to over 210.600m² by 2014 (Locatus, 2014a). Over the same period vacancy rates went up from 7,1% to 12,4% of the retail floor space. Vacancy rates historically have been high in the centre of Schiedam. 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 42.800m² to almost 45.500m² (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 V for the vacancy development of the three retail centres since 2006.

Table 6.2: Binding power by municipality Source: I&O (I&O Research, 2011a)³⁷

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

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 (described in chapter 3). Online shopping wasn't embraced by the average consumer yet in 2004, while in 2011 it was a relevant alternative for physical shopping. Especially for the non-daily sector binding power decreased significantly, this is in line with the before mentioned increased willingness to travel for funshopping 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.

³⁵ Calculated using the method of Locatus

³⁶ Vacancy rate calculated using the method of Locatus but reduced with the fraction vacancy.

³⁷ 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.

Table 6.3: Turnover by retail centre

Source: (I&O Research, 2011a)

Retail centre	Year	Turnover daily sector		Turnover non-daily sector		Total
Rotterdam centre	2004	€ 162 mln	17%	€ 777 mln	83%	€ 939 mln
	2011	€ 152 mln	26%	€ 435 mln	74%	€ 587 mln
Schiedam centre	2004	€ 46 mln	37%	€ 77 mln	63%	€ 123 mln
	2011	€ 50 mln	54%	€ 43 mln	46%	€ 93 mln
Vlaardingen centre	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 (indicated in chapter 3). 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 870.000m² (BRO, 2012, p. 64) for a population of around 616.000 inhabitants (CBS, 2014).

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 V). Compared to other surrounding municipalities an above average portion of the retail sales in the inner city of Rotterdam is generated by inhabitants of Schiedam.

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.

Schiedam centre

Schiedam has a retail structure consisting out the city 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 81.000m² (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) but as indicated by table 6.3 the total retail turnover of Schiedam centre is relatively modest. The fast majority of the retail turnover originates from the local consumer.

Vlaardingen centre

Vlaardingen has a retail structure consisting out the city 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 105.000m² (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).

Vlaardingen still has a regional service function even though it lost market share, as many centres in the region did (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.

6.3 Findings area level

DTNP (2014) concludes the changing retail market influences the retail centres of the urban agglomeration of Rotterdam: footfall numbers are decreasing since 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) furthermore indicates a kind of split between the inner city of Rotterdam and the historical centres surrounding it. The centre of Rotterdam on the one hand remains interesting for new concepts and international chains. The historical centres (Vlaardingen, Schiedam and Maassluis) have a retail space stock that's too large and as an effect some (secondary) retail streets are losing their relevance.

Vacancy

Adjusting for the friction vacancy table 6.1 shows the centre of Rotterdam has the lowest vacancy rate, followed by Vlaardingen, with Schiedam clearly having the highest vacancy rate. The demographics of the three case areas don't seem to form a full explanation for this difference since the average household income in Schiedam is higher compared to Rotterdam and also the portion of non-western minorities is lower. Also the ratio of retail floor space per inhabitant doesn't seem an adequate explanation since the retail floor space in Schiedam is quite modest and significantly lower than 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 6.2). 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 VI). 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 both direct surrounding municipalities and from elsewhere in the Netherlands. According to I&O Research (2011a) almost a quarter of the retail turnover in Rotterdam centre was derived from visitors outside the direct surrounding municipalities. While in Vlaardingen this was below five percent.

Based on the vacancy rate Vlaardingen seems to be functioning relatively good. Conversely the centre of Schiedam functions poorly as a retail area due to 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 VI): 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 less well connected to Rotterdam since it isn't part of the tram or metro network.

Confirmation of ranking

In comparison to Vlaardingen centre, Schiedam centre on 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 AppendixVI). The centre of Schiedam knows a long history. 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 it currently has hardly any attractiveness to 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 VI). Vlaardingen centre performs better on these aspects. These factors were ranked respectively first, second, and fifth in the Delphi research (chapter 5). 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. After a number of years of absence the departments store V&D moved back to Vlaardingen, hereby improving the attractiveness of the retail centre (DTNP, 2014). The centre of Rotterdam has a large number of anchors. The 'Lijnbaan' is dominated by large fashion retailers as Mango, Zara, Bershka and H&M are located (Stadsontwikkeling Rotterdam, 2012a). These retailers were mentioned during the interviews to be important anchors . However these aren't 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 for the retail mix in 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 retailer are clusters. Causality in this is however unclear since one hand could argue that these retailers draw consumers but on the other hand the consumers also draw the retailer. As mentioned in chapter 2, the nature of the products requires

(fast)fashion retailer to located on high footfall locations. In Rotterdam centre fashion retailers have a strong presence, in Vlaardingen centre this is a bit less but still substantial, and in Schiedam centre the retail floor space in the fashion sector is far lower. Gemeente Schiedam and DTNP (2009, p. 23) than also state that: "Substantial addition of fashion and other recreational retail offering in large stores is of great importance."

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'. After completion of these developments the binding power of Schiedam initially showed an increase from 1992 until the year 2000. However due to the lack of renewal this binding power dropped again 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 also stores in the high-end market. These types of retailers are significantly less found 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 VI).

Secondary retail streets

During the expert interviews secondary retail streets were mention 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'. 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 to 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 located in high order central places since these retailers need a large service area (Bolt, 2003, p. 16).

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). Secondary retail streets compliment this offering since predominantly independent retailers are located in those areas. 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 and 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 shows 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

Within the region the inner city 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 focused retail concepts, international formulas, and a wide range of (national) retail chains. In Rotterdam many chains are located that are not found in Vlaardingen or Schiedam (see Appendix VI). 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 140m² and 112m², and a flagshipstore of around 250m² in the centre of Rotterdam (Locatus, 2014a). Retail chains are not the only factor contributing to the width and depth of the retail offering in Rotterdam centre. Also retailers located on the secondary retail streets contribute to this. In Rotterdam centre there are specialty retailers in all kind of sectors, The Markthal is an example of a clustering of specialty retailers in the food sector. Besides these retail offering related factors also funshopping supportive catering services such as lunchrooms, fastfood outlets, and terraces are well presented in the centre of Rotterdam (see Appendix VI).

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."³⁸(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 day trip 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 being 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 6.3). Gemeente Schiedam and DTNP (2009, p. 24) state that if no substantial improvements are made to the city centre of Schiedam, 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 isn't the most important factor. Experts ranked 'Centre size' as third most important factor. Dennis et al. (2002) indicate the hierarchy of retail centres isn't solely based on size but is based on the attractiveness of the centre. Comparing Schiedam and Vlaardingen confirms this, since the two centres are very similar in size but the binding power(see table 6.2), retail sales in the non-daily sector (see table 6.3), and the presence of recreational branches like fashion indicate Vlaardingen

³⁸ Dutch: "Vlaardingen heeft daarentegen wel de mogelijke kwaliteiten die ruimte bieden tot verbetering van de concurrentiepositie, vooral gericht op de bestedingen van de eigen bevolking."

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 more chains exited the market than entered the market ³⁹.

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). Shopping in the sense of watching, comparing, experiencing and buying is increasingly taking place centres other than the "own" town centre (Stadsregio Rotterdam, 2013, p. 4). Based on the distribution of retail floor space by retail sector (see Appendix VI) and the portion of sales in the daily versus the non-daily sector (see table 6.3) this division already seems the case for Rotterdam and Schiedam. In the inner city of Rotterdam fashion retailers and departments stores take up the majority of the retail space and the vast majority of retail turnover is generated by the non-daily sector. In Schiedam centre food, frequently non-food, and living & DIY retailing is far more dominant compared to Rotterdam centre. The majority of retail turnover is also generated in the daily sector. From a functional point of view Vlaardingen is positioned in the middle of these two.

6.4 Findings object level

In the case study indications of a relation between object factors and vacancy was found. Areas with relatively large units with wide store fronts, in a high quality surrounding, with open floor plans, and well kept facades have a low vacancy rate. While areas with small scaled objects, narrow store fronts, bad quality surrounding, 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. However for a number of factors this relation isn't one sided, since the formula moving into the object influences the facade and technical state of the object. However there are a number of factors that are hard to adjust, for example stores in Schiedam are relatively small (Gemeente Schiedam & DTNP, 2009, p. 6). 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 shifted the placement of vacancy in the centre of Schiedam. Rekenkamercommissie Schiedam-Vlaardingen (2014, p. 19) states that before

³⁹ 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 completion of these developments, most vacant objects were located near the 'Passage' while afterwards most vacancy could be found in streets as the 'Hoogstraat' , 'Broersvest', and 'Broersveld'. Suggesting a replacement market.

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 V). 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). But also 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 (see AppendixV). 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 registered as vacant, hereby pushing up the average size of a vacant unit, however these objects are located outside the main routing. This is in line with the Delphi research since 'location' was ranked higher than 'size'.

Table 6.4: Average store size Source: (Locatus, 2014a)

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

In all three cases there seems to be a relation between vacancy and the location below or above ground level (see Appendix V). 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 didn't reveal patterns with significant backing; the relation to vacancy of these factors couldn't be sufficiently isolate to make grounded statements and/or the sample was too low to be representative. Often vacant objects have multiple

⁴⁰ Groups using the definition of Locatus

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

characteristics that don't 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.

6.5 Findings 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 clearly visible vacancy negative influences the atmosphere in the retail area (DTNP, 2014).

On object level vacancy in proximity to an object affects the factors 'function of the surrounding' and 'quality of the surrounding'. In the expert interviews it was mentioned retailers prefer to be located next to other retailers so a connecting storefront is formed. Being located next to a well known (chain)store can have spill over 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). Retailers that otherwise wouldn't have settled on such a location get the (financial) possibility to locate in areas with high vacancy rates. 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. On object level however this is related to the quality of the location, 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 by the case analysis. During the interviews also a good connection between the different parts of a retail centre was mentioned. This was also confirmed in the case analysis, 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 are located and were most anchors

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",

The relation between retail chains and routing can be a negative spiral as well: since an area isn't 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) than also state it is important to strategically locate retail units in order to let the retail centre as a whole benefit.

6.6 Conclusion

The case studies are in line with the findings of the literature, expert interviews, and Delphi study. Retail centre attractiveness attributes showed a relation to the vacancy rate in the three case area. Attractiveness attributes are 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 while 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 as the gravity theory and adjusted central place theory. These theories implies 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 don't 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. T

he place in the hierarchy also 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). 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).

The case study indicates the presence of retail chains and fashion retailers is important for an attractive the retail mix for city centre retail centres. In the central place Rotterdam retail outlets requiring a large service area can be found that aren't located in the lower order centres of Vlaardingen and Schiedam. Examples of such stores are specialty retailers and flagshipstores of (inter)national chains.

Secondary retail streets can have a complimenting function hereby contributing to the attractiveness of the whole centre. For this an interesting retail mix and the individual store quality in these secondary retail street is crucial. On the moment this is lacking and these streets aren't well connected to the main routing, these streets 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 ranking from the Delphi research. The location, position above or below groundlevel, and size of the unit showed clear relations to the vacancy pattern in the three case

areas. In many cases vacant object don't have one characteristics clearly causing the vacancy but a multitude of object characteristics that don't 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 number of requirements to 'fit the 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 (size, front width, ceiling height, width-depth ratio, and so on) can even completely lose their relevance in the retail structure of a centre.

7 Conclusion, further research and reflection

This is the final chapter of this report. The following section will concisely outline the most important findings of the previous chapters. Hereby connecting the different research methods used in this research: literature review, expert interviews, the Delphi ranking approach, and a case study. First the five sub research questions will be discussed. These sub research questions together answer of the main research question. This chapter will end with some indications for further research and a brief reflection on the master thesis.

7.1 Conclusion

Q1: What have been the most important trends in the Dutch retail market over the past decade?

Over the past decade retail chains have become more dominant, the number of independent retailers has declined, the distinction between retail sectors has blurred, and the presence of international (fast fashion) retailers is growing. The rise of online retailing was a game changer in the retail sector is; consumers have an alternative for physical shopping, the orientation process of consumers has changed, and retailers are reacting by adopting multi-channel strategies.

Consumption has shifted from functional goods towards services and more recent there has been a growing demand for experiences. Many consumers consider shopping as more than the acquisition of goods. The city centre is the place where (fun)shopping takes place opposed while supportive centres that are predominantly focused on more convenience shopping motives. Consumers are less loyal concerning the places they shop and show and show an increased willingness to travel for funshopping. The competition between retail areas is increased over the past decade since consumers demand increased attractiveness levels for the centres where they shop.

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 in the Netherlands. The structure of real estate development in the Netherlands stimulated new developments.

Q2: What is the cause of retail vacancy; what is the role of market factors and what is the role of property characteristics?

While over the past decade the retail space stock was 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 have contributed to a decreased space demand. As an effect of the oversupply and a fall back in the demand on the retail space market retailers are in a stronger negotiation position. 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. Experts indicate there is a replacement market within retail centres creating gaps in the retail structure, especially outside the core retail area.

Consumer willingness to travel for funshopping has increased and consequently competition amongst retail centers has increased. Attractiveness attributes of retail areas is of growing importance due to increased competition between retail centers. 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. Attractiveness attributes hereby 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. There seems to be a split between attractive centres focused on recreational shopping and less attractive town centres that are moving towards a role as convenience centre.

Retailers are increasingly critical concerning where to locate. On object level this means it becomes more important to locate on high footfall locations since this is strongly related to the revenue potential, the physical dimensions and layout of a retail object should fit the formula, and it's important to generate sufficient exposure. On the moment a retail street is filled with objects that don't meet these requirements and isn't well connected to the main routing, this street has a higher risk of vacancy and can even completely lose its relevance in the retail structure.

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. Gaps in the retail structure furthermore 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 and the quality of the direct surrounding might be affected as well.

Q3: What area and object characteristics are driving the demand for retail space?

For retail centers the overall profile of the centre is of importance to attract consumers. This profile can be split up in fifteen key factors (see table 7.1).

Table 7.5: Area factors ranked on order of importance, derived from the Delphi research.

Area factor	Description
Retail Mix	The composition and variety of the retailers in the centre. A variety of sectors is important because of multi-purpose shopping trips. For ego-intensive products it is important to have a spread in price, quality, and type (comparison shopping). Experts mentioned that especially fashion retailers are important for an attractive retail mix.
Anchor stores	The presence of anchor stores. These are retail chains with, often large scale units, that have a strong attractiveness to consumers. Experts mentioned for example Primark, H&M, and the chains of the Inditex Group ⁴² to be important anchors on this moment. This is in line with the rise of fast-fashion and the price consciousness of consumers. However in ten years these retailers might have lost their leading role and have been replaced by another retailer. Department stores are classically considered anchors and according to the experts these stores still hold this position.
Centre size	The size of the retail centre. A larger retail centre is able to facilitate a greater variety in retail outlets and more anchor stores.
Accessibility & Parking	Perceived cost of time and money to overcome this distance regarding the shopping endeavour.
Atmosphere	The perception of the atmosphere in a centre influenced by stimuli as: odour, temperature, light, architecture, cleanliness, and so on.
Catering services	The composition and variety of catering services in the centre. Day time

⁴² Zara, Mango, Bershka

	catering services including lunch places, coffee establishments, and terraces are important facilitating services especially for funshopping.
Routing	The routing in the retail centre; the street pattern and the placement of retailers along the routing. Experts mentioned a round or eight shaped routing to be preferable. The placement of retail chains, more in specific anchor stores, and source points are of particular importance for the routing.
Public space	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, and so on.
Multi functional	The mix of urban live. The diversity of non-retail functions including theatres, cinema's, libraries, fitness centres, residential and so on.
Historical	If the centre is positioned in a historical centre; an area of socio-cultural significance.
Safety	Perceived safety level in the area.
Orientation	Convenience of searching, locating, and accessing stores. Influenced by layout and ease of orientation.
Markets & Events	Markets events and other activities organised in the retail centre.
Facade Impression	The design and materialization of the facades in the retail centre.
Secondary retail streets	The presence of secondary retail streets. In these areas special and often independent retailers are located.

Retail space comes in bundles of characteristics. Fifteen factors were derived to describe the most important characteristics from the point of view of a retailer. Table 7.2 presents the factors in order of declining importance in the demand of retail space by retailers.

Table 7.6: Object factors ranked on order of importance, derived from the Delphi research.

Object factor	Description
Location	The physical location in the retail centre closely linked to footfall. Therefore this factor is important in relation to the revenue potential.
Ground floor	If the unit is located on ground floor. Being located on ground floor is preferable since only few formulas are suitable to locate above or below ground level.
Size	The size of the unit. Most important variable is the retail floor space.
Function of surrounding objects	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.
Front-width	The front width of the object. Front width is important to create sufficient exposure.
Width-depth ratio	The ratio between the width and the depth of the retail floor area.
Quality of surrounding	The perceived quality level of the surrounding public space and properties in the vicinity.
Column free and layout	The shape of the retail floor including any height difference in the form of sub levels, and the presence of columns and/or other objects in the space. An open floor plan and a rectangular shape is preferable.
Floor height	The ceiling height; distance from the top of the floor to the ceiling.
Supply accessibility	The easy of supplying the store including any regulatory limitations.

Facade	The facade impression including signage possibilities.
Character of the building	If it is a property with a special character, for example a monument.
Technical state	The technical condition of the object including maintenance state.
Street width	The width of the street(s) on which the object is located.
Sun side	If the object is positioned on the side of the street that has the most sun during store opening times.

Q4: Is there a relationship 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 area. 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 concordance with the Delphi ranking.

Q5: Is there a relationship between object characteristics and vacancy within the selected case areas?

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 couldn't be isolated; in many cases a multitude of object characteristics can be pointed out to underlay the vacancy of an object.

In the case studies the routing in the retail centres was of crucial importance in relation to the location quality and therefore showed a clear relation to the placement of vacancy in the retail centre. The routing is however not a static factor. Object characteristics were related to the placement of retail chains in the centres, hereby influencing the main routing.

Main research question: To what extent is there a relationship between area and object characteristics and vacancy in Dutch inner-city retail space?

The research has shown there is a relationship between area and object characteristics and vacancy in Dutch inner-city retail space.

Retailing in city centre retail centers is far from only the functional trading of goods. The competition between retail centres is increasing; for funshopping consumers are looking for places with a high attractiveness to spend their scarce time. Central retail centers with a low attractiveness have problems competing with attractive centers for recreational shopping purposes. Retail centre attractiveness is related to the ability to bind local consumer spending and attract consumers from outside the primary catchment area.

Object characteristics are of importance to attract the increasingly critical retailer. Object characteristic showed a relation to the location of vacancy within a retail centre. Revenue potential, fitting in the formula, and creating sufficient exposure are important.

In areas with high vacancy rates there is a high risk of the arise of the self stimulating effects of vacancy. Vacancy effects both object and area level and can even affect the attractiveness of a centre as a whole.

7.2 Utilisation

The research provides a clear outline of the relationship between area and object characteristics and vacancy. The Delphi rankings provide a simple to understand summary of the factors important on

area and object level. This can be used for determining the focus point for town centre management schemes, redeveloping retail properties and areas, and evaluating investment alternatives. The findings of this research a quick and grounded indication can be given about the appropriateness of measures and/or adjustments to the retail stock. However ownership of inner city retail properties in the Netherlands is fragmented. This fragmented ownership could form an obstacle for redevelopment of retail properties and shopping centres as a whole.

7.3 Recommendations for further research

The conclusions from the proposed research can form the starting point of further research. There are two main opportunities for further research: research focused on retail vacancy in Dutch retail centres, and research opting to quantify the factors found to be important for town and city centre retail areas.

A quantitative study on retail vacancy could be set up using the derived attributes and indicated conclusions as a starting point. A hedonic regression could be used to make more detailed statements concerning the influence of area and object characteristics on retail vacancy.

7.4 Reflection

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

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 doesn't 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

In total 9 semi structured expert interviews were conducted. These interviews retrieved useful data and able 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. The interviewees in general showed a high willingness to cooperate.

Delphi research

In total 20 experts participated in the Delphi research. Initially a maximum of 24 experts was. The 20 experts were nicely spread out over the six identified categories and the Kendall W values for both the area and object ranking was high.

Case Study

The case studies were used to test the findings from the other research methods in practice. Concerning the vacancy issue in Schiedam a number of useful reports were found. For the other retail centres there were no reports found of recent data that specifically target the subject of retail vacancy. The Locatus on the other hand was very useful in the analysis.

End result

The results from literature, expert interviews, Delphi research, and case study are in line with each other. However the results of the case study can't be generalised to national level. The link between the object characteristics and vacancy is centre specific since all centres have different objects. 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't be reflected on a different setting without first being critically assessed.

Literature

- Alexander, N., & Freathy, P. (2003). Retailing and the Millennium. In P. Freathy (Ed.), *The Retailing Book: Principles and Applications*. Essex: Pearson Education Limited.
- Arkenbout, R. (2012). Kantoor Binnenste Buiten - gebruikersvoorkeuren bedrijfshuisvesting Creatieve Industrie in Nederland, Master thesis. Delft: University of Technology Delft, Faculty of Architecture, Real Estate & Housing.
- Bakos, Y. (2001). The Emerging Landscape for Retail E-Commerce. *Journal of Economic Perspectives*, 15(1), 69-80.
- Bhatnager, A., & Siddhartha, S. S. (2014). Allocating a hybrid retailer's assortment across retail stores: Bricks-and-mortar vs online. *Journal of Business Research*, 67, 1293–1302.
- Bolt, E. J. (2003). *Winkelvoorzieningen op waarde geschat*. Merkelbeek: Drukkerij Bakker Merkelbeek.
- Borenstein, S., & Saloner, G. (2001). Economics and Electronic Commerce. *Journal of Economic Perspectives*, 15(1), 3-12.
- BRO. (2012). *Beleid Detailhandelsstructuur stadsregio Rotterdam 2012*. Rotterdam: BRO.
- Bryman, A. (2012). *Social Research Methods*. New York: Oxford University Press.
- Burt, S., & Sparks, L. (2003). The Retail Context: An overview. In P. Freathy (Ed.), *The Retailing Book: Principles and Applications*. Essex: Pearson Education Limited.
- CBRE. (2013). *How Global is the Business of Retail?* London: CBRE Group.
- CBS. (2014). Statline. Retrieved 18-11-2014, from Centraal Bureau voor de Statistiek <http://statline.cbs.nl/>
- Damian, D. S., Curto, J. D., & Pinto, J. C. (2011). The impact of anchor stores on the performance of shopping centres: the case of Sonae Sierra. *International Journal of Retail & Distribution Management*, 39(6), 456-475.
- Dawson, J., Findlay, A., & Sparks, L. (2008). *The Retailing Reader*. Abingdon, Oxon: Routledge.
- De Jonge, H., Arkesteijn, M. H., Den Heijer, A. C., Vande Putte, H. J. M., De Vries, J. C., & Van der Zwart, J. (2009). *Corporate Real Estate Management - Designing an Accommodation Strategy*. Delft: Publicatiebureau Bouwkunde, TU Delft.
- Dennis, C., Marsland, D., & Cocket, T. (2002). Central place practice: shopping centre attractiveness measures, hinterland boundaries and the UK retail hierarchy. *Journal of Retailing and Consumer Services*, 9, 185-199.
- DTNP. (2014). *Detailhandelsmonitor 2014 Stadsregio Rotterdam*. Nijmegen: Droogh Trommel en Partners.
- DTZ. (2013). *Veranderingen op A1-winkellocaties*. Amsterdam: DTZ Zadelhoff.
- EIU. (2012). *Retail 2022 - How the Economist Intelligence Unit sees the retail landscape changing over the next decade*. London: The Economist Intelligence Unit Limited.
- Enserink, B., Hermans, L., Kwakkel, J., Thissen, W., Koppenjan, J., & Bots, P. (2010). Exploring the Future *Policy Analysis of Multi-Actor Systems*. The Hague: LEMMA.
- Evers, D., Kooijman, D., & van der Krabben, E. (2011). *Planning van winkels en winkelgebieden in Nederland*. Den Haag: Sdu Uitgevers.
- FGHbank. (2012). *FGH Real Estate Report 2012 - Investing in credit*. Utrecht: FGH-Bank.
- Florida, R. (2002). The rise of the creative class. *The Washington Monthly*, 34(5), 15-25.
- Geltner, D. M., Miller, N. G., Clayton, J., & Eichholtz, P. (2007). *Commercial Real Estate: Analysis & Investments, Second Edition*. Cincinnati: South-Western College Publishing Company.
- Gemeente Schiedam. (2012). *Stad aan de Schie - Ontwikkelingsvisie voor de binnenstad*. Schiedam: Municipality of Schiedam.
- Gemeente Schiedam, & DTNP. (2009). *Detailhandels nota 2010 - 2020*. Schiedam: Municipality of Schiedam.
- Gemeente Vlaardingen. (2012). *Detailhandelsnota 2013 Gemeente Vlaardingen*. Vlaardingen: Municipality of Vlaardingen.
- Gianotten, H. J. (2010). De waardering van winkelcentra. *Real Estate Research Quarterly*(April), 25-32.

- Goodrich, K., & De Mooij, M. (2011). New Technology Mirrors Old Habits: Online Buying Mirrors Cross-National Variance of Conventional Buying. *Journal of International Consumer Marketing*, 23(3), 246-259.
- Gordon, T. J. (1994). The Delphi method *AC/UNU Millennium Project: Futures Research Methodology*.
- Guy, C. (2003). The Retail Development Process: An overview. In P. Freathy (Ed.), *The Retailing Book: Principles and Applications*. Essex: Pearson Education Limited.
- Haringsma, J. (2008). 'Persoonlijkheid' winkelcentrum bepaalt onderscheidend vermogen - WPM onderzoekt samenhang beleving en waardering winkelgebieden. *Vastgoedmarkt*(november), 57-58.
- Hasson, F., Keeney, S., & McKenna, H. (2000). Research guidelines for the Delphi survey technique. *Journal for Advanced Nursing*, 32(4), 1008-1015.
- Hek, M., Kamstra, J., & Geraedts, R. P. (2004). *Herbestemmingswijzer herbestemming van bestaand vastgoed*. Delft: Publikatieburo Bouwkunde.
- Howard, E. (2007). New shopping centres: is leisure the answer? *International Journal of Retail & Distribution Management*, 35(8), 661-672.
- I&O Research. (2011a). Koopstromen onderzoek 2011 - Uitkomsten. Retrieved 18-11, 2014, from <http://www.kso2011.nl/Uitkomsten.aspx>
- I&O Research. (2011b). Randstad Koopstromenonderzoek 2011. Nieuwegein: I&O Research (commissioned by the province of Zuid-Holland, Noord-Holland, Utrecht, and others).
- Jian, L., Yang, Z., & Jun, M. (2013). Measuring consumer perceptions of online shopping convenience. *Journal of Service Management*, 24(2), 191-214.
- Jos de Vries The Retail Company. (2002). *The sixth sense of retail Jos de Vries The Retail Company on trends in retail strategy and design*. Maarssen: Jos de Vries The Retail Company.
- Konishi, H., & Sandfort, M. T. (2003). Anchor stores. *Journal of Urban Economics*, 53(3), 413-435.
- Kooijman, D., & Sierksma, R. (2007). *Emotional Driving: Cocooning in the Public Realm*. Delft University of Technology, Faculty of Architecture. Delft.
- Larsson, J. P., & Öner, Ö. (2014). Location and co-location in retail: a probabilistic approach using geocoded data for metropolitan retail markets. *The Annals of Regional Science*, 52(2), 385-408.
- Lee, B., & Lee, S. K. (2014). Delimiting boundaries of market areas of central places using the density of retail facilities in an urban space. *International Journal of Urban Sciences*, 18(1), 90-102.
- Lloyd, A. E., Chan, R. Y. K., Yip, L. S. C., & Chan, A. (2014). Time buying and time saving: effects on service convenience and the shopping experience at the mall. *Journal of Services Marketing*, 28(1), 36-49.
- Locatus. (2014a). Locatus database retail centres the Netherlands. Woerden: Locatus.
- Locatus. (2014b). Retail Facts 2014 - Key figures on the Dutch Retail. Woerden: Locatus Netherlands.
- Luijten, A. (2012). Trends in het winkellandschap - Interview met Dion Kooijman, docent en onderzoeker TU Delft over de toekomst van winkelen en winkelvastgoed. *Buildingbusiness*, Maart, 32-35.
- Mahler, D. Q. (2000). An American Century of Retailing. *Chain Store Age*(April), 44-51.
- NEPROM. (2010). *Nieuw Commercieel Vastgoed in Nederland 2010*. Voorburg: NEPROM & PropertyNL.
- NICIS. (2006). *Stimuleren Hergebruik en Herbestemming Lang Leegstaand Commercieel Vastgoed - Een handreiking voor gemeenten*. Den Haag: Sdu Uitgevers.
- NRW. (2014). De noodzaak van structurele vernieuwing van de winkelstructuur: vitaliteit en transitie binnen heldere kaders. Utrecht: Taskforce Dynamische Retailontwikkeling, Nederlandse Raad Winkelcentra.
- Ooi, J. T. L., & Sim, L. (2007). The magnetism of suburban shopping centres: do size and Cineplex matter? *Journal of Property Investment & Finance*, 25(2), 111-135.
- Overbosch, O. (2012). The Consumer Electronics Market - Physical stores in an online world, Master thesis. Delft: University of Technology Delft, Faculty of Architecture, Real Estate & Housing.
- Paddison, A. (2003). Revitalising the Town Centre: The example of Achmore. In P. Freathy (Ed.), *The Retailing Book: Principles and Applications*. Essex: Pearson Education Limited.

- Parker, B., & Weber, R. (2013). Second-Hand Spaces: Restructuring retail geographies in an era of E-Commerce. *Urban Geography*, 34(8), 1096-1118.
- PBL, & ASRE. (2013). Gebiedsontwikkeling en commerciële vastgoedmarkten - Een institutionele analyse van het (over)aanbod van winkels en kantoren. Den Haag: Uitgeverij PBL.
- Peralta, F. (2015). Delft: University of Technology Delft, Faculty of Architecture, Real Estate & Housing.
- Piercy, N. (2011). Positive and negative cross-channel shopping behaviour. *Marketing Intelligence & Planning*, 30(1), 83-104.
- Pine, P. J., & Gilmore, J. H. (1998). Welcome to the Experience Economy. *Harvard Business Review*, July - August, 97-105.
- Pine, P. J., & Gilmore, J. H. (2014). A leader's guide to innovation in the Experience Economy. *Strategy & Leadership*, 42(1), 24-29.
- Platform31. (2014). Winkelgebied van de toekomst - Bouwstenen voor publiek-private samenwerking. Den Haag: Platform 31, Detailhandel Nederland, & G32.
- Plous, S. (1993). *The Psychology of Judgment and Decision Making*. New York: McGraw-Hill.
- Prins, M., Gruis, V., Geraedts, R. P., Van der Voordt, T., Kooijman, D., Heurkens, E., & Van Oel, C. (2013). *Graduation Guide RE&H - September 2013*. Master Track Real Estate & Housing - MSc in Architecture, Urbanism & Building Science. University of Technology Delft, Faculty of Architecture, Real Estate & Housing. Delft.
- Rabobank. (2012). Retail 4.0 = VOC. Utrecht: Rabobank International.
- Rekenkamercommissie Schiedam-Vlaardingen. (2014). Schiedam aan de Top - Onderzoek naar winkelleegstand in de binnenstad van Schiedam. Schiedam: Rekenkamercommissie Schiedam-Vlaardingen,.
- Remøy, H. (2010). *Out of Office - A Study on the Cause of Office Vacancy and Transformation as a Means to Cope and Prevent*. (PhD dissertation), University of Technology Delft, Delft.
- Remøy, H., Koppels, P., van Oel, C., & de Jonge, H. (2007). *Characteristics of vacant offices: a Delphi-approach*. Paper presented at the ENHR International Conference, Rotterdam. http://www.enhr2007rotterdam.nl/documents/W19_paper_Remoy.pdf
- Rigby, D. (2011). The future of shopping. *Harvard Business Review*, December.
- Roots, Locatus, & Rekenkamercommissie Schiedam-Vlaardingen. (2014). Nota gemeentelijke kosten van winkelleegstand juni 2014. Vlaardingen: Rekenkamercommissie Schiedam-Vlaardingen.
- Sackman, H. (1974). *Delphi Assesment: Expert Opinion, Forecasting, and Group Process*. Santa Monica: RAND.
- Safian, E. E. M., Nawawi, A. H., & Sipan, I. (2013, 17-18 December). *Identification of Building and Locational Characteristics' Ranking for Purpose-built Offices in Malaysia: A Delphi Methodology*. Paper presented at the First International Conference on Research Methodology for Built Environment and Engineering, Kuala Lumpur.
- Schmidt, R. C. (1997). Managing Delphi Surveys Using Nonparametric Statistical Techniques. *Decision Sciences*, 28(3), 763-774.
- Shanmugam, R. (2013). Anchor-store quality in malls: an economic analysis. *International Journal of Retail & Distribution Management*, 41(2), 90-112.
- Sit, J., Merrilees, B., & Birch, D. (2003). Entertainment-seeking shopping centre patrons: the missing segment. *International Journal of Retail & Distribution Management*, 31(2), 80-94.
- Spierings, B. (2006). The return of regulation in the shopping landscape? Reflecting on the persistent power of city centre preservation within shifting retail planning ideologies. *Tijdschrift voor Economische en Sociale Geografie*, 97(5), 602-609.
- Stadsontwikkeling Rotterdam. (2012a). Gebiedsprofiel detailhandel binnenstad 2012 - Kernwinkelgebied. Rotterdam: Municipality of Rotterdam,.
- Stadsontwikkeling Rotterdam. (2012b). Gebiedsprofiel detailhandel binnenstad 2012 - Laurenskwartier. Rotterdam: Municipality of Rotterdam,.
- Stadsregio Rotterdam. (2013). Ulitvoering detailhandelsbeleid stadsregio Rotterdam - Voortgangsrapportage 2013 en werkplan 2014. Rotterdam: Stadsregio Rotterdam,.

- Strijker, K. (2014). *Strijd om de harde A1 - Veranderende voorkeuren van retailers voor steden*, Thesis. Amsterdam: Amsterdam School of Real Estate, MSRE.
- Teller, C., & Elms, J. (2010). Managing the attractiveness of evolved and created retail agglomerations formats. *Marketing Intelligence & Planning*, 28(1), 25-45.
- Teller, C., & Reutterer, T. (2008). The evolving concept of retail attractiveness: What makes retail agglomerations attractive when customers shop at them? *Journal of Retailing and Consumer Services*, 15, 127–143.
- Tromp, J., & Ploegmakers, I. (2005). Winkelgebieden moeten zich onderling gaan onderscheiden - gevolgen nieuwe rijksbeleid voor binnensteden en grootschalige detailhandel. *Vastgoedmarkt*(november), 51.
- Van der Krabben, E., Gludemans, J., & Buck, R. (2005). *Retail 2010 - A study about the future of the European retail industry*. Amsterdam: Redevco.
- Van der Toorn Vrijthoff, W., De Jonge, H., Draijer, M., Van Delft, A., & Guyt, P. (1998). *Werk aan de winkel: De toekomst van de winkelmarkt 1995 - 2015*. Delft: University of Technology Delft, Faculty of Architecture.
- Varley, R. (2006). *Retail Product Management - Buying and merchandising second edition*. Abingdon, Oxon: Routledge.
- Wolf, M. J. (1999). *The Entertainment Economy - How Mega-Media Forces are Transforming Our Lives*. London: Penguin Group.

Appendix I – Summary of remaining 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)
Area level	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
	Catchment		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	
	Catering				X	X
	Economic profile					X
	Urbanisation grade					X
Legislation					X	
Footfall					X	
Object level	Storage space					X
	Store size	X	X			
	Layout (open floor)	X				
	Single floor		X			
	Appearance	X				
	Image		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 funshopping 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
Information value	Significance of area on cultural and historical level
Functional diversity	Diversity of retail branches and formulas as well as non-retail functions
Multi functionality	Mix of retail, services, F&B, residential, and so on
Special facilities	Differentiating factors from comparable retail centres
Spatial diversity	Layout and articulations
Contrast and integrity	Distinction from direct surroundings
Architectural design	Design in combination with function and furnishing of area
Rest areas	Including squares and terraces
Comfort	Ease of shopping, walkability
Dissatisfiers	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
Completeness retail offer
Safety shopping area
Accessibility by car
Accessibility by public transport
Atmosphere of area
Parking
Daytime F&B offer

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 funshopping.

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 Krabben et al. (2005) published in (Evers et al., 2011)

Appendix II – Expert interviews

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

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

Figuur 1: Screenshot Delphi round 1

Delphi onderzoek Winkelvastgoed – Afstudeeronderzoek 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 vervoegen 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)

- Gevelbeeld: Het ontwerp en materialisatie van de straatgevels in het gebied en de variatie hierin.
- Grote 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 zwerfmilieu, 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.
- Sfeer: De perceptie van de sfeer in een winkelgebied bijvoorbeeld beïnvloed door geur, temperatuur, licht, neuheld en architectuur.
- Functie menging: De mix van stedelijk leven; van woningen tot voorzieningen zoals een theater, bibliotheek, bioscoop, etcetera.
- 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 vooral grootschalige winkels van winkeliers die een sterke trekkracht uitoefen op de consument. Voorbeelden hiervan zijn Primark, Bijenkorf en Zara.
- Veiligheid: Het overal gevoel van veiligheid in het gebied.

80%

Appendix IV – Delphi results

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

Delphi panel

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

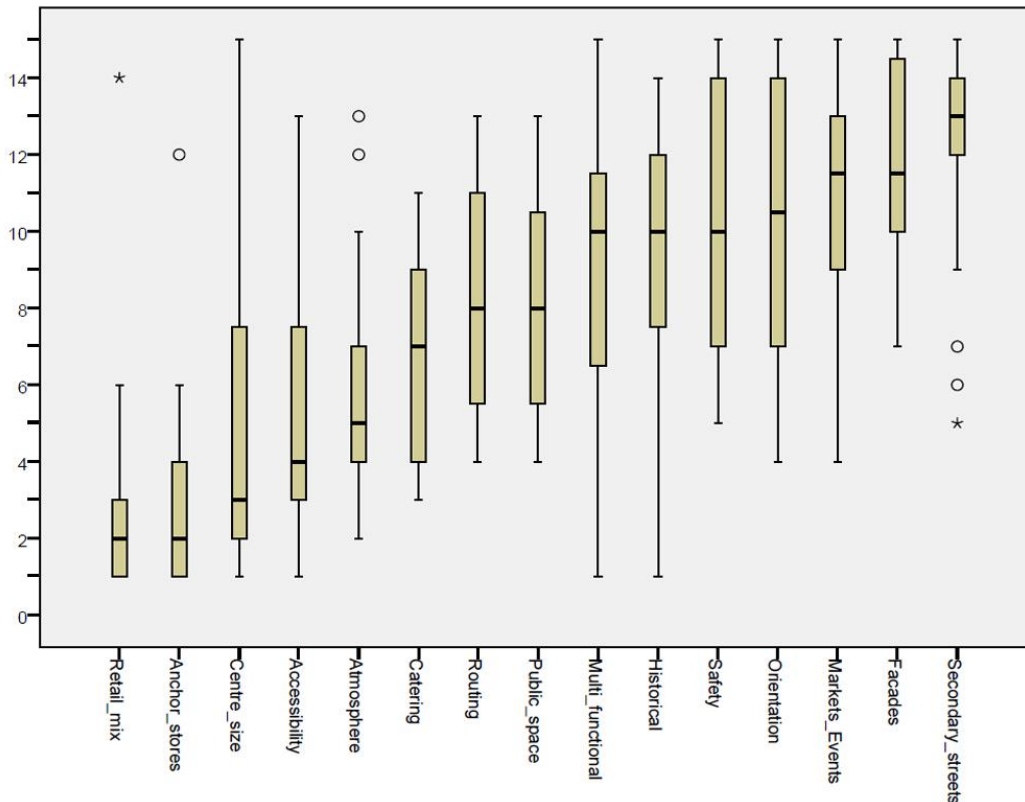


Figure 3: Box plot Delphi ranking round 1: area level

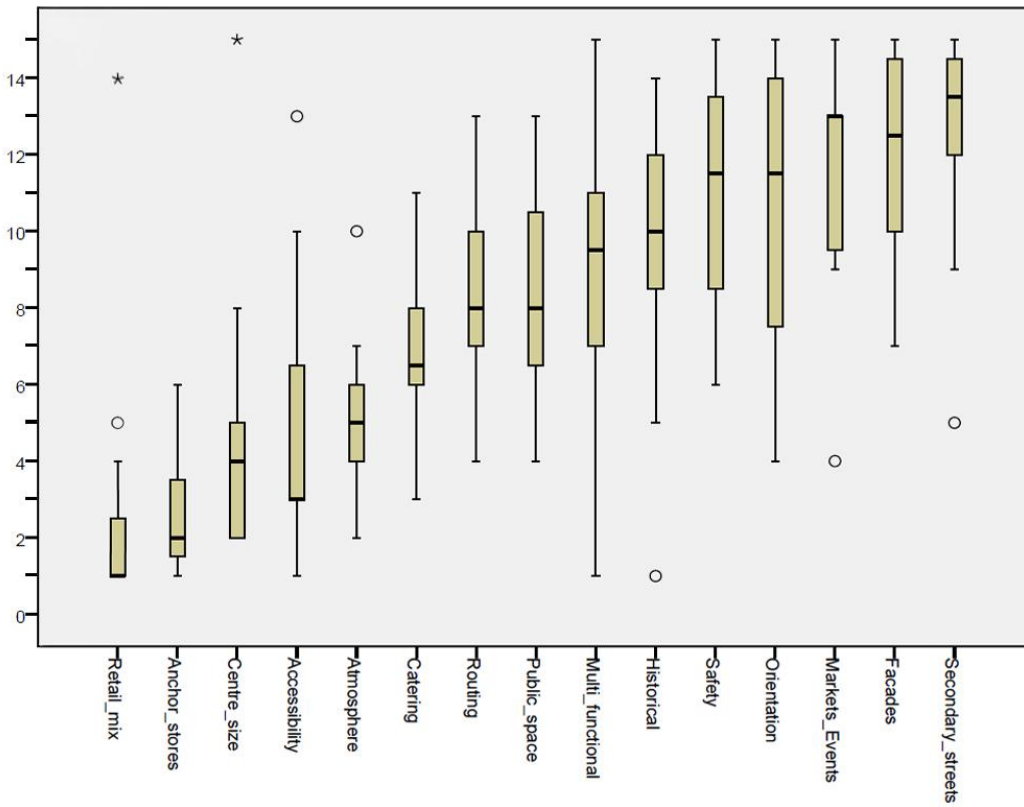


Figure 4: Box plot Delphi ranking round 2: area level

Object level:

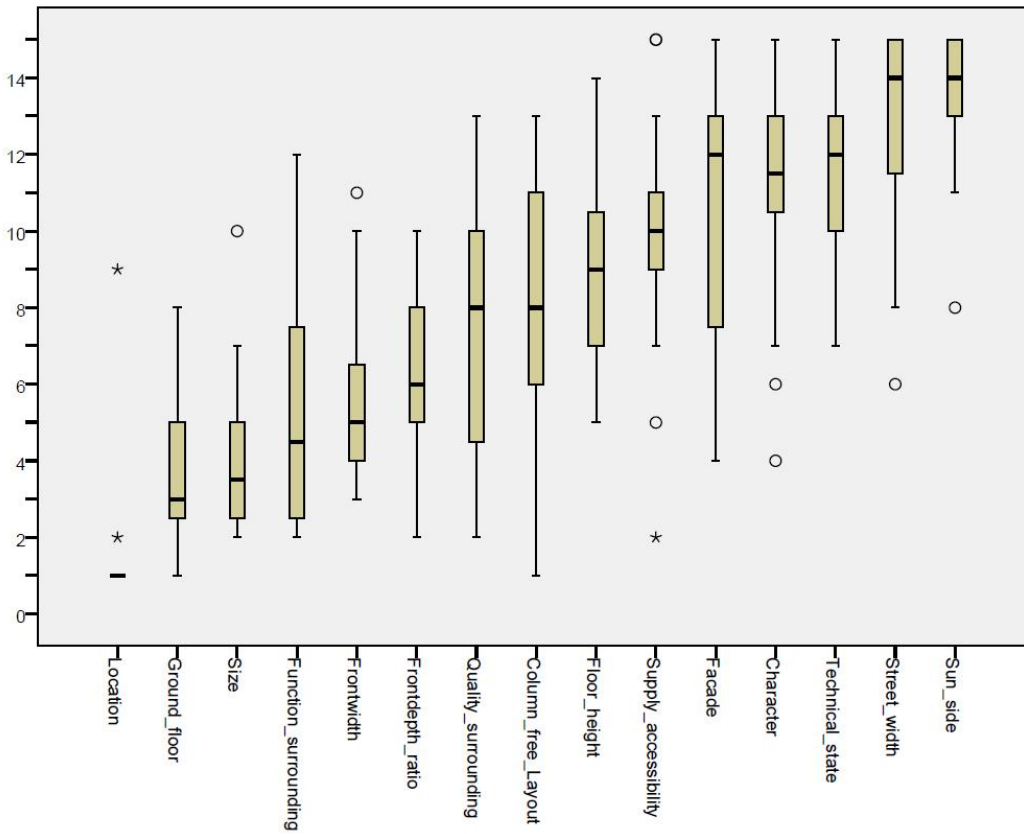


Figure 5: Box plot Delphi ranking round 1: object level

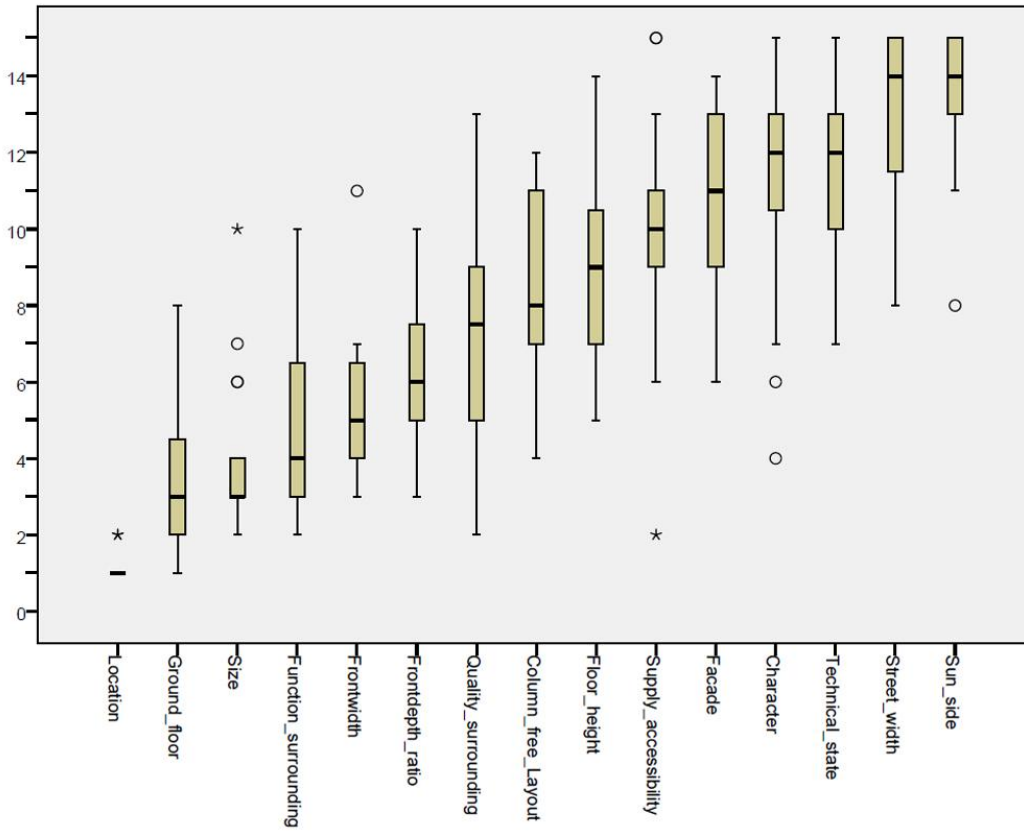


Figure 6: Box plot Delphi ranking round 2: object level

Appendix V: Case study information

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

Outline of the case study: Variables and indicators

Theoretical variable: Area level	Indicator/raw variable
Retail mix	Distribution of retail space by product group
	Presence of retail chains
Anchor stores	Presence of fashion anchors
	Presence of department stores
	Presence of other retail anchors
Parking & Accessibility	Parking spaces within 500m radius
	Parking fees
	Public transport
Size	Number of outlets
Atmosphere	Atmosphere score in "Koopstroom onderzoek"
Catering services	Distribution of catering services
	Number of lunchrooms
	Number of fastfood outlets
	Number of café restaurants
Public Space	Quality level and technical state
	Squares and other rest areas
	Greenery
Routing	Routing structure/shape
	Placement of anchors
	Placement of catering services
Multi functionality	Fitness centre
	Cinema
	Theatre
	Library
Historical	Historical city centre
Safety	Perceived feeling of safety
Orientation	Perceived ease of orientation
Markets & Events	Size and frequency of markets
Facade impression	Unity and technical state
Secondary retail streets	Success of secondary streets

Theoretical variable: Object level	
Location	Footfall numbers
	Proximity to parking facility
Ground floor	Unit registered on ground floor, in basement, or on story
Size	Retail floor space
Function surrounding	Retail branche
	Catering services
	Vacancy or other function (gap in retail sequence)
Front width	Width in meters
Front-Depth ratio	Proportions of floor area
Quality of surrounding	Visible deterioration of objects
	Cleanliness of public space

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

Case areas: Demographics

Table 7: Demographic information Source: (CBS, 2014)

Municipality	Population	Number of households	Average household income	% of people above 65 years	% of non-western minorities
Rotterdam	616 294	313 103	28 100	14,7%	37,1%
Schiedam	76 216	35 885	30 200	16,2%	26,6%
Vlaardingen	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

Table 8: Vacancy rate (retail floor space) based on Locatus data

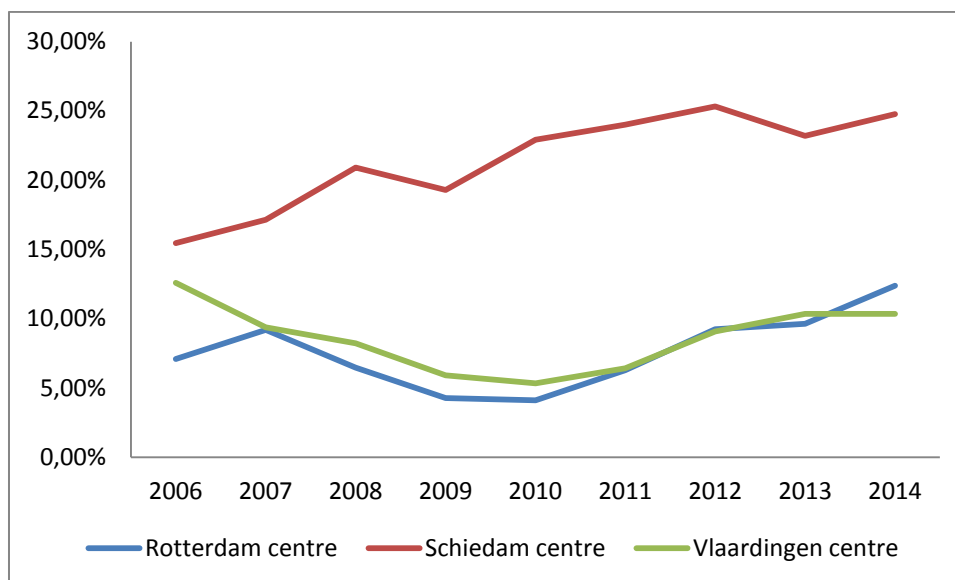




Figure 7: Vacancy in the centre of Rotterdam Source: Locatus

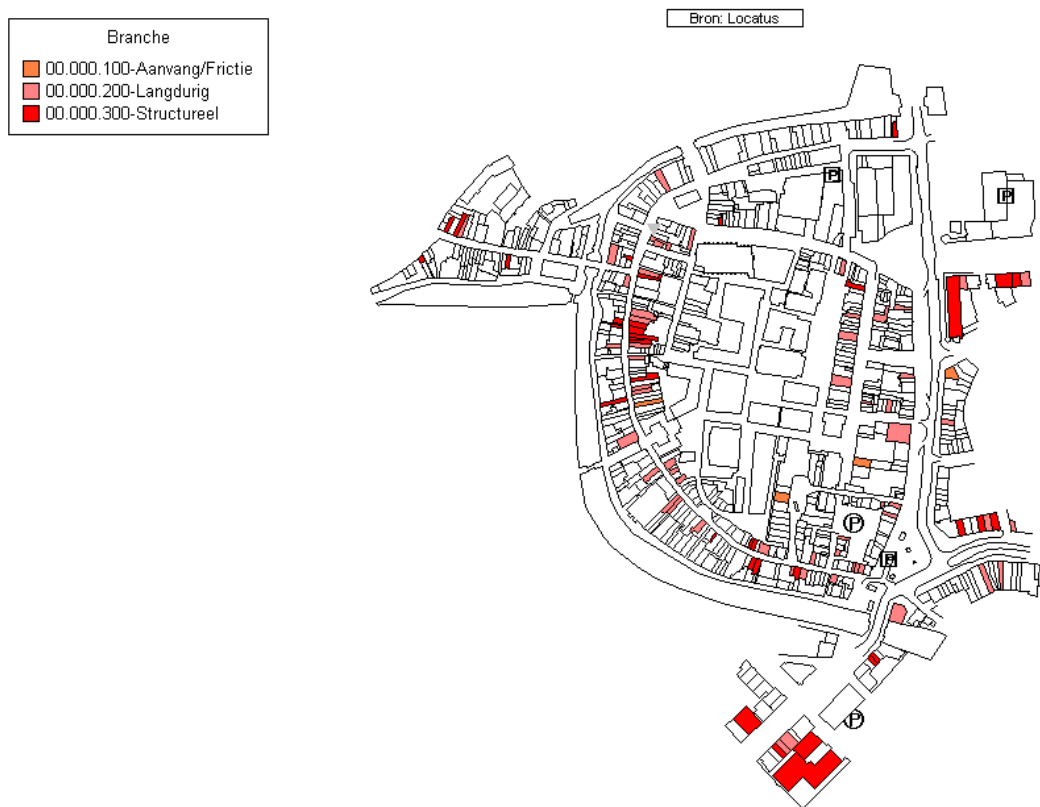


Figure 8: Vacancy in the centre of Schiedam Source: Locatus

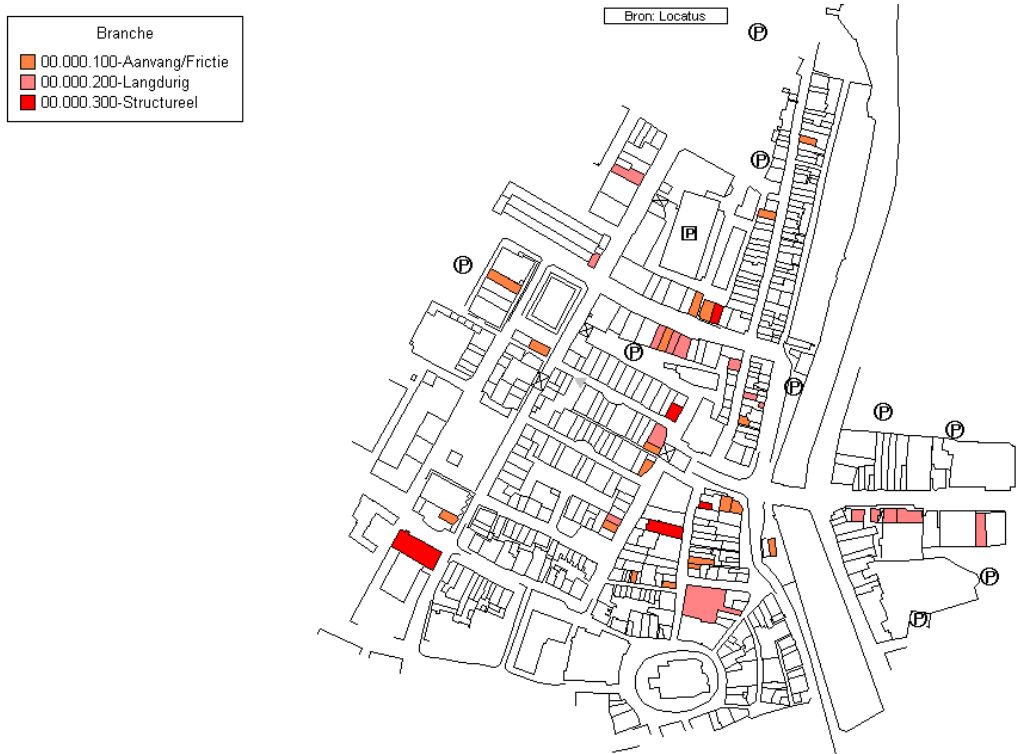


Figure 9: Vacancy in the centre of Vlaardingen Source: Locatus

Case areas: Origin of retail turnover



Figure 10: Shopping streams Source: (I&O Research, 2011a)

Object level: Location – Vacancy



Figure 11: Footfall numbers vacancy Rotterdam Source: Locatus (2014)

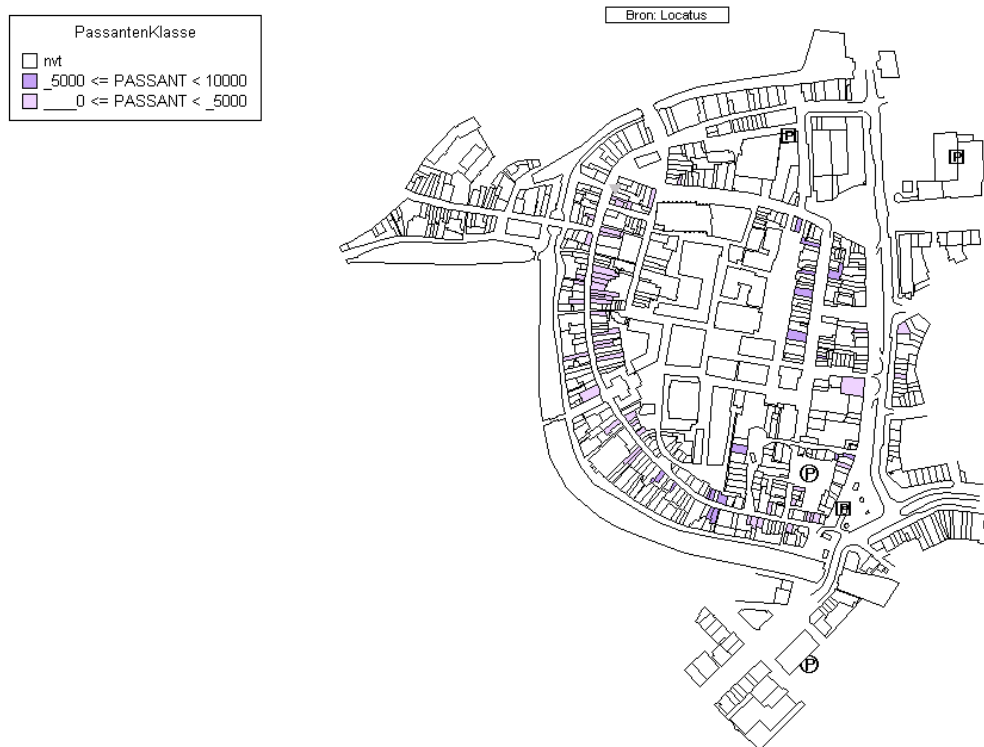


Figure 12: Figuur 1: Footfall numbers vacancy Schiedam Source: Locatus (2014)

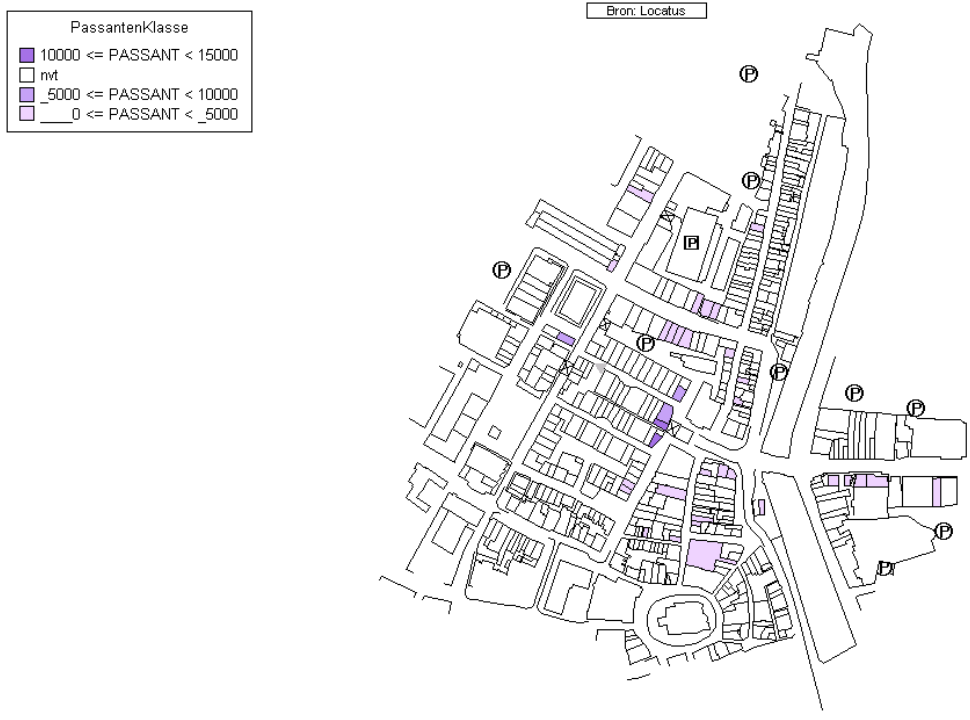


Figure 13: Footfall numbers vacancy Vlaardingen Source: Locatus (2014)

Object level: Groundfloor – Vacancy



Figure 14: Vacancy -1 level Rotterdam based on Locatus (2014)



Figure 15: Vacancy -1 level Schiedam based on Locatus (2014)

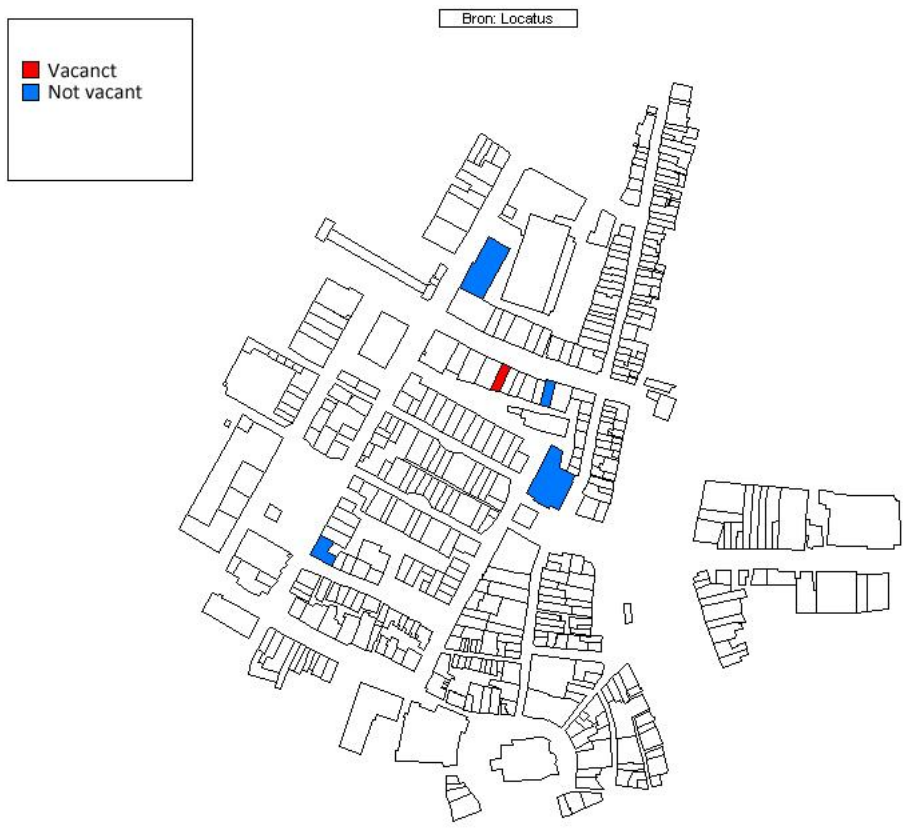


Figure 16: Vacancy -1 level Vlaardingen based on Locatus (2014)

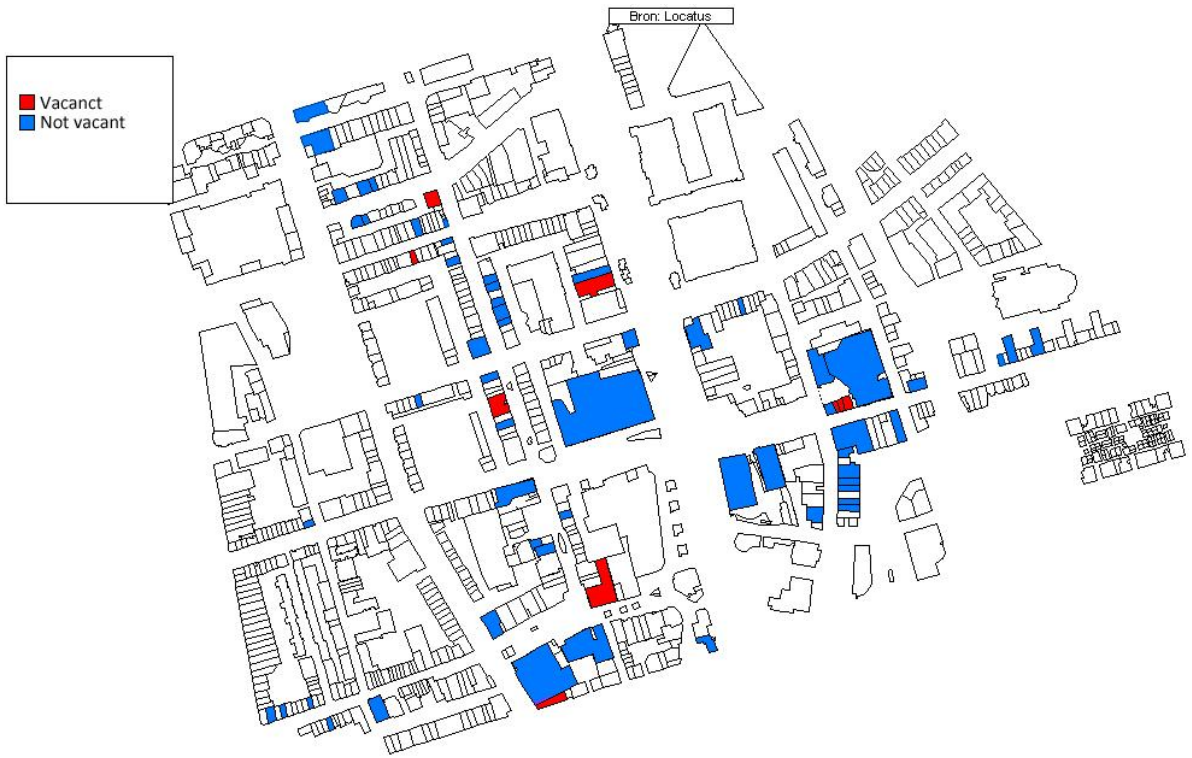


Figure 17: Vacancy +1 level Rotterdam based on Locatus (2014)



Figure 18: Vacancy +1 level Schiedam based on Locatus (2014)

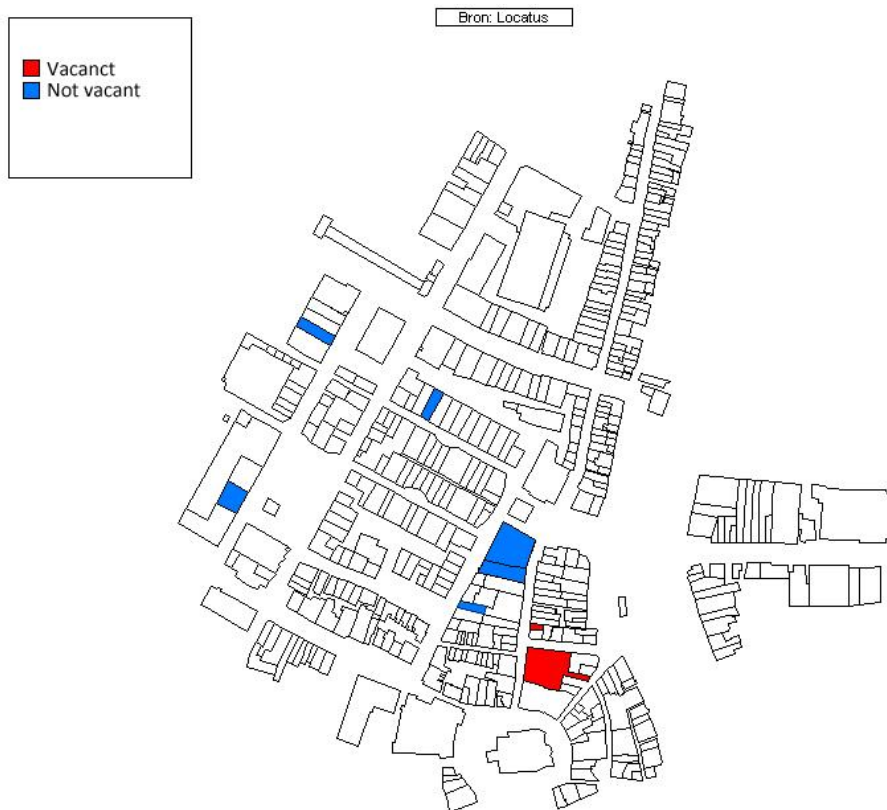


Figure 19: Vacancy +1 level Vlaardingen based on Locatus (2014)

Table 9: Vacancy rates by vertical location Source: (Locatus, 2014a)

Retail centre ⁴³	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

⁴³ Groups using the definition of Locatus

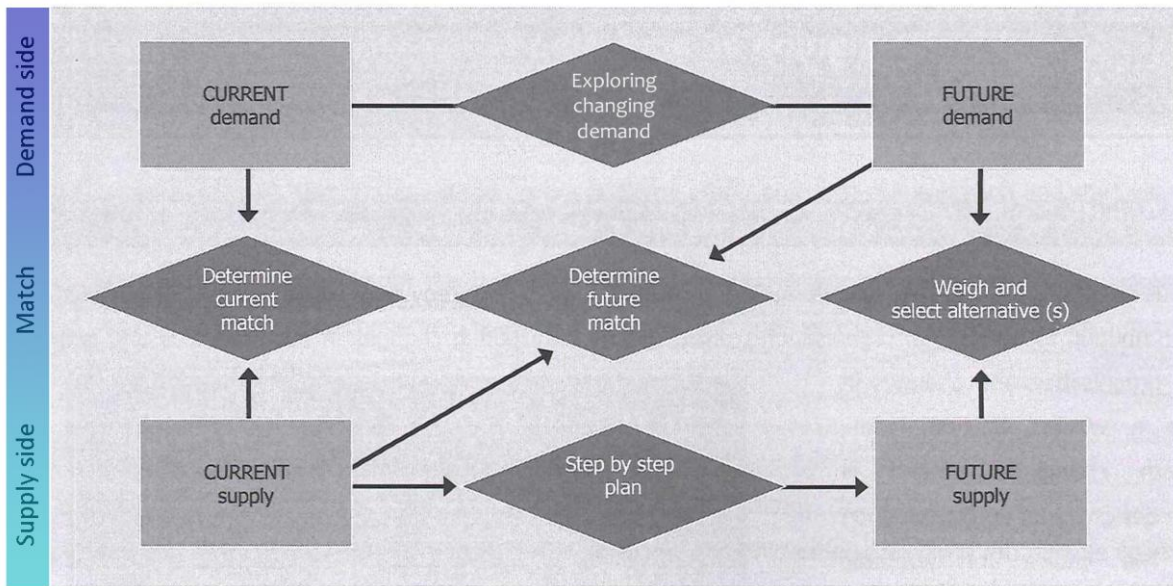
Appendix VI - Case study

Factor	Indicator / raw variable	Note	Rotterdam centre	Schiedam centre	Vlaardingen centre
1. Retail mix product group	1.1 Distribution by product group	By number of outlets incl. vacancy	<p>Rotterdam centre</p>	<p>Schiedam centre</p>	<p>Vlaardingen centre</p>
			<p>Rotterdam centre</p>	<p>Schiedam centre</p>	<p>Vlaardingen centre</p>
			<p>Rotterdam centre</p> <p>376</p>	<p>Schiedam centre</p> <p>143</p>	<p>Vlaardingen centre</p> <p>121</p>
			<p>Rotterdam centre</p> <p>352</p>	<p>Schiedam centre</p> <p>55</p>	<p>Vlaardingen centre</p> <p>78</p>
			<p>Rotterdam centre</p> <p>48.4%</p>	<p>Schiedam centre</p> <p>27.8%</p>	<p>Vlaardingen centre</p> <p>39.2%</p>
			<p>Rotterdam centre</p> <p>205</p>	<p>Schiedam centre</p> <p>51</p>	<p>Vlaardingen centre</p> <p>72</p>
			<p>Rotterdam centre</p> <p>1.72</p>	<p>Schiedam centre</p> <p>1.08</p>	<p>Vlaardingen centre</p> <p>1.08</p>
			<p>Rotterdam centre</p> <p>Independent retailers</p>	<p>Schiedam centre</p> <p>Action</p>	<p>Vlaardingen centre</p> <p>Action (located just outside the centre)</p>
			<p>Rotterdam centre</p> <p>Chain outlets</p>	<p>Schiedam centre</p> <p>H&M</p>	<p>Vlaardingen centre</p> <p>H&M</p>
			<p>Rotterdam centre</p> <p>Percentage of chain outlets</p>	<p>Schiedam centre</p> <p>H&M</p>	<p>Vlaardingen centre</p> <p>V&D, HEMA</p>
<p>Rotterdam centre</p> <p>Number of chains</p>	<p>Schiedam centre</p> <p>Action</p>	<p>Vlaardingen centre</p> <p>Uesveld (393 spots), Hoogstraat (423 spots), Stadhuis/centrum (124 spots)</p>			
<p>Rotterdam centre</p> <p>Average number of scores per chain</p>	<p>Schiedam centre</p> <p>ABC-garages (325 spots), Nieuwe passage (280 spots), Stadsdier (90 spots) + parking on street, Planlage (approx. 140) - Openparking, Buitenhavenweg (approx. 160)</p>	<p>Vlaardingen centre</p> <p>Uesveld (393 spots), Hoogstraat (423 spots), Stadhuis/centrum (124 spots)</p>			
2. Anchor stores	2.1 Presence of fashion anchors	Action, Mediamarkt	<p>Rotterdam centre</p> <p>6997 parking spaces; 33.2 parking spaces per 1000m² retail floor area</p>	<p>Schiedam centre</p> <p>995 parking spaces; 21.9 parking spaces per 1000m² retail floor space</p>	<p>Vlaardingen centre</p> <p>964 parking spaces; 22.5 parking spaces per 1000m² retail floor space</p>
			<p>Rotterdam centre</p> <p>Central Station (-)m, Blaak (-)m</p>	<p>Schiedam centre</p> <p>Station Schiedam central (650m to main retail street)</p>	<p>Vlaardingen centre</p> <p>Vlaardingen centrum (850m to main retail street)</p>
			<p>Rotterdam centre</p> <p>Transstations 1000m radius</p>	<p>Schiedam centre</p> <p>Station Schiedam central (650m to main retail street)</p>	<p>Vlaardingen centre</p> <p>Vlaardingen centrum (850m to main retail street)</p>
			<p>Rotterdam centre</p> <p>Metrostations within 1000m radius</p>	<p>Schiedam centre</p> <p>Schiedam Broersweg (<100m to main retail street), Schiedam Koemarkt (<100m to main retail street)</p>	<p>Vlaardingen centre</p> <p>Vlaardingen Centrum (850m to main retail street)</p>
			<p>Rotterdam centre</p> <p>Tramstations within 500m radius</p>	<p>Schiedam centre</p> <p>Schiedam Broersweg (<100m to main retail street), Schiedam Koemarkt (<100m to main retail street)</p>	<p>Vlaardingen centre</p> <p>Vlaardingen Centrum (850m to main retail street), Westhavenplaats (<100m to main retail street)</p>
			<p>Rotterdam centre</p> <p>Bustops within 500m radius</p>	<p>Schiedam centre</p> <p>Schiedam Koemarkt (<100m to main retail street), Schiedam Koemarkt (<100m to main retail street)</p>	<p>Vlaardingen centre</p> <p>Vlaardingen Centrum (850m to main retail street), Westhavenplaats (<100m to main retail street)</p>
			<p>Rotterdam centre</p> <p>Garages within 500m radius</p>	<p>Schiedam centre</p> <p>ABC-garages (325 spots), Nieuwe passage (280 spots), Stadsdier (90 spots) + parking on street, Planlage (approx. 140) - Openparking, Buitenhavenweg (approx. 160)</p>	<p>Vlaardingen centre</p> <p>Uesveld (393 spots), Hoogstraat (423 spots), Stadhuis/centrum (124 spots)</p>
			<p>Rotterdam centre</p> <p>Central Station (-)m, Blaak (-)m</p>	<p>Schiedam centre</p> <p>Station Schiedam central (650m to main retail street)</p>	<p>Vlaardingen centre</p> <p>Vlaardingen centrum (850m to main retail street)</p>
			<p>Rotterdam centre</p> <p>Transstations 1000m radius</p>	<p>Schiedam centre</p> <p>Station Schiedam central (650m to main retail street)</p>	<p>Vlaardingen centre</p> <p>Vlaardingen centrum (850m to main retail street)</p>
			<p>Rotterdam centre</p> <p>Metrostations within 1000m radius</p>	<p>Schiedam centre</p> <p>Schiedam Broersweg (<100m to main retail street), Schiedam Koemarkt (<100m to main retail street)</p>	<p>Vlaardingen centre</p> <p>Vlaardingen Centrum (850m to main retail street), Westhavenplaats (<100m to main retail street)</p>
3. Parking & Accessibility	3.1 Parking facilities	Action, Mediamarkt	<p>Rotterdam centre</p> <p>6997 parking spaces; 33.2 parking spaces per 1000m² retail floor area</p>	<p>Schiedam centre</p> <p>995 parking spaces; 21.9 parking spaces per 1000m² retail floor space</p>	<p>Vlaardingen centre</p> <p>964 parking spaces; 22.5 parking spaces per 1000m² retail floor space</p>
			<p>Rotterdam centre</p> <p>Central Station (-)m, Blaak (-)m</p>	<p>Schiedam centre</p> <p>Station Schiedam central (650m to main retail street)</p>	<p>Vlaardingen centre</p> <p>Vlaardingen centrum (850m to main retail street)</p>
			<p>Rotterdam centre</p> <p>Transstations 1000m radius</p>	<p>Schiedam centre</p> <p>Station Schiedam central (650m to main retail street)</p>	<p>Vlaardingen centre</p> <p>Vlaardingen centrum (850m to main retail street)</p>
			<p>Rotterdam centre</p> <p>Metrostations within 1000m radius</p>	<p>Schiedam centre</p> <p>Schiedam Broersweg (<100m to main retail street), Schiedam Koemarkt (<100m to main retail street)</p>	<p>Vlaardingen centre</p> <p>Vlaardingen Centrum (850m to main retail street), Westhavenplaats (<100m to main retail street)</p>
			<p>Rotterdam centre</p> <p>Tramstations within 500m radius</p>	<p>Schiedam centre</p> <p>Schiedam Broersweg (<100m to main retail street), Schiedam Koemarkt (<100m to main retail street)</p>	<p>Vlaardingen centre</p> <p>Vlaardingen Centrum (850m to main retail street), Westhavenplaats (<100m to main retail street)</p>
			<p>Rotterdam centre</p> <p>Bustops within 500m radius</p>	<p>Schiedam centre</p> <p>Schiedam Koemarkt (<100m to main retail street), Schiedam Koemarkt (<100m to main retail street)</p>	<p>Vlaardingen centre</p> <p>Vlaardingen Centrum (850m to main retail street), Westhavenplaats (<100m to main retail street)</p>
			<p>Rotterdam centre</p> <p>Garages within 500m radius</p>	<p>Schiedam centre</p> <p>ABC-garages (325 spots), Nieuwe passage (280 spots), Stadsdier (90 spots) + parking on street, Planlage (approx. 140) - Openparking, Buitenhavenweg (approx. 160)</p>	<p>Vlaardingen centre</p> <p>Uesveld (393 spots), Hoogstraat (423 spots), Stadhuis/centrum (124 spots)</p>
			<p>Rotterdam centre</p> <p>Central Station (-)m, Blaak (-)m</p>	<p>Schiedam centre</p> <p>Station Schiedam central (650m to main retail street)</p>	<p>Vlaardingen centre</p> <p>Vlaardingen centrum (850m to main retail street)</p>
			<p>Rotterdam centre</p> <p>Transstations 1000m radius</p>	<p>Schiedam centre</p> <p>Station Schiedam central (650m to main retail street)</p>	<p>Vlaardingen centre</p> <p>Vlaardingen centrum (850m to main retail street)</p>
			<p>Rotterdam centre</p> <p>Metrostations within 1000m radius</p>	<p>Schiedam centre</p> <p>Schiedam Broersweg (<100m to main retail street), Schiedam Koemarkt (<100m to main retail street)</p>	<p>Vlaardingen centre</p> <p>Vlaardingen Centrum (850m to main retail street), Westhavenplaats (<100m to main retail street)</p>
4. Size	4.1 Number of outlets	Excluding vacancy, incl. services	<p>Rotterdam centre</p> <p>728</p>	<p>Schiedam centre</p> <p>198</p>	<p>Vlaardingen centre</p> <p>199</p>
			<p>Rotterdam centre</p> <p>Excluding vacancy, incl. services</p>	<p>Schiedam centre</p> <p>287</p>	<p>Vlaardingen centre</p> <p>279</p>
			<p>Rotterdam centre</p> <p>7.6</p>	<p>Schiedam centre</p> <p>6.8</p>	<p>Vlaardingen centre</p> <p>7.3</p>
			<p>Rotterdam centre</p> <p>7.6</p>	<p>Schiedam centre</p> <p>6.8</p>	<p>Vlaardingen centre</p> <p>7.3</p>
			<p>Rotterdam centre</p> <p>7.6</p>	<p>Schiedam centre</p> <p>6.8</p>	<p>Vlaardingen centre</p> <p>7.3</p>
			<p>Rotterdam centre</p> <p>7.6</p>	<p>Schiedam centre</p> <p>6.8</p>	<p>Vlaardingen centre</p> <p>7.3</p>
			<p>Rotterdam centre</p> <p>7.6</p>	<p>Schiedam centre</p> <p>6.8</p>	<p>Vlaardingen centre</p> <p>7.3</p>
			<p>Rotterdam centre</p> <p>7.6</p>	<p>Schiedam centre</p> <p>6.8</p>	<p>Vlaardingen centre</p> <p>7.3</p>
			<p>Rotterdam centre</p> <p>7.6</p>	<p>Schiedam centre</p> <p>6.8</p>	<p>Vlaardingen centre</p> <p>7.3</p>
			<p>Rotterdam centre</p> <p>7.6</p>	<p>Schiedam centre</p> <p>6.8</p>	<p>Vlaardingen centre</p> <p>7.3</p>
6. Catering services	6.1 Distribution of cateri	740 categories as defined by Locatus except from "restaurant", this category is a cluster of the following categories of Locatus: "pancakes", "grillrooms", "restaurant"	<p>Rotterdam centre</p>	<p>Schiedam centre</p>	<p>Vlaardingen centre</p>
			<p>Rotterdam centre</p> <p>88 outlets; 9.3 per 100 retail outlets (excl. vacancy and services)</p>	<p>Schiedam centre</p> <p>6 outlets; 3.0 per 100 retail outlets (excl. vacancy and services)</p>	<p>Vlaardingen centre</p> <p>7 outlets; 3.5 per 100 retail outlets (excl. vacancy and services)</p>
			<p>Rotterdam centre</p> <p>25 outlets; 3.4 per 100 retail outlets (excl. vacancy and services)</p>	<p>Schiedam centre</p> <p>6 outlets; 3.0 per 100 retail outlets (excl. vacancy and services)</p>	<p>Vlaardingen centre</p> <p>6 outlets; 3.0 per 100 retail outlets (excl. vacancy and services)</p>
			<p>Rotterdam centre</p> <p>77 outlets; 10.0 per 100 retail outlets (excl. vacancy and services)</p>	<p>Schiedam centre</p> <p>9 outlets; 4.5 per 100 retail outlets (excl. vacancy and services)</p>	<p>Vlaardingen centre</p> <p>6 outlets; 3.0 per 100 retail outlets (excl. vacancy and services)</p>
			<p>Rotterdam centre</p> <p>88 outlets; 9.3 per 100 retail outlets (excl. vacancy and services)</p>	<p>Schiedam centre</p> <p>6 outlets; 3.0 per 100 retail outlets (excl. vacancy and services)</p>	<p>Vlaardingen centre</p> <p>7 outlets; 3.5 per 100 retail outlets (excl. vacancy and services)</p>
			<p>Rotterdam centre</p> <p>25 outlets; 3.4 per 100 retail outlets (excl. vacancy and services)</p>	<p>Schiedam centre</p> <p>6 outlets; 3.0 per 100 retail outlets (excl. vacancy and services)</p>	<p>Vlaardingen centre</p> <p>6 outlets; 3.0 per 100 retail outlets (excl. vacancy and services)</p>
			<p>Rotterdam centre</p> <p>77 outlets; 10.0 per 100 retail outlets (excl. vacancy and services)</p>	<p>Schiedam centre</p> <p>9 outlets; 4.5 per 100 retail outlets (excl. vacancy and services)</p>	<p>Vlaardingen centre</p> <p>6 outlets; 3.0 per 100 retail outlets (excl. vacancy and services)</p>
			<p>Rotterdam centre</p> <p>88 outlets; 9.3 per 100 retail outlets (excl. vacancy and services)</p>	<p>Schiedam centre</p> <p>6 outlets; 3.0 per 100 retail outlets (excl. vacancy and services)</p>	<p>Vlaardingen centre</p> <p>7 outlets; 3.5 per 100 retail outlets (excl. vacancy and services)</p>
			<p>Rotterdam centre</p> <p>25 outlets; 3.4 per 100 retail outlets (excl. vacancy and services)</p>	<p>Schiedam centre</p> <p>6 outlets; 3.0 per 100 retail outlets (excl. vacancy and services)</p>	<p>Vlaardingen centre</p> <p>6 outlets; 3.0 per 100 retail outlets (excl. vacancy and services)</p>
			<p>Rotterdam centre</p> <p>77 outlets; 10.0 per 100 retail outlets (excl. vacancy and services)</p>	<p>Schiedam centre</p> <p>9 outlets; 4.5 per 100 retail outlets (excl. vacancy and services)</p>	<p>Vlaardingen centre</p> <p>6 outlets; 3.0 per 100 retail outlets (excl. vacancy and services)</p>

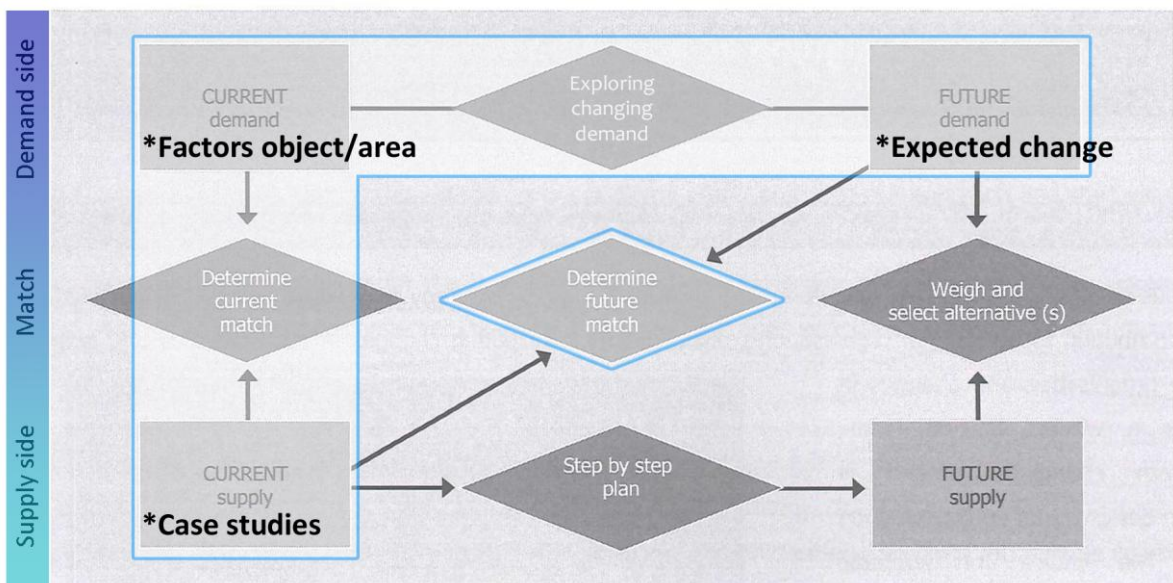
7. Public space 7.1 Quality level and technical state	public space of the core retail area is in good state (Stadsomwikkeling Rotterdam, 2012a). Especially the quality level of the Beurstraverse is high. The quality of the public space in the streets adjacent to the core retail area varies.	"Varying 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," (Stadsomwikkeling Rotterdam, 2012a). 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 "Uijnbaan" there are also sufficient rest areas with benches.	Lack of benches in the retail centre. The square "Stadert" is an empty plain. The "Land van Beltoere" is a small square with benches and some catering facilities. The "Koevmarkt" 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 respitaces.
7.3 Greenery	Greenery on Uijnbaan, "Binnenwegplein", and streets leading towards Uijnbaan.	The "Verkestraat" 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 "veeplein". In addition to this there is virtually no greenery in the retail area.
8. Routing	* Main routing based on footfall data from Locatus. Squares indicated in blue or squares with public sitting facilities. Figures are own illustrations based on maps of locatus.		
8.1 Routing structure/shape	Uijnbaan', Binnenwegplein', and Beurstraverse' from 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 Beltoere" is situated directly on the main routing.	Medioere 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 square, "veeplein", is located within the main routing.
8.2 Placement anchors	Anchors placed at the ends of the walklines 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 "Koevmarkt" and "Land van Beltoere" 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 9.2 cinema 9.3 theatre 9.4 library	 Fitness centre located behind the main retail area. Cinema located outside the retail area. Theatre located right outside the retail area. Library located right outside the retail area.	 Fitness centre located in the middle of the core retail area. Cinema located in the middle of the core retail area. Theatre located outside the retail area. Library in the middle of the core retail area.
10. Historical city centre	Not a historical city centre	Historical city centre.	Historical city centre, however most retail outlets are located outside the historical part.
11. Safety	11.1 Feeling of safety	n.a.	n.a.

12. Orientation	12.1. Ease of orientation		Special shopping streets are hard to find (Stadsontwikkeling Rotterdam, 2012c). Every Tuesday and Saturday around 450 stands (Binnenrotte). 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 adjunct to the core retail area are predominantly in a well-kept state. 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 overlaying theme (Stadsontwikkeling Rotterdam, 2012b).	Simple orientation due to the straightlined main routing. Also on the Hoogstraat its 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. Every Friday around 100 stands (Lange Kerkstraat/Land van Belofte/Stadsaerf). "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. The 'Hoogstraat' functions as a secondary retail street. However the street is rather lengthy, footfall numbers are low, vacancy rates are high, and there are retailers located offering slow moving goods like bathroom tiles.	Compact core retail area makes it simple to orientate. Every Wednesday around 88 stands and Saturday around 45 stands (Veerplein). "Varying character of objects, predominantly well-kept state, unity is missing" (DTNP, 2014). The 'Hoogstraat' and 'Conijestraat' function as secondary retail streets. Here the majority of the stores are run by independent retailers and the concentration of services is high. Footfall numbers are low in these streets and there is some vacancy.
13. Markets & events	13.1 Size and frequency of markets	Source: www.hollandsemarkt.nl			
14. Facade Impression	14.1 Unity and technical state				
15. Secondary retail streets	15.1 Success of secondary streets				

Appendix VII – Das-frame



Design Accommodation Strategy (DAS-frame) source:



Adjusted DAS-Frame: focus of proposed research.

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
Total city & town centres	1.500	8.938	168	8,8
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
Total supportive centres	455	3.079	148	7,6
Big Box Retail Park	451	350	1.287	8,0
Specialty Centre	10	34	282	4,8
Total residual centres	460	384	1.198	7,6
Solitary Outlets	881	2.916	302	3,9
Total/Average	3.296	15.317	215	6,9

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
Total/Average	3.296	15.317	215	6,9

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
Total/Average	27.952	100.191	1.671	279

Source: (Locatus, 2014b)

Appendix IX – 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.