MASTER

The influence of atmospherics of inner city shopping areas on the experiential value of consumers

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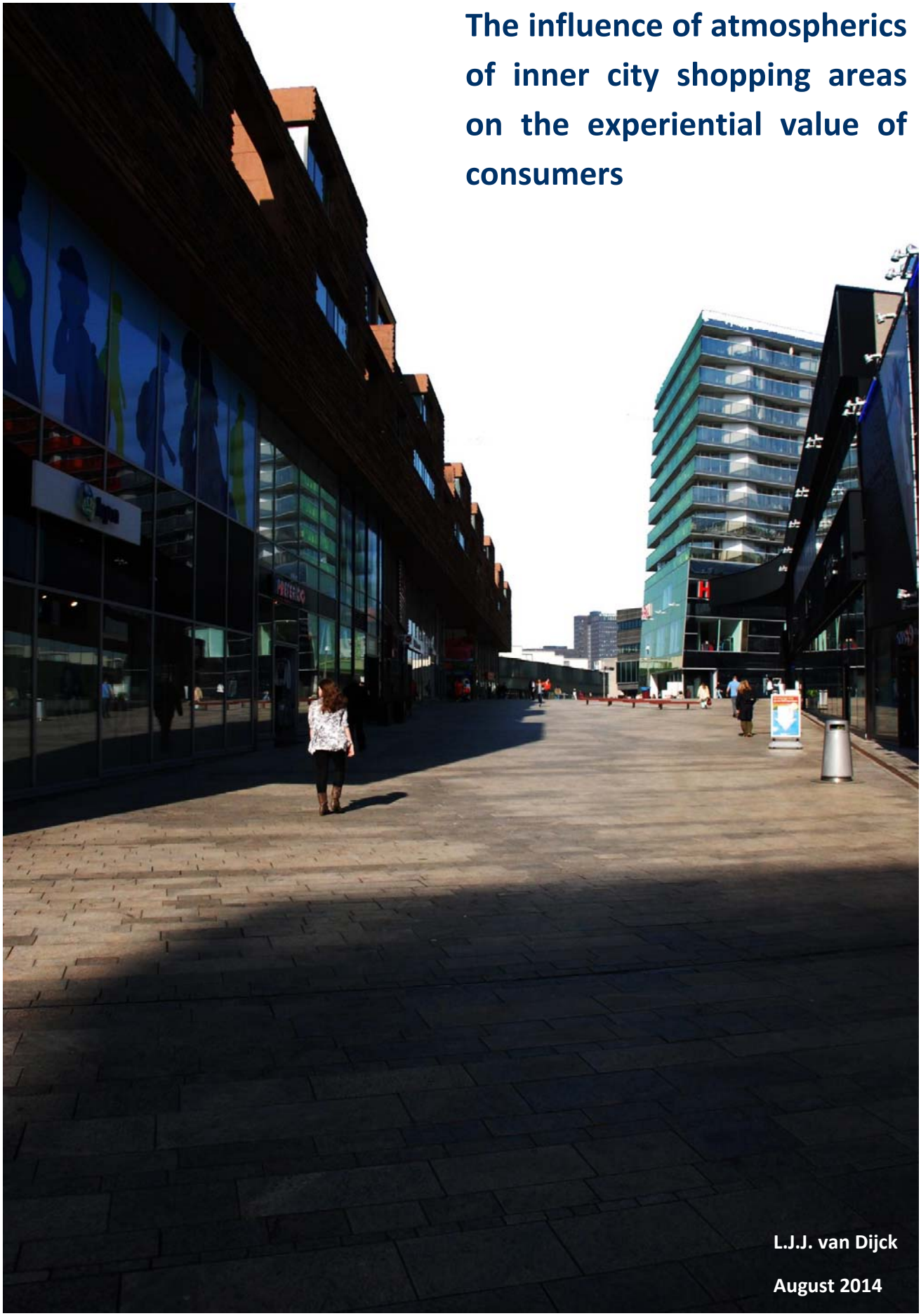

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Preface

This report presents the results of my graduation study which is part of the master track 'Real Estate Management & Development' at the Eindhoven University of Technology. This master thesis was completed during an internship period at Cushman & Wakefield.

The aim of this study was to determine the contribution of atmospherics to the experiential value for the consumer in Dutch inner city shopping areas and to give a more detailed insight in the role of tenant variety in this context as well.

This study would not have been possible without the supervision and support of several people. Firstly, I would like to thank Aloys Borgers, Astrid Kemperman and Pauline van den Berg for being a supervisor during my graduation. Secondly, my word of thanks also goes to Michiel Boonen and Cushman & Wakefield for the possibilities they offered and the pleasant guidance and cooperation.

Please enjoy reading my master thesis,

L.J.J. (Lennart) van Dijck

Eindhoven, August 2014

Summary

The Dutch retail market is changing rapidly nowadays due to several causes such as an instable economic climate the past years as well as technological-, demographical and social developments. These circumstances have a substantial contribution to the fact that consumer behaviour is changing and eventually affects the composition or tenant variety of retail areas. High vacancy rates in several shopping locations, an increasing amount of large retail chain stores and a changing approach of retailers towards consumers whereby the focus lies more and more on the optimization of experiential value are examples of important results of these developments. In the near future, the share of retail chain stores in Dutch inner city retail areas is expected to increase and this will logically result into a decrease of independent retailers in the corresponding shopping locations. Furthermore, also the average store size increased considerably the past decade. In order to anticipate on these developments in the retail market, a better understanding of the influence of atmospheric characteristics of shopping locations on the experiential value of consumers is essential.

The main goal of this study is to determine which- and how – atmospherics contribute to the experiential value for the consumer in Dutch inner city shopping areas. Former studies of Dijkman (2012); Op Heij (2012); Willems (2012); Elemans, Saes & Tiktak (2013), also did research with respect to this relation between atmospherics and experiential value. The goal of this study is to obtain more and better results and to give a detailed insight in the role of tenant variety in this context as well.

Existing scientific literature was used to gain a better understanding with respect to the consumers' perceived experiential value and also to the role of environmental characteristics of shopping areas in this context. The exterior characteristics of an inner city retail district are the most important stimuli for consumers during a shopping trip and are therefore decisive factors to determine consumer perceived experiential value. This experiential value of consumers can be defined as a perceived, relativistic preference for product attributes or service performances arising from interaction within a consumption setting that facilitates or blocks achievement of customer goals or purpose. Perceived experiential value also depends on different kind of shopping motivations; a distinction can be made into hedonic and utilitarian driven consumers. The environmental characteristics of inner city shopping locations can be assigned to a comprehensive concept named atmospherics, which mainly can be subdivided in 'aesthetic design' and 'tenant variety'. Former research of Elemans, Saes and Tiktak (2013) mainly focussed on aesthetic design variables. A well elaborated version of the influence of 'tenant variety' as an atmospheric on perceived experiential value seems non-existent. This all resulted into a selection of both aesthetic design and tenant variety variables which might have an impact on the consumers' perceived experiential value. Examples of aesthetic design variables are the colour and shape of shop facades, the amount of greenery and the type of advertisement signs in inner city shopping locations. Atmospherics such as the ratio between chain stores and independent retailers, the vacancy rate and the ratio of fashion and luxury stores in a shopping area are examples of tenant variety variables. Finally, consumers can be segmented by gender, generational cohorts and income. This distinction is important in order to obtain insight in the variety of shopping needs and behaviour.

This study attempted to measure the influence of atmospherics by letting pedestrians in an inner city retail district make a choice between three or four shopping locations within this area. These choices consisted of making two different rankings. The first ranking was based on the most favourite survey location and the second on the most atmospheric location within a city. Surveys were held in seven inner cities; Maastricht, 's-Hertogenbosch, Breda,

Dordrecht, Eindhoven, Tilburg and Almere. Respondents only made rankings with respect to the city in which they were during the survey. These choices are assumed to be dependent on the characteristics of the shopping areas and can be influenced by demographics as well. The survey included several parts, such as the determination of the type of shopping motivation of the respondent, the general evaluation of the shopping area and the demographic characteristics of the respondents. In this study 2,721 respondents were asked to fill in the survey. A total of 2,200 of this response group complied to the requirements for analysis. The remaining part of the respondents were for example too unfamiliar with the survey areas.

The data was analysed by using a specific discrete choice model called multinomial logit model. Discrete choice models belong to the family of a random utility model framework in which respondents are assumed to be utility maximizers. The respondents, in this case consumers, perceive a certain level of utility from each alternative. Predetermined shopping locations within a city can be seen as the alternatives. It is assumed that the consumer chooses the alternative with the highest utility, in this survey by making a ranking of the most favourite and atmospheric shopping location within a city. Each survey area is characterised by a set of aesthetic design and tenant variety atmospherics. The software program Nlogit 5 has the ability to calculate the utility weights of each of the atmospheric variables and was used as such.

Several multinomial logit models were estimated in this study, which mainly can be subdivided into favourite and atmospheric models and subsequently in most and least preferred location variants. This main distinction in favourite and atmospheric models is based on the two different rankings that respondents had to make during the survey. All the least favourite or atmospheric location models had the opposite utility weights for both the aesthetic design and tenant variety related variables, which strengthened the results of the most preferred location models. In general, the tenant variety variables in the favourite location models have in comparison to these variables in the atmospheric location models a higher impact. The aesthetic design variables on the other hand had a higher impact in the atmospheric location models compared to the most favourite location models. Both of these findings are in accordance with the answers of the open questions which were asked during the survey.

Consumer demographics such as age, gender, education level, residential environment and shopping motivation all had influence on the consumer preference for aesthetic design and tenant variety atmospherics. In general, people prefer an average store size of at least around the 300m² or larger and a high number of restaurants and leisure related facilities as well. A share of approximately two third of retail chain stores and fashion and luxury shops in a shopping location has in general a positive effect on the perceived experiential value of consumers. In addition, consumers do not prefer a too varied selection or a too limited mixture of branches in a shopping location. Furthermore, indoor and outdoor locations have a different impact on the width to height ratio of a retail area whereby spacious indoor locations were assessed more positive than spacious outdoor location. Bright coloured- and diverse and historical shaped facades with discrete advertisement signs are all aesthetic design characteristics which have a positive impact on the consumers perceived experiential value. Striking shop windows on the other hand were rated slightly negative.

The goodness of fit of the multinomial models varied widely. The most and least favourite location models performed in general better than the most and least atmospheric location models. However, all the multinomial logit models did not comply to the requirements of a good model fit, which is a rho squared of at least 0.20. Nevertheless, in particular the favourite location MNL models made a substantial improvement compared to former studies (Dijkman,2012; Op Heij, 2012; Willems, 2012; Elemans, Saes & Tiktak, 2013). An explanation for this moderate model fit is that possibly not all influential atmospherics were included in the survey. Several atmospherics

such as the amount of greenery, the material of facades and elevation in a shopping location were excluded because these variables correlated too much with other atmospherics. Another explanation might be that respondents' tastes differ substantially. An expansion of the dataset by adding new shopping locations might result into a more satisfying goodness of fit. Furthermore, additional research into the effect of indoor and outdoor locations on atmospherics could lead to interesting findings. Finally, also the fact that the residential environment, in other words if respondents live within or without the municipality of the city, had influence on both tenant variety and aesthetic design related atmospherics can be researched more extensively.

Several findings of this study could also serve as useful information for managers in retail real estate. In order to attract the most visitors to inner city retail area, outside and especially inside shopping locations need to be spacious. The width to height ratio should be at least three. However, too spacious locations might have a negative impact. Furthermore, also bright coloured- and diverse and historical shaped facades should attract the most visitors. Also a large average store size and a share of approximately two third of chain stores and fashion and luxury shops will contribute to this. The mixture of branches in a shopping location is important as well.

1. Introduction

This chapter forms an introduction of this study which is conducted to determine the effect of atmospherics on the perceived experiential value of consumers in an inner city retail area. Firstly, the context of this research will be discussed extensively (1.1). Subsequently, the main research question and the corresponding sub research questions will described (1.2). Finally, the research design gives an overview of the content of each chapter in this study (1.3).

1.1 Context of research

Stores and retail areas play an important role in consumer's lives as well for other parties such as for example municipalities and different types of real estate investors. They also act as a daily provision, working- and meeting place and as a beating heart for towns and cities. Nowadays, the retail market is changing rapidly in the Netherlands. A confluence of circumstances such as a fluctuating economic climate as well as technological-, demographic and social developments are important reasons for the fact that consumer behaviour is changing in Dutch retail areas (CBW-MITEX, 2010). Consumers increasingly attach more value to the experience during a shopping trip. This all eventually affects different types of shopping locations, whereby the rising vacancy rate is only one aspect. In addition, integration of mobile technologies in retail environments, an increasing amount of shop formulas and the shift of the retailers' focus from just a transaction towards increasing the experiential value for consumers are important developments in this context (Platform 31, 2014).

The total retail sales in the Netherlands decreased since 2008 by 9% to a total of € 81 billion in 2013. Economic stagnation can be seen as the main reason. Uncertainties concerning the return of economic growth the upcoming years are great. In addition, those economic expectations vary widely within the country and are therefore province or region-specific. For example, the revenues of some physical non-food branches decreased by more than 25%, which is in contrast to the relatively steady growth of the food branches (HBD, 2013). Moreover, there are also big differences within branches. Consumers and real estate investors are shifting more and more towards one or a few large shopping areas per region. In other words, smaller retail areas such as neighbourhood shopping centres become increasingly less popular. As a result, greater differences in attraction towards a location, revenues, property values and retail rental levels arise. Dissimilarities are also visible between A-, B- and C- locations within a shopping area. In general, B- and especially C-locations perform in comparison to A-locations increasingly worse. The comeback of inner city shopping locations as a desirable living, working and residence strengthens this development in the Dutch retail landscape (Platform 31, 2014).

The Netherlands has nearly 30 million square meters of retail floor area, which is divided over approximately 222,000 points of sale. In 2013, the average retail vacancy rate was 6.4%, which means a total of 14,000 vacant sale points. At a regional level, there are peaks of over 20% and also of below 3% regarding to the vacancy rate. In large retail districts those differences become also clear between the A-, B- and C-shopping locations (Locatus, 2013 in: Platform 31, 2014). The average vacancy is, depending on the economic circumstances, expected to increase in the next years to approximately 9 or 10% (ABN AMRO, 2013). This retail vacancy is in general well visible and therefore already at lower rates of great impact on shopping areas as a whole (Platform 31, 2014).

During the last decades in the Netherlands, the composition of shopping streets, in other words the variety of tenants, changed significantly due to emergence of large retail chains. In cities with more than 100,000 inhabitants, the share of shop formulas in A1- and A2 locations increased from 40% in 1984 to 78% in 2011 (L'Ortye, 2011). The development of this growing share of retail chain stores is expected to continue in the near future, which also means that the amount of independent retailers will decrease in those areas. This trend is driven by the fact that those large retail chains can develop a greater marketing power

than smaller retailers and as a result attract more customers. With the exception of A1 locations in substantial shopping areas in large cities, the amount of stores owned by private investor increases. Furthermore, those large retail companies are better able to pay higher rents and can also enforce more favourable price- and quality demands. As a result of the growing amount of retail chain stores in inner city shopping districts, the media and many urban real estate professionals often typify retail areas as becoming increasingly monotonous (L'Ortye, T., 2011).

Another trend was visible with respect to the variety of tenants in a retail location. Despite the fact that a 15% growth of retail floor area took place in the Netherlands during the last decennium, there was a net decrease of the number of stores between 2004 and 2013. This also means that the average floor area per store increased considerably, from respectively 220 sq.m in 2004 up to 265 sq.m in 2013. The shop revenues did not grow correspondingly along with this development, the average sales per square meter of retail space, especially in the non-food sector, decreased by 25% since 2000. This trend is expected to continue, but eventually will change into the opposite due to inter alia the integration of online with offline stores (NEPROM, 2013).

There are some remarkable trends regarding shopping behaviour. Especially in large shopping districts, consumers shop more and more during evenings and sundays. The recent growth of daily retail related leisure facilities as well as the shift from drinks to food can strongly be related to the emergence of fun shopping in large retail areas. Trends in this hospitality industry are broadly similar to the retail branch. Blurring of distinctions between shop branches, growth in scale, increased presence of large retail chains and with the counterpart of the emergence of small local, healthy and sustainable hospitality concepts are examples of those developments (ABN AMRO, 2013).

At many retail locations in the Netherlands there is a displacement market, in other words: the supply of retail space is way higher than the demand. There is a general agreement among many policymakers that a net decrease should take place in the amount of retail floor space. As a result, retail areas in particular in smaller cities and villages with a B- and C-ranking will gradually become more compact. Some will fully or partially fade to areas with a different shop offer or to other kind of functions, such as housing or leisure facilities on a temporary or permanent base (Locatus, 2014).

E-commerce plays an increasingly important role for almost all retail branches. The total retail trade turnover of online sales is expected to grow from 6% at the moment to approximately 12% in 2020. Despite this substantial share in the total revenues, offline sales are significantly larger. Moreover, the separation between offline and online sales become less and less relevant in the future, because of the integration between these two channels. The digitisation of society is expected to have a larger impact on retail areas instead of internet shopping itself. This digitalisation includes a number of technological developments such as for example the rise of mobile internet and the use of big data. Due to this digitisation, the retail industry will transform from a single to an Omni-channel market. As a result, retailers as well as total shopping districts are expected to have the possibility to be able to fulfil better the costumers desires and needs. This correspond with the expected trend towards an economy whereby experiential value for consumers will increasingly be important, which also can be called 'experience economy'. Physical shopping and therefore a physical retail environment does not disappear but changes, a merger is expected to take place between online and offline shopping (CBW-MITEX, 2010).

The coming decades, some gradual and also quite radical demographic changes will take place. In this context, large differences can be noticed between regions. At least until 2040, a population growth is expected in most parts of the 'Randstad', 'A-1 axis', 'Brabantse Stedenrij' and some eastern situated parts of the country (Platform 31, 2014). Mostly all important large regional cities remain relatively stable with respect to the amount of inhabitants. Shrink of

the population will mainly take place in rural areas such as the most southern and northern parts of the Netherlands. One of the most important demographical developments the upcoming years is ageing of the population. The impact on shopping locations is expected to be large and it is likely that the variety of tenants will change due to these demographical developments (CBS, 2013). Nevertheless, there is much uncertainty about the magnitude of this composition change in the Dutch society and the actual consumer behavior of the future elderly.

It may be concluded that the retail landscape changes, which has consequences for the demand for retail real estate in a qualitative and quantitative way and to the variety of tenants as well. Therefore, a better understanding of the influence on consumer shopping behavior of environmental cues in the urban area surrounding a retail outlet is essential to anticipate on those developments (De Nisco & Warnaby, 2014).

1.2 Research questions

The main goal of this study is to determine which- and how – atmospherics contribute to the experiential value for the consumer in Dutch inner city shopping areas. This study is part of a larger set of studies. Former studies of Dijkman (2012); Op Heij (2012); Willems (2012); Elemans, Saes & Tiktak (2013), also did research with respect to the relation between atmospherics and experiential value. This study is conducted to obtain more and better results and to give a more detailed insight in the role of tenant variety in this context as well.

Main question

Which – and how do – atmospherics of an inner city shopping area contribute to the experiential value for the consumer, and which role has tenant variety in this context?

Sub questions

1. What is experiential value and how can it be measured?
2. Which characteristics contribute to the atmosphere of an inner city shopping area?
3. What is tenant variety and how can it be measured?
4. Which – and how do- atmospherics contribute to experiential value?
5. Which variables related to tenant variety influence the relation between atmospherics and experiential value in Dutch inner city shopping areas?

1.3 Research design

Figure 1.1 gives an overview of the content of this study, which is divided in seven chapters. The next chapter provides a literature review which forms the theoretical background that can be used as a framework for the whole study. Chapter 3 describes the research design and methodology. Subsequently, the fourth chapter gives an extensive description of the characteristics of the survey areas in all cities. Chapter 5 gives insight in the collected dataset by giving detailed information of the response group. The actual analyses are described in chapter 6. After this process of analysing the results of the multinomial logit models, conclusions are given in chapter 7. This last part of this study also provides recommendations for further research.

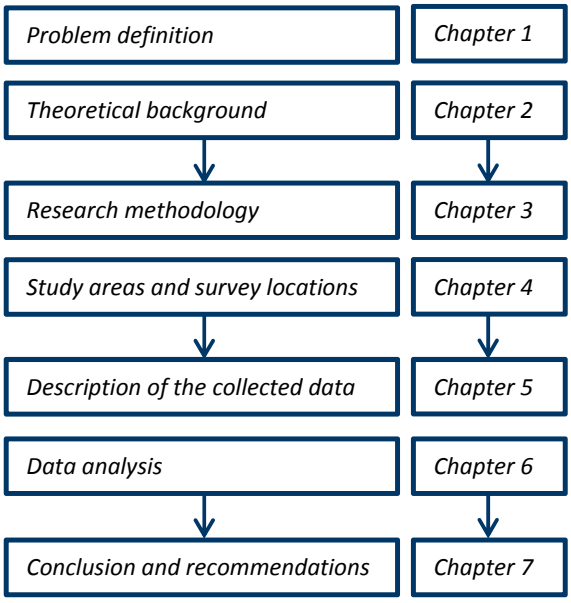

Figure 1.1: Research design

2. Literature review

This chapter forms the theoretical framework of this study, which is necessary to give scientific insight into certain parts of the main research question described in chapter 1. In order to clarify aspects of this question, this chapter is subdivided into four sections. Firstly, the definition experiential value will be described extensively (2.1) and subsequently the atmospherics in a retail area in section 2.2. Thirdly, literature with respect to consumer demographics will be discussed (2.3) and finally a conclusion of the most important findings in this chapter is given (2.4).

2.1 Experiential value

The value that influences consumption behavior can be attributed to functional, conditional, social, emotional and epistemic utility (Mathwick et al., 2001). Former empirical research interpreted this value more or less as the transaction between quality and price. These aspects include far more than just the money for investments in time and effort. The experience of the consumption itself can also be seen as rich in value and is therefore important to take into account. Mathwick et al. (2001) described this experiential value briefly:

"a perceived, relativistic preference for product attributes or service performances arising from interaction within a consumption setting that facilitates or blocks achievement of customer goals or purpose".

This experiential value can be seen in different perspectives from a consumer perspective. Firstly, in case of an extrinsic value, the shopping trips are utilitarian in nature. In other words, the experience contributes to the achievement of a specific predetermined purpose. Secondly, this experiential value may be characterized as intrinsic. Contrary to an extrinsically oriented shopper, the intrinsic value derives from the appreciation of an experience for its own sake, separated from any other consequence that may result (Holbrook, 1994 see Mathwick, 2001). In other words, the shopping experience is more important than the task completion.

This rather traditional concept of extrinsic and intrinsic experiential value can be complemented with another important element, called 'activity'. The extra dimension is divided in 'reactive or passive value' on the one hand and 'active or participative value' on the other hand. Reactive or passive value occurs when the consumer experiences a form of comprehension of , appreciation for, or response to a product or service. Active or participative value, means that there is a substantial association between the consumer and marketing object, in other words the value which can be obtained out of the usage of the product or service (Mathwick et al., 2001). Combining the different dimensions into one conceptual model results in four types of experiential values: playfulness, aesthetic appeal, consumer return on investment and service excellence.

Perceived play, or playfulness, is an intrinsic source of active value that emerges in case of enjoyment and escapism (Mathwick et al., 2002). Escapism can be defined as the customers need to temporarily get away from the demands of daily life. Playful acts are operating independently of the direct needs and interests in products or services.

"An aesthetic response is a reaction to the symmetry, proportion and unity of a physical object, work of poetry or a performance" (Olsen, 1981; Veryzer, 1993 see: Mathwick et al. 2002). Using the definition 'aesthetics' in a retail context, a distinction can be made between two dimensions; the prominent presence of visual elements of the retail environment on the one hand and entertaining or dramatic characteristics of the service acts itself on the other hand. The visual appeal, that is important in the retail sector, depends of the physical attractiveness, beauty and design of the environment.

Consumer return on investments (CROI) implies the obtained return on behavioural, cognitive, or financial investments made during a shopping trip and can be categorized as an extrinsic source of active value. Indicators of the CROI are the efficiency of the retail experience and the economic utility, which

means the perceived affordability of the goods purchased.

The experiential value derived from service excellence reflects the consumer appreciation for a service provider in a retail environment. A consumer's reaction to excellent service is the extrinsic source of reactive value and can be seen as appreciation of delivered promises (Oliver, 1999 see: Mathwick et al.).

Behavioural perspective model

Situational influences are important on the attitude and behavior of consumers in retail environments. The behavioural perspective model (BPM) was developed to categorize the stimuli that cause certain forms of consumer responses. In other words, this model explains consumer behavior by means of the environment in which it occurs and the earlier remembered experiences of the individual (Yani-de-Soriano & Foxall, 2005). According to Staats (1996) see: Yani-de-Soriano & Foxall (2005), stimuli can be divided into three relevant functions. Firstly, the provocation of an emotional response. Secondly, an emotional reaction that influences the consumers' motor and thirdly the stimulus provokes motor and verbal behaviour. The behavioural setting of a consumer includes the different stimuli functions that form the social and physical environment. There are two behavioural settings; the closed setting comprises the way consumers are encouraged to conform to a fixed path of behavior set by someone else. If a consumer is relatively free to behave in multiple ways than there is an open setting.

In the behavioural perspective model, consumer behaviour is divided into four different segments that are based on the level of utilitarian and informational reinforcements, see figure 2.1. Yani-de-Soriano & Foxall (2005) state:

"utilitarian reinforcement consists in the direct benefits of owning and using products and services, informational reinforcement is the outcome of socially and physically constructed aspects of the environment that influence behavior over and above these concrete and utilitarian benefits".

In other words, utilitarian in this context means the functional benefits of consumption. On the other hand, informational reinforcements include the symbolic benefits such as social status and self-esteem. The first behaviour segment is 'accomplishment', which consists of a high level of utilitarian and informational reinforcements. Secondly 'hedonism', whereby the level of utilitarian is relatively high and the informational reinforcement low. Thirdly, the segment 'accumulation' is low utilitarian and high informational. Finally, in case of the fourth class 'maintenance', both levels are relatively low. Combining the four classes of consumer behavior with the two different scope of settings, will result in a bmp contingency matrix. The most important distinction in this matrix is difference between accomplishment and hedonism, in other words the distinction between utilitarian and hedonic orientated consumer behaviour.

	Behavior-setting scope	
	Closed	***Open***
Accomplishment *(high utilitarian, high informational)*	**Fullfilment**	**Status Consumption**
Hedonism (high utilitarian, low informational)	**Inescapable Entertainment**	**Popular Entertainment**
Accumulation (low utilitarian, high informational)	**Token-based Consumption**	**Saving and Collecting**
Maintenance (low utilitarian, low informational)	**Mandatory consumption**	**Routine Purchasing**

Figure 2.1: Behavioural perspective model by Yani-de-Soriano & Foxall (2005).

Further research took place regarding the attitude and behavior of consumers in retail environments. According to Mehrabian and Russel's (1974) see: Yani-de-Soriano & Foxall (2005), environmental influences on behavior are also depending on different types of consumer responses, such as pleasure, arousal and dominance. Pleasure measures the consumers' way of reaction to in this case the retail environment, that can be positive or negative. It also can be described as the degree to which consumers are feeling well, satisfied or enjoying themselves. Arousal can be defined as the degree to which a person feels active,

excited or stimulated. An important form of consumer behavior is 'approach' , and is optimal when pleasure responses are high and the arousal ones are neutral. Finally, dominance can be seen as the consumers' perceived level of experienced sense of control and power regarding their nearby retail environment.

The three attitude variables of Mehrabian and Russell's (1974) in Yani-de-Soriano & Foxall (2005) are closely related to the BPM matrix. Pleasure is related to aspects of the surrounding of the consumer that provides utilitarian reinforcement, in other words functional benefits. If a consumer experiences an appropriate level of dominance, this will result into positive behavior which directly can be related to the time spent in a retail environment and eventually in higher expenditure (Yani-de-Soriano & Foxall, 2005).

Shopping motivation

The consumer motivation is one of the key concepts in research towards behavioural aspects of shopping activities (Wagner & Rudolph, 2010). There is also a high managerial relevance regarding this subject. Shopping motivation is frequently used in the development of retail marketing strategies and for the determination of a certain market segmentation (Westbrook and Black, 1985 in: Wagner & Rudolph, 2010). Despite the fact that a lot of research has been conducted in the past, the definition of shopping motivation is used in a different way in many cases. Wagner & Rudolph (2010) tried to establish one conceptual model out of previous research findings on this matter. A distinction in their model was made between a generic dimension on the one hand and a hierarchical dimension on the other hand.

A general view can be noticed regarding shopping motives, that can be seen as the generic dimension. A distinction is frequently made in task-oriented and recreational shopping, which is also the most important categorization of shopping motivation. Task-oriented motives, in other words the consumers pursuit of task-fulfilment, provides functional value (Wagner & Rudolph, 2010). The consumers' drive to accomplish such tasks arises from the need for a particular item, product or brand and also can be characterized as utilitarian shopping (Mathwick et al. 2001).

The hierarchical dimension is a classification of different consumer motives varying between a low and high level of abstraction. Within this range, a distinction of three types of hierarchical motivation can be made; abstract direction orientation, concrete goals and specific performance goals (Wagner & Rudolph, 2010). In a retail context these three levels can be described in terms of purpose-specific, activity-specific and demand-specific.

The purpose-specific level is the most important and abstract variant of consumer motive segmentation and can be described as the underlying thought about the objective of the shopping journey. This first hierarchical dimension can be divided into two factors, namely: an active desire for pleasure and enjoyment on the one hand and strictly a utilitarian objective on the other hand. In other words, consumers can have a hedonic or utilitarian shopping purpose.

The active-specific level is related to more concrete motives, compared to the purpose-specific level. These motives refer to utilitarian shopping objectives such as obtaining a product or to shopping activities which comply with the social and psychological desires of a consumer (Kim et al., 2005 in: Wagner & Rudolph, 2010). Related to this utilitarian stimulus on the activity-level, a distinction can be made between seven different forms of motivation. 'Efficiency shopping' can be described as the consumers' purpose to achieve a quick and easy shopping journey. 'Sensory stimulation' can be defined as the need to be in an attractive physical retail environment. 'Gratification' represents the desire to experience a good feeling out of a self-rewarded purchase. 'Socializing' can be defined as the consumers' need to be around and communicate with people during the shopping trip. 'Gift shopping' is a shopping motive whereby the purchase is intended for another person. 'Bargain hunting' is the quest to meet

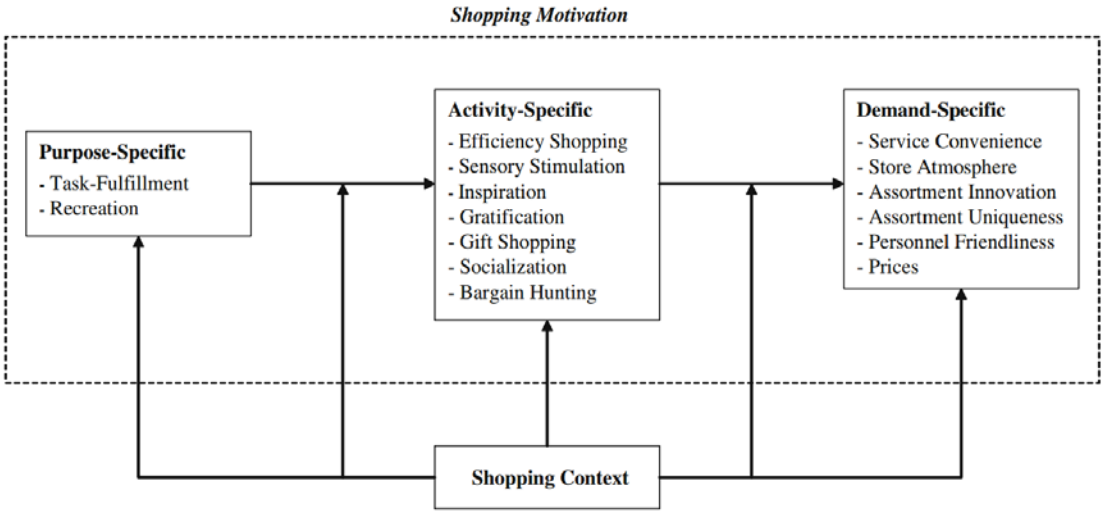

Figure 2.2: Conceptual model of Wagner & Rudolph (2010)

the desire to buy favourably priced products. Finally, 'inspiration' can be seen as the need to obtain knowledge of the latest trends regarding to products (Wagner & Rudolph, 2010).

The demand-specific level is the most concrete hierarchical dimension, and can be seen as the consumers' expectations of the shopping environment and facilities. A distinction in different demand-specific motives can be made, namely: service convenience, store atmosphere, assortment innovation, assortment uniqueness, personnel friendliness and prices (Sheth, 1983 in: Wagner & Rudolph, 2010). Combining the three different dimensions of shopping motivation results in the conceptual model presented in figure 2.2. The purpose-specific dimension defines the most important distinction which can be made with respect to shopping motivation.

Conclusion

Consumers can perceive different levels of value during a shopping trip in a retail environment, which overall can be seen as experiential value and subdivided in intrinsic and extrinsic value. Hedonic motivated shopper perceive intrinsic value and utilitarian motivated shopper extrinsic value. An addition to this concept is the dimension 'activity' consisting of reactive or passive value on the one hand and active or participative value on the other hand. Combining all those elements results into one conceptual model with four types of experiential value: playfulness, aesthetic appeal, consumer return on investment and service excellence (Mathwick et al., 2001). The main underlying difference of all these four types is the distinction between the perceived value of hedonic and utilitarian motivated shoppers.

Yani-de-Soriano & Foxall (2005) also concluded that situational influences have a major impact on consumer shopping behavior. The behavioural perspective model (BPM) is developed to categorize those sort of stimuli and has a slightly different approach than the conceptual model of Mathwick et al. (2001). The provocation of an emotional response, an emotional reaction which influences the consumers' motor and the stimulus provokes motor and verbal behaviour are the three types of stimuli in this model. Another dimension in the BPM is the subdivision of consumer behaviour into four categories, namely: accomplishment, hedonism, maintenance and accumulation. All these variables are mediated by three effective consumer responses, which are: pleasure, arousal and dominance (Mehrabian and Russell's (1974), see: Yani-de-Soriano & Foxall, 2005). The most important dimensions are accomplishment and hedonism, which eventually can be related to utilitarian and hedonic shopping behaviour.

Comparing the two conceptual models, large similarities can be noticed. 'Playfulness' and 'hedonism' are both high utilitarian and low informational. Also 'aesthetic appeal' and 'accumulation' can be considered the same and are low utilitarian and high informational. Furthermore, 'consumer return on investment' and 'accomplishment' are high utilitarian and high informational. Lastly, the used variable 'service excellence' by Mathwick et al. (2001) and the 'maintenance' variable out of the BPM model do have much in common and are both low utilitarian and low informational.

The perceived experiential value is depending on consumers shopping motivation. Therefore knowledge with respect to this motivation is very important in the understanding of behavioural aspects of shopping activities. Wagner & Rudolph (2010) made one integral conceptual model regarding to this matter. The shopping motivation model exists out of two categories; the generic and hierarchical dimension. In a retail environment it is important to distinguish purpose-specific, activity-specific and demand-specific hierarchical motivation. The purpose-specific dimension defines the main difference in shopping motivation, which is the distinction between a utilitarian or hedonic shopping purpose.

2.2 Atmospherics

Characteristics of stores or service environments influence the experiential value of consumers in a retail setting. These environmental characteristics can be assigned to the concept of 'atmospherics', which can be seen as: 'the effort to design buying environments to produce specific emotional effects in the buyer that enhance his purchase probability' (Kotler, 1973 in: De Nisco & Warnaby, 2014). Most part of former research regarding to retail atmospherics was focussed on internal stimuli within a shop or service setting and not on the external stimuli such as building architecture and the character of the surrounding public area. More knowledge about consumer behavior regarding to urban retail area surroundings is important for the marketing and real estate business (De Nisco & Warnaby, 2014). Existing knowledge about different atmospheric stimuli were combined into one framework of variables by Turley and Milliman (2000). A subdivision of five dimensions of atmospheric stimuli can be made: external-, interior-, layout and design-, point-of-purchase and decoration- and human variables which all can be divided in several variables (table 2.1).

Atmospheric literature about the external dimension often refers to physical stimuli which are visual in nature and consisting of functional and aesthetic features (Baker, Grewal &

Table 2.1 Atmospheric variables (Turley & Milliman, 2000).

External	General interior	Layout and design	Point-of-purchase and decoration	Human
Exterior signs	Flooring and carpeting	Space design and allocation	Point-of-purchase displays	Employee characteristics
Entrances	Colour schemes	Placement of merchandise	Sign and cards	Employee uniforms
Exterior display windows	Lighting	Grouping of merchandise	Wall decorations	Crowding
Height of building	Music	Work station placement	Degrees and certificates	Customer characteristics
Size of building	Public address usage	Placement of equipment	Pictures	Privacy
Colour of building	Scents	Placement of cash registers	Artwork	
Surrounding stores	Tobacco	Waiting areas	Product displays	
Lawns and gardens	Width of aisles	Waiting rooms	Usage instruction	
Address and location	Wall composition	Department locations	Price displays	
Architecture style	Point and wall paper	Traffic flow	Teletext	
Surrounding area	Ceiling composition	Racks and cases		
Parking availability	Merchandise	Waiting ques		
Congestion and traffic	Temperature	Furniture		
Exterior	Cleanliness	Dead areas		

Parasureaman, 1994 in: De Nisco & Warnaby, 2014). The physical attractiveness of an inner city shopping area is a large stimulus of the psychological qualities that consumers eventually refer to as the image of stores within such location. Therefore, the configuration of an urban retail area contributes to a particular form of consumer behavior which can be noticed in an approaching or avoiding attitude towards stores. In addition, psychological research regarding to the consumers' perception of the urban location proves that atmospherics have the power to provoke emotional responses such as arousal, pleasure, satisfaction and entertainment, that finally affect their opinion about inner city shopping areas (De Nisco & Warnaby, 2014). The exterior characteristics of an urban area are the first stimuli for consumers during a shopping journey in a retail environment and may eventually also result in a contribution to the understanding of consumer affective patterns. The perceived level of pleasure and arousal depend on inner city characteristics, in other words 'aesthetic design'. According to De Nisco & Warnaby (2014), the configuration of the pedestrian floor, quality of the buildings' architecture and the urban furnishing are the most important ones.

Next to aesthetic design tenant variety is also an important factor on the consumers' level of perceived pleasure or arousal. De Nisco & Warnaby described that tenant variety includes the number and variety of stores, dining and entertainment facilities. According to Mejia et al. (2002), tenant variety also depends on the ´amount of merchandise categories´ and the ´ratio between franchises and independent stores´ in a shopping location. Furthermore, Wakefield & Baker (1998) state that the variety of tenants even has the strongest impact on the excitement and the desire to stay in a retail area. A distinction in this variety can be made into 'stores', 'bars and restaurants' and 'entertainment facilities'. In addition, Shun-Te You et al. (2004) state that tenant variety also comprises the following factors: number of retail categories or branches, average store size and the number of brands or shop formulas. This last category can be described as the ratio between retail chain stores and independent retailers. The conceptual model of De Nisco & Warnaby (2014) regarding to the influence of aesthetic design and tenant variety on the emotion of consumers and the different forms of approach is illustrated in figure 2.3. It even appears to be that a wide differentiated assortment of stores, food and entertainment facilities in a retail environment results in a positive influence on the level of pleasure and arousal. On the other hand, according to De Nisco & Warnaby (2014), aesthetic design has less impact and even only affects pleasure. An

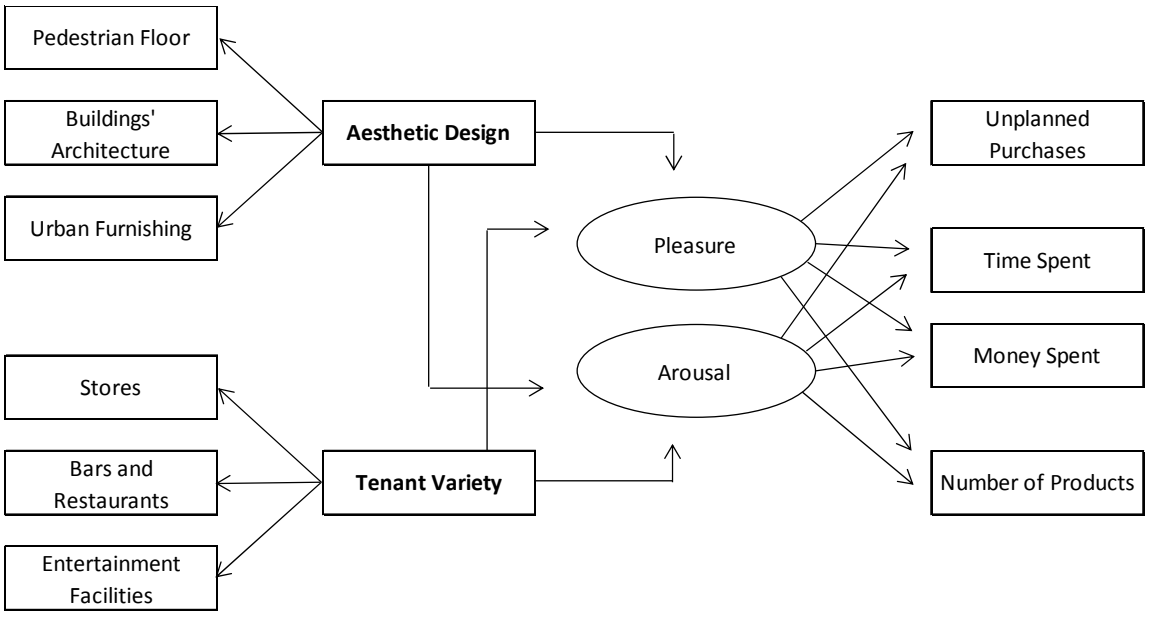

Figure 2.3: Conceptual model by De Nisco & Warnaby (2014).

overall pattern can be noticed, consumers in a shopping location with a high level of pleasure facilities tend to shop more for high involvement merchandise and eventually spend more time and money in this particular retail environment. This does not apply to the quantity of purchases. On the other hand, an inner city shopping location with a high level of arousal stimulates consumers to bargain hunting coupled with the least physical energy as possible (Laurent & Kapferer, 1985; Zaichkowsky, 1987 in: De Nisco & Warnaby, 2014). The optimal environment for high-involvement retail stores specialised in for example fashion and home furnishing is an attractive and well-maintained designed urban area with regard to the buildings, pedestrian streets and urban furniture.

Music is an atmospheric variable that has a great influence on several forms of consumer behavior such as purchases, arousal, money and time spent, pedestrian routes and the perception of the aesthetic design. A distinction in the level of impact of music on shopping behavior can be made by the age of the consumer, volume level, music preference and finally the use of fore- and background music (Turley & Milliman, 2000).

Besides music, different types of odor in a retail environment also appear to have impact on experiential value and result in a variety of consumer behavior (Turley & Milliman, 2000). In addition, recent research in the Dutch shopping centre Kanaleneiland in Utrecht shows that plants and environmental odors have a large effect on the way people feel and behave in a retail area. The feeling of safety and the level of enjoyment increased significantly, in particular as the area smells fresh and fruity such as mandarin. Moreover, the consumers' expenditure also increased significantly which can be attributed to the addition of those odors (Consumatics, 2014).

The use of colour and lighting are important atmospheric stimuli regarding the amount of purchases, time spent in store, perceived pleasure and arousal, store and product image and the attraction of the costumer to a certain place in the retail environment (Turley & Milliman, 2000). According to Babin et al. (2003), consumers are generally more attracted towards a blue shopping location. A mediating factor is lighting, the use of orange in combination with bright light may result in less excitement during a shopping trip and eventually in less purchases.

Crowding is a frequent phenomenon in inner city retail locations. Consumers experience this atmospheric often as unpleasant and it therefore results into dissatisfaction. A distinction can be made in perceived crowding and human density, spatial density, functional density and perceived control and choice. If there is a high density of humans in an inner city shopping area, customers perceive less stimuli from atmospherics. Furthermore, this high density results in reduced shopping time, changing plans during the shopping trip, less browsing and comparison shopping, decrease in excitement and finally lower quality perception of the surrounding (Michon et al., 2005).

Greenery is an important stimulus for the consumers' perceived value regarding an inner city shopping area. When there is large scale vegetation, which even may decrease the overview or cover important signs of buildings, consumers rate those retail environments generally higher. Vegetated districts also result in a longer duration of a shopping trip, that eventually can result in higher expenditure. Price acceptance will also increase when inner cities contain more greenery (Joye et al., 2010).

Conclusion

Environmental characteristics of inner city retail districts can be assigned to a comprehensive concept named atmospherics, defined as: 'physical stimuli that are visual in nature and include both aesthetic and functional features' (Baker, Grewal, & Parasuraman, 1994: see De Nisco & Warnaby 2014). As a result of former scientific research, a framework of important variables regarding atmospheric stimuli was designed. A total of six categories can be distinguished within this context, namely: external-, interior-, layout and design-, point-

of-purchase and decoration- and human atmospheric variables.

The exterior characteristics of an inner city retail district are the first stimuli for consumers during a shopping trip and are therefore decisive factors to determine consumer affective patterns. These characteristics, in other words 'aesthetic design', influence the perceived level of pleasure and arousal. According to De Nisco & Warnaby (2014), the configuration of the pedestrian floor, quality of the buildings' architecture and the urban furnishing are the most important ones.

Besides aesthetic design, tenant variety is also an important atmospheric variable which influences the consumers' perceived level of pleasure and arousal. The number of dining and entertainment facilities as well as the amount and variety of stores such as the amount of shop branches, ratio of shop formulas and average store size are determinative factors of tenant variety. Furthermore, this variety also appears to have the strongest influence on the consumers excitement and desire to stay in a shopping area.

Music and different types of odor as well as the use of different colour of lighting appear to have impact on experiential value and result in a variety of consumer behavior. Moreover, crowding as an atmospheric will often be experienced as unpleasant and eventually to consumer dissatisfaction. Greenery on the other hand is in general a stimulus which will result in a more positive perception of the retail environment.

2.3 Demographic consumer segmentation

The finding and understanding of different segments of consumers is essential to improve marketing strategies and also the creation of attractive well-functioning retail environments (Parment, 2013). Three demographic dimensions can be distinguished in consumer segmentation, namely; generational cohorts, gender cohorts and income cohorts.

Generational cohorts

This segmentation variable age is often used in former research studies, nevertheless, it cannot completely explain the 'why's' of consumption and consumer motivation. In many cases there is a deeper layer below the variable 'age'. This underlying surface can be clarified by the consideration of generational cohorts, which are groups of people born during a specific period and whose life courses are corresponding (Parment, 2013). Generations of people can not be totally compared with generational cohorts. A generation consists of people of a certain time period, often 20 to 25 years in length, thus focused mainly on the variable age. Generational cohorts on the other hand are independent to the variable time, because the external event that is determinative cannot be seen as time-bounded. Large events, typified as catastrophic in nature, such as wars and an economic crisis have great influence on the lives within a cohort. The value created by such happenings appears to be relatively equally divided and stable for each different cohort (Cutler, 1977; Mannheim, 1927; Rentz et al., 1983; Rogler, 2002; Ryder, 1985; Schuman and Scott, 1989 see: Parment, 2013). People are especially susceptible for obtaining these characteristic values during their late adolescence and early adulthood. Generational cohorts have different life experiences which results in different preferences, shopping behavior and the level of involvement for merchandise. Brosdahl and Carpenter (2012) make a distinction in four types of generational cohorts: the silent generation, the baby boomers, the 13th generation and the millennials.

The silent generation is a cohort that can be characterized as conventional minded coupled with middle-age values. Almost everyone in this cohort had a poor childhood what is often the opposite of their present financial situation. Most people of the silent generation are wealthier than nearly all their next cohorts (Strauss & Howe, 1991 in: Brosdahl & Carpenter 2012). Physical problems due to ageing such as immobility and hearing problems affect the shopping behavior of this cohort. It may also be noted that these people

are more careful regarding to their shopping behavior. They in general need more time trying and evaluating merchandise.

The baby boomers cohort was originated due to enormous number of births after the WWII. People in this cohort are often idealistic, nonconforming, spiritual and self-serving (Strauss and Howe, 1991 in: Brosdahl & Carpenter 2012). Also the need to instant fulfilment, direct reward, hedonic shopping and the focus on expenditure to stay young are characteristics of the baby boomers. A general pattern can also be recognized regarding to the shopping behavior of this cohort: baby boomers have a strong tendency to build a relationship with stores and often visit and do purchases in a smaller amount of shops (Brosdahl & Carpenter, 2012). Scepticism towards unknown and new products such as value priced import products is also often the case during baby boomers' shopping trips (Parment, 2013).

The 13th generation, also called 'generation X', is a cohort in which people are born in approximately the period 1960- 1980. Notable features of this group of people are distrustfulness towards institutions coupled with the fact that they are exposed to a greater amount of information than previous cohorts. Regarding to shopping behavior, generation X is sophisticated and has aversion against superficial advertising (Dunne and Lusch, 2008 in: Brosdahl & Carpenter, 2012).

Finally, the millennials are born approximately between 1980 and 2000 and can also be called 'generation Y'. The economic instability in the early 1990s formed the character of this cohort. The consumer's interest in merchandise has above average power in this cohort's level of purchase involvement, which eventually can be seen as higher emotional involvement in their shopping behavior. Millennial consumers make purchases in general more impulsive and on a higher frequency than the ones from the other cohorts, also the variety-seeking shopping behavior is characteristic. Stores selling favourable priced merchandise have a special appealing impact on people of this cohort. Generation Y is also relatively sensitive regarding to the social environment reactions to their consumption behavior compared to other cohorts (Parment, 2013). Martin & Turley, 2004 in: Jackson et al, 2011 state that for the millennials social motivation predicts the perception of atmospheric qualities of a retail environment and also influences the excitement and the intention to return to that specific area.

Gender cohorts

Besides the generational cohorts, gender difference is also an important factor in consumer segmentation. Males and females do have a different way of shopping attitude and behavior (Jackson et al., 2011). Compared to males, females are searching more active and specific for information before making decisions during their shopping journey. Males are also spending significantly less time in a retail environment (Fischer & Arnold, 1994 in: Jackson et al., 2011). Another finding is that the involvement of males in shopping activities is depending on the status of their work. In case of a working wife, a man is in general more involved in shopping (Dholokia et al, 1994 in: Jackson et al., 2011). Females are more active in the search for a certain sense of fulfilment out of a shopping trip than males during holidays, which also results in higher expenditure (Lehto et al., 2004 in: Jackson et al. 2011).

The importance of hedonic shopping for the two gender cohorts regarding to the level of experiential shopping satisfaction is mutually different. Jackson et al. (2011) states: 'For females, hedonic shopping value mediates the relationship between the antecedents, such as involvement, variety-seeking tendency and physical environment, and overall shopping satisfaction, whereas for males there is no mediation'. In other words, females can obtain hedonic shopping fulfilment by a well-balanced retail environment whereby good aspects can compensate the less attractive ones. In the male cohort, the presence of this compensating thought can not be found in previous research. Another finding regarding to the level of perceived hedonic shopping value distinguished by gender is the fact that regardless the type of

store, females experience a significant higher amount of this kind of value than males (Carpenter & Moore, 2009 in: Jackson et al., 2011). During a shopping trip, males also turn out to be less task oriented, which suggests that their level of utilitarian shopping value is lower compared to the female cohort (Kavussanu & Roberts, 2001 in: Jackson et al., 2011). Differences by gender cohorts were also found in attitude towards three dimensions, which are hygiene of retail environment, entertainment features and the perceived hedonic value during a shopping trip. Jackson et al. (2011) found out that females scored higher in all dimensions than males and are therefore more sensitive towards a retail environment.

Income cohorts

Consumer orientation and behavior can be subdivided in different social classes, whereby income plays a decisive role. Especially in marketing research this is an important subject due to its beneficial contribution in the development of a proper operating retail environment. According to Allard et al, (2009) different ways of consumer behavior can be associated to the positioning of certain population classes. To make this form of segmentation better measurable, Coleman (1983) in: Allard et al., (2009) introduced income cohorts. The impact of this type of segmentation on shopping value and the relation with hedonic and utilitarian shopping has been mentioned in former empirical research. Overall can be noticed that those study results have great similarities. Customers with a lower income have the tendency to be appealed by a hedonic way of shopping. This statement can be complemented by the fact that positive shopping emotions have an intermediary role on the relation between hedonic value and the behavior of low- and average income consumers. A distinction can also be made between lower and middle income consumers, whereby the less wealthier cohort is often less likely to use methods and tactics to save money (Alwitt & Donley, 996 in: Cox et al., 2005). This is likely due to the fundamental differences between social classes' shopping behavior. Lower income groups also appear to be more impulsive than their middle- and higher income counterparts, which are mostly using shop comparison methods before a purchase is made. High income consumers also seem do not perceive much fulfilment out of bargain shopping and window browsing compared to other groups. High-income consumers are also more appealed to utilitarian shopping (Allard et al., 2009). In general, low- and middle income customers perceive more value out of all the shopping experiences than the wealthier groups (Cox et al., 2005).

Conclusion

Consumer segmentation by demographics is an important tool to find and understand the variety of shopping needs and behavior, that is eventually important to improve marketing approach and the overall retail environment. A subdivision of three types of demographical segments can be made: generational cohorts, gender cohorts and income cohorts. Generational cohorts cannot be compared one-to-one with generations of people. Cohorts are independent to the variable time, because the external event which is determinative cannot be seen as time-bounded. Generational cohorts have different life experiences that results in different preferences, shopping behavior and the level of involvement for merchandise. The silent generation, the baby boomers, the 13th generation and the millennials are the four generational cohorts which can be distinguished.

Consumers can also be segmented into gender cohorts. Males and females are different in attitude and behaviour towards shopping in mainly three dimensions; hygiene of retail environment, entertainment features and the perceived hedonic value during a shopping trip. Females scored higher in all dimensions than males and are therefore in general more sensitive towards a retail environment.

Segmentation by income plays a decisive role in the determination of consumer orientation and behavior in a retail environment. Customers appear to be more attracted to hedonic shopping if they belong to lower income

groups. Less wealthy cohorts do not have such a strong tactical focus on methods to save money during shopping trips compared to more affluent groups. Another finding is that high-income consumers are also more appealed to utilitarian shopping. In general it can be concluded that average and below average income groups perceive more value out of all the shopping experiences than the wealthier groups.

2.4 Conclusion

This literature review is written to gain insight in relevant scientific knowledge regarding to the study on consumers' perceived experiential value in Dutch inner city shopping locations. Eventually, this literature forms an important theoretical framework regarding to perceived experiential value of consumers, characteristics that contribute to the inner city retail atmosphere and demographic consumer segmentation which all forms the foundation of this survey. According to Mathwick et al. (2001) experiential value is divided in intrinsic and extrinsic value and can be defined as:

"a perceived, relativistic preference for product attributes or service performances arising from interaction within a consumption setting that facilitates or blocks achievement of customer goals or purpose".

In addition to the intrinsic and extrinsic experiential value, the dimension 'activity' can be added which consists of reactive or passive value on the one hand and active or participative value on the other hand. Merging these values in one conceptual model results in four forms of experiential value. With a slightly different approach to this matter by focussing more on different kind of consumer behaviour, Yani-de-Soriano & Foxall (2005) developed the behavioural perspective model. Despite the small differences in approach between these conceptual models, large similarities can be noticed. With respect to perceived experiential value, the following dimensions of both conceptual models can be combined and distinguished: 'playfulness' and 'hedonism', 'aesthetic appeal' and 'accumulation', 'consumer return on investment' and 'accomplishment' and lastly 'service excellence' and 'maintenance'. The most important underlying thought behind all these dimensions is the difference between utilitarian and hedonic shopping motivation and behaviour of consumers. Both motivation types provoke these different dimensions of experiential value. Therefore, it is in this study the best to make a distinction in a hedonic- and utilitarian category.

Environmental characteristics of inner city retail districts can be assigned to a comprehensive concept named atmospherics. De Nisco & Warnaby (2014) developed a conceptual model in this context, whereby atmospherics mainly can be subdivided in 'aesthetic design' and 'tenant variety'. Focussed on aesthetic design, a distinction of six categories can be made: external-, interior-, layout and design-, point-of-purchase and decoration- and human atmospheric variables (Turley and Milliman (2000). Elemans, Saes and Tiktak (2013) used these variables in their study to determine the influence of atmospherics on the perceived experiential value of consumers in inner city shopping areas. Nevertheless, a well elaborated version of the influence of 'tenant variety' as an atmospheric on perceived experiential value seems non-existent. The number of dining and entertainment facilities as well as the amount and variety of stores are the three determinative factors of tenant variety. This main distinction of aesthetic design- and tenant variety related atmospherics provides the best description and overall appearance of the environmental characteristics of inner city retail locations in this study.

Finally, consumer segmentation by demographics is essential to determine the variety of shopping needs and behaviour. A distinction of three main demographical segments can be made: generational cohorts, gender cohorts and income cohorts.

3. Research design and methodology

This chapter describes the design and methodology that will be used in this study which is an important step in order to obtain and interpret the results in the right way. The essence of this study is to attempt to measure the influence of atmospherics by letting pedestrians in an inner city retail district make a choice between three or four shopping locations within this area. These choices relate to the most favourite and atmospheric location within a city. In addition, these choices are assumed to be dependent on the characteristics of the shopping areas and can be influenced by demographics as well. In order to conduct this, it is important to transform the different variables of the research questions into a measurable form, also named 'operationalization'. This will be discussed in section 3.1 of this chapter. Furthermore, the way of collecting data will be described (3.2) and also the specifying of the shopping location atmospherics (3.3). The eventual used analysis technique will be described in 3.4 and a conclusion of this chapter is given in section 3.5.

3.1 Operationalization

In order to analyse the relation between atmospherics of an inner city shopping area and the perceived experiential value, this step in the survey is essential. In other words, the terms atmospherics, tenant variety and experiential value should be transformed into measurable variables.

According to Mathwick et al. (2001), the variable 'experiential value' can be made operational by focussing on three different aspects. Firstly, the preferences of consumers for shopping locations should be determined. Secondly, by focussing on the assessment of different atmospherics and thirdly by focussing on the valuation of the shopping area as a whole.

The term atmospherics can be transformed into a measurable form by a selection of various physical characteristics of an inner city retail location. This selection can be divided into two lists named aesthetic design and tenant variety, which both consist of several measurable variables (De Nisco & Warnaby, 2014). Appendix 1 shows an overview of how the different variables with respect to the terms experiential value and atmospherics are operationalized into a measurable form. The level of measurement, the method of measuring and the formulation in the survey of each variable is written down in this overview. Eventually, this information is necessary to develop a survey to measure the consumers' (respondent) opinion.

3.2 Respondents assessment of shopping locations

To obtain quantitative data with respect to the opinion of the respondents, a survey by using a questionnaire is a suitable method. Former studies of Dijkman (2012); Op Heij (2012); Willems (2012); Elemans, Saes & Tiktak (2013), also did research with respect to the relation between atmospherics and experiential value. The survey used in those studies has been modified and improved by using new literature about this matter. All questions in the previous questionnaire concerning the ratings of each separate atmospheric such as the amount of greenery and the colour of the pavements have been omitted, because it was decided to measure respondents' preferences by means of choice tasks. The survey of this study (Appendix 2) consists of several kinds of questions which are measured in different ways and is divided into several parts.

The first part of the survey is used to determine the type of shopping motivation of the respondent. According to Mathwick et al. (2001) the most important types of shopping motivations are with a utilitarian or hedonic purpose. A combination of both shopping motivations is also possible. By adding an open answer to the first question, other types of motivation of the respondent can be filled in.

The second part of the survey is about the general evaluation of the shopping area. The inner city shopping area is divided into a

selection of different locations. In this part, the respondent will be asked to value each location within the corresponding city. These questions mainly can be characterized into several sections; the familiarity with, general assessment of and number of visits with respect to the survey locations. Moreover, the respondents are questioned to make two rankings of the survey areas regarding to their favourite location to reside and to the most pleasant sphere. In addition, open questions are asked to obtain the reason of these given rakings.

The third and final part of the survey contains questions about personal information of the respondents, which eventually determines demographical characteristics such as for example their generational-, income- and gender cohorts. A common phenomenon is the fatigue-effect during the course of the questions, which means that respondents are less focussed at the end of the survey. Therefore, the respondents' personal information is asked at the end of the survey because those questions are in general the most easy to answer.

3.3 Specifying the shopping location atmospherics

In the survey, respondents have to choose between different shopping locations within an inner city shopping district. To investigate the impact of each atmospheric on the general assessment of the respondent, the specifications of those variables were determined in an objective and structured way. The assessment criteria of the different atmospheric variables are described in the overview in appendix 3. A distinction is made between tenant variety atmospheric variables on the one hand and aesthetic atmospheric variables on the other hand. The assessment criteria with respect to tenant variety are based on numbers, averages and percentages of retail related objects out of the database of Locatusonline (2014). In previous research of Dijkman (2012); Op Heij (2012); Willems (2012); Elemans, Saes & Tiktak (2013) less data was used in the tenant variety context. Therefore, historical shopping location data has been requested of Locatusonline (2012 & 2013) to fill up that gap. The valuation of the aesthetic atmospheric variables are based in a visually based way, with the exception of the accessibility- and streets width to height ratio related variables. These are determined by using the distance measuring tools of Google Earth and Google Maps.

Selection criteria for additional cities and survey areas

In order to measure the influences of atmospherics on the perceived experiential value of consumers, a selection of shopping locations with a high variety and dispersion among those areas is made. In former research of Dijkman (2012); Op Heij (2012); Willems (2012); Elemans, Saes & Tiktak (2013), five cities are already chosen with each three or four different survey locations. Dijkman (2012), Op Heij (2012) and Willems (2012) did research in this context in Maastricht and 's-Hertogenbosch. Elemans, Saes & Tiktak (2013) used the survey data of those cities, made several changes in the composition of the atmospherics or their characteristics and eventually added also three new cities; Breda, Dordrecht and Eindhoven. In the selection process of choosing additional cities and survey areas, the atmospheric composition of these previously used cities and the corresponding survey areas are analysed in a comprehensive way. It is of great importance that there is a sufficient amount of dispersion between the survey locations per city. In the case certain variables are constant over all the different areas within a city, those results cannot be taken into account when using choice based models. In addition, each characteristic also must be present on at least more than one survey location. Otherwise, if this is not the case, the effects of these variables may be confounded with unmeasured characteristics of the area.

The composition of the tenant variety atmospherics has significantly changed compared to the former research of Elemans, Saes & Tiktak (2013). Firstly, the variables with respect to the categorising of shops and leisure related facilities are operationalised more

extensive and specifically. This not only applies for the new chosen cities, but also in retro perspective for the former survey locations. Moreover, each variable of the shop offer is differentiated into a three point scale which is determined by means of percentages of the total specific survey location. This is different compared to the method of categorising by Elemans, Saes & Tiktak (2013), who used a two point scale directly based on absolute numbers of retail related objects. This change compared to this former study is made in order to avert the effect of the different size of each survey location.

Secondly, several new variables are added with respect to tenant variety atmospherics. The amount of branches and the share of shop formulas as well as the average shop size in a survey locations are the new variables. A shop branch can be seen as a specific category of in which a store can be subdivided, such as for example: footwear and leather goods, jewellery and optician, animal and plant and sport and games. The share of shop formulas means the ratio between retail chain stores and independent retailers. All are categorized in a three point scale based on both percentages and absolute numbers of the corresponding survey area. These changes are also made in retro perspective for the different locations in the five previously used cities. The composition of the aesthetic design atmospherics is unchanged for both new and former used cities.

For both tenant variety and aesthetic atmospheric characteristics of previous researched cities are analysed. There appeared to be not enough dispersion for some of these variables within cities on the one hand and a lack of variation for several variables over all survey locations on the other hand. First of all, there is not enough dispersion in the variable 'vacancy', an insufficient amount of survey areas with a high vacancy rate are present. Survey areas with a low amount of shop formulas are strongly underrepresented. This also applies to the shopping locations with discrete advertisement signs and those with a high service level.

Besides these specific selection criteria with respect to the different atmospherics, it is also necessary to analyse and keep insight in general shopping area specifications and demographical characteristics of the previous cities. The total retail floor area of the previous five cities vary from approximately 67,000 sq.m of RFA in Dordrecht to 112,000 sq.m of RFA in Eindhoven. Furthermore, the total inhabitants ranging from a total of 188.790 to 220,920 and also the amount of households varies between 54,430 and 110,090 in respectively Dordrecht and Eindhoven. The ultimate goal is to minimalize the differences between the new chosen and existing cities in this context. Therefore, the new chosen cities' specifications must fit within those ranges of amount of inhabitants, households and also to the total retail floor area.

Selection

This all results in specific selection criteria for the new chosen cities and the corresponding survey locations. Firstly, the geographical and demographical characteristics of the existing and new cities must be comparable. Secondly, the improvement of dispersion and variation within each atmospheric variable between the cities. Lastly, dispersion and variation within each atmospheric between the survey areas in each city should be maintained. Almere and Tilburg, both with three different survey locations, are the two cities which comply with these criteria and therefore will be used in this survey.

3.4 Data collection and method of analyses

This survey is an extension on previous research of Dijkman (2012); Op Heij (2012); Willems (2012) and Elemans, Saes & Tiktak (2013). Therefore, already a significant amount of quantitative data is available with respect to consumer preferences in this context and their personal characteristics. A total of 1954 respondents did give answer to parts of the questionnaire which is also used in this survey. The data collection of both tenant variety and aesthetic atmospheric characteristics by using Locatusonline (2012; 2013; 2014), is done in

retro perspective for the five previously used cities and as up to date as possible for Almere and Tilburg.

To determine which and to what extent atmospheric related variables influence the experiential value of consumers in inner city shopping areas, discrete choice modelling as an analysis technique is used.

Discrete choice modelling

A discrete choice model is one in which respondents choose among a set of alternatives. In this study this model is used to give insight and predict choices of consumers between alternatives or in other words shopping areas. The set of alternatives - the choice set - needs to exhibit three characteristics: (I) alternatives need to be mutually exclusive, (II) alternatives must be exhaustive, and (III) the number of alternatives must be finite (Train, 2009). These alternatives or shopping locations are characterized by a set of atmospherics. Each shopping area within a specific city has its own unique composition with respect to the atmospheric variables. In this way, respondents are able to choose between three or four alternatives in the corresponding inner city shopping area. Discrete choice models are usually in a random utility model framework in which respondents are assumed to be utility maximizers. The respondents, in this case consumers, perceive a certain level of utility from each alternative. It is assumed that the consumer chooses the alternative with the highest utility, in this survey by making a choice in the form of a ranking of both the most favourite and atmospheric shopping location within a city. These survey areas are predetermined and therefore comply to the fact that alternatives need to be finite. One type of discrete choice model will be used in this study, namely the Multinomial Logit Model (MNL).

Multinomial Logit model

This model is used to determine which impact independent atmospheric variables have on the preferences or selection of a shopping location within a city. The MNL model has the ability to assess the likely impact of each atmospheric characteristic on the consumers' preference. The characteristics or variables may have a negative or positive impact on the preferences of the respondents with respect to shopping areas. The atmospheric variables used in this survey are described in chapter four. In addition, besides the negative or positive associations, the MNL model also calculates the utility weight of each variable by using the formula:

$$U_{ni} = V_{ni} + \varepsilon_{ni} = \sum_{k=1}^{K} \beta_k x_{nik} + \varepsilon_{ni}$$

U_{ni} *is* the overall utility that consumer *n* obtains from alternative *i*.

V_{ni} is the structural utility of alternative *i* for individual *n.*

ε_{ni} is the error term or the random utility component.

β_k is the utility weight for attribute *k*.

x_{nik} is the score of alternative *i* on attribute *k* for individual *n*.

The propability that indivual *n* will choose alternative *i* is equal to the probability that the overall utility of alternative *i* for individual *n* is higher than the overall utility of all of the other alternatives in the choice set. An assumption must be made in order to determine the probability that an alternative will be chosen from the total set of alternatives. It is assumed that the variance of the error component is equal for all alternatives and that the error components follow a double exponential distribution with mean zero. This all results in a probability function of choice:

$$P_{ni} = \frac{e^{V_{ni}}}{\sum_{i=1}^{J} e^{V_{ni'}}}$$

P_{ni} Is the propability of alternative *i* for indivual *n.*

V_{ni} is the structural utility of alternative *i* for individual *n.*

j is the number of alternatives in the choice set

The software program Nlogit 5 has the ability to calculate the utility weights and positive or negative associations for each of the imported variables and is therefore used in this survey (Econometric Software Inc., 2012).

In order to determine and measure the goodness of fit of the MNL model, the log-likelihood function or LL(β) of the optimal model will be calculated. The goodness of fit can be described as how well the MNL model predicts the observed choice behaviour of the respondents. Besides the LL(β), also the log-likelihood of the null model or LL(0) will be calculated. The parameters or β's in the null model are all zero. The LL(β)) will be divided by LL(0) and subsequently subtracted from 1. The resulting value is called McFadden's Rho Square (ρ^2) and always lies between 0 and 1. A high Rho Square indicates that the MNL model has a high goodness of fit. If the ρ^2 is equal to zero, the model is not better than one with zero parameters. In general, an MNL model with a ρ^2 between 0.2 and 0.4 performs well and thus already indicates a high goodness of fit.

3.5 Conclusion

In order to determine the possible relation between consumers perceived experiential value and atmospherics of shopping areas, several terms in the research questions need to be operationalized. In this survey, the terms 'atmospherics', 'tenant variety' and 'experiential value' were converted into computable variables. To obtain data with respect to the preferences of respondents, a questionnaire will be used. The survey comprises several parts, including the determination of the type of shopping motivation of the respondent, the general evaluation of the shopping area and about personal information of the respondents. Data of former studies of Dijkman (2012); Op Heij (2012); Willems (2012); Elemans, Saes & Tiktak (2013) is incorporated as well. The complete dataset is obtained by surveys which were held among respondents in the cities Maastricht, 's-Hertogenbosch, Breda, Dordrecht, Eindhoven, Tilburg and Almere. The data will be analysed with multinomial logit models in the software program Nlogit 5.

4. Study areas and survey locations

It is important to define the study areas before the process of data collection. This chapter describes the cities and the corresponding survey locations extensively for Almere and Tilburg and in a slightly less detailed way for the five cities of previous studies (Dijkman, 2012; Op Heij, 2012; Willems, 2012; Elemans, Saes and Tiktak, 2013). These five cities are Maastricht, 's-Hertogenbosch, Breda, Dordrecht and Eindhoven.

4.1 Almere

Almere is a relatively new city in the Netherlands, that exists since 1975 and is located in the province Flevoland. With a total of 196,156 inhabitants, 100,540 households and a surface of almost 130 sq.km, Almere is the seventh city of the country according to size. The average disposable income per household is with €34,600 per year above the national average (CBS, 2014). Geographically, the municipalities Lelystad and Zeewolde are adjacent. Almere was developed. In the second half of the twentieth century and originally intended to be the second city of the province. In the meantime it has grown to the largest city in Flevoland and therefore surpassed Lelystad by size. Flevoland is the youngest province of the country because of the fact that it was created by the reclamation of the Zuiderzee in 1918. Initially, the main part of the land was meant for agriculture activities up to the end of World War Two. After that period, policymakers came to the understanding that Amsterdam had a problem regarding to its housing capacity. Almere and Lelystad were designed to partly solve the growing demand for housing in the capital. Initially, Almere was established as a city with several separate cores. Due to the enormous growth, the intermediate areas disappeared and all the cores emerged into one. Because of those and other different housing policies during the short history of Almere, there are large differences noticeable between the oldest and newest parts of the city. For example in the seventies, uniform and functional housing was the main trend. Despite the fact that there was more attention for differentiation of the housing stock during the nineties, Almere is known for its large scaled uniform neighbourhoods. The centre, which is the largest part of the city, is rapidly expanding with the in 2006 completed inner city retail development 'Citymall Almere' as a leading example. The city is relatively well accessible because of the central location in the country and the presence of nearby national highways A6 and A27 pared with multiple train stations spread across different neighbourhoods (Gemeente Almere, 2014). In the future, Almere is expected to grow out to one of the five largest cities in the Netherlands with a total of approximately 350,000 inhabitants in 2040. The expectation is that existing transport facilities cannot manage the enormous future traffic density. Therefore, current motorways are under construction to handle such amounts of traffic. Nowadays, the total retail floor space in the centre of Almere comprises 78,659 sq.m and a total of 262 shop related real estate objects such as stores, leisure accommodations and other retail facilities (Locatusonline, 2014).

Survey locations

A distinction of three different shopping locations can be made regarding to the inner city of Almere; Bottelaar/Zoetelaar Passage (1), Stationstraat (2) and Citymall Almere (3). See figure 4.1 for an overview. Those areas are also the different survey locations in this city. Due to the fact that Almere has emerged since 1975, the material and shape of the facades are relatively modern and therefore non-historical. Nevertheless, a clear distinction can be made between the Stationstraat and Bottelaar/Zoetelaar Passage on the one hand and the Citymall Almere on the other hand. The first two locations were largely constructed between 1982 and 1995, whereby the Bottelaars/Zoetelaar Passage mainly in the early years of this time period and the Stationstraat more during the second half. As mentioned earlier, the completion of Citymall Almere was in 2006 and comprises a large scaled modern uniform shopping location with differentiation in building heights, materials, ascending and descending streets in height and

width and striking windows which make this retail area unique compared to other survey areas. Therefore, the perceived experiential value of consumers in this location on several atmospherics is interesting to measure. The Bottelaar/ Zoetelaar Passage is the only indoor shopping location in the main retail area of Almere, which is a unique atmospheric in Almere. The quality of the physical environment of this indoor passage can be considered worse due to the lower finishing level of the real estate objects and a vacancy rate higher than 20% of the total retail floor area (RFA). Compared to most other survey locations in the different cities, the Bottelaar/ Zoetelaar Passage deviates in that context. Finally, the atmospherics of the Stationsstraat are mainly different because of the presence of striking advertisement signs-, and diverse (non-historical) shape of facades. Table 4.1 and 4.2 give an overview of the composition of both the tenant variety and aesthetic design atmospheric variables.

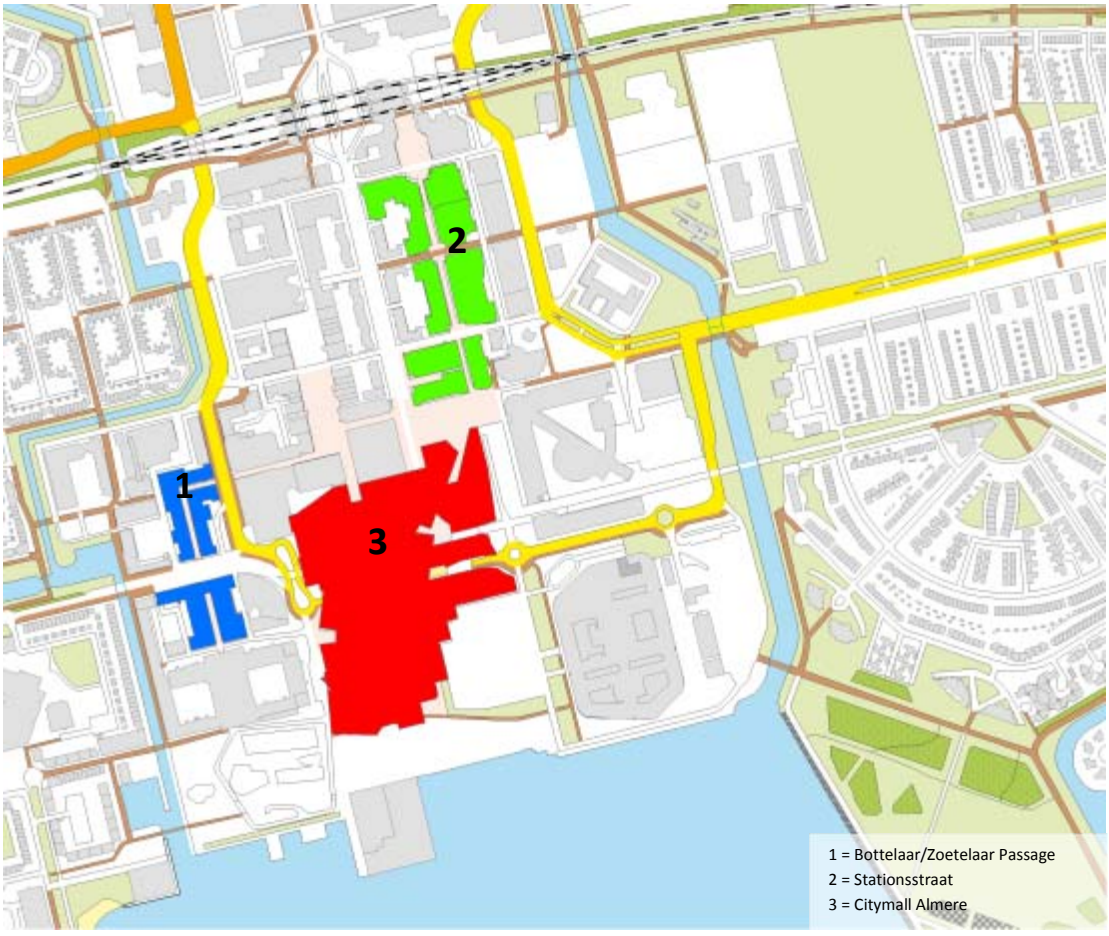

Figure 4.1: Overview survey areas Almere

Table 4.1: Tenant variety atmospherics of survey areas in Almere

Tenant Variety Atmospherics	Almere		2014
	Bottelaar/Zoetelaar passage	Stationsstraat	Citymall
Retail related objects	44	61	119
Vacant Stores	**7**	**0**	**7**
Vacant stores	7		7
Daily Stores	**8**	**13**	**7**
Foodstuff	6	8	3
Personal Care	2	5	4
Fashion & Luxury Stores	**14**	**25**	**59**
Department store			2
Clothing and fashion	7	14	40
Footwear and Leather goods	2	5	10
Jeweller and optician	3	5	5
Housewares and luxury goods	2	1	2
Antiques and art			
Other Stores	**12**	**12**	**22**
Sports and games	1	3	5
Hobby	2		
Media	1	2	3
Animal and plant	1	2	
Durable household goods	3	4	8
Car and bike			
Do-It-Yourself			
Home furnishing products	1		3
Other retailers	3	1	3
Automotive			
Leisure/ Restaurants	**3**	**11**	**24**
Horeca	3	11	21
Cultural			2
Leisure			1
Vacancy %	3. High	1 .Low	1 .Low
Amount of branches	3. High	3. High	3. High
Average shop size	1 .Small	3. Large	3. Large
Share of shop formulas	1 .Low	3. High	3. High

Table 4.2: Aesthetic Design atmospherics of survey areas in Almere

Aesthetic Design Atmospherics	Almere		2014
	Bottelaar/Zoetelaar passage	Stationsstraat	Citymall
Distance to parking facility	50m	100m	0m
Distance to public transport	0m	0m	100m
Service level	1. Low	1. Low	3. High
Shape of facades	2. Clean and uniform	3. Diverse (Non-Historical)	2. Clean and uniform
Material of facades	2. Contemporary	2. Contemporary	2. Contemporary
Material of pavements	2. Smooth	3. Mixed	2. Smooth
Colour of facades	3. Bright	2. Mixed	2. Mixed
Colour of pavements	2. Mixed	2. Mixed	2. Mixed
Indoor	2. Yes	1. No	1. No
Impact greenery	1. Low	1. Low	2. Medium
Street furniture	1. None	2. Low	3. High
Shop windows	2. Neutral	2. Neutral	3. Striking
Advertisement signs	2. Neutral	3. Striking	1. Discrete
Width of the street	6m	8m	20m
Height of buildings	3 Storeys	3 Storeys	4 Storeys
Width to height ratio	2,0	2,7	5,0
Crowdedness	B2	A1	A2
Elevation	1. No	1. No	1. No

4.1.1 Citymall Almere

The Citymall Almere is with a total of almost 35,000 sq.m of retail floor area the largest shopping location within Almere's city centre. This retail area opened in 2006; it is very modern compared to the other nearby real estate in the main shopping centre of Almere. See figure 4.2 for an impression. Due to the projects based identity of this area, the Citymall can be characterized as uniform in its entirety. The discrete advertisement signs on the shops and striking shop windows are exclusively present in this area and contribute to the modern look as a whole. A medium impact of greenery and a high amount of street furniture are also unique atmospherics compared to the other survey locations in the city centre. A high amount of different retail branches and shop formulas are notable atmospherics for the Citymall, which are determinative variables regarding to the tenant variety and eventually to the perceived experiential value. Furthermore, a high amount of leisure facilities such as restaurants are located in this survey area. According to Locatusonline (2014), the Citymall Almere can be seen as an A2 shopping location based on the number of pedestrians. Table 4.3 gives an overview of the composition of this survey area.

Table 4.3: Composition of Citymall Almere (Locatusonline, 2014)

Retail area composition	Citymall Almere
Vacant stores	7%
Daily stores	7%
Fashion & Luxury stores	62%
Other stores	23%
Leisure/ Restaurants	24
Amount of branches	12
Average shop size (m²)	365
Share of shop formulas	80%

Figure 4.2: Impression Citymall Almere

4.1.2. Bottelaar/ Zoetelaar Passage

The Bottelaar/ Zoetlaar Passage is the only indoor survey area in Almere and is small in size with approximately 5,000 sq.m of retail floor space. Situated south west and on the edge of the inner city makes this place somewhat isolated. The passage consists out of two parts, which are separated with a small road. Both built in the same period and architecture style, makes these two areas as one indoor shopping location. For an impression see figure 4.3. The low service level, lack of street furniture and high vacancy level contribute to a retail area with less quality. A bright colour of facades and a relatively low amount of light in the passage are also unique atmospherics compared to the other survey locations. The ratio of both shop formulas and fashion and luxury stores is low. The number of branches can be categorized high. Locatusonline (2014) categorizes the passage as a B-2 location, which is the second lowest ranking for retail streets in main shopping areas of cities. The composition of this shopping location can be seen in table 4.4.

Table 4.4: Composition of Bottelaar / Zoetelaar Passage (Locatusonline, 2014)

Retail area composition	Bottelaar/ Zoetelaar Passage
Vacant stores	17%
Daily stores	20%
Fashion & Luxury stores	34%
Other stores	29%
Leisure/ Restaurants	3
Amount of branches	13
Average shop size (m²)	135
Share of shop formulas	32%

Figure 4.3: Impression Bottelaar/Zoetelaar Passage

4.1.3 Stationsstraat

This survey area is located in the northern part of Almere's inner city shopping centre and forms the connection with southern retail areas such as for example the Citymall Almere. For an impression of this survey area see figure 4.4. With a total of more than 16,000 sq.m of retail floor area and an average amount of shops, the Stationsstraat is half the size of the Citymall. Nevertheless, the number of pedestrians is significantly higher according to Locatusonline (2014) and therefore labelled with the highest ranking, called A-1 shopping area. A low vacancy rate and a large average size of shops are distinctive characteristics with respect to the other survey locations in Almere. Furthermore, the shape of the store facades are diverse and non-historical and covered with striking advertisement signs. A high amount of daily shops as well as leisure facilities are situated in the Stationsstraat and this location comprises a high amount of retail chain stores or shop formulas. The composition of this shopping location can be seen in table 4.5.

Table 4.5: Composition Stationsstraat (Locatusonline, 2014)

Retail area composition	Stationsstraat
Vacant stores	0%
Daily stores	26%
Fashion & Luxury stores	50%
Other stores	24%
Leisure/ Restaurants	11
Amount of branches	11
Average shop size (m²)	324
Share of shop formulas	74%

Figure 4.4: Impression Stationsstraat

4.2 Tilburg

Tilburg is a city in the province Noord-Brabant, situated in the southern part of the Netherlands, that received town privileges in 1809 by Lodewijk Napoleon Bonaparte mainly because of the expanse due to the sheep breeding. At the end of the 19th century, the city grew quickly in size as a result of the textile industry and therefore perceived the name 'Wool city'. During this period in the history of Tilburg, numerous town houses, labour housing and shops were built which are partly still existing in the inner city. Because of this growth, a master plan was constructed by Johan Rückert to deal with the new demographic developments. New infrastructural facilities such as a railway line, which separate Tilburg in two parts, dramatically changed the city. The textile industry disappeared since the sixties of the 20th century and resulted in a new city structure. A new inner city ring road was built at the expense of the historical heritage of Tilburg (Ons Tilburg, 2014). With a total of 210,200 inhabitants, 100,540 households and a surface of 89 sq.km, Tilburg is the sixth city of the Netherlands. The average disposable income per household is €29,000 and therefore significantly lower than the national average (CBS, 2014). The main retail area, located in the inner city, is well accessible by car, public transport within walking distance and also due to a total of seven nearby parking garages. With a total of 78,570 sq.m of retail floor area and 324 shop related real estate objects such as stores, leisure accommodations and other retail facilities, the inner city shopping district of Tilburg has almost exact the same size in sq.m as Almere (Locatusonline, 2014).

Survey locations

Focussing more on the main retail area in Tilburg, a distinction of three different locations can be made regarding to atmospherics, see figure 4.5 for an overview. Those areas are the survey locations and called: 'Emmapassage'(1), 'Heuvelstraat' (2) and 'Pieter Vreedeplein' (3) . Besides the location in the inner city, all are originated in a different period, and results in different architecture such as historical and non-historical buildings. The Emmapassage and Pieter Vreedeplein were constructed more recently than mainly all the real estate objects in the Heuvelstraat. As a result of this, clean and uniform shape of facades with contemporary material characterizing those more modern areas. A further distinction can be made here, the retail area 'Pieter Vreedeplein' was opened quite recent in 2008 and is substantially more modern than the 20 years earlier built Emmapassage. The Heuvelstraat on the other hand consists of diverse shaped historical facades and is primarily constructed in the early years of the twentieth century. The facades of the survey areas are also all deviating from each other. Differences are also visible on every aspect regarding to the vacancy level, composition of store branches and the amount of leisure related facilities. Due to the fact that there is a large variation of atmospherics between the three unique areas which is partly described here, Tilburg is an interesting city to obtain more insight in perceived experiential value of consumers. Table 4.6 and 4.7 give an overview of the composition of both the tenant variety and aesthetic design atmospheric variables.

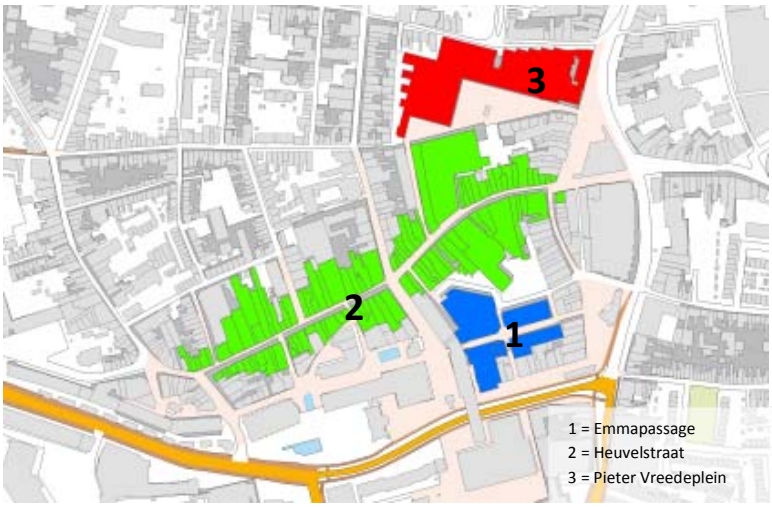

Figure 4.5: Overview survey locations Tilburg

Table 4.6: Tenant variety atmospherics of survey areas in Tilburg

Tenant Variety Atmospherics	Tilburg		2014
	Emmapassage	Heuvelstraat	Pieter Vreedeplein
Retail related objects	22	125	26
Vacant Stores	**3**	**5**	**2**
Vacant stores	3	5	2
Daily Stores	**0**	**16**	**2**
Foodstuff		7	1
Personal Care		9	1
Fashion & Luxury Stores	**15**	**75**	**11**
Department store		2	1
Clothing and fashion	8	46	7
Footwear and Leather goods	2	14	2
Jeweller and optician	1	9	
Housewares and luxury goods	4	4	1
Antiques and art			
Other Stores	**2**	**20**	**6**
Sports and games	1	6	2
Hobby		2	
Media	1	1	
Animal and plant			1
Durable household goods		9	1
Car and bike			
Do-It-Yourself			
Home furnishing products			2
Other retailers		2	
Automotive			
Leisure/ Restaurants	**2**	**9**	**5**
Horeca	2	9	3
Cultural			1
Leisure			1
Vacancy %	3. High	1 .Low	2. Average
Amount of branches	1 .Low	3. High	3. High
Average shop size	1 .Small	2. Average	3. Large
Share of shop formulas	1 .Low	3. High	3. High

Table 4.7: Aesthetic Design atmospherics of survey areas in Tilburg

Aesthetic Design Atmospherics	Tilburg 2014		
	Emmapassage	**Heuvelstraat**	**Pieter Vreedeplein**
Distance to parking facility	0m	60m	0m
Distance to public transport	150m	110m	50m
Service level	1. Low	1. Low	2. Medium
Shape of facades	2. Clean and uniform	1. Diverse (historical)	2. Clean and uniform
Material of facades	2. Contemporary	1. Historical	2. Contemporary
Material of pavements	2. Smooth	2. Smooth	3. Mixed
Colour of facades	3. Bright	2. Mixed	1. Dark
Colour of pavements	2. Mixed	2. Mixed	1. Dark
Indoor	2. Yes	1. No	1. No
Impact greenery	1. Low	1. Low	3. High
Street furniture	1. Low	1. Low	3. High
Shop windows	2. Neutral	2.Neutral	2. Neutral
Advertisement signs	2. Neutral	3. Striking	1. Discrete
Width of the street	7m	12m	40m
Height of buildings	2 Storeys	3 Storeys	4 Storeys
Width to height ratio	3,5	4,0	10,0
Crowdedness	B2	A1	B1
Elevation	1. No	1. No	1. No

4.2.1 Emmapassage

As mentioned earlier, the Emmapassage is the only indoor shopping location of all the survey areas in Tilburg and also the smallest in scale with a total of almost 4,200 sq.m retail floor area. An impression of the Emmapassage can be seen in figure 4.6. This surface is divided over 22 retail related real estate objects. With a high vacancy rate, lower service level and a more dated appearance, this passage deviates in quality compared to the rest. Furthermore, also the amount of branches is substantial lower in comparison. Ratio wise, an average quantity of stores are fashion and luxury related, this in contrast to the amount of daily- and other stores. The Emmapassage is located south east of the inner city shopping district of Tilburg. The indoor area forms the connection between the Stadshuisplein and a square with bars and restaurants called the Piusplein. The colour of the facades is white and can therefore be characterized as bright. The advertisement signs on these facades are all neutral and in that perspective unique in the survey areas in this city. According to Locatusonline (2014), this passage can mainly be seen as an B-2 shopping location based on the number of pedestrians. The composition of this shopping location can be seen in table 4.8.

Table 4.8: Composition Emmapassage (Locatusonline, 2014)

Retail area composition	Emmapassage
Vacant stores	15%
Daily stores	0%
Fashion & Luxury stores	75%
Other stores	10%
Leisure/ Restaurants	2
Amount of branches	6
Average shop size (m²)	209
Share of shop formulas	59%

Figure 4.6: Impression Emmapassage

4.2.2 Heuvelstraat

The largest and also main shopping street in Tilburg, with a total of more than 32,700 sq.m retail floor area, is the Heuvelstraat. Situated across the entire width, this street forms an important linking factor among all the different inner city shopping areas. Totally 125 retail related objects makes this street a shop location with a high amount of shops. An impression of the Heuvelstraat can be seen in figure 4.7. This also applies for the amount of branches in the street. The average shop size, can be typified as average compared to all the other survey locations in this survey. Ratio wise, the number of daily stores is high. The 'other' type of stores are present on an average level in the Heuvelstraat. A high amount of department stores are situated, this is a unique characteristic compared to the other two locations where these large scaled stores are lacking. Diverse and mixed colour facades of the buildings pared with historical architecture, give this shopping location in its entirety an distinctive appearance. In addition, the striking advertisement signs contribute also to that unique retail atmosphere in Tilburg's inner city shopping centre. Due to the high number of pedestrians in the Heuvelstraat, Locatusonline (2014) qualifies segments this area mainly as an A-1 shopping location. The composition of this shopping location can be seen in table 4.9.

Table 4.9: Composition Heuvelstraat (Locatusonline, 2014)

Retail area composition	Heuvelstraat
Vacant stores	4%
Daily stores	14%
Fashion & Luxury stores	65%
Other stores	17%
Leisure/ Restaurants	9
Amount of branches	12
Average shop size (m²)	282
Share of shop formulas	82%

Figure 4.7: Impression Heuvelstraat

4.2.3 Pieter Vreedeplein

Half the size of the Heuvelstraat, survey location 'Pieter Vreedeplein' is the second largest with a total of more than 15,600 sq.m retail floor area. An impression of the Pieter Vreedeplein can be seen in figure 4.8. Compared to the Emmapassage, the amount of shops are almost equal, which makes the average shop relatively large. Ratio wise, the number of fashion and luxury related stores is low and therefore unique within the different survey areas. Furthermore, the service level is with an average rating higher compared to the rest in Tilburg's inner city shopping location. Due to the square design of the ground surface with a total width of 40 meter, the width to height ratio is large and therefore unique. The Pieter Vreedeplein is situated on the most northern part of the inner city shopping district, west of a square named 'Heuvel' whereupon several bars and restaurants are located. Furthermore, this survey area forms a connection with the Heuvelstraat via, the short in length shopping street, 'Pieter Vreedestraat'. The architecture of the square as well as the surrounding buildings are unique. A high impact of greenery pared with a large number of different forms of street furniture and the usage of mixed material of dark coloured pavements contribute to that distinctive character. The dark coloured facades combined with the very contemporary appearance also strengthen this uniqueness. According to Locatusonline (2014), this relatively new developed retail area is a B-1 shopping location, which is based on the number of pedestrians. The composition of this shopping location can be seen in table 4.10.

Table 4.10: Composition Pieter Vreedeplein (Locatusonline, 2014)

Retail area composition	Pieter Vreedeplein
Vacant stores	10%
Daily stores	10%
Fashion & Luxury stores	52%
Other stores	29%
Leisure/ Restaurants	5
Amount of branches	10
Average shop size (m²)	743
Share of shop formulas	75%

Figure 4.8: Impression Pieter Vreedeplein

4.3 Maastricht

The history of the city Maastricht starts in the Roman era. During that period, the Romans built a settlement next to the river Meuse, which grew out to a fortified place in the 4th century. In the mediaeval, Maastricht quickly developed due to the strategic positioning of the city for trading purposes. Also the increasing power of the catholic church during that period resulted in several religion settlements such as the 'Onze Lieve Vrouwenkerk' and the 'Sint-Servaaskerk', which are nowadays still present in Maastricht. From the 16th to the 19th century, the city was dominated by the Spanish- and French rulers up to 1814. After several battles, Maastricht eventually belongs to the Netherlands since that point in history. In 1839, the province Limburg was separated in a Belgian and Dutch part. Maastricht was allocated eventually to the Netherlands which was against the desire of the inhabitants during that time. After this period, the focus of Maastricht began to lie on industrial activities and resulted in the development of large factories with new neighbourhoods mainly intended for the working class (vvv Maastricht, 2014). Since the end of World War Two, Maastricht developed relatively rapidly and consists nowadays of 122,480 inhabitants and 66,520 households with an average disposable income of €27,600.

The city is very popular by tourists because of its historical centre, large offer of leisure related facilities and partly due to the geographical location nearby Germany and Belgium. The inner city of Maastricht has a total retail floor area of 102,713 sq.m and a total of 672 shop related real estate objects such as stores, leisure accommodations and other retail facilities (Locatusonline, 2014). The city centre is well accessible by car due to several national roads and the highway A2, which makes the connection with Belgium. Also the presence of several parking facilities around and in the inner city contribute to this accessibility. Maastricht's main retail district is also relatively well accessible by public transport, the central railway station is within 10 to 15 minutes walking distance (Maastricht Bereikbaar, 2014).

Survey locations

The main survey locations in the inner city retail district of Maastricht are: 'Entre Deux' (1), 'Maastrichter Brugstraat' (2), 'Mosea Forum' (3) and 'Stokstraat' (4). See figure 4.9 for an overview. All four areas do have different atmospherics regarding to architectural aspects, geographical positioning within the city centre, number of pedestrians and also tenant variety. All different characteristics of these will be described as it was in the year 2012. Table 4.11 and 4.12 give an overview of the composition of both the tenant variety and aesthetic design atmospheric variables.

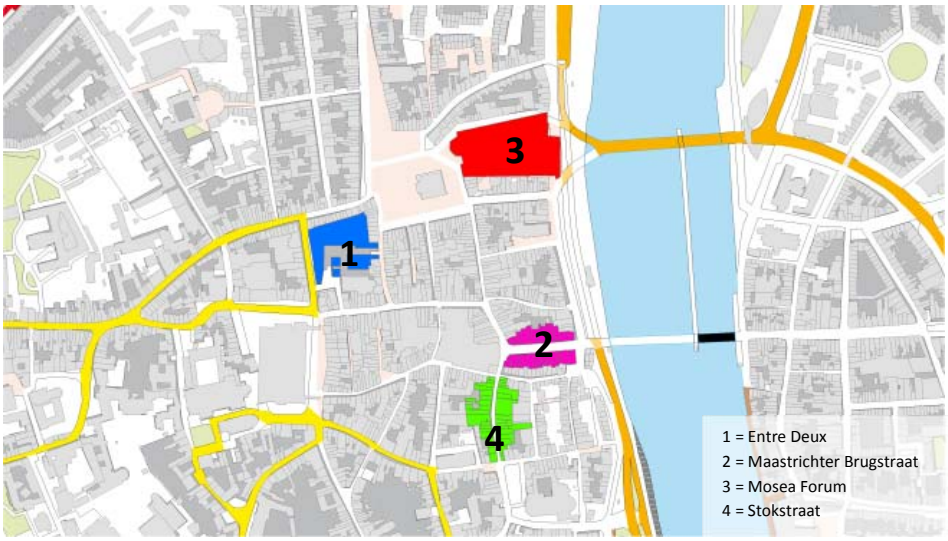

Figure 4.9: Overview survey locations Maastricht

Table 4.11: Tenant variety atmospherics of survey areas in Maastricht

Tenant Variety Atmospherics	Maastricht			2012
	Entre Deux	Maastrichter Brugstraat	Mosea Forum	Stokstraat
Retail related objects	30	28	29	31
Vacant Stores	**7**	**0**	**5**	**1**
Vacant stores	7		5	1
Daily Stores	**1**	**1**	**9**	**0**
Foodstuff		1	8	
Personal Care	1		1	
Fashion & Luxury Stores	**18**	**22**	**9**	**25**
Department store				
Clothing and fashion	12	14	7	19
Footwear and Leather goods	2	4	2	1
Jeweller and optician	2	2		5
Housewares and luxury goods	2	2		
Antiques and art				
Other Stores	**3**	**3**	**3**	**3**
Sports and games	2		1	
Hobby				
Media	1		1	
Animal and plant				1
Durable household goods		1		
Car and bike				
Do-It-Yourself				
Home furnishing products				1
Other retailers		2	1	1
Automotive				
Leisure/ Restaurants	**1**	**2**	**3**	**2**
Horeca	1	2	3	2
Cultural				
Leisure				
Vacancy %	3. High	1 .Low	3. High	1 .Low
Amount of branches	1 .Low	1 .Low	1 .Low	1 .Low
Average shop size	2. Average	1 .Small	3. Large	1 .Small
Share of shop formulas	3. High	1 .Low	3. High	1 .Low

Table 4.12: Aesthetic Design atmospherics of survey areas in Maastricht

Aesthetic Design Atmospherics	Maastricht			2012
	Entre Deux	Maastrichter Brugstraat	Mosea Forum	Stokstraat
Distance to parking facility	200m	300m	0m	250m
Distance to public transport	200m	400m	100m	300m
Service level	1. Low	1. Low	2. Medium	1. Low
Shape of facades	2. Clean and uniform	1. Diverse (historical)	2. Clean and uniform	1. Diverse (historical)
Material of facades	2. Contemporary	1. Historical	2. Contemporary	1. Historical
Material of pavements	3. Mixed	3. Mixed	2. Smooth	1. Rough
Colour of facades	3. Bright	2. Mixed	3. Bright	2. Mixed
Colour of pavements	1. Dark	1. Dark	1. Dark	1. Dark
Indoor	2. Yes	1. No	1.No	1.No
Impact greenery	1. Low	3. High	1. Low	1. Low
Street furniture	2. Low	2. Low	2. Low	1. None
Shop windows	2. Neutral	2. Neutral	3. Striking	1. Discrete
Advertisement signs	2. Neutral	2. Neutral	1. Discrete	1. Discrete
Width of the street	8m	15m	20m	5m
Height of buildings	4 Storeys	4 Storeys	5 Storeys	3 Storeys
Width to height ratio	2,0	3,8	4,0	1,7
Crowdedness	A2	A2	A2	B2
Elevation	2. Yes	1. No	2. Yes	1. No

4.3.1 Entre Deux

The second largest survey area in Maastricht with a total of almost than 7,200 sq.m retail floor area, is the indoor shopping location 'Entre Deux' and forms the connection between 'Vrijthof' and 'Markt', two important squares in Maastricht. The stores are situated on different storeys resulting in an environment with elevation. Totally 30 retail related real estate objects are situated in this in 2006 redeveloped shopping centre with a contemporary atmosphere. In addition, the amount of branches can be considered low. Because of the contemporary materials of the facades pared with clean and uniform shapes, Entre Deux (figure 4.10) has a modern appearance that is contrasting to the nearby surroundings of Maastricht's historical inner city. Contrary to the rest, this survey area has a high vacancy rate. Entre Deux receives with the A-2 qualification the second highest ranking regarding pedestrian traffic for shopping streets (Locatusonline, 2012). The composition of this retail area can be seen in table 4.13.

Table 4.13: Composition Entre Deux (Locatusonline, 2012)

Retail area composition	Entre Deux
Vacant stores	24%
Daily stores	3%
Fashion & Luxury stores	62%
Other stores	10%
Leisure/ Restaurants	1
Amount of branches	7
Average shop size (m²)	239
Share of shop formulas	94%

Figure 4.10: Impression Entre Deux

4.3.2 Maastrichter Brugstraat

The Maastrichter Brugstraat is a small shopping street with a total size of almost 3,000 sq.m of retail floor area and is located next to the Sint Servaasbrug. This name stands for a bridge that is an important pedestrian route over the river 'Meuse' and makes the connection with the smaller eastern inner city retail district of Maastricht. The amount of different branches in this street is relatively low as well as 'other' and 'daily' stores. Shops in the Maastrichter Brugstraat (figure 4.11) are on average small in size. Furthermore, this location is different compared to most survey areas, because of the historical architecture and the fact that lots of buildings date from the early years of the 18th century (BAG-viewer, 2014). This results in street with diverse historical shapes and materials of the facades. Also the high impact of greenery makes this survey area unique in Maastricht. Finally, due to relatively high amount of pedestrians, which is partly attributable to the nearby Sint Servaasbrug, Locatusonline (2012) gives this shopping location an A-2 ranking. The composition of this shopping location can be seen in table 4.14.

Table 4.14: Composition Maastrichter Brugstraat (Locatusonline, 2012)

Retail area composition	Maastrichter Brugstraat
Vacant stores	0%
Daily stores	4%
Fashion & Luxury stores	85%
Other stores	12%
Leisure/ Restaurants	2
Amount of branches	7
Average shop size (m²)	109
Share of shop formulas	61%

Figure 4.11: Impression Maastrichter Brugstraat

4.3.3 Mosea Forum

Situated west of the river 'Meuse' and in the northern part of Maastricht's inner city, Mosea Forum (figure 4.12) is compared to the surrounding buildings quite distinctive due to its contemporary appearance and the presence of elevation. The in 2006 newly developed Mosea Forum, consists of several functions, such as luxury apartments, offices and more than 10,500 sq.m of retail floor area divided over 29 objects. See table 4.15 for a composition. The amount of 'daily' stores can be considered as high. The 'fashion and luxury' offer is with an average representation, smaller within the study locations in Maastricht. On the other hand, the amount of leisure related facilities is low. Also the large average store size pared with a medium number of service elements such as ATM's and toilets are unique atmospherics. Furthermore, the facades are modern with clean and uniform shapes. The combination of striking shop windows with discrete advertisement signs results also in a distinctive atmosphere in Musea Forum. Depending on the positioning of the store within this location, Locatusonline (2012) segments stores within a B-2 to A-2 range.

Table 4.15: Composition Mosea Forum (Locatusonline, 2012)

Retail area composition	Mosea Forum
Vacant stores	19%
Daily stores	35%
Fashion & Luxury stores	35%
Other stores	12%
Leisure/ Restaurants	3
Amount of branches	7
Average shop size (m²)	369
Share of shop formulas	79%

Figure 4.12: Impression Mosea Forum

4.3.4 Stokstraat

With several monumental buildings dated out of the first years of the 17th century and also the presence of the in the year 1000 built church 'Onze Lieve Vrouwebasiliek', the Stokstraat in Maastricht has a rich history (BAG-viewer, 2014). This relatively narrow street has a total retail offer of approximately 2,200 sq.m and a total of 31 retail related objects. Focussing on the tenant mix, the Stokstraat (figure 4.13) consists almost completely of stores in the fashion and luxury branch, especially in the 'clothing and fashion' segment. Other types of tenants are in great minority. See table 4.15 for a composition .The average shop size is small and remarkably almost all retailers are not representing some sort of large shop formula. Due to the historical character of the Stokstraat, the pavement material is rough and the shapes of the facades are diverse and made of historical materials. Moreover, both shop windows and advertisement signs are discrete, which is unique in Maastricht. This survey area is located south of Maastricht's inner city. According to Locatusonline (2012), the Stokstraat can be seen as an B-2 shopping location based on the number of pedestrians.

Table 4.16: Composition Stokstraat (Locatusonline, 2012)

Retail area composition	Stokstraat
Vacant stores	3%
Daily stores	0%
Fashion & Luxury stores	86%
Other stores	10%
Leisure/ Restaurants	2
Amount of branches	6
Average shop size (m²)	61
Share of shop formulas	14%

Figure 4.13: Impression Stokstraat

4.4 ‘s-Hertogenbosch

The history of the city ‘s-Hertogenbosch starts in 1185. The Duke ‘Hendrik I’ owned an estate called Orthen that was located on a favourable position near the river Aa and Dommel. Mainly cause this geographical location, ‘s-Hertogenbosch grew out into a fortified city wherein much trading activities took place. Despite these relatively strong defensive measures, the city was partly destroyed in 1203. In the 15th century ‘s-Hertogenbosch grew quickly and a new fortification was built, which nowadays can be seen as the historical inner city. During the 16th century, the city expanded and became the second largest of the Netherlands. Until 1877 it was forbidden by law to expand ‘s-Hertogenbosch outside the city walls, which eventually resulted in a negative effect on the economic growth of the capital of the province Brabant. Besides the still present parts of the fortification, the city also consists of various ancient buildings such as the Sint Jan’s Catherdral (Den Bosch Cultuurstad, 2014). Nowadays, ‘s-Hertogenbosch has a total of 143,720 inhabitants and 66,180 households with an average disposable income of €33,400 (CBS, 2014). The inner city has a total retail floor area of 93,084 sq.m and a total of 543 shop related real estate objects such as stores, leisure accommodations and other retail facilities (Locatusonline, 2014). The inner city is well accessible due to its favourable positioning in the southern part of the Netherlands and the presence of several highways, national roads, many parking garages and public transport facilities (vvv Den Bosch, 2014).

Survey area’s

The main survey locations in the inner city retail district of ‘s-Hertogenbosch are: ‘Arena’ (1), ‘Burgemeerster Loeffplein’(2), ‘Hinthamstraat’ (3) and ‘Kerkstraat’ (4). See figure 4.14 for an overview. All four areas do have different atmospherics regarding to architectural aspects, geographical positioning within the city centre, number of pedestrians and also tenant variety. All different characteristics of these will be described as it was in the year 2012. Table 4.17 and 4.18 give an overview of the composition of both the tenant variety and aesthetic design atmospheric variables.

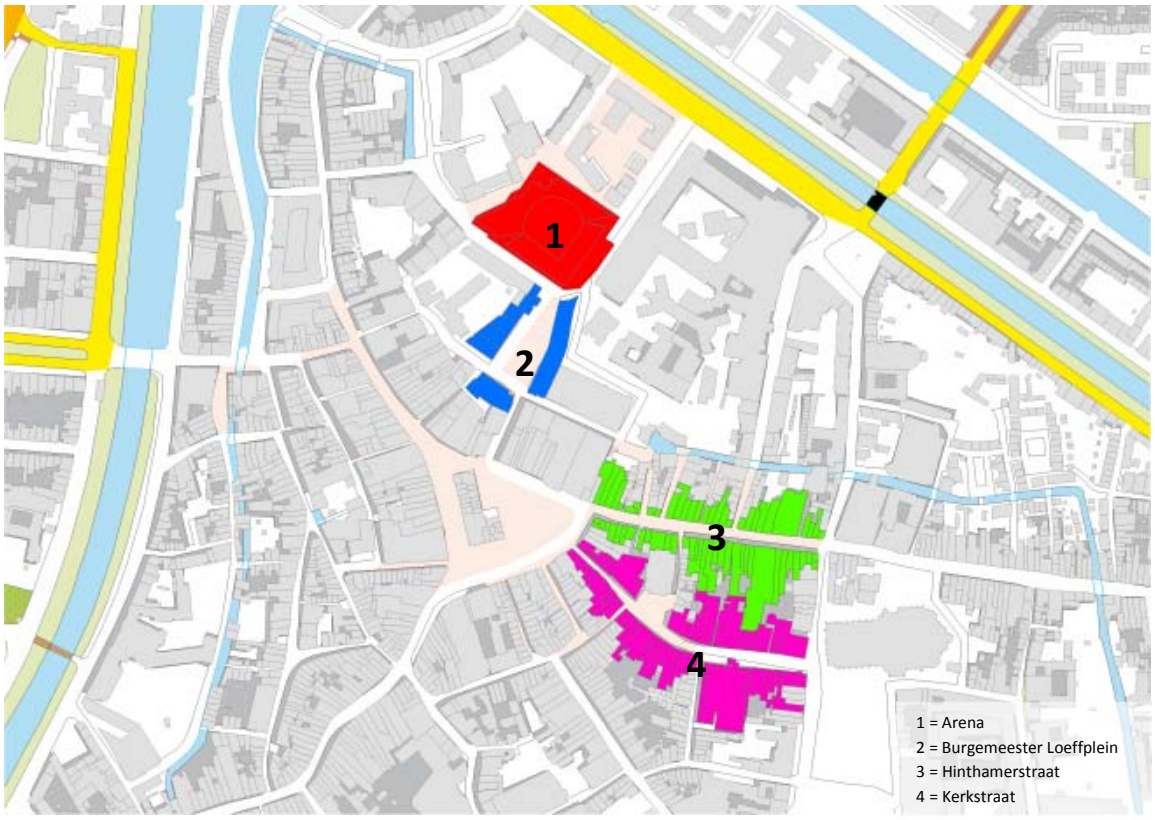

Figure 4.14: Overview survey areas 's-Hertogenbosch

Table 4.17: Tenant variety atmospherics of survey areas in 's-Hertogenbosch

Tenant Variety Atmospherics	s-Hertogenbosch			2012
	Arena	Burg. Loeffplein	Hinthamerstraat	Kerkstraat
Retail related objects	18	17	98	46
Vacant Stores	**0**	**0**	**5**	**1**
Vacant stores			5	1
Daily Stores	**2**	**0**	**11**	**1**
Foodstuff	1		6	
Personal Care	1		5	1
Fashion & Luxury Stores	**11**	**12**	**37**	**32**
Department store				
Clothing and fashion	10	8	20	22
Footwear and Leather goods		3	6	2
Jeweller and optician			6	7
Housewares and luxury goods	1	1	4	
Antiques and art			1	1
Other Stores	**4**	**3**	**21**	**3**
Sports and games	1	2	4	1
Hobby				
Media	1		3	2
Animal and plant	1		2	
Durable household goods	1	1	4	
Car and bike			2	
Do-It-Yourself			1	
Home furnishing products			3	
Other retailers			2	
Automotive				
Leisure/ Restaurants	**1**	**2**	**24**	**9**
Horeca	1	2	20	9
Cultural			4	
Leisure			2	
Vacancy %	1 .Low	1 .Low	1 .Low	1 .Low
Amount of branches	1 .Low	1 .Low	3. High	1 .Low
Average shop size	2. Average	1 .Small	1 .Small	2. Average
Share of shop formulas	2. Average	3. High	1 .Low	2. Average

Table 4.18: Aesthetic Design atmospherics of survey areas in 's-Hertogenbosch

Aesthetic Design Atmospherics	s-Hertogenbosch			2012
	Arena	Burg. Loeffplein	Hinthamerstraat	Kerkstraat
Distance to parking facility	0m	0m	200m	350m
Distance to public transport	0m	0m	150m	250m
Service level	1. Low	2. Medium	1. Low	2. Medium
Shape of facades	2. Clean and uniform	2. Clean and uniform	1. Diverse (historical)	1. Diverse (historical)
Material of facades	2. Contemporary	2. Contemporary	1. Historical	1. Historical
Material of pavements	2. Smooth	2. Smooth	2. Smooth	2. Smooth
Colour of facades	1. Dark	1. Dark	2. Mixed	2. Mixed
Colour of pavements	2. Mixed	2. Mixed	2. Mixed	2. Mixed
Indoor	1. Yes	2. No	1. No	1. No
Impact greenery	1. Low	3. High	1. Low	2. Medium
Street furniture	3. High	3. High	2. Low	3. High
Shop windows	3. Striking	3. Striking	2. Neutral	2. Neutral
Advertisement signs	2. Neutral	1. Discrete	3. Striking	2. Neutral
Width of the street	30m	50m	15m	10m
Height of buildings	2 Storeys	2 Storeys	3 Storeys	3 Storeys
Width to height ratio	15,0	25,0	5,0	3,3
Crowdedness	B1	A2	A2	B1
Elevation	2. Yes	1. No	1. No	1. No

4.4.1 Arena

In the northern part of 's-Hertogenbosch's main retail district is the in 1995 built indoor shopping centre 'Arena' situated (BAG-viewer, 2014). Different storeys makes this location unique within the survey areas in this city. See figure 4.15 for an impression. With a total size of almost 5,900 sq.m of retail floor area and a total 18 retail related objects, the Arena has a large average shop size. Moreover, the representation of different store branches is equal and can be considered average compared to the other survey areas in the city centre. Compared to the locations within 's-Hertogenbosch, the Arena has a low amount of leisure related facilities such as bars and restaurants. Taken the architecture style in consideration, the Arena is quite modern and has clean and uniform facades. The square situated one floor below ground level is directly connected with escalators to the underlying parking garage. According to Locatusonline (2012), the Arena can be considered as a B-1 location regarding to the amount of pedestrians. The composition of this shopping location can be seen in table 4.19.

4.4.2 Burgemeester Loeffplein

This square called 'Burgemeester Loeffplein' forms the connection between the 'Markt' and the 'Arena' and consists of 4,200 sq.m of retail floor area. The 'Markt' is a large square in the centre of the inner city with multiple leisure and retail objects and therefore a landmark within 's-Hertogenbosch. The Burgemeester Loeffplein (figure 4.16) is the only survey area in this city with an average amount 'other' stores. Furthermore, most real estate objects were built just before the millennium and can therefore be characterized as contemporary pared with clean and uniform facades. A high impact of greenery as well as the presence of discrete advertisement signs on the stores are distinctive characteristics of this location compared to the other survey areas in this city. The 'fashion and luxury' branch is highly represented, which is in contrast to the low amount of 'daily' stores. As well as the nearby 'Arena', this area deals with a high vacancy rate. According to Locatusonline (2012), the Burgemeester Loeffplein can be considered as an A-2 location. The composition of this shopping location can be seen in table 4.20.

Table 4.19: Composition Arena (Locatusonline, 2012)

Retail area composition	Arena
Vacant stores	0%
Daily stores	12%
Fashion & Luxury stores	65%
Other stores	24%
Leisure/ Restaurants	1
Amount of branches	8
Average shop size (m²)	266
Share of shop formulas	67%

Figure 4.65: Impression Arena

Table 4.20: Composition Burgemeester Loeffplein (Locatusonline, 2012)

Retail area composition	Burgemeester Loeffplein
Vacant stores	0%
Daily stores	0%
Fashion & Luxury stores	80%
Other stores	20%
Leisure/ Restaurants	2
Amount of branches	5
Average shop size (m²)	196
Share of shop formulas	88%

Figure 4.56: Impression Burgemeester Loeffplein

4.4.3 Hinthamerstraat

The largest survey location in 's-Hertogenbosch, with a total of approximately 8,800 sq,m of retail floor area, is the Hinthamerstraat. See figure 4.17 for an impression. This central located shopping street is directly connected with the 'Markt' and consists of 98 retail related objects whereby ratio wise 'other' stores and leisure related facilities are highly represented, in contrast to the small presence of the 'fashion and luxury' branch. Compared to other survey areas in this study, in a proportional stand of view, there is an average number of stores from some sort of shop formula. The amount of leisure related facilities such as restaurants, cultural and leisure objects can also be considered high. This all is situated in a historic atmosphere with diverse facades of buildings covered with striking advertisement signs. Some real estate objects even date from the year 1200. The amount of greenery as well as the amount of street furniture is low. Partly due to its favourable positioning within the inner city of 's-Hertogenbosch, the number of pedestrians is relatively high. Therefore, Locatusonline (2012) rates this location as an A-2 shopping street. The composition of this retail location can be seen in table 4.21.

Table 4.21: Composition Hinthamerstraat (Locatusonline, 2012)

Retail area composition	Hinthamerstraat
Vacant stores	7%
Daily stores	15%
Fashion & Luxury stores	50%
Other stores	28%
Leisure/ Restaurants	24
Amount of branches	15
Average shop size (m²)	104
Share of shop formulas	49%

Figure 4.17: Impression Hinthamerstraat

4.4.4 Kerkstraat

The Kerkstraat forms a connection between two important squares in the inner city of 's-Hertogenbosch, named Markt and Amadeiroplein. See figure 4.18 for an impression. This street also has as well as the Hinthamstraat a historic appearance with diverse facades. With a total of more than 7,300 sq.m of retail floor area, this survey location is second largest within 's-Hertogenbosch. Nevertheless, the average shop size can be considered small. A medium amount of greenery and an average service level are unique atmospherics within the four survey area's in this city. Moreover, the high presence of 'fashion and luxury' related stores and leisure related facilities paired with a low amount of other branch types and a low vacancy rate are distinctive features of this street. Locatusonline (2012) categorizes the Kerkstraat as a B-1 location, which stands for a relatively high average number of pedestrians in this survey area. The composition of this shopping location can be seen in table 4.22.

Table 4.22: Composition Kerkstraat (Locatusonline, 2012)

Retail area composition	Kerkstraat
Vacant stores	3%
Daily stores	3%
Fashion & Luxury stores	86%
Other stores	8%
Leisure/ Restaurants	9
Amount of branches	7
Average shop size (m²)	272
Share of shop formulas	69%

Figure 4.18: Impression Kerkstraat

4.5 Breda

Breda acquired city rights in 1252 and is therefore one of the first cities of Noord-Brabant. In order to defend the city, walls were built at the beginning of the 14th century. The canals are situated around the city. Remarkably, a striking feature for this kind of ancient fortified cities is that the inner city streets have an oval shape. The ramparts, which forms the replacement of the walls, stimulated the trade related activities in Breda. Due to this development pared with the presence of the house of Nassau, the city's prosperity grew rapidly during the 15th century. Court houses and other buildings which were built by order of the Nassaus, are still present and important monuments nowadays. In the second half of the 19th century, Breda was undergoing a period of growth of trade and industry. A railway station was built and made the city more suitable for industrial activities. To adapt to this industrial era, historical fortification were demolished and were replaced by labour houses and industrial plants. In 1942, Princenhage and Ginneken were annexed and also after the Second World War, the city kept expanding. During the sixties, entire neighbourhoods were built such as Heusdenhout, De Hoge Vucht and IJpelaar. Ten years later, the largest neighbourhood of the city called Haagse Beemden was constructed (Gemeente Breda, 2014). Nowadays, Breda has a total of 180,050 inhabitants and 83,670 households with an average disposable income of €33,000 (CBS, 2014). The inner city has a total retail floor area of 95,590 sq.m and a total of 518 shop related real estate objects such as stores, leisure accommodations and other retail facilities (Locatusonline, 2014). Inter alia, due to the presence of a railway station nearby the inner city, the accessibility by public transport can be considered as good. Moreover, several highways, national roads, and many parking garages makes the city also well accessible by car (vvv Breda, 2014).

Survey areas

The main survey locations in the inner city retail district of Breda are: 'the Barones'(1), 'Ginnekenstraat'(2) and 'Veemarktstraat'(3). See figure 4.19 for an overview of these locations. All three areas do have different atmospherics regarding to architectural aspects, geographical positioning within the city centre, number of pedestrians and also tenant variety. All different characteristics of these will be described as it was in the year 2013. Table 4.23 and 4.24 give an overview of the composition of both the tenant variety and aesthetic design atmospheric variables.

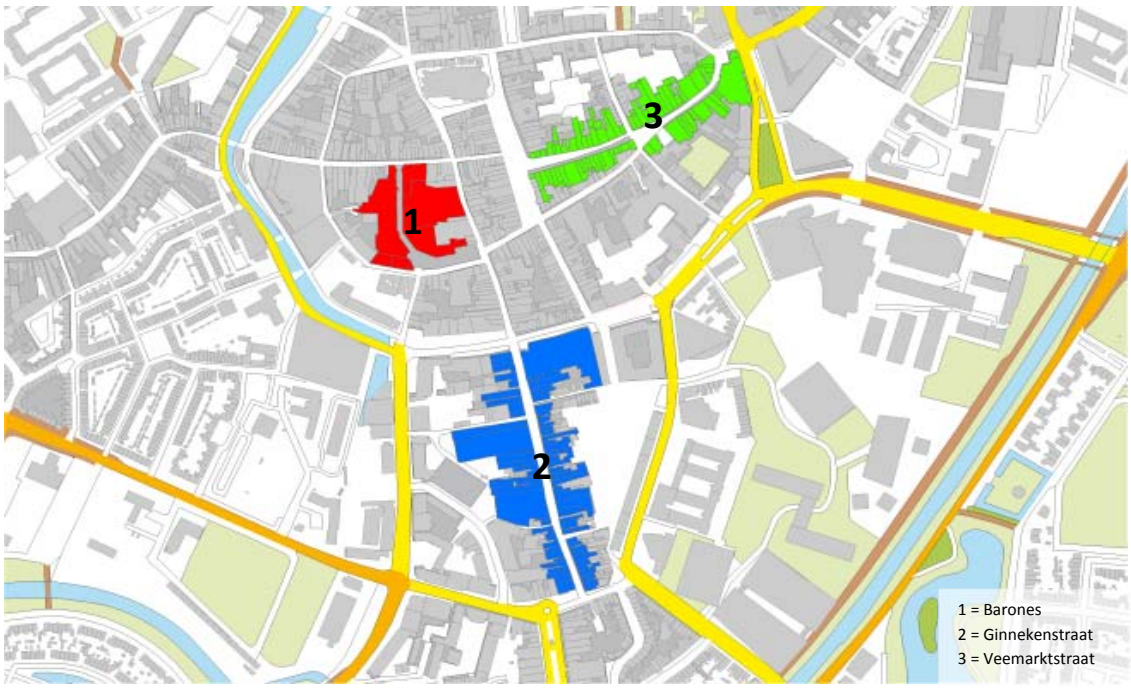

Figure 4.19: Overview survey areas Breda

Table 4.213: Tenant variety atmospherics of survey areas in Breda

Tenant Variety Atmospherics	Breda 2013		
	Barones	Ginnekenstraat	Veemarktstraat
Retail related objects	41	74	48
Vacant Stores	**12**	**3**	**1**
Vacant stores	12	3	1
Daily Stores	**5**	**3**	**3**
Foodstuff	3	3	2
Personal Care	2		1
Fashion & Luxury Stores	**19**	**56**	**37**
Department store		1	
Clothing and fashion	15	42	25
Footwear and Leather goods	2	4	3
Jeweller and optician	1	6	1
Housewares and luxury goods	1	2	6
Antiques and art		1	2
Other Stores	**4**	**12**	**7**
Sports and games	1	4	1
Hobby	2	2	1
Media			2
Animal and plant			
Durable household goods	1	5	
Car and bike			
Do-It-Yourself			
Home furnishing products			3
Other retailers		1	
Automotive			
Leisure/ Restaurants	**1**	**0**	**0**
Horeca	1	0	0
Cultural			
Leisure			
Vacancy %	3. High	1 .Low	1 .Low
Amount of branches	2. Average	3. High	3. High
Average shop size	1 .Small	2. Average	1 .Small
Share of shop formulas	3. High	3. High	1 .Low

Table 4.24: Aesthetic Design atmospherics of survey areas in Breda

Aesthetic Design Atmospherics	Breda 2013		
	Barones	Ginnekenstraat	Veemarktstraat
Distance to parking facility	100m	90m	180m
Distance to public transport	180m	80m	60m
Service level	2. Medium	1. Low	1. Low
Shape of facades	2. Clean and uniform	3. Diverse (non-historical)	3. Diverse (non-historical)
Material of facades	2. Contemporary	1. Historical	1. Historical
Material of pavements	2. Smooth	3. Mixed	3. Mixed
Colour of facades	3. Bright	2. Mixed	2. Mixed
Colour of pavements	3. Bright	1. Dark	1. Dark
Indoor	2. Yes	1. No	1. No
Impact greenery	1. Low	2. Medium	3. High
Street furniture	3. High	3. High	3. High
Shop windows	3. Striking	2. Neutral	1. Discrete
Advertisement signs	2. Neutral	3. Striking	2. Neutral
Width of the street	8m	11m	10m
Height of buildings	3 Storeys	4 Storeys	4 Storeys
Width to height ratio	2,7	2,8	2,5
Crowdedness	B1	A2	B1
Elevation	2. Yes	1. No	1. No

4.5.1 Barones

The only indoor shopping location and survey area in Breda is the 'Barones'. With a total of more than 7,100 sq.m retail floor area, this survey area is situated in the south western part of Breda's inner city shopping district and forms the connection between the Lange Brugstraat, Nieuwstraat and Karrestraat. See figure 4.20 for an impression. Totally 41 retail related objects are located on two different levels in the in 1997 constructed mall. Contrary to the other survey location, the Barones has a contemporary appearance. Furthermore, the clean and uniform materials of the facades and striking windows of the stores are unique aesthetic atmospherics within Breda. Contrary to the rest, this part of Breda's inner city retail district has a high vacancy rate and ratio wise less shops in the fashion and luxury branch. According to Locatusonline (2013), the Barones can be seen as a B-1 shopping location based on the number of pedestrians. The composition of this retail location can be seen in table 4.25.

4.5.2 Ginnekenstraat

The shopping location 'Ginnekenstraat' can be typified as a shopping location with a historical character due to the presence of a lot of buildings out of the 19th century and one even dates back to the year 1600 (BAG-viewer, 2014). See figure 4.21 for an impression. Originally, the Ginnekenstraat was a residential area until the end of the 19th century. Since that moment in the history of the city, the first shops were situated at this location. Eventually, it became one of the main shopping streets of Breda and had in 2013 a total size of 20,810 sq.m retail floor area. Furthermore, this shopping street also distinguishes itself by the presence of striking advertisement signs on the facades of the stops. As well as the Barones, the Ginnekenstraat has a high proportion of shop formulas. Locatusonline (2013) categorizes the Ginnekenstraat as an A-2 location, which stands for a relatively high average number of pedestrians in this survey area. The composition of this retail location can be seen in table 4.26.

Table 4.25: Composition Barones (Locatusonline, 2013)

Retail area composition	Barones
Vacant stores	30%
Daily stores	13%
Fashion & Luxury stores	48%
Other stores	10%
Leisure/ Restaurants	1
Amount of branches	9
Average shop size (m²)	165
Share of shop formulas	75%

Table 4.26: Composition Ginnekenstraat (Locatusonline, 2013)

Retail area composition	Ginnekenstraat
Vacant stores	4%
Daily stores	4%
Fashion & Luxury stores	76%
Other stores	16%
Leisure/ Restaurants	0
Amount of branches	11
Average shop size (m²)	270
Share of shop formulas	84%

Figure 4.20: Impression Barones

Figure 4.21: Impression Ginnekenstraat

4.5.3 Veemarktstraat

This shopping location is with approximately 6,000 sq.m of retail floor area the smallest of all survey areas within Breda. See figure 4.22 for an impression. As well as the Ginnenkenstraat, the Veemarktstraat has a historical character and most buildings are built during the 19th and early 20th century (BAG-viewer, 2014). This shopping location forms the connection between the 'Grote Markt', which is the most important square with leisure facilities in Breda's inner city, and the John F. Kennedylaan. The Veemarktstraat has a high amount of greenery and discrete shop windows, both unique atmospheric characteristics compared to the other two locations. Furthermore, this street has a low share of shop formulas, that means that international and national chain stores are underrepresented. The number of shops in the fashion and luxury branch can be considered high, which is in contrast with the low amount of daily shops and leisure related facilities. Locatusonline (2013) categorizes the Veemartkstraat as a B-1 location. The composition of this retail location can be seen in table 4.27.

Table 4.27: Composition Veemarktstraat (Locatusonline, 2013)

Retail area composition	Veemarktstraat
Vacant stores	2%
Daily stores	6%
Fashion & Luxury stores	77%
Other stores	15%
Leisure/ Restaurants	0
Amount of branches	11
Average shop size (m²)	118
Share of shop formulas	23%

Figure 4.22: Impression Veemarktstraat

4.6 Dordrecht

Dordrecht is a city that is located in the southern part of the province Zuid-Holland and is part of the Drechtsteden. Dordrecht was granted the privileges of a city in the year 1220, which made it the first city in the country with those rights. Due to its favourable location at a junction of three rivers, Dordrecht quickly became the most powerful in Holland till the 15th century. In the early years of the 16th century, protestant dignitaries from all directions came to Dordrecht which resulted in an important period. In order to comply to the large request for space, Dordrecht started to expand its territory by reclaiming land, in particular polders. During the 19th and 20th centuries, monumental residential areas were built on these polders. Nowadays, Dordrecht has some 900 national and 160 municipal monuments as well as another 400 buildings with a characteristic appearance. Therefore, it can be seen as one of the top ten monumental cities in the Netherlands. Dordrecht currently has a total of 188,790 inhabitants and 54,430 households with an average disposable income of €31,800 (CBS, 2014). The inner city has a total retail floor area of 66,677 sq.m and a total of 407 shop related real estate objects such as stores, leisure accommodations and other retail facilities (Locatusonline, 2014). The inner city of Dordrecht is well accessible by public transport due to the presence of a railway station within five minutes walking distance. Furthermore, inhabitants of the Drechtsteden, which are Alblasserdam, Dordrecht, Hendrik-Ido-Ambacht, Papendrecht, Sliedrecht and Zwijndrecht, also have the possibility besides conventional bus services to make use of a special water bus. Six parking garages make the main retail area, located in the inner city, well accessible by car (Centrum Dordrecht, 2014).

Survey areas

The main survey locations in the inner city retail district of Dordrecht are: 'Drievriedenhof'(1), 'Kolfstraat'(2), 'Sarisgang'(3) and 'Voorstraat'(4). See figure 4.23 for an overview of these survey locations. All four areas do have different atmospherics regarding to architectural aspects, geographical positioning within the city centre, number of pedestrians and also tenant variety. All different characteristics of these will be described as it was in the year 2013. Table 4.28 and 4.29 give an overview of the composition of both the tenant variety and aesthetic design atmospheric variables.

Figure 4.23: Overview survey areas Dordrecht

Table 4.28: Tenant variety atmospherics of survey areas in Dordrecht

Tenant Variety Atmospherics	Dordrecht 2013			
	Drievriendenhof	Kolfstraat	Sarisgang	Voorstraat
Retail related objects	31	9	16	42
Vacant Stores	**12**	**2**	**0**	**8**
Vacant stores	12	2		8
Daily Stores	**1**	**1**	**1**	**3**
Foodstuff	1			1
Personal Care		1	1	2
Fashion & Luxury Stores	**14**	**4**	**8**	**19**
Department store				1
Clothing and fashion	12	1	4	13
Footwear and Leather goods	2	3	1	2
Jeweller and optician			3	2
Housewares and luxury goods				
Antiques and art				1
Other Stores	**3**	**2**	**5**	**7**
Sports and games	2	2		1
Hobby				1
Media				2
Animal and plant				
Durable household goods			5	2
Car and bike				1
Do-It-Yourself				
Home furnishing products				
Other retailers	1			
Automotive				
Leisure/ Restaurants	**1**	**0**	**2**	**5**
Horeca			2	5
Cultural	1			
Leisure				
Vacancy %	3. High	3. High	1 .Low	3. High
Amount of branches	1 .Low	1 .Low	1 .Low	3. High
Average shop size	1 .Small	1 .Small	1 .Small	1 .Small
Share of shop formulas	3. High	1 .Low	3. High	1 .Low

Table 4.29: Aesthetic Design atmospherics of survey areas in Dordrecht

Aesthetic Design Atmospherics		Dordrecht			2013
		Drievriendenhof	Kolfstraat	Sarisgang	Voorstraat
Distance to parking facility		0m	170m	80m	70m
Distance to public transport		240m	80m	220m	50m
Service level		2. Medium	2. Medium	2. Medium	1. Low
Shape of facades		2. Clean and Uniform	3. Diverse (non-historical)	3. Diverse (non-historical)	1. Diverse (historical)
Material of facades		2. Contemporary	2. Contemporary	1. Historical	1. Historical
Material of pavements		2. Smooth	2. Smooth	3. Mixed	2. Smooth
Colour of facades		3. Bright	1. Dark	2. Mixed	2. Mixed
Colour of pavements		1. Dark	3. Bright	2. Mixed	3. Bright
Indoor		2. Yes	1. No	1. No	1. No
Impact greenery		2. Medium	1. Low	3. High	1. Low
Street furniture		3. High	2. Low	2. Low	1. None
Shop windows		3. Striking	2. Neutral	2. Neutral	1. Discrete
Advertisement signs		2. Neutral	2. Neutral	3. Striking	3. Striking
Width of the street		7m	6m	20m	6m
Height of buildings		3 Storeys	4 Storeys	4 Storeys	3 Storeys
Width to height ratio		2,3	1,5	5,0	2,0
Crowdedness		B2	A2	A1	B1
Elevation		2. Yes	1. No	1. No	1. No

4.6.1 Drievriendenhof

The Drievriendhof is the only inner city indoor shopping location in Dordrecht and has a modern appearance, which is in contrast to most of the surrounding historical inner city. See figure 4.24 for an impression. With a total of almost 4,300 sq.m retail floor area divided over 31 retail related objects, this location is the largest of all survey areas in Dordrecht. The Drievriendenhof firstly opened in 1992 and was redeveloped in 2006 due to its misfit in the city centre and high vacancy rate. This indoor location has two levels, the shape of a passage and forms the connection between the Statenplein, Kolfstraat and Kromme Elleboog. The Drievriendenhof is connected to an adjacent parking garage. In 2013, this indoor passage still had a high vacancy rate. Furthermore, most shops were of some sort of national or international shop formula. Contrary to the other survey areas, this passage has a high amount of street furniture, clean and uniform shape of facades and striking shop windows. According to Locatusonline (2013), the Drievriendenhof can mainly be seen as an B-2 shopping location, based on the number of pedestrians in 2013. The composition of this retail location can be seen in table 4.30.

Table 4.30: Composition Drievriendenhof (Locatusonline, 2013)

Retail area composition	Drievriendenhof
Vacant stores	40%
Daily stores	3%
Fashion & Luxury stores	47%
Other stores	10%
Leisure/ Restaurants	1
Amount of branches	5
Average shop size (m²)	139
Share of shop formulas	93%

Figure 4.24: Impression Drievriendenhof

4.6.2 Kolfstraat

The Kolfstraat is situated next to the Stateplein, and forms a connection between that square and the Voorstraat. See figure 4.25 for an impression. Nine retail related objects with a contemporary appearance are located at this survey area and together comprised in 2013 a total of approximately 700 sq.m retail floor area. The Kolfstraat is the only survey location whereby buildings have dark coloured facades. Furthermore, the width to height ratio is unique due to the relatively small streets and the four levels high facades. Ratio wise, other shops are well represented. Locatusonline (2013) rates the Kolfstraat in 2013 as an A-2 retail location regarding to the amount of pedestrians. The composition of this retail location can be seen in table 4.31.

Table 4.31: Composition Kolfstraat (Locatusonline, 2013)

Retail area composition	Kolfstraat
Vacant stores	22%
Daily stores	11%
Fashion & Luxury stores	44%
Other stores	22%
Leisure/ Restaurants	0
Amount of branches	4
Average shop size (m²)	79
Share of shop formulas	57%

Figure 4.25: Impression Kolfstraat

4.6.3 Sarisgang

The Sarisgang (figure 4.26) can be typified as a shopping location whereby shop facades have diverse non-historical shapes. This location forms the connection between the Statenplein and Bagrijnhof and can be seen as one of the oldest shopping streets within the inner city of Dordrecht. A total of 16 retail related objects are situated and comprises together a total retail floor area of more than 1,900 sq.m. Moreover, the amount of shop formulas was high and the average shop size can be considered as small in 2013. Leisure related facilities as well as other shops were highly represented in this street. The impact of the greenery is high and the windows of the shops can be characterized neutral, which both are unique features within the four survey areas of Dordrecht. In contrast to in particular the Kolfstraat, this location has a high width to height ratio. According to Locatusonline (2013), this location was typified as an A-1 retail location regarding to the amount of pedestrians. The composition of this retail location can be seen in table 4.32.

4.6.4 Voorstraat

The Voorstraat is the only survey area in Dordrecht with a historical character with respect to the shape and material of the facades. See figure 4.27 for an impression. Many buildings were built in the 18th century and some even in the 17th century (BAG-viewer, 2014). The total length of this shopping street is approximately 1.2 kilometre, which makes it the longest shopping street in the country. Because of the fact that the western part of this street has a little amount of retail related objects, only the part between the Visbrug and the Kolfstraat will be considered as the survey area 'Voorstraat'. With a total of 1,908 sq.m retail floor area, this location can be compared with the Sarisgang. Nonetheless, with a total of 42, the number of retail related objects is significantly higher at this survey area. A low service level, the lack of street furniture and discrete shop windows are unique characteristics of this location compared to the other survey areas within this city. This location is designated as a B-1 retail location according to Locatusonline (2013). The composition of this retail location can be seen in table 4.33.

Table 4.32: Composition Sarisgang (Locatusonline, 2013)

Retail area composition	Sarisgang
Vacant stores	0%
Daily stores	7%
Fashion & Luxury stores	57%
Other stores	36%
Leisure/ Restaurants	2
Amount of branches	5
Average shop size (m²)	148
Share of shop formulas	79%

Table 4.33: Composition Voorstraat (Locatusonline, 2013)

Retail area composition	Voorstraat
Vacant stores	22%
Daily stores	8%
Fashion & Luxury stores	51%
Other stores	19%
Leisure/ Restaurants	5
Amount of branches	12
Average shop size (m²)	52
Share of shop formulas	53%

Figure 4.26: Impression Sarisgang

Figure 4.27: Impression Voorstraat

4.7 Eindhoven

Eindhoven arose on a higher ground between the two rivers Dommel and Gender. Because of the geographical positioning, Eindhoven became a strategic point for both military and economic purposes. Eindhoven received in 1232 city privileges and the right to have its own market by the duke Hendrik the first of Brabant. Contrary to most cities in this survey, Eindhoven did not evolved naturally due to the city policy of this duke. Until 1583, there were ramparts around the inner city. After the Seige of Eindhoven, these fortifications were demolished. As a result of an industrial development around the 19th century, industrial plants attracted a growing number of employees to the city. The main industries were textile, tobacco, matches, steam leather, automotive and consumer electronics. In 1920, the present municipality of Eindhoven emerged out of a fusion of the villages Strijp, Woensel, Gestel, Tongelre and Stratum. During the Second World War, the inner city of Eindhoven was largely destroyed by bombardments. As a result, there are only a few historical buildings left in the city. After this war, car factory DAF significantly contributed to the enormous expansion of Eindhoven (Gemeente Eindhoven, 2014). During that time, the city only had approximately 45,000 inhabitants which eventually has grown into the current number of 220,920. These inhabitants are divided over 110,090 households and have an average disposable income of €29,800 (CBS, 2014). The inner city has a total retail floor area of 112,420 sq.m and a total of 419 shop related real estate objects such as stores, leisure accommodations and other retail facilities (Locatusonline, 2014). The city centre is well accessible by car due to several national roads and a total of five highways. Also the presence of nine parking garages around and in the inner city contribute to this accessibility. Eindhoven's main retail district is also well accessible by public transport, the bus- and central railway station is within walking distance (vvv Eindhoven, 2014).

Survey areas

The main survey locations in the inner city retail district of Eindhoven are: 'Admirant shopping area'(1), 'Demer'(2), 'Heuvel'(3) and 'Piazza'(4). See figure 4.28 for an overview of all these survey locations. All four areas do have different atmospherics regarding to architectural aspects, geographical positioning within the city centre, number of pedestrians and also tenant variety. All different characteristics of these will be described as it was in the year 2013. Table 4.34 and 4.35 give an overview of the composition of both the tenant variety and aesthetic design atmospheric variables.

Figure 4.28: Overview survey areas Eindhoven

Table 4.34: Tenant variety atmospherics of survey areas in Eindhoven

Tenant Variety Atmospherics	Eindhoven 2013			
	Admirant Shopping Area	Demer	Heuvel	Piazza
Retail related objects	22	44	94	26
Vacant Stores	**0**	**0**	**7**	**2**
Vacant stores			7	2
Daily Stores	**1**	**6**	**7**	**3**
Foodstuff		2	43	1
Personal Care	1	4	3	2
Fashion & Luxury Stores	**14**	**28**	**57**	**16**
Department store		1		1
Clothing and fashion	8	18	38	12
Footwear and Leather goods	4	6	9	1
Jeweller and optician		2	6	1
Housewares and luxury goods	2	1	4	1
Antiques and art				
Other Stores	**5**	**8**	**10**	**3**
Sports and games		3	2	1
Hobby				1
Media	2		2	
Animal and plant			1	
Durable household goods		3	1	1
Car and bike	1			
Do-It-Yourself				
Home furnishing products	2		3	
Other retailers		2	1	
Automotive				
Leisure/ Restaurants	**2**	**2**	**13**	**2**
Horeca	2	2	9	2
Cultural			3	
Leisure			1	
Vacancy %	1 .Low	1 .Low	2. Average	2. Average
Amount of branches	1 .Low	3. High	3. High	3. High
Average shop size	1 .Small	3. Large	1 .Small	3. Large
Share of shop formulas	1 .Low	3. High	3. High	3. High

Table 4.35: Aesthetic Design atmospherics of survey areas in Eindhoven

Aesthetic Design Atmospherics	Eindhoven 2013			
	Admirant Shopping Area	**Demer**	**Heuvel**	**Piazza**
Distance to parking facility	0m	110m	0m	60m
Distance to public transport	100m	150m	120m	100m
Service level	1.Low	1. Low	3. High	1. Low
Shape of facades	3. Diverse (non-historical)	3. Diverse (non-historical)	2. Clean and uniform	2. Clean and uniform
Material of facades	1. Historical	1. Historical	2. Contemporary	2. Contemporary
Material of pavements	2. Smooth	2. Smooth	2. Smooth	2. Smooth
Colour of facades	2. Mixed	1. Dark	2. Mixed	2. Mixed
Colour of pavements	2. Mixed	2. Mixed	2. Mixed	3. Bright
Indoor	1. No	1. No	2. Yes	2. Yes
Impact greenery	2. Medium	1. Low	1. Low	1. Low
Street furniture	3. High	3. High	3. High	3. High
Shop windows	3. Striking	2. Neutral	3. Striking	3. Striking
Advertisement signs	2. Neutral	3. Striking	2. Neutral	2. Neutral
Width of the street	5m	12m	7m	17m
Height of buildings	4 Storeys	4 Storeys	2 Storeys	3 Storeys
Width to height ratio	1,3	3,0	3,5	5,7
Crowdedness	B2	A1	B1	A1
Elevation	1. No	1. No	2. Yes	2. Yes

4.7.1 Admirant Shopping Area

The in 2009 opened Admirant Shopping Area is with a total of 4,315 sq.m retail floor area the smallest survey location within Eindhoven. See figure 4.29 for an impression. The shopping area, situated at the Nieuwe Emmasingel, forms the connection between the '18 Septemberplein' and the 'Vrijstraat'. Despite the fact that this shopping location was opened quite recently, the used materials of the facades can be typified as historical. Furthermore, the medium impact of greenery and low width to height ratio are unique aesthetic characteristics of the Admirant Shopping area. The amount of other shops are highly represented, which is contrary to the low number of daily shops. According to Locatusonline (2013), this shopping area can be seen as an B-2 shopping location based on the number of pedestrians. The composition of this retail location can be seen in table 4.36.

4.7.2 Demer

The Demer is the longest shopping street within the inner city of Eindhoven. This street forms the central connection between the '18 Septemberplein' and the 'Rechtestraat, and therefore to almost all shopping locations in the main retail district. See figure 4.30 for an impression. The architectural style of the Demer is characteristic for the reconstruction period after the Second World War bombardments, which in this study can be seen as diverse and non-historical. Moreover, the neutral shop windows and striking advertisement signs are unique aesthetic design features within the survey areas in Eindhoven. The amount of leisure related facilities can be considered low as well as the vacancy level. Based on the number of pedestrians in 2013, Locatusonline (2013) gives the Demer an A-1 ranking. The composition of this retail location can be seen in table 4.37.

Table 4.36: Composition Admirant Shopping Area (Locatusonline, 2013)

Retail area composition	Admirant Shopping Area
Vacant stores	0%
Daily stores	5%
Fashion & Luxury stores	70%
Other stores	25%
Leisure/ Restaurants	2
Amount of branches	7
Average shop size (m²)	188
Share of shop formulas	45%

Table 4.37: Composition Demer (Locatusonline, 2012)

Retail area composition	Demer
Vacant stores	0%
Daily stores	14%
Fashion & Luxury stores	67%
Other stores	19%
Leisure/ Restaurants	2
Amount of branches	10
Average shop size (m²)	548
Share of shop formulas	93%

Figure 4.29: Impression Admirant Shopping Area

Figure 4.30: Impression Demer

4.7.3 Heuvel

The Heuvel is an indoor shopping mall that opened its doors in 1992 and is located at the eastern part of Eindhoven's inner city retail district. See figure 4.31 for an impression. The shops and other retail related facilities comprises a total of 13,324 sq.m and are mainly situated on two different levels and at one part even at three levels. There are four main entrances which connect the mall to Markt, Vestdijk and Ten Hagestraat. Moreover, there are some indoor entrances to the adjacent underground parking garage. Inter alia, due to the presence of a casino, hotel, concert hall and several other leisure and restaurant facilities, the amount of objects in this branch can be considered high. Furthermore, the total amount of shops and different branches is also high as well as the number of national or international chains stores. The Heuvel has a high service level and clean and uniform shape of facades with contemporary materials. This survey location is designated as a B-1 retail location according to Locatusonline (2013). The composition of this retail location can be seen in table 4.38.

Table 4.38: Composition Heuvel (Locatusonline, 2013)

Retail area composition	Heuvel
Vacant stores	9%
Daily stores	9%
Fashion & Luxury stores	70%
Other stores	12%
Leisure/ Restaurants	13
Amount of branches	12
Average shop size (m²)	183
Share of shop formulas	72%

Figure 4.31: Impression Heuvel

4.7.4 Piazza

The Piazza is a recent redeveloped indoor shopping location within Eindhoven's inner city retail district. Situated next to the central railway station, this survey area forms more or less the connection with the Demer and Admirant Shopping Area. See figure 4.32 for an impression. Stores and leisure related facilities are situated on different stories. The retail related facilities are located on four different height levels. Furthermore, the facades have clean and uniform shapes made of contemporary materials. The average shop size can be typified as large, which is unique in Eindhoven. According to Locatusonline (2013), this location can be seen as an A-1 shopping location based on the number of pedestrians. The composition of this retail location can be seen in table 4.39.

Table 4.39: Composition Piazza (Locatusonline, 2013)

Retail area composition	Piazza
Vacant stores	8%
Daily stores	13%
Fashion & Luxury stores	67%
Other stores	13%
Leisure/ Restaurants	2
Amount of branches	10
Average shop size (m²)	629
Share of shop formulas	75%

Figure 4.32: Impression Piazza

5. Data preparation and respondents

This chapter describes the preparation of the data and the sample of respondents in each city in order to determine which variables influence the experiential value of consumers. The section 'data preparation' is divided into five different sub sections; the categorizing of respondents personal variables, the categorizing of the tenant variety and aesthetic design variables, the categorizing of open questions and lastly making the dataset suitable for discrete choice modelling. In the second section, the respondents will be described in terms of demographic and socioeconomic variables.

5.1 Data preparation

In order to make the variables related to the respondents and the atmospherics suitable for analysis, all data was imported into SPSS. This software program was used to check the data on missing values and wrong entered data values. All these incorrect values were removed or adjusted by checking the original survey of that specific respondent. Furthermore, respondents were asked to determine their familiarity with each survey area within the city on a one to seven scale. A shopping location was left out of the choice set when a respondent answered four or less on the seven-point scale questions about their familiarity with each location. Each respondent must be familiar with at least two locations within a surveyed city. Respondents were removed from the dataset if they did not comply to this requirement.

Sample data

Before all the data were prepared for discrete choice modelling, in other words without adjustment and deletion of respondents, the total dataset was substantially larger. The initial number of surveyed respondents for the cities Maastricht, 's-Hertogenbosch, Breda, Dordrecht, Tilburg and Almere was 2,721. After the data preparation process, totally 2,200 respondents were left for the actual analysis in Nlogit, that is 81% of the surveyed people. A possible explanation of this loss of almost 20% is on the one hand that respondents were unfamiliar with a location. On the other hand, in the in 2012 and 2013 surveyed cities, respondents were also asked to rate each atmospheric separately of the shopping location wherein they stood during the survey. For these questions, familiarity with all the different survey areas was not necessary. Therefore, possibly a large number of respondents in these cities were not suitable for discrete choice modelling but only for other types of analyses. A total 2,129 respondents of the total group can be used in the determination of which and how variables contribute to the most or least favourable shopping location. Furthermore, 2,131 respondents are useful for a similar type of analysis, in this case focussed on the most or least atmospheric shopping location. The difference between these two numbers can be explained by the fact that some respondents answered only the favourite or atmospheric ranking correctly. Table 5.2 shows the number of participants of the survey as well as the amount of suitable respondents for the analysis per city.

City Name	Participants	Useful respondents			Not useful
		Favourite	Atmospheric	Total	
Maastricht	473	330	332	338	135
's-Hertogenbosch	445	290	292	296	149
Breda	328	244	245	281	47
Dordrecht	454	357	353	364	90
Eindhoven	462	399	400	412	50
Tilburg	293	237	237	237	56
Almere	299	272	272	272	27
Total	2721	2129	2131	2200	521

Table 5.1: Number of participants and respondents useful for analysis

Categorizing respondents personal variables.

The survey comprised a total of 22 questions which can be divided into two parts, questions with respect to the respondents opinion about a specific inner city retail district on the one hand and personal information on the other hand. Respondents were asked to fill in their age and postal code. The variable 'age' was categorized based on the cohort theory of Brosdahl and Carpenter (2012). The age of the respondents was subdivided into four different generations: 'Generation Y' includes all respondents in the age range of 10 to 30; 'Generation X' respondents are 31 to 47 years old; 'Baby Boomer' respondents in the range of 48 to 66 years. Lastly, the 'Silent Generation' includes respondents from the age of 67 to 92. Furthermore, four-digit postal codes were categorized into respondents living within or outside the city's municipality. This is conducted for each city individually. The 'within city postal codes' for the different cities are: Maastricht 6200-6229, 's-Hertogenbosch 5200-5237, Breda 4800-4839, Dordrecht 3300-3329, Eindhoven 5600-5658, Tilburg 5000-5049 and Almere 1300-1379. Moreover, the education level of both respondent and their partner were divided into low- and high educated. In case of 'low educated', the education level of respondents was primary school, secondary or MBO. 'High educated' respondents fulfilled successfully a HBO or university and have a bachelor or master degree.

Categorizing open questions

In this survey, respondents were asked to elucidate their choices with respect to their most and least favourable and atmospheric survey locations by filling in open questions. In order to make these open questions measurable, answers were summarized and divided into categories. The answers of the open questions have several purposes. Firstly, these responses might lead to new atmospheric variables which have not yet been included. Secondly, the results of the open question could confirm the results of the final analysis. The categorization of the responses with respect to the open questions is shown in appendix 4. A total of 903 respondents answered 'shop offer' as the top reason for the most favourite shopping location, followed by a cosiness and crowdedness area with 159 times. Shop offer is also answered the most as main reason for the least favourite location. 'Visual appeal' is with a total of 353 times the most frequent answered reason for the most atmospheric location. Again, 'cosiness and crowdedness' is with 289 answers the second frequently used reason. Both reasons are answered in the same order for the least atmospheric location. In general, for the most favourite locations, shop offer is considerably more important than visual appeal. The exact opposite applies for the most atmospheric location.

Categorizing tenant variety variables

All 25 shopping areas in this survey have a different composition with respect to tenant variety. The method of the determination of each individual tenant variety variable is described in the first part of Appendix 3. For example, the variable 'share of shop formulas' is determined by calculating the ratio between chain stores and independent retailers. Each of the seven tenant variety variables are divided into two or three categories. These categories are determined by taking the average rate, amount or surface area of variables by using retail data from Locatusonline (2012, 2013 & 2014). These averages are measured across all areas together. The ratio is used for several tenant variety variables instead of absolute numbers with the purpose of removing the effect of different sizes of survey areas. The absolute number is used for the variable 'restaurants and leisure related facilities' because it will otherwise result in a variable with too little dispersion. Subsequently, the minimum and maximum of the range of the category 'average' is defined by adding and subtracting the standard error relative to the mean of the variable. All values lower and higher than this range are categorized by respectively low and high or small and large in case of average shop size. Appendix 5 provides an overview of the categorizing of the tenant variety variables.

Categorizing aesthetic design variables

Besides the tenant variety variables, also 20 aesthetic design variables contribute to the characterization of the different survey areas. The determination of the different categories of each variable was done by using objective visual methods described and illustrated in appendix 3. Furthermore, the aesthetic design variable crowdedness was based on the average number of pedestrians during a Saturday at a survey location provided by Locatusonline (2012,2013 & 2014).

Data preparation for discrete choice modelling

In order to make the data suitable for discrete choice modelling in the software program Nlogit, several adjustments of the SPSS dataset were necessary. The SPSS dataset only comprises personal information of respondents on the one hand and personal preferences with respect to the survey locations within a city on the other hand. The dataset for discrete choice modelling also includes both tenant variety and aesthetic design variables (Appendix 10). Furthermore, dummy variables were used in this dataset transformation. Each dummy variable represents multiple subgroups and makes it possible to analyse each category within the atmospheric variables as well as within the respondents personal variables. In addition, dummy variables make variables on a nominal and ordinal level of measurement suitable for analyses in Nlogit. Appendix 6 gives an overview of all the dummy variables used in the Nlogit dataset. A maximum of one of the different sub categories within each variable were used in Nlogit. For example, in case of the variable average store size, only small, average or large is used. The atmospheric characteristics were checked on correlations (Appendix 9) and the degree of dispersion between the locations of each surveyed city and also across all survey areas as a whole. The atmospheric variables that correlate most often and which also have the highest positive or negative correlation coefficients were deleted first. After this removal, the correlation matrix was analysed again in the same manner. This was done in a stepwise process until a suitable selection of variables remained. Furthermore, in case of constant atmospheric variables within cities, the corresponding values were adjusted to zero's and therefore excluded from analysis. Another step in the data preparation for discrete choice modelling in Nlogit was the adjustment of respondents who incorrectly filled in the rankings with respect to the most or least favourable- and atmospheric locations within a city. In addition, cases of the rankings were adjusted or removed of the dataset when these specific rank was based on unfamiliarity. For example, if the first choice was based on unfamiliarity, the ranking was adjusted whereby the second choice was converted into the first choice, the third choice into second and so on. The 'original' first choice was deleted in this case. Table 5.1 gives a list of all the suitable and not suitable atmospheric variables. The blue coloured variables were suitable and complied with the requirements for discrete choice modelling.

Table 5.2: List of suitable and not suitable characteristics.

Vacant stores	Colour of pavements
Daily stores	Distance to parking
Fashion & luxury stores	Distance to public transport
Restaurants and leisure related facilities	Service level
	Material of pavements
Retail branches	Street furniture
Average store size	Other stores
Shop formulas	Music
Shape of facades	Greenery
Colour of facades	Material of facades
Shop windows	Width of street
Advertisement signs	Height of buildings
Width to Height ratio	Crowdedness
Indoor	Elevation

** Highlighted in light blue are suitable characteristics*

5.2 Respondents

After the preparation process of the SPSS dataset (Appendix 11), information of the respondents can be analysed in a descriptive way. In this part, the distribution of the respondents personal characteristics such as age, gender, shopping motivation, education,

income, group composition and way of transport will be discussed.

Characteristics of respondents

In this survey the vast majority of the respondents are between 18 and 25 years old (32.8%). Figure 5.1 shows the distribution of seven age classes of the response group. These classes give a more detailed overview of the age distribution than only different generations of people. Nevertheless, according to Brosdahl and Carpenter (2012) it is better to categorize ages of people into generational cohorts in order to obtain a better insight in consumer motivation. The cohort named 'Generation Y' represents more than half of the respondents of the total survey (50.3%). Therefore, a substantial part of the response group can be typified as young. Furthermore, over a quarter of the respondents belong to the generational cohort 'Babyboomers'(25.1%), which includes people from 48 to 66 years old. The average age of the total response group is 37.2 years.

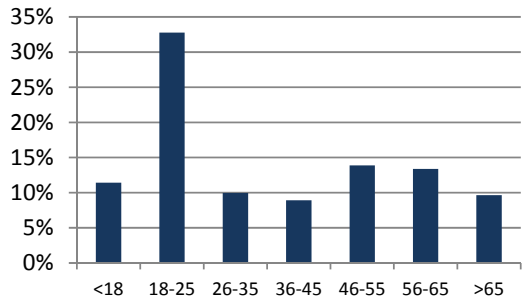

Figure 5.1: Age groups

The proportion of female respondents is almost twice as big as the amount of males in the response group. A possible explanation of this skewed gender distribution is that the number of females was substantially higher while conducting the surveys in all seven cities. Table 5.3 shows an overview of the characteristics. Significant differences between groups were determined by executing a Chi-Square test in SPSS. Within the gender group 'males', 37.0% had a utilitarian shopping motivation, which is significantly higher than the 25,6% of male respondents with hedonic shopping purposes ($p<0.05$). On the other hand, within the surveyed females, 37.5% had a hedonic

Table 5.3: Dataset characteristics

Age Cohort (2,197)	#	%
Generation Y (10-30)	1104	50,3%
Generation X (31-47)	359	16,3%
Baby Boomers (48-66)	551	25,1%
Silent Generation (67-92)	183	8,3%
Mean= 37.20; Median=30.00; Mode=20; Std. Dev=19		
Gender (2,199)		
Male	748	34,0%
Female	1451	66,0%
Postal Code (2,141)		
Within City	1133	52,9%
Outside City	1008	47,1%
Education (2,194)		
Primary	46	2,1%
Secondary	426	19,4%
MBO	583	26,6%
HBO	823	37,5%
University	316	14,4%
Education Partner (282)		
Primary	9	3,2%
Secondary	46	16,3%
MBO	91	32,3%
HBO	92	32,6%
University	44	15,6%
Net household income (1,598)		
< €1,200	370	23,2%
€1,200 - €2,000	298	18,6%
€2,000 - €4,000	566	35,4%
€4,000 - €6,000	250	15,6%
> €6,000	114	7,1%
Shopping motivation (2,191)		
Utilitarian	735	33,5%
Hedonic	732	33,4%
Both	430	19,6%
Other	294	13,4%
Group composition shopper (2,199)		
Alone	564	25,6%
Respondent with family	825	37,5%
Respondent with friends	680	30,9%
Other	130	5,9%
Transport (2,188)		
Car	858	39,2%
Bicycle	419	19,1%
Public transport	516	23,6%
Walking	354	16,2%
Other	41	1,9%

motivation during their presence at the shopping location. This is significantly higher than the 31,8% of females with an utilitarian motivation ($p<0.05$). In addition, between both gender groups is ratio wise a significant difference with respect to respondents who had an 'other' purpose for visiting the inner city shopping area, respectively 22.3% of the males and 8.8% of the females had this type of motivation. In general, utilitarian and hedonic motivated respondents are almost equally divided. Nevertheless, there are significant differences in shopping motivation between the seven cities. Within cities with an historical appearance of the inner city such as Maastricht, 's-Hertogenbosch and Breda, the number of hedonic motivated respondents was significantly higher than in Tilburg and Almere which have in general a more contemporary look ($p<0.05$). Furthermore, within the group of hedonic motivated respondents, 61.5% lives outside the municipality of the corresponding city. Moreover, there is no significant difference between utilitarian motivated respondents living within or outside the city.

In general, most respondents are educated on an HBO level (37.5%), followed by 26.6% of respondents with an MBO education level. Furthermore, the largest share (35.4%) of the respondents has a net household income each month between €2,000 and €4,000. When a distinction is made between high- and low education level, the response group is almost evenly distributed. Nevertheless, there are significant differences in education level between cities. Respondents in the cities Maastricht (59.5%), Breda (59.4%) and Eindhoven (62.6%) are mainly high educated ($p<0.05$). On the other hand, respondents in Dordrecht, Tilburg and Almere can mainly be typified as low educated with respectively 56.5%, 60.7% and 60.4%. Moreover, 55.6% of the respondents which had a utilitarian shopping motivation during the survey are high educated ($p<0.05$).

The vast majority of the respondents were with family (37.5%), followed by respondents with friends (30.9%). Within the category of respondents which were alone during the survey, 50.3% was utilitarian motivated during the visit and 30.3% had 'other' reasons. Most respondents with family (42.3%) or friends (30.2%) had hedonic shopping purposes in the corresponding inner city. These two groups were significantly more represented within the hedonic motivated respondents ($p<0.05$).

Over one third (39.2%) of the response group came by car to the shopping areas in this survey and almost a quarter (23.6%) used public transport facilities. Within the age cohorts 'Generation Y' and 'Babyboomers', most respondents used the car as transport method with respectively 62.6% and 50.4%. Within the 'Silent Generation' 27.3% came on foot. This percentage is significantly higher than the proportion of respondents which came on foot in the other gender cohorts ($p<0.05$). Finally, 32.9% of the respondents within 'Generation Y' used public transport facilities, which is also significantly higher than within other gender cohorts ($p<0.05$).

5.3 Conclusion

The preparation of the dataset comprised the categorization of open questions, personal- and atmospheric variables as well as the adjustment and deletion of incorrect or not suitable respondents. After this process of data adjustment, correction and improvement, 2,200 of the 2,721 surveyed respondents (81%) were suitable for discrete choice modelling in Nlogit. A substantial part (50.3%) of the response group belongs to 'Generation Y' and can be characterized as young. Furthermore, the average age of all 2,200 respondents is 37.2 years and almost two third is female. The shopping motivation of these females is significantly more often hedonic compared to male respondents. There is also a strong relation between education level and the respondent's motive for visiting the inner city. High educated people in the response group had significant more often a utilitarian shopping motive than the low educated ones and vice-versa. In addition, there are also significant differences in the education level distribution of respondents between cities. Finally, 'Generation X' and 'Babyboomers' visited the cities mostly by car and respondents of 'Generation Y' by public transport.

6. Data analyses

In this chapter, the dataset will be analysed by using a technique called discrete choice modelling. An explanation of this specific analyses technique is described in the chapter 'Research design and methodology'. The results of both the multinomial logit models for the most- and least favourite and atmospheric location will be described. After the determination of the models with the highest goodness of fit, personal variables were added. These personal variables include characteristics of the respondents such as shopping motivation, gender, age cohort, education level and postal code category, in other words if respondents live within or without the city's municipality. Subsequently, these personal characteristics were multiplied by the significant aesthetic design and tenant variety variables, resulting in a number of interaction variables. Appendix 7 provides an overview of all the personal variables and the method of coding that was used in order to create interaction variables in Nlogit 5. Besides the 'personal' interaction variables, also possible different influences between outdoor and indoor shopping areas have been examined whereby the data of the most favourite location is used.

In the process of applying the multinomial logit models the different aesthetic- and tenant variety atmospherics were tested in combinations. As described in the chapter 5 'Data preparation and respondents', not all the variables were suitable for analyses. Before the analyses it was important that variables had enough dispersion and not too much correlation. This eventually resulted in 19 suitable variables for further analysis in the multinomial logit models, see table 6.1.

Most- and least favourite and atmospheric location

Each respondent was asked to give a ranking with respect to their most and least favourite or atmospheric shopping location given the set of predefined locations within a city. For example, in Almere respondents had to make these two rankings for the survey locations 'Bottelaar/Zoetelaar Pasage', 'Stationsstraat' and 'Citymall Almere'. These rankings vary from one to three or four and depend on the number of selected locations per city and also on the amount of familiar locations of the respondent. In Breda, Tilburg and Almere, respondents could only rank three locations. The other four surveyed cities all had four different shopping locations. The MNL models for most favourite or atmospheric location made use of the first choice or highest ranking. The models for the least favourite or atmospheric location used the lowest ranking.

6.1 MNL model most favourite location

The nineteen variables of table 6.1 were imported into Nlogit 5 to estimate the utility weights (β's) for the explanatory variables in the MNL model. Subsequently, variables with a significance level larger than 0.05 were deleted. This eventually resulted into a combination of 12 suitable variables with a significance level of at least 0.05, which can be seen in figure 6.1. The log-likelihood of this 'most favourite location' model (LL(β)) is -2277.704 and for the null model (LL(0)) is -2493.365. This resulted in a Rho Squared (ρ^2) of 0.087 which is calculated by using the formula 1-(LL(β)/LL(0)).

According to De Nisco & Warnaby (2014), there are two kinds of atmospherics which determine the influences on experiential value for

Table 6.1: Used characteristics

Vacant stores	Average store size	Colour of facades	Material of pavements	Shape of facades
Daily stores	Retail branches	Distance to parking	Shop windows	Colour of facades
Fashion & luxury stores	Share of shop formulas	Colour of pavements	Advertisement signs	Indoor
Restaurants and leisure related facilities	Distance to public transport	Service level	Width to Height ratio	

** Tenant variety characteristics are highlighted in light blue and aesthetic design characteristics are not highlighted*

consumers, namely aesthetic design- and tenant variety variables. In this MNL model, variables of both categories are represented. The significant tenant variety variables are: vacancy, daily stores, fashion & luxury stores, restaurants and leisure facilities, amount of shop branches, average store size and the share of shop formulas. On the other hand, the aesthetic design variables are: diverse & historical facades, discrete advertisement signs, bright coloured facades, striking shop windows and the width to height ratio of a street.

According to this multinomial logit model, shopping locations with diverse and historical shaped facades have the highest positive utility with a β of 0.80. In the open questions which also were conducted during this survey, visual appeal was one of the top eight reasons for the most favourite location. The variable 'diverse and historical facades' is part of the aesthetic design and therefore contributes to the visual appeal of a shopping location. Furthermore, the characteristic 'width to height ratio' (β=0.65) has the second highest positive impact with respect to the aesthetic design variables. In other words, the ratio between the width of the shopping street and the height of the buildings should be three or higher. This finding is also supported by the answers of the open questions (Appendix 4), whereby 49 respondents gave 'spaciousness' as a reason for their most favourite location. Also 'bright coloured facades' (β=0.49) and 'discrete advertisement signs' (β=0.42) have a positive impact on the choice for favourite location, which is in contrast to the negative effect of 'striking shop windows' (β=-0.56)

The tenant variety atmospherics in this multinomial logit model all have a positive impact on the respondents choice for their favourite location. Shopping locations with a 'large average shop size' have in general the highest positive effect with a beta of 0.69 closely followed by an 'average amount of shop branches' (β=0.66). An 'average share of shop formulas' (β=0.30) and a 'low vacancy rate'(β=0.26) in a retail area have a positive utility as well. Finally, a 'low percentage daily stores' has a slightly positive impact (β=0.16) implying that the respondents do not prefer locations with a large share of daily stores. All these findings are supported by the responses on the open questions (Appendix 4), whereby shop offer was answered the most frequent as main reason for favourite location.

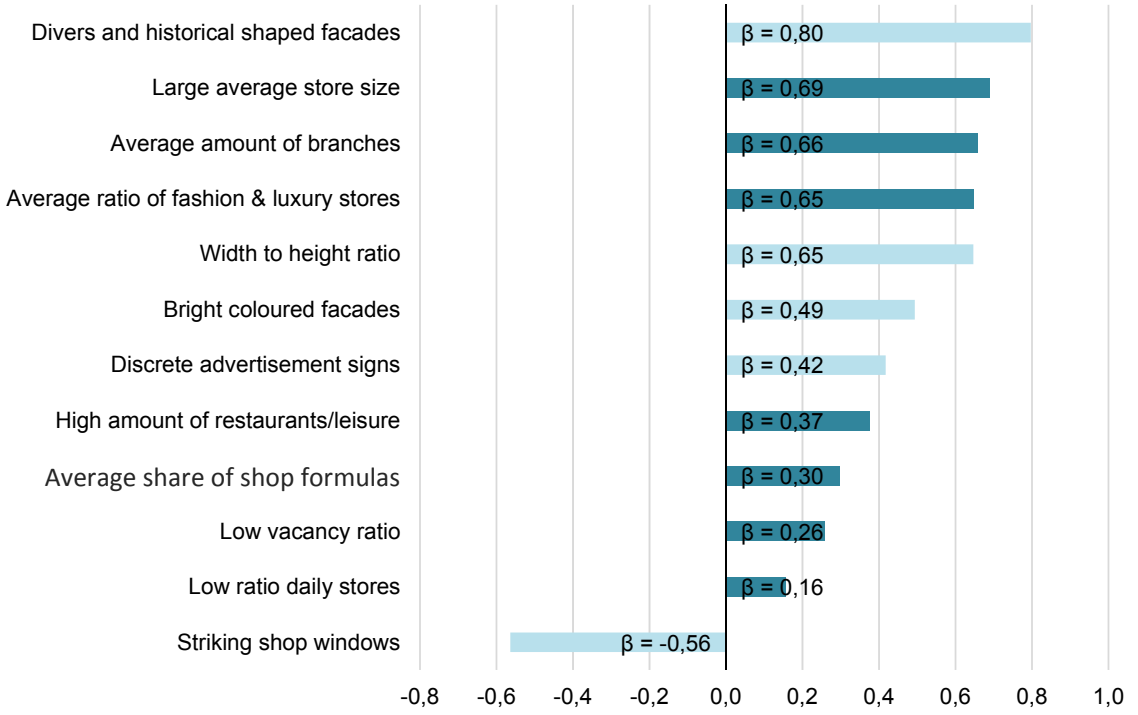

Figure 6.1: Characteristics MNL model most favourite location

6.2 MNL model most favourite location including interactions

Subsequently, all the variables used in the MNL model for most favourite location were multiplied by the personal variables (Appendix 7). After the process of adding the personal variables step by step, a total of 14 interaction- and 12 atmospheric variables were significant at a 0.10 level. An overview of all the significant variables is shown in figure 6.2. All the personal characteristics of the respondents which were used for the interaction variables were at least once significant. The log-likelihood of this 'most favourite location including interactions' model (LL(β)) is -2229.158 and for the for the null model (LL(0)) -2493.365. This resulted in a Rho Squared (ρ^2) of 0.106, which is compared to the model without interactions an improvement of 21.8%. The coefficients or betas of the atmospheric variables changed after the addition of the interaction variables. Nevertheless, this change can be considered negligible. In all the models including interactions, the 'interaction influence' is determined by means of addition and subtraction this effect with respect to the main effect, which is the impact of the atmospheric variables.

The aesthetic design variable with the highest positive impact is 'historical and diverse shape of facades' (β=0.86) and is influenced by both gender and age cohorts. Male respondents rate the utility 0.15 higher than the main effect of 0.86. Females on the other hand are slightly more negative and rate 0.15 below the main effect. Furthermore, all four age cohorts have significant different ratings with respect to the historical and diverse shaped facades. Respondents of Generation X, the Babyboomers and the Silent Generation give a higher positive rating than younger people of Generation Y. A possible explanation could be that younger people in general have more affinity with contemporary facades than older generations and are therefore relatively less attracted to historical facades. Furthermore, also the characteristic 'bright coloured facades'(β=0.55) has a positive impact that differs between hedonic and utilitarian motivated shoppers. People with a hedonic motivation rate bright coloured facades 0.19 higher and utilitarian shoppers give a 0.19 lower rating than the main effect. Shopping locations with a width to height ratio higher than 3 have in general a positive impact (β=0.68). Nevertheless, there are differences between gender cohorts. The Silent Generation, which includes the oldest respondents, give a more positive rating to more spacious locations than the Baby Boomers. A possible explanation might be that the Silent Generation wants to have a better overview of their surroundings than the younger generations due to the fact that older people are in general more immobile and therefore need more space to move safely.

Several tenant variety variables are influenced by personal characteristics such as education level, age, gender, postal code category and type of shopping motivation. A 'large average store size' in a shopping location has a positive utility with a beta of 0.50. However, there are large differences between the youngest and oldest age cohort. Generation Y rates a large average shop size 0.50 higher than the main effect. That is in contrast to the Silent Generation which give 0.50 lower rating. This could possibly be explained by the fact that popular stores for younger people such as H&M, Zara and Primark are often large in size. Furthermore, the utility of an 'average amount of different shop branches' is influenced by gender and also shopping motivation. Hedonic oriented shoppers give a 0.47 lower rate than the main effect. This even means that the overall impact or utility for this kind of shopper can be considered negative. On the other hand, utilitarian motived people are more positive with respect to an average amount of branches. In addition, also females rate this variable 0.30 higher and males 0.30 lower than the main effect. This might be partly explained by the fact that female respondents had in this survey significant more often a hedonic shopping motivation than males ($p<0.05$). The utility of an 'average ratio of fashion and luxury shops' in a shopping location is different among different generations. Among people of Generation X and Y, the utility is significantly higher compared to the Silent Generation.

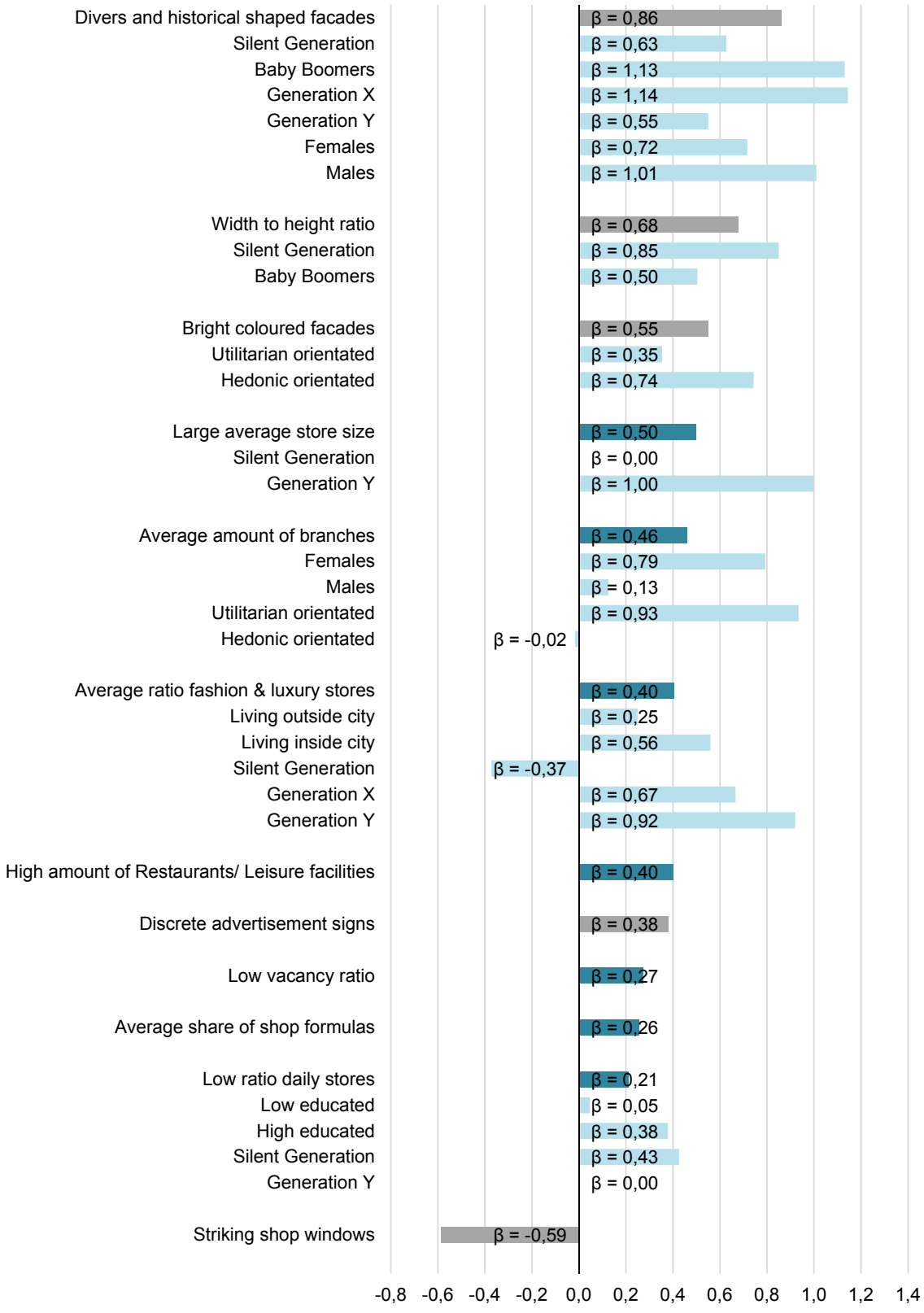

Figure 6.2: Characteristics MNL model most favourite location including interactions

The oldest generation even rates 0.77 lower than the main effect of 0.40 which results in an overall negative impact. The postal code category, in other words if people are living inside or outside the city, has influence on this variable as well.

People living within the corresponding city give a 0.15 higher rating than the main effect (β=0.40). The opposite applies for people living outside the city. Furthermore, young people of Generation Y rates a 'low percentage of daily stores' 0.21 lower than the main effect (β =0.21) and people of the Silent Generation 0.21 higher. In other words, younger people do not have a preference with respect to a low share of daily stores in a shopping location. High educated people rate a low percentage of daily stores at a shopping locations 0.16 higher than the main effect, the opposite applies for lower educated people.

6.3 MNL model most favourite location indoor versus outdoor

The variables used in the MNL model for most favourite location were multiplied by the interaction variable 'outdoor versus indoor'. The same 12 atmospheric variables of the 'base' model where significant. Furthermore, the log-likelihood of this MNL model (LL(β)) is -2268.659 and for the for the null model (LL(0)) -2493.365. This resulted in a Rho Squared (ρ^2) of 0.090, which is compared to the model without interactions a small improvement of the model fit. The 'outdoor versus indoor' interaction variable was not imported in the 'MNL model for most favourite location including interactions' because it caused to much undesirable correlation and therefore 'extreme effects' on the results. These extreme effects may be caused by certain groups or personal variables which have a specific preference for indoor or outdoor shopping locations. Due to this reason, the other personal variables were not included. The 'indoor versus outdoor' variable influences two atmospherics. A 'large average store size' in an outdoor location (β=0.43) was rated significantly more positive compared to the main effect of 0.71 than in indoor locations (β=-0.43). Another result is that indoor locations (β=0.32) with a large 'width to height ratio' have a significantly higher utility than outdoor shopping areas (β=-

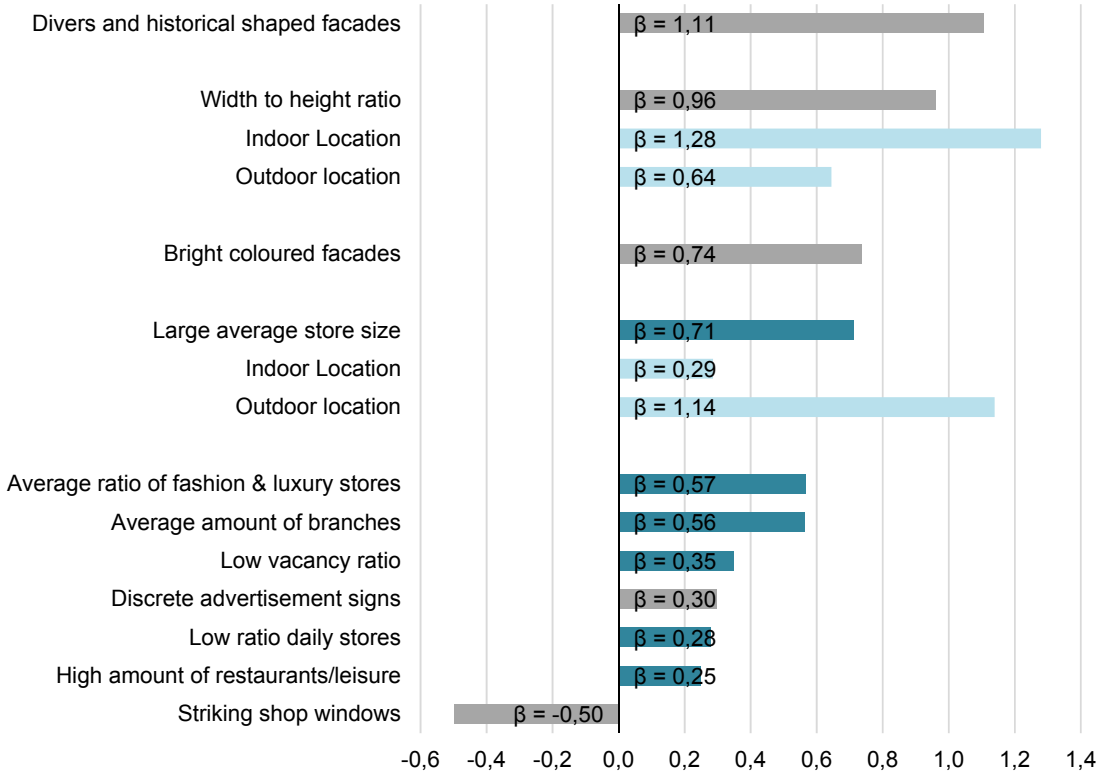

Figure 6.3: Characteristics MNL model most favourite location indoor versus outdoor

0.32). In other words, more spacious indoor locations were rated more positive and outdoor locations less positive compared to the main effect of 0.96. The results of this MNL model are illustrated in figure 6.3.

6.4 MNL model least favourite location

Besides the use of the first choices in the rankings also the least preferred options were used to estimate the MNL model in Nlogit 5. In this MNL model for least favourite location each of the 12 variables of the standard MNL model were used. If a beta of an atmospheric characteristic has a negative sign in this least favourite MNL model, this variable contributes less to a least favourable shopping location. Logically, in the case of a positive beta, that specific variable does contribute to a least favourable retail area. Only nine of the original 12 variables were significant at a 0.05 significance level and the characteristic 'diverse and historical shaped facades' at a 0.10 level. Figure 6.4 shows an overview of these significant characteristics. The log-likelihood of this 'least favourite location' model (LL(β)) is -2164.428 and for the for the null model (LL(0)) -2493.365. This resulted in a Rho Squared (ρ^2) of 0.132, which is compared to the 'most favourite location' model an improvement of 24,5%. A possible explanation could be that it might be easier for respondents to choose the least favourite alternative instead of the most preferred one. Nevertheless, a ρ^2 of 0.132 still does not comply with the minimum of 0.20 for a multinomial model with a good fit. This least favourite location model is showing the exact opposite results or utility weights compared to the model of most favourite location; positive betas became negative and vice versa. This can be logically explained by the fact that most and least favourite are the opposite of each other.

6.5 MNL model least favourite location including interactions

The characteristics used in the MNL model for least favourite location were also multiplied by the personal variables (Appendix 7). A total of 12 interaction- and eight atmospheric variables were significant at the 0.10 level. An overview of all the significant variables is shown in figure 6.5. The betas of the eight atmospheric variables are almost the same as in the least favourite location model without interactions. All the personal characteristics of the respondents, with the exception of 'shopping motivation', were at least once significant as an interaction variable. The log-likelihood of this 'least favourite location including interactions' model (LL(β)) is -2106.133 and for the for the null model (LL(0)) -2493.365. This resulted in a Rho Squared (ρ^2) of 0.155, which is compared to the 'least favourite model' without interactions an improvement of 17.7%. The betas of the characteristics changed slightly compared to the least favourite location model after the addition of the interaction variables. However, either the positive and negative coefficients (β's) character remained the same. As well as in the least favourite location MNL model without interaction, variables with 'negative' beta's contribute less to a least favourable shopping location.

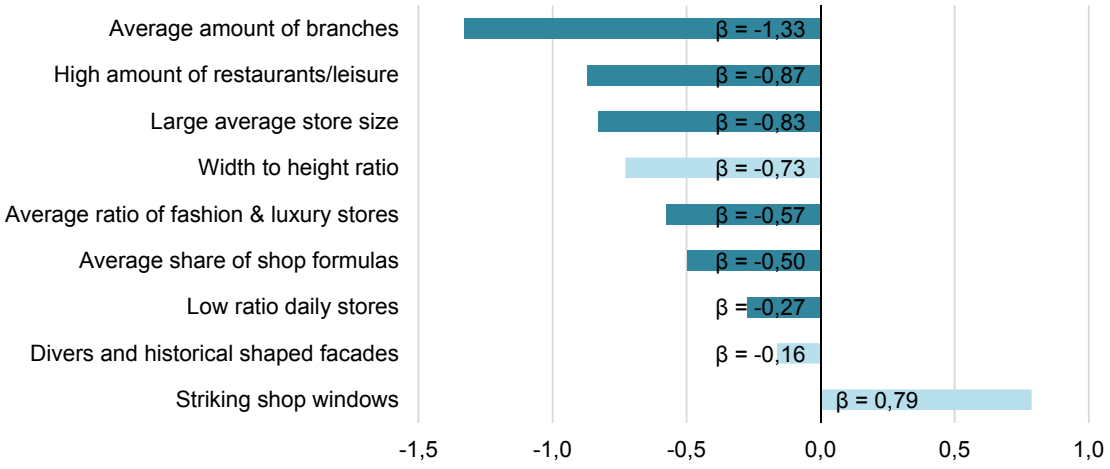

Figure 6.4: Characteristics least favourite location MNL model

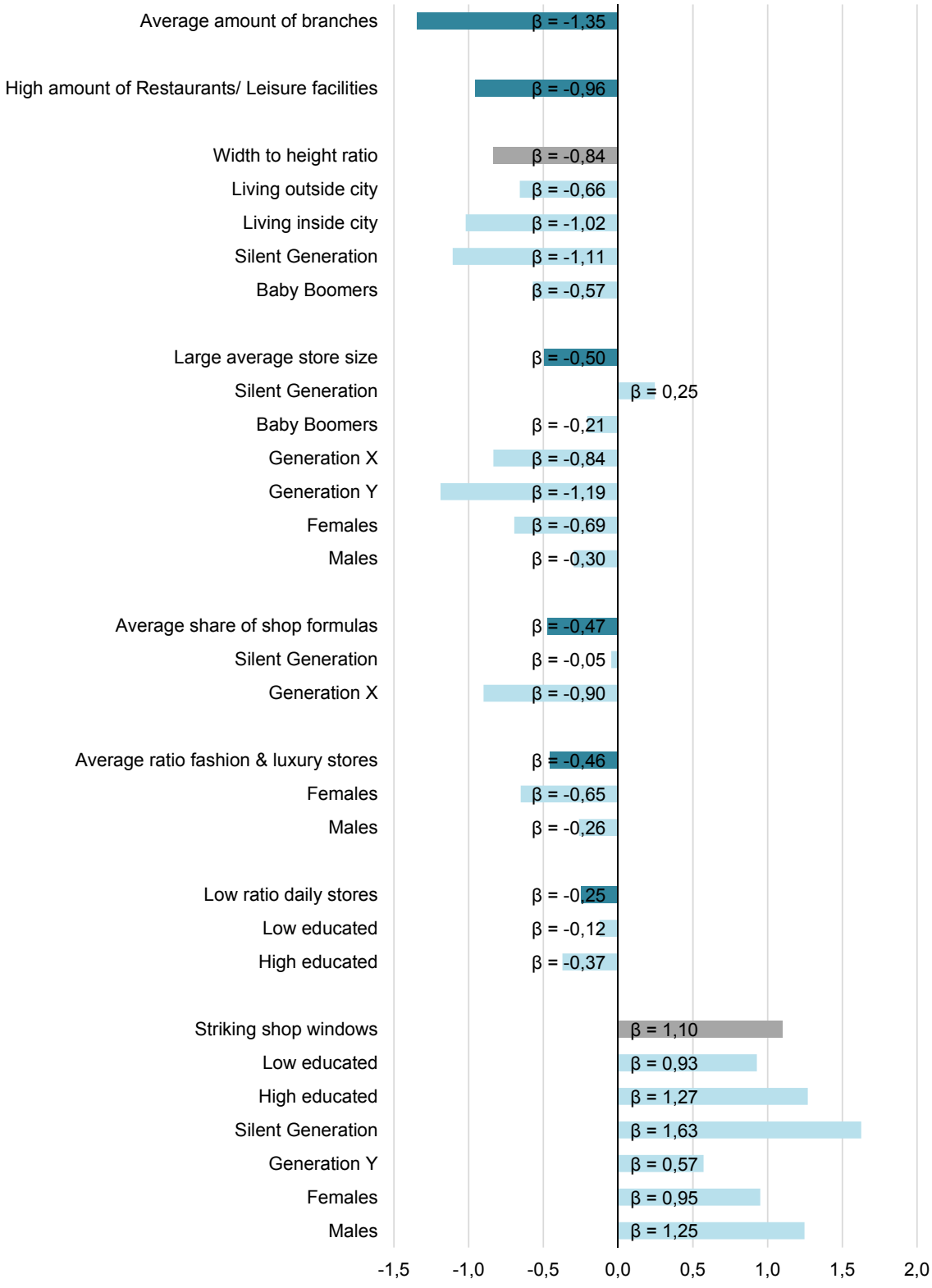

Figure 6.5: Characteristics least favourite location MNL model including interactions

The characteristics with a positive beta on the other hand do contribute to a least favourable retail area. Just as in the MNL model 'most favourite location including interactions', a 'low ratio of daily stores' is influenced by the respondents 'education level'. The outcome is the opposite because of the fact that this model is a result of the least favourite choice instead of the most preferred one. This also applies to the influence of generational cohorts on the characteristics 'large average store size' and 'width to height ratio'. Nevertheless, there are some differences with respect to these two characteristics compared to the most favourite location MNL model with interactions. This least favourite location model also includes other interaction variables. All four generational cohorts have significant different influences on the characteristic 'large average store size' instead of only the youngest and oldest generation. Moreover, males and females give a different rate to this atmospheric variable as well. Males and people of the Babyboomer and Silent Generation give in general a relatively higher rating to 'large average store size' as a variable which contributes to a less favourable shopping location. A width to height ratio of a shopping location larger than three interacts in addition with age cohorts also with the postal code category, in other words people living inside or outside the corresponding city. People living within the city's municipality give in general a more negative utility to this characteristic as a cause for least attractive shopping locations. Furthermore, the characteristic 'average ratio of fashion & luxury stores' has a negative main effect in this model which is influenced by gender. Males give a 0.19 higher rating and females 0.19 lower than the main effect. Also 'average share of shop formulas' has an interaction variable. People of Generation X give a 0.43 lower and the Silent Generation a 0.43 higher rating compared to the main effect (β=-0.47). Finally, 'striking shop windows' as an atmospheric variable has a positive beta of 1.10 in this MNL model and is influenced by gender, age and education level. Both males and higher educated people give respectively a 0.15 and 0.17 higher rating, the opposite applies for females and lower educated individuals. Moreover, people of Generation Y give a -0.52 rating compared to the main effect, while older people of the Silent Generation show the opposite results.

6.6 MNL model most atmospheric location

As well as in the most favourite location MNL model, eighteen variables of table 6.6 were used in Nlogit to calculate the utility weights (β's). Variables with a significance larger than

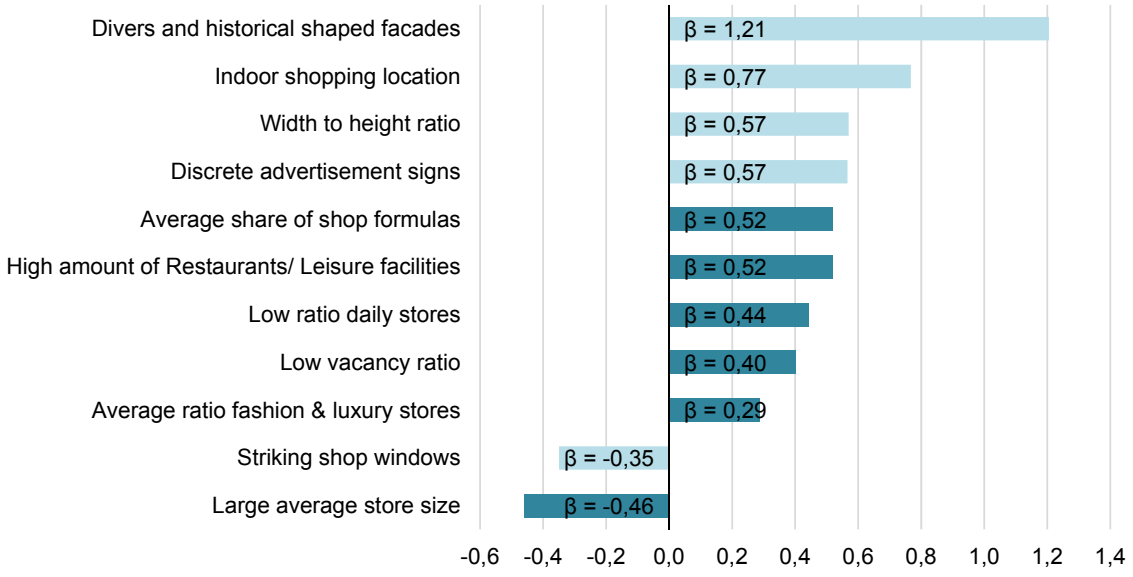

Figure 6.6: Characteristics most atmospheric location MNL model

0.05 were omitted. A total of 12 suitable variables in this most atmospheric MNL model complied with this requirement and are illustrated in figure 6.6. The log-likelihood of this 'most atmospheric location' model (LL(β)) is -2275.448 and for the for the null model (LL(0)) -2493.771. This resulted in a Rho Squared (ρ^2) of 0.088 which is slightly higher than the MNL model for most favourite location.

Firstly, all the six significant aesthetic design variables will be discussed. As well as in the 'most favourite location' MNL model, the atmospheric 'diverse and historical shaped facades' has with a beta of 1.20 the highest impact. Moreover, 'discrete advertisement signs' has a positive utility of respectively 0.57. These results are in accordance with the answers of the open questions in appendix 4, whereby 'visual appeal' was answered the most frequently as a reason for the most atmospheric shopping location. 'Striking store windows' (β=-0.35) on the other hand has a negative influence. This finding is equivalent to the result of the MNL model for most favourite location. Being an 'indoor shopping location' and also a 'width to height ratio' larger than three, both have a positive effect on the utility and are supported by the answers of the open questions on atmospheric locations.

Lastly, five of the six significant tenant variety atmospherics have a positive impact on the respondents' choice for most atmospheric shopping area. In contrast to the MNL model for most favourite location, a 'large average shop size' has a negative impact with a beta of -0.46. Furthermore, the characteristics 'high amount of restaurants and leisure facilities' and 'average share of shop formulas' have the highest positive utility with both a beta of 0.52. Location with a 'low vacancy rate', 'low ratio of daily stores' and 'average ratio of fashion & luxury stores' have a beta of respectively 0.40, 0.45 and 0.29. All these findings with respect to the tenant variables are in accordance with the answers on the open questions. 'Shop offer' and 'restaurants' are amongst the top eight most responded answers.

6.7 MNL model most atmospheric location including interactions

The variables used in the MNL model for most atmospheric location were multiplied again by the personal variables (Appendix 7). This resulted in 11 interaction- and 11 atmospheric variables which were significant at the 0.10 level. Figure 6.7 displays all these characteristics and corresponding interaction variables. The log-likelihood of this 'most favourite location including interactions' model (LL(β)) is -2232.813 and for the null model (LL(0)) -2493.771. This resulted in a Rho Squared (ρ^2) of 0.105, an almost equal model fit as the most favourite location MNL model including interactions. Compared to the most atmospheric location MNL model without interactions, this rho square value is an improvement of 19%. Again, the utility weights of all the 'main' characteristics changed slightly after the addition of the interaction variables.

As well as in the model without interactions, the aesthetic design variable with the highest positive impact is 'historical and diverse shape of facades' (β=1.27) and is influenced by age cohorts and postal code category. Respondents of Generation X (β=0.29) give a slightly higher positive rating compared to the main effect than people of the Silent Generation (β=-0.29). This finding is unexpected since it can be reasoned that older people have more affinity with historical buildings. Also people living within the city rate 0.13 higher and the 'outsiders' 0.13 lower. Furthermore, the 'main' characteristic 'indoor location' has shopping motivation as an interaction variable. The main effect is increased by 0.15 for hedonic motivated shoppers and decreased with 0.15 for utilitarian motivated people. This also applies to 'discrete advertisement signs', whereby hedonic motivated shoppers have a beta of 0.30 and utilitarian driven people -0.30. A possible explanation of this last finding could be that utilitarian motivated shoppers generally would like to have a quick efficient shopping trip and stores should therefore be easier to find. Discrete advertisement signs are mostly less apparent and thus slightly harder to find.

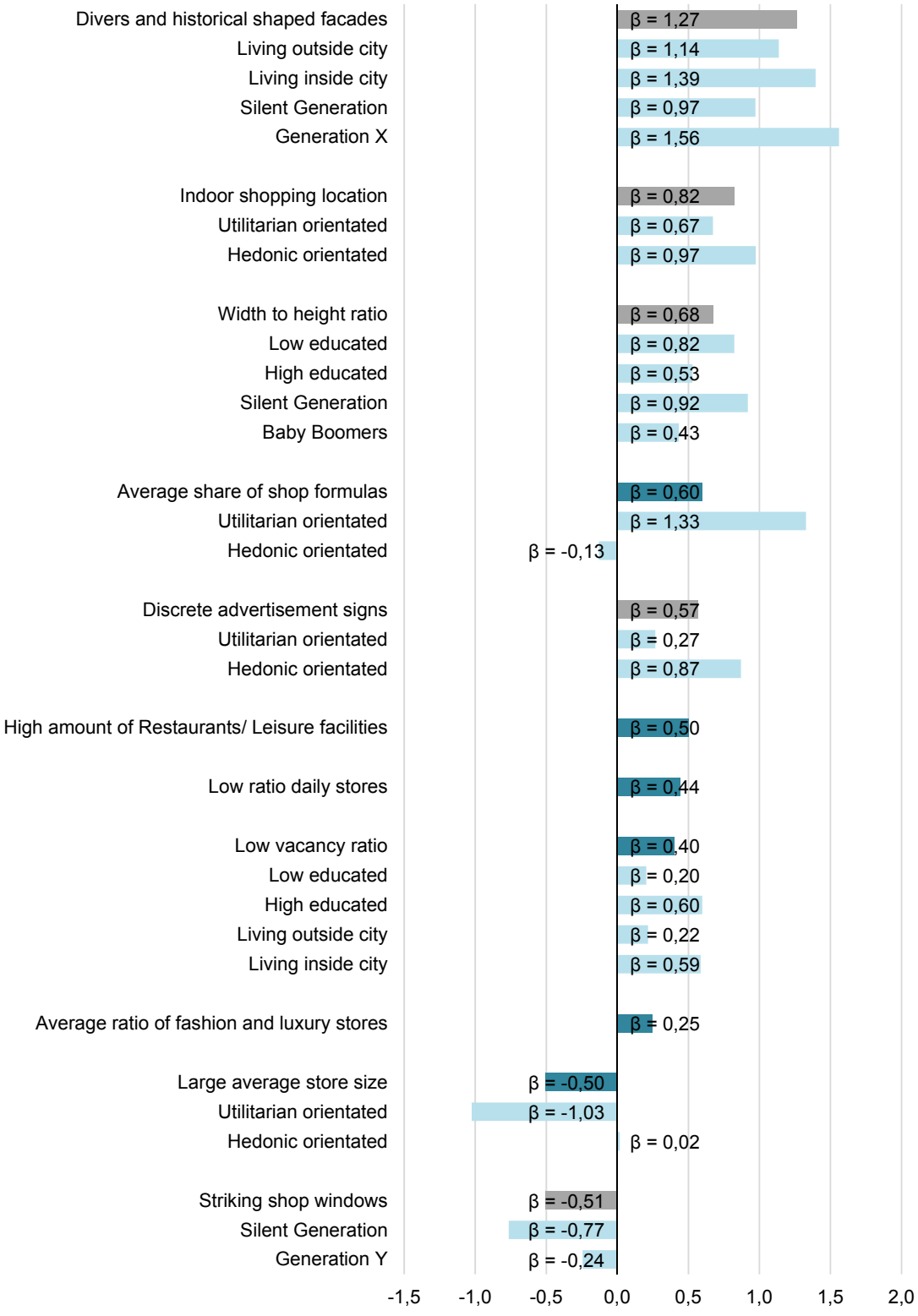

Figure 6.7: Characteristics most atmospheric model including interactions

Similar to the most favourite location model including interactions, the 'width to height ratio' is influenced by the age cohorts Babyboomers (β=-0.24) and Silent Generation (β=0.24). In addition, also the education level has effect, whereby higher educated people give a lower rating (β=-0.15) than lower educated individuals (β=0.15). The only aesthetic characteristic with a negative utility is 'striking shop windows'. Nevertheless, there are some differences between age cohorts with respect to this variable. Young people of Generation Y give a significant less negative rating (β=0.26) compared to the Silent Generation (β=-0.26).

Tenant variety characteristics in this MNL model are influenced by education level, postal code category and the type of shopping motivation. An 'average share of shop formulas' has the highest positive utility with respect to the tenant variety characteristics and is influenced by shopping motivation. Hedonic orientated people give a significant lower rating (β=-0.73) compared to individuals with a utilitarian shopping purpose. Moreover, also locations with a 'large average store size' are affected by different shopping motivations. Hedonic shoppers give a significant more positive rating (β=0.52) compared to the main effect (β=-0.50). Utilitarian driven people on the other hand are more negative (β=-0.52). A possible explanation of this finding might be that it is less easy to find products in large stores and therefore less attractive for utilitarian motivated shoppers. Finally, both education level and postal code category have impact on the characteristic 'low vacancy rate'. People living within the city and high educated individuals give a higher rating than the main effect of respectively 0.19 and 0.20. The opposite applies to people living outside the city's municipality (β=-0.19) and the ones who are lower educated (β=-0.20).

6.8 MNL model least atmospheric location

The choices of the least atmospheric location were imported in Nlogit 5. Each of the 12 variables of the standard MNL model for most atmospheric location were used. Again, if a beta of a characteristic has a negative sign in this least atmospheric MNL model, the variable contributes less to a least atmospheric shopping area. Positive betas on the other hand, do contribute to a least atmospheric location. Nine of the 12 variables were significant at a 0.05 significance level. Figure 6.8 shows an overview of these significant characteristics. The log-likelihood of this 'least favourite location' model (LL(β)) is -2288.400

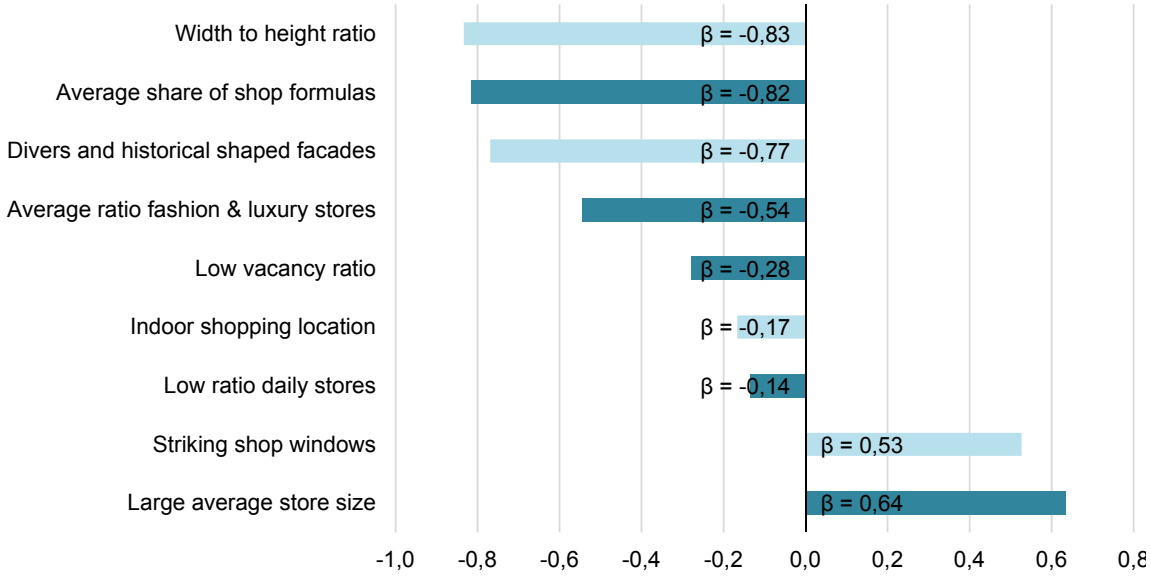

Figure 6.8: Characteristics least atmospheric location MNL model

and for the for the null model (LL(0)) -2493.771. This resulted in a Rho Squared (ρ^2) of 0.082, which is compared to the 'most atmospheric location' MNL model an decrease of 6.4%. This lower goodness of fit may have been caused by the surveys in Almere. During the execution of the surveys in Almere, a vast share of respondents repeatedly indicated that there was no sphere at all in the inner city. In other words, several respondents did not have strong preferences for any of the predetermined survey locations within the city. Furthermore, compared to the most atmospheric location MNL model, 'negative' utility weights became positive and 'positive' betas negative.

6.9 MNL model least atmospheric location including interactions

The significant least atmospheric location MNL model variables were multiplied by several personal variables. All the 12 interaction- and nine significant atmospheric variables are illustrated in figure 6.9. The utility weights (β's) are just slightly different compared to the least atmospheric model without interactions. Nevertheless, the negative or positive character remained the same. The log-likelihood (LL(β)) of this MNL model is -2242.665 and for the for the null model (LL(0)) -2493.365. The Rho Squared (ρ^2) amounts 0.101 and is an improvement of 22,6% compared to the model without interactions. Once again, variables with 'negative' beta's contribute less to a least atmospheric shopping location and vice versa.

Even though four interaction variables are the same as in the most atmospheric shopping location MNL model, the corresponding utility weights are different. Instead of positive betas for inter alia the influence of postal code category and education level on a 'low vacancy rate' and the impact of both the youngest and oldest generation on 'striking shop windows', utility weights are negative. Moreover, hedonic motivated shoppers give a rating of -0.28 compared to the main effect of the variable 'large average store size'. In other words, people with hedonic purposes are in general more negative about the positive contribution of this variable with respect to a least atmospheric shopping location. The opposite of this result applies to utilitarian motivated shoppers. The findings of these four interaction variables are logical, because it is not plausible that a characteristic has a positive influence on both the most and least atmospheric location. Furthermore, also Babyboomers (β=-0.37) and the Silent Generation (β=0.37) have a different rate with respect to a 'low vacancy rate' and a 'low percentage of daily stores' at a shopping location is influenced by people living in or outside the city's municipality. There are also some motivational effects on an 'average share of shop formulas' at a retail location. Hedonic driven people give a 0.42 higher rating than the main effect and utilitarian motivated individuals have a beta of -0.42. The characteristic 'diverse and historical shaped facades' has two interaction variables, which are age cohort and education level. As well as in most atmospheric location MNL model including interactions, the younger generation has an unexpected utility which is in this case positive instead of negative. Despite the negative main effect of -0.95, it was expected that especially the Silent Generation was less positive about the contribution of this variable to the least atmospheric location. It is more likely that older people have more affinity with historical facades. Lastly, the aesthetic design variable 'indoor location' is influenced by three age cohorts and education level. Generation Y and X give a more positive rating of this variable as a contributor to a least atmospheric shopping location. Older people of the Silent Generation and high educated individuals on the other hand rate more negative with a beta of respectively -0.37 and -0.15 compared to the main effect of -0.32. Low educated people rate the opposite of the educated group (β=-0.15).

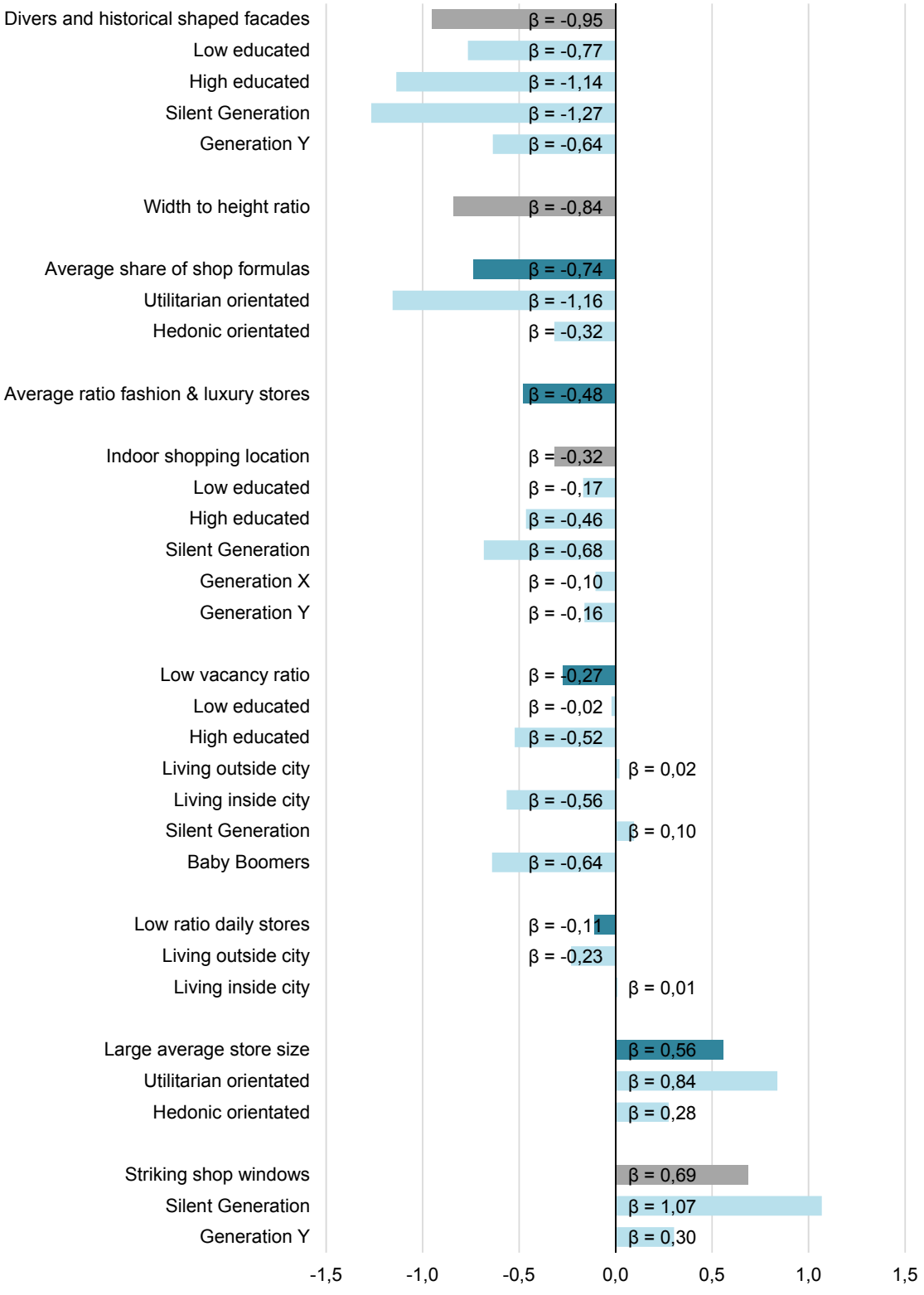

Figure 6.9: Characteristics least atmospheric location MNL model including interactions

6.10 Conclusion

This chapter described the results of eight multinomial logit models, which can be divided into 'favourite' and 'atmospheric' location models. In order to obtain significant and suitable results, it was important that there was enough dispersion and minimal correlation among the variables. A total of 18 characteristics of both tenant variety and aesthetic design atmospherics were suitable for analyses. The significant variables of the favourite and atmospheric MNL models were subsequently stepwise multiplied by personal characteristics such as shopping motivation, gender, age cohort, education level and postal code category. Also the effects of indoor or outdoor locations on the atmospherics were examined. All personal characteristics, as well as the variable 'indoor versus outdoor locations', had in various ways influence on both tenant variety and aesthetic design atmospherics of all 'standard' MNL models.

The analyses executed in 'Nlogit 5' with respect to the highest rankings for the most favourite location resulted in 12 significant characteristics of which seven are tenant variety related. This finding is supported by the responses of the open questions with respect to the most favourite location, whereby people answered 'shop offer' most frequently. The other five can be categorized as aesthetic design variables. All the significant tenant variety atmospherics had a 'positive' influence, whereby the characteristic 'large average store size' has the highest utility, followed by 'average amount of shop branches' and 'average ratio of fashion & luxury stores'. A 'high amount of restaurants and leisure facilities', 'average share of shop formulas', 'low vacancy rate' and a 'low percentage of daily stores' are significant as well. All five personal characteristics of the respondents influenced some of these variables. There are differences between indoor and outdoor locations as well. More spacious indoor locations were rated more positive than spacious outdoor locations. On the other hand, 'large average store sizes' are rated more positive in outdoor shopping areas. 'Diverse and historical shaped facades' had the highest utility of the aesthetic design atmospherics. Also 'bright coloured facades' and 'width to height ratio' have a positive beta, which is in contrast to the negative utility of 'striking shop windows'. Gender, age cohorts and type of shopping motivation interact with these aesthetic design variables.

The least favourite location model showed nine contrary utility weights compared to the model of most favourite location model without interactions. This finding can be considered as a positive result since it is logical that an atmospheric does not contribute positive or negative for both most and least favourite location models. All personal characteristics influenced the least favourite location MNL model characteristics as well, only in a slightly different way.

The MNL model for the most atmospheric location also shows similar results compared to the most favourite model. Nevertheless, the aesthetic design variables show in general higher utility weights than the tenant variety related characteristics. This finding is supported by the responses of the open questions with respect to the most atmospheric location, whereby people answered 'visual appeal' most frequently. The characteristic 'diverse and historical shaped facades' had the highest positive utility weight followed by 'indoor shopping locations'. Also 'discrete advertisement signs' and a large 'width to height ratio' both had positive betas. On the other hand, 'striking shop windows' had a slightly negative influence on the consumers choice for most atmospheric location. Furthermore, five of the six tenant variety atmospherics have a positive effect. A remarkable finding is the fact that a 'large average store size' has a negative influence, which is the reverse result of the most favourite location MNL model. This outcome suggest that despite the fact that this tenant variety variable contributes negative to the location's atmosphere, it is still decisive for the most favourable shopping area. In other words, certain tenant variety variables are in general more important than aesthetic design variables in the choice for the most favourite location. This finding is also supported by the answers of

the open question relating to the most favourite location, whereby shop offer was answered the most often. An 'average ratio of shop branches' and a 'high amount of restaurants and leisure facilities' both have tenant variety wise the highest utility, followed by a 'low ratio of daily stores', ' low vacancy rate' and an 'average percentage of fashion & luxury stores'. All personal characteristics had influence on these significant variables. Remarkably, the respondents shopping motivation clearly forms more often an interaction variable compared to the most favourite location MNL model including interaction variables. Once again, the least atmospheric MNL model had opposite results for nine of the original utility weights. All personal characteristics influenced at least once the main effects of the atmospherics in the least choice multinomial model.

The goodness of fit of the MNL models varies widely, with rho squared values ranging from 0.082 to 0.155. There are also substantial differences, favourite location MNL models perform in general better than the atmospheric related ones. This lower goodness of fit may have been caused by the surveys in Almere. Several respondents reported that they did not have strong preferences with respect to the atmosphere for any survey locations within the city. According to Louviere et al. (2000), a model with a good fit has ρ^2 value between 0.20 and 0.40. None of the rho squared values in this survey comply to this requirement for a good model fit. Another possible explanation for these lower rho squared values is that possibly not all influential characteristics are included in this survey or that respondents' tastes differ substantially. Nevertheless, in particular the favourite location MNL models made a substantial improvement compared to earlier studies which also did research about consumers experiential value in shopping locations (Dijkman, Op Heij & Willems, 2012)(Elemans, Saes & Tiktak, 2013).

7. Conclusions and recommendations

The retail landscape changes, which has effect on the demand for retail real estate in both a qualitative and quantitative way and to the variety of tenants as well. A better understanding of the influence on consumer behaviour of environmental characteristics in a retail area is important to anticipate on these developments. This study was therefore conducted to gain insight in the perceived experiential value of consumers in Dutch inner city shopping locations and eventually also to determine which and how certain atmospheric characteristics contribute to this. Moreover, it was also intended to obtain findings which clarify the understanding of different influences of indoor and outdoor locations and personal characteristics such as shopping motivation, age, gender, education level and residential environment, in other words if respondents live within or without the city's municipality. Surveys were held among pedestrians in inner city shopping areas of the cities Maastricht, 's-Hertogenbosch, Breda, Dordrecht, Eindhoven, Tilburg and Almere. A total of 2,721 respondents collaborated in this study. The surveys were held in the years 2012, 2013 and 2014. Respondents had to make choices between shopping locations within a city. These choices were in the form of making two rankings. The first ranking was based on the choice for the most favourite survey location and the second on the choice for the most atmospheric location within a city. This final chapter describes the findings and conclusions regarding all sub questions in order to give a well-founded answer on the main research question:

"*Which – and how do – atmospherics of an inner city shopping area contribute to the experiential value of the consumer, and which role has tenant variety in this context?"*

In the last sections of this chapter, several recommendations for further research and managerial implications will be discussed.

7.1 Conclusions

1. What is experiential value and how can it be measured?

The literature review provided a clear theoretical framework in which experiential value was described extensively. According to Mathwick et al. (2001) experiential value is divided in intrinsic and extrinsic value and can be defined as:

"a perceived, relativistic preference for product attributes or service performances arising from interaction within a consumption setting that facilitates or blocks achievement of customer goals or purpose".

In addition, the following dimensions of perceived experiential value can be distinguished: 'playfulness' and 'hedonism', 'aesthetic appeal' and 'accumulation', 'consumer return on investment' and 'accomplishment' and lastly 'service excellence' and 'maintenance' (Mathwick et al., 2001; Yani-de-Soriano & Foxall, 2005). The most important distinction within this set of dimensions is the difference between utilitarian and hedonic shopping motivation and behaviour of consumers. Both motivation types provoke these different dimensions of experiential value.

Subsequently, in order to make these forms of experiential value measurable for analyses, this study focussed on the consumer's assessment of inner city shopping locations by letting pedestrians make a choice between three or four retail areas within the corresponding city. These choices are assumed to depend on the characteristics of the shopping areas and can be influenced by demographics as well.

2. Which characteristics contribute to the atmosphere of an inner city shopping area?

The exterior characteristics of an inner city retail district are the most important stimuli for consumers during a shopping trip and are therefore decisive factors to determine consumer perceived experiential value. De Nisco & Warnaby (2014) state on the one hand that the configuration of the pedestrian floor, quality of the buildings' architecture and the

urban furnishing are the main characteristics and all can be assigned to 'aesthetic design'. On the other hand, 'tenant variety' characteristics also contribute to the atmosphere. A description of which and how 'tenant variety' related variables contribute to the atmosphere and experiential value is elaborated in the third and fifth sub research question. Moreover, based on these findings and the framework of atmospheric stimuli of Turkey and Milliman (2000), a selection of variables was defined. An overview of these characteristics can be seen in table 7.1. The variables highlighted in blue were suitable and used for analyses in this study.

Table 7.1: List of atmospheric characteristics

Accessibility to parking facility	Impact greenery
Accessibility to public transport	Service level
Shop offer*	Type of shop windows
Restaurants and leisure facilities*	Advertisement signs
Shape of facades	Indoor
Colour of pavements	Width to height ratio
Material of pavements	Height of buildings
Material of facades	Crowdedness
Amount of light	Elevation
Music	Width of street

** Tenant variety related characteristics*

3. What is tenant variety and how can it be measured?

Besides aesthetic design variables, also tenant variety related characteristics have a substantial influence on the atmosphere of shopping areas. The literature review gives a suitable description:

"Tenant variety is important in influencing the attractiveness of inner city shopping streets and patronage intentions and includes the number and variety of stores, dining and entertainment facilities and also depends on the amount of store branches, average store size and the ratio between retail chain stores and independent stores in a shopping location."

The variety of stores can be divided into vacant stores, daily stores, fashion and luxury stores and other type of stores and is in this way measurable for analyses.

Table 7.2: List of tenant variety characteristics

Vacant stores	Restaurants and leisure related facilities
Daily stores	Amount of shop branches
Fashion and luxury stores	Average store size
Share of retail chain stores or shop formulas	Other stores

An overview of the eventually used tenant variety variables during all the analyses in the multinomial logit models can be seen in table 7.2. The variables highlighted in blue were suitable and used for analyses in this study.

4. Which – and how do- atmospherics contribute to experiential value?

In order to determine the answer on this sub question, one type of discrete choice model was used in this study, called Multinomial Logit Models. A distinction can be made into favourite and atmospheric MNL models, which subsequently can be divided into the most and least preferred location model variants. All the least favourite or atmospheric location models had opposite utility weights for the aesthetic design related variables, which strengthens the results of the most preferred location models. The influence of indoor and outdoor locations and personal characteristics on these atmospherics were examined as well. Personal characteristics such as age cohorts, gender, education level, postal code category and shopping motivation types appear to have influence on the aesthetic design variables in all MNL models. Moreover, there is also a different effect of indoor and outdoor locations on the width to height ratio of a retail location. Spacious indoor locations were rated more positive than spacious outdoor location. The goodness of fit substantially increased in the

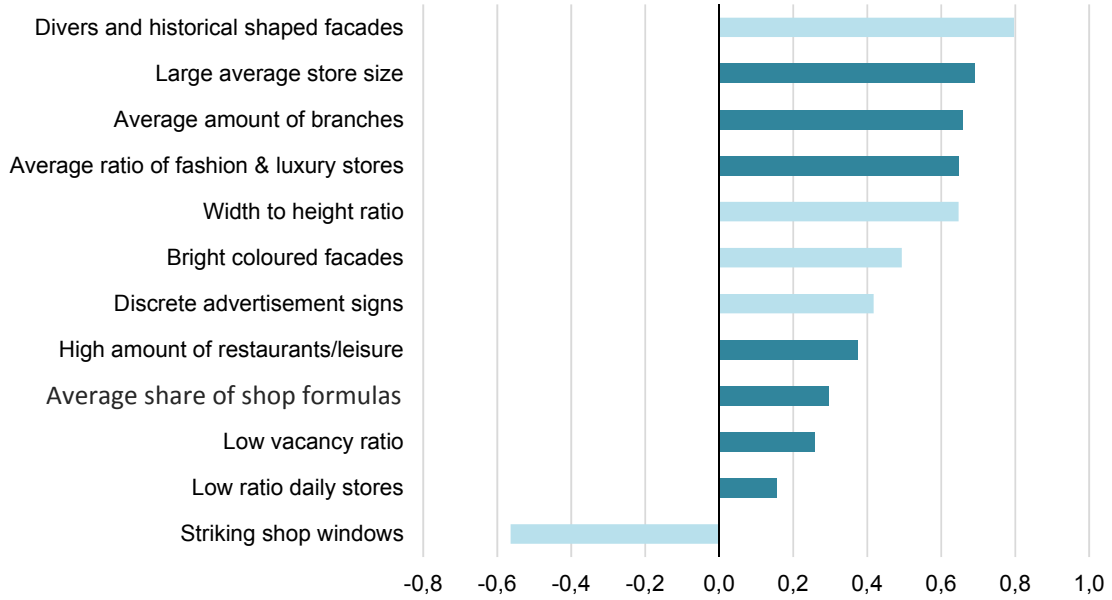

Figure 7.1: Favourite location MNL model characteristics

MNL models including interactions. The main results of the most favourite and atmospheric MNL models with respect to the aesthetic design related characteristics are described and illustrated in figures 7.1 & 7.2.`

In general, the aesthetic design variables in the atmospheric location models have in comparison to these variables in the favourite location models a higher impact. This finding is in accordance with the answers of the open questions which were held during this survey. Visual appeal was answered the most frequent as a reason for the choice for the most atmospheric shopping location.

5. Which variables related to tenant variety influence the relation between atmospherics and experiential value in Dutch inner city shopping areas?

As well as the aesthetic design characteristics, the tenant variety related variables in all the least favourite and atmospheric location models had the opposite utility weights. Furthermore, all personal characteristics have certain influence on the tenant variety variables in both the favourite and atmospheric location MNL models. Indoor and outdoor locations also appear to have a different impact on the rating of the characteristic 'large average store size' in

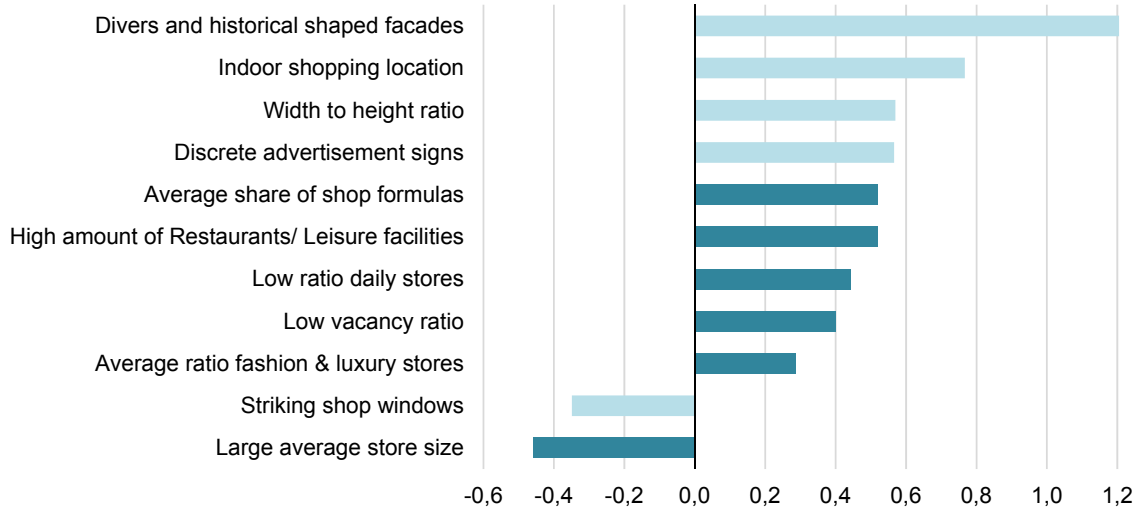

Figure 7.2: Atmospheric location MNL model characteristics

shopping areas. Moreover, despite the fact that this characteristic has the highest positive influence on the choice for favourite locations, it has a negative effect on the atmosphere in a shopping area. The main results of the most favourite and atmospheric models with respect to the tenant variety variables are described and illustrated in figures 7.1 & 7.2. In general, the tenant variety variables in the favourite location models have in comparison to these variables in the atmospheric location models a higher impact. This finding is in accordance with the answers of the open questions which were held during this survey. 'Shop offer' was answered the most frequent as a reason for the choice for the most favourite shopping location.

7.2 Recommendations for further research

During this survey, the dataset of previous studies in the context of the consumers perceived experiential value in Dutch inner city shopping areas was expanded (Dijkman, 2012; Op Heij, 2012; Willems, 2012; Elemans, Saes and Tiktak, 2013). The quality or goodness of fit of the multinomial logit models was improved compared to these studies, which is caused by the addition of the cities Tilburg and Almere and also by the expansion of the variable set with tenant variety atmospherics. Another expansion might result in a rho squared approaching 0.20 and thus a good model fit. However, this expansion should comprise cities of a comparable size and which have enough dispersion between shopping locations with respect to the tenant variety and aesthetic design characteristics.

Furthermore, according to the analyses in the multinomial logit models, the perceived experiential value of consumers differs between indoor and outdoor locations. Because of the fact that there was a considerable amount of correlation between the 'indoor versus outdoor' variable and other personal characteristics, obtaining more comprehensive results was not possible. Despite the findings in this study, additional research in this context could lead to interesting outcomes.

This study made only use of multinomial logit models. Different kind of analysis techniques, such as a mixed logit model could also be used in further research.

Finally, also the fact that postal code categories, in other words the residential environment of the respondents, have influence on several atmospherics can be researched more extensively. This personal variable might have a strong relation with the respondent's personal bond with respect to a survey location or inner city retail area.

7.3 Managerial implications

Besides the scientific relevance of this study, several findings can serve as useful information for managers in retail real estate. The retail landscape is changing rapidly and knowledge about consumer preferences with respect to the aesthetic design and tenant variety of shopping locations is therefore important. During the process of (re)developing shopping locations, it is important to adapt to the expected visitors in these areas. When it is likely that the majority of the shoppers are from older generations, retail areas should have a width to height ratio larger than three. However, this ratio should not be too large. In addition, it is in general more important to design a more spacious environment in indoor shopping locations than in outdoor areas. If a retail manager wants to focus on shopping locations for younger people, the average store size should be at least around the 300m² or larger, older consumers prefer a smaller store size. In addition, an average store size of around the 300m² or larger has in general a negative effect on the atmosphere in a retail location. A smaller size should contribute better in this context. Furthermore, in order to attract hedonic orientated shoppers, inner city retail areas should contain next to outdoor locations also indoor facilities. These hedonic orientated consumers prefer discrete advertisement signs on the store facades. It is the best to construct diverse and historical shaped facades as well. In general, it is also better to reduce the number of striking shop windows, this applies in particular if managers want to focus on older consumers.

Besides the average store size there are also several other managerial implications with respect to the tenant variety of shopping locations. If a retail manager wants to focus on shopping locations for younger people, a share around two third of fashion and luxury related stores in a shopping location shall be assessed positive. On the other hand, older people are negative about this share.

In order to attract the most visitors and not only a specific target population to an inner city shopping area, spacious areas for both inside and outside locations should contribute the best. Also bright coloured- and diverse and historical shaped facades are in general the best alternative to accomplish this. The advertisement signs on the facades should be discrete and thus not too striking. A high amount of restaurants and a large average store size will attract generally the most visitors. Logically, a low vacancy rate will be assessed positively, so try to avoid retailers to leave when there is no alternative in the short term to fill up the empty stores. Furthermore, a share of approximately two third of chain stores in a shopping location has in general a positive effect on consumers. Try to create a mix of retailers whereby also the independent retailers are not underrepresented. In addition, the number of different shop branches should not be to low or high. Consumers do not prefer a too varied selection or a too limited mixture of branches in a shopping location.

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