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The role of lifestyle and mobility behavior in influencing spatial/mobility planning in s-Hertogenbosch

Colophon

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Summary

This study examines the role of lifestyles and mobility behavior in influencing spatial/mobility planning in the city of s-Hertogenbosch in the Netherlands. World population is increasingly moving from rural areas to the urban areas. Urban areas with a high concentration of social and economic activities host complex spatial structures connected by transportation systems. Mobility in a city enables individuals and institutions to work and function. Lifestyle in a city refers to pattern of behavior of individuals, which represented he/she values and connected to spatial characteristics of he/she place of living. (Acker, Goodwin & Witlox 2016). These attitudes and values affect their mobility behavior in a city as well. Changes in urban design affect mobility behavior of citizens. Implementing a new mode of transport in a city can change passenger's perception and customer experience (Rode et al., 2015).

This study aims to assess citizen behavior and choices regarding different modes of transport to move around the city in order to implement an appropriate spatial/mobility plan in the s-Hertogenbosch is the main object of this research. The city of s-Hertogenbosch has been chosen as the case study in this research, due to data availability on lifestyles and mobility behavior of its inhabitants, and the interest of the municipality of this city on how different lifestyles may affect mobility behavior and use of transportation systems in this city.

This research consists of stepwise methodology. Firstly, mobility behavior of inhabitants are determined by conducting a qualitative assessment, which is based on municipality survey. Secondly, different types of lifestyles are identified by considering Waarden In Nederland (WIN model) as a guideline (TNS NIPO, 2006), and comparing statistical and empirical data with it. Thirdly, the current status of spatial/mobility planning of city is explained. Finally, the relation of mobility behavior and lifestyles with each other and the role of these two in mobility plan are investigated by conducting some interviews. The data has been collected by the municipality of s-Hertogenbosch through conducting a survey on mobility behavior and inhabitants willingness to use different types of transportation systems. This survey has three types of questions: Mode use satisfaction, Modal choices of inhabitants and future demands. The main question in the survey is how people commute to the inner city. The results show that willingness of inhabitants in choosing the way they travel to the city center depend on a subjective issue of satisfaction of using different transportation forms. Thus, in this study, we ask the interviewees what is their level of satisfaction when using different ways of transportation considered as the attributes in this study. The results show that "train satisfaction", "OV card ownership" and "place of living" highly positive correlated on the other hand "car satisfaction" and "car ownership" highly negative correlated with "How people go to the inner city". By finding significant variables, two regression have been done to find out the exact influence of each variables on people movement to the city center. Results of regressions show that eight indicators namely satisfaction of Bus, satisfaction of train, pedestrian satisfaction, bike ownership, E-bike ownership, having OV card, having train card and place of living are significant predictors for the dependent variable, namely "how people go to inner city". According to the quarters of the city, five

mobility behavior clustered by K-means are clarified in this analysis, including cyclist, two different moderate users of all modes, car-oriented and public transport users.

Notably, there is not only one type of citizen or consumer, but different preferences in mobility behavior which distinguish different socio-cultural groups. To communicate with a large community as conducted in the survey, Dutch government made a model, which is called WIN model. This model is based on the opinions, goals, preferences, values and living patterns of citizen. The outcome is eight types of lifestyle, which illustrated on the WIN model. In addition, empirical and socio-demographic data about age, income, education, quality of neighborhoods, activity, and type of households have been collected by the municipality. According to this data, quarters are grouped and are compared with WIN-model. The comparison results shown in this city these lifestyles of WIN model are available: business oriented, luxury seekers, connoisseurs, conservative, committed, open-minded and balanced.

Comparing mobility behaviors and lifestyles in s-Hertogenbosch show that in this city, as expected people with lower income who are less educated, non-western immigrants and religious people are more in favor of using public transportation than the others. They expect train as a primary mode of transportation within five years. Bike users are diverse groups of people, mainly live in city center or close to it. Regarding quality of the neighborhoods, they gain average in all aspects. Satisfaction using the bike is high among them. They own car less than the other. The number of young people is high. Moderate users of all modes, almost use all available modes in the city. The satisfaction of public transportation is low. Most of them have a high income, well educated, type of household are single parents and family. The score of neighborhoods regarding quality they gain more than "average." Car-oriented citizens who are often with high income and educational level and live far from the city center. They expect the car as a primary mode of transportation within five years. In general, lifestyles of bike users are Caring and Luxury seekers. Moderate users which use all modes are in open minded, business and stable lifestyles group. Public transport users are conservative and finally, lifestyles of car oriented are mostly in the business and open-minded.

Mobility behaviors are linked in complex ways with lifestyles. It is increasingly evident that the corresponding (modern) lifestyles in affluent societies, and the mobility behaviors associated with such lifestyles, are consistently depend on the protection of environmental quality, availability of natural and financial resources, and promotion of social ties as well as distributions opportunities in a city and costs of using transport systems.

To further study, there is still a need to conduct such a participatory approach as conducted in this study, which includes lifestyle and mobility factors. By knowing individual value and behavior, it can be more comfortable for municipality to recognize demands of inhabitants and affect their mobility behaviors and lifestyles. In addition, since this study focused only on the aspect of daily mobility to one destination, to have a better overview, it would be of importance to analyze other aspects such as long-term mobility behavior to find out why and how inhabitants of a city choose a particular neighborhood and place to live.

CONTENTS

1. Introduction	10
1.1 Background	10
1.1.1 Lifestyle	10
1.1.2 Mobility	13
1.1.3 Spatial and transport planning in the Netherland	13
1.1.4 The connection between lifestyle and mobility	14
1.1.5 Mobility and lifestyle in s-Hertogenbosch	17
1.2 Research objective	18
1.3 Research question	18
1.4 Research framework	18
2. Theoretical framework	20
2.1 Structuration Theory	20
2.1.1 Agency	20
2.1.2 Structure	20
2.1.3 Duality of Structure	21
2.1.4 Dialectic of Control	21
2.1.5 Institutions	21
2.1.6 Time/Space Relations	22
2.2 Application of Structuration Theory framework for analysis	22
3.	25
Methodology	25
3.1 Research strategy	25
3.1.1 Mobility behavior and lifestyles	25
4. The Case study: s-Hertogenbosch	28
4.1 Introduction:	28
4.2 's-Hertogenbosch	28
4.2 Mobility behavior in S-Hertogenbosch:	30
4.2.1 Correlation	30
4.2.2 Regression	32
4.2.4 Clustering	38

4.2.5 Summary of results:	44
4.3 Lifestyles:.....	45
4.3.1 Lifestyles in the Netherlands:	45
4.3.2 Quarters:	50
4.3.3 Lifestyles in the s-Hertogenbosch:	75
4.4Lifestyle and mobility pattern:	1
4.5 Spatial and mobility planning of S-Hertogenbosch:	2
4.5.1 s-Hertogenbosch city plan.....	2
4.5.2 Effects of mobility behavior and lifestyle in mobility planning	9
5. Conclusion and recommendation	10
References	14

List of Tables

Table 1: Lifestyle perspectives and definitions	10
Table 2: Connection of lifestyle and mobility behavior	14
Table 3: Correlation between variables	30
Table 4: Modal Summary	32
Table 5: Coefficients	32
Table 6: Variation analysis - ANOVA	33
Table 7: Modal summary of second regression	34
Table 8: ANOVA	35
Table 9: Coefficients	36
Table 10: Iteration history	37
Table11: Cluster Membership	37
Table 12: Distances between final cluster centers	38
Table 13: Clustering output based on mobility behavior	39
Table 14: Translation of WIN model based on Wijk- en buurtmonitor	74
Table 15: Summary of Wijk- en buurtmonitor	75
Table 16: Relationship between lifestyles and mobility behavior per quarters.....	77

List of Figures

Figure 1: City planning structure	13
Figure 2: Relation between lifestyle and daily mobility	15
Figure 3: Transport mode choice residents to the city center	16
Figure 4: Research framework	18
Figure 5: Dimensions of the duality of structure	20
Figure 6: City planning structure.....	22
Figure 7: planning structure in the Netherlands	23
Figure 8: Bike ownership	41
Figure 9: E-bike ownership.....	41
Figure 10: Bike ownership within 5 years.....	42
Figure 11: Car ownership.....	42
Figure 12: E-car ownership.....	43
Figure 13: Lifestyles.....	46
Figure 14: Example of District situation.....	50
Figure 15: Binnenstad District situation.....	51
Figure 16: Zuidoost District situation.....	52
Figure 17: Graafsepoort District situation.....	54
Figure 18: Muntel/Vliert District situation.....	56
Figure 19: Rosmalen Noord District situation.....	57
Figure 20: Rosmalen Zuid District situation.....	58
Figure 21: De Groote Wielen District situation.....	60
Figure 22: Empe District situation	62
Figure 23: Noord District situation.....	63
Figure 24: Maaspoort District situation.....	66

Figure 25: West District situation.....	68
Figure 26: Engelen District situation.....	70
Figure 27: Nuland District situation.....	72
Figure 28: Vinkle District situation.....	73

List of Maps:

Map 1: The Netherlands provinces.....	28
Map 2: Neighborhood of 's-Hertogenbosch.....	28
Map 4: Quarters of s-Hertogenbosch.....	49
Map 5:'s-Hertogenbosch city plan.....	79
Map 6: City plan.....	81

Appendix:

Appendix A : Interview questions

Appendix B: Summaries of interviews

Appendix C: Clustering results

1.INTRODUCTION

Nowadays, more people live in urban areas than in rural spaces. According to the UN more than 56 percent of the world's population will residing in metropolitan zones and is expected that this urban growth will continue to 66 by 2050 (United Nations, 2017,p:2). Thus, cities will have to make crucial changes in their planning systems to be able to adapt to the growing population in a proper sustainable way.

Spatial and Mobility planning play a crucial role in the development of cities, access to work, education, culture, recreation and concern about health, quality of life and congestion (van Acker, Goodwin & Witlox, 2016). As cities kept developing, movement in the cities are increasingly grows. Today's realities show that transportation systems and framework in many countries are still facing significant challenges and the transportation sector is still the main culprit for social injustice and public health issues (Rode et al., 2015). In order to address these challenges, cities need to scale up their efforts to achieve sustainable urban transport systems and innovation in spatial and mobility planning, through comprehensive and integrated land-use transport planning, giving due consideration to all economic, social, environmental and cultural elements of the cities.

Scheiner and Kasper (2003,) clarify lifestyle as a pattern of behavior of individual which represents their values and can be related to spatial indicators such as place of living. Due to the fast developing of the cities in recent years there have been lots of changes in mobility behaviors and lifestyles have connected to the spatial structure of the cities (Rode et al., 2015).So,it is necessary to adapt this growth to the mobility behavior of citizens. Understanding citizen behavior and choices regarding different modes of transport to move around the city in order to implement an appropriate spatial and mobility planning is the main object of this research.

1.1BACKGROUND

1.1.1LIFESTYLE

To defining lifestyle two broad perspective can be noticed, first "lifestyles as a behavioral typology of activity and time use patterns, and second lifestyles as a behavioral orientation—values, attitudes, and preferences—and a latent factor motivating behavior patterns" (van Acker, Goodwin & Witlox , 2016, p:27).

The table below provide different definition and perspectives of lifestyle:

Table 1: Lifestyle perspectives and definitions (Author, 2018)

Patterns of behavior	Scheiner and Kasper (2003) used lifestyle definition of Ludeke(1996) as “regular patterns of behavior, which represent structural situations as well as habitual behavior and social affinities.”
Medical studies	The constellation of habitual activities unique to a person, which lend consistency to activities, behaviour, manners of coping,motivation, and thought processes, and define the way in which he/she lives; lifestyle activities include diet, level of physical activity, substance abuse, social and personal interactions(Sege’s Medical Dictionary, 2011).
Marketing	Work and leisure behavior pattern and interest, belief, ethics, and income define a lifestyle. Self-concepts of people are reflected by lifestyle; the manner they see themselves and believe the others see them. Lifestyle is a complex of inspirations, demands, and desires and is influenced by aspects such as culture, family, reference groups, and social class (Acker, Goodwin & Witlox 2016).
Sociology	In sociology Weber, Heinrich and Turner (1991) define lifestyle as a social structure which is used to be explained regarding social class, different education level, profession, and income. These are the parameters which influence the structure of an industrial society preoccupied with production (Acker, Goodwin & Witlox 2016).
cultural/symbolic and a political dimension	Cockerham, Abel, and Luschen,(1993), explained that Weber highlighted the importance of a cultural/symbolic and a political dimension by explaining of a personal behavior which is not always based on her/his produces (i.e., economic dimension) but on what he or she consumes (i.e., cultural/symbolic dimension), that is why individual has a specific social status (Weber). According to Weber(2001), social status refers to a group of people that shares the same prestige and who clarifies this prestige. Lifestyle is thus considered a pattern of observable and expressive behaviors. Weber conceptualized lifestyles (or “Lebensstil” in his work) through “Lebensführung” (“ad life conduct”) and “Lebenschancen” (“life chances”). “Lebensführung” refers to choice and self-direction in a person’s behavior and “Lebenschancen” refers to structural conditions that constrain these choices (e.g., economic conditions such as income and property but also social elements such as rights, norms, and social relationships). Consequently, Weber recognized that people have choices in the lifestyles they adopt, but the actual realization of these choices is influenced by their life chances. In other words, lifestyle is the result of the interplay between choice and structure (Cockerham, Abel, & Luschen 1993).
Social position	Bourdieu, Bennett, and Nice (1987) clarify lifestyle as an arrangement of behaviors which is express the social position of the individual. They worked on the analysis of consumption pattern and combined sociodemographic indicators such as education, profession and income with data from surveys on preferences and behaviors associated with lifestyle-related subjects like purchasing behavior, holidays, car type, culinary preferences, fashion, cultural activities, and taste. Based on this information, each occupies a position in a two-dimensional social space that is defined by the volume and the composition of capital. Bourdieu, Bennett, and Nice (1987) considered lifestyle to be a pattern of behaviors indicating the social position of the individual.
individual’s socioeconomic characteristics	In line with the study of Bourdieu (1979), Genzeboom analyzed lifestyles in the Netherlands by combining socioeconomic characteristic and opportunities and constraints offered by time budget, income, cognitive skills, and status. He determined three dimensions in order to clarify lifestyles: (1) an economic dimension, (2) a cultural dimension, and (3) a stage-of-life dimension (Acker, Goodwin and Witlox,2016).
Postmodern approach (Spatial dimension)	Scheiner and Kasper (2003), according to observation by Schulze (1992) explained that, leisure activities are happening in public places such as cafes, shopping centers and football stadiums which attract a group with similar lifestyles. Schulz calls these special places as “scenes” which these scenes are become significant in a

		postmodern society, due to the expense of traditional urban living and working environments (van der Wouden & Kulberg, 2002).
Psychographic approach	lifestyle	The concept of lifestyle to psychoanalysis was announced by Alfred Adler in 1933; he explained that the psychographic lifestyle approach focused on analyses subjective characteristics of the individual like personality traits and related motives, norms, and values. (Acker, Goodwin and Witlox,2016). In his clarification of lifestyle less attention paid to social and cultural dimension and socioeconomic and social context(Acker, Goodwin and Witlox,2016). Another critical classification is Values and Lifestyles (VALS) typology developed at SRI International by Arnold Mitchell (1983). Maslow (1954) developed VAL's typology developed departs from the Hierarchy of need ranging from basic needs such as food, water, employment to advanced needs like love and self-actualization.
cultural lifestyle approach		This approach is closed to psychographic approaches. The focus of cultural lifestyle approach is on changes from individual characters to shared norms and values(Scheiner & Kasper,2003). Cathelat (1993, 87) summarizes this approach as “the lifestyle as a value system.” The aim of this approach is observing changes and trends in society by the analysis of changing individual and shared opinions and attitudes(Acker, Goodwin and Witlox,2016). Individual attitude is reflected from a historical time perspective. Analyses are based on theoretical model and to compare to the psychographic are less uncertain. This approach uses the concept of “community” as a replacement for lifestyle. The same group of people who has the same attitudes which are affected by their values are a community(Acker, Goodwin and Witlox,2016). Results of this analyses in this approach refer to an individual within a particular social context, supports a set of the norm, that is why the results are dependent on context and cannot generalized toward another time-space context (Acker, Goodwin and Witlox,2016).
mechanistic approach	lifestyle	This approach clarifies lifestyles as a way of living or as “a condition of existence and a manner of being” (Cathelat, 1993, p. 97). In this approach use data available of consumer behaviors and sociodemographic data. One good example is empirical analyses in Bourdieu’s La Distinction. Acker, Goodwin, and Witlox (2016), mentioned the empirical analysis in Bourdieu’s La Distinction as a good example. He used two-dimensional social space to analysis sociodemographic and combined it on consumption behavior.
post-structural approach	lifestyle	This approach is based on the disconnection between lifestyles and social structure. Bourdieu explained the different range of lifestyles from no lifestyle differences between the traditional lower groups to different economic and cultural lifestyles among the higher groups. Lifestyles were thus still considered to reflect social classes. Post-structural lifestyle studies, however, do not consider any hierarchy among lifestyle groups. “Distinction” is no longer expressed by someone’s position in a cultural or economic hierarchy but rather as simply “being different” than others. Consequently, post-structural lifestyle studies focus on individual choices, which highly depend on the local and temporal context (Acker, Goodwin and Witlox,2016).
The geographic (or geodemographic) approach	(or) lifestyle	The geographic lifestyle approach is a combination of diverse types of data of an individual with spatial information of their residential location such as type of residence, neighborhood characteristic. This study is about the analysis of differences and similarities between neighborhoods, so the results understand of neighborhoods. One of a good examples is the ACORN (A Classification of Residential Neighborhoods) typology of UK’s population developed by Richard Webber at the commercial company CACI. Data on this study were about spatial characteristics of the neighborhood such as housing density and urbanity and behaviors info like internet behavior, property ownership and finances (Acker, Goodwin and Witlox,2016).

Measuring lifestyle:

Defining lifestyles is one thing; “measuring” them is another. In some empirical studies in travel behavior research (e.g., Cooper, Ryley, & Smyth, 2001; Hildebrand, 2003; Salomon & Ben-Akiva, 1983) analyze lifestyles, through combining various objective socioeconomic and demographic characteristics of the individual and the household. Cluster and factor analysis are often used to determine stage-of-; if groups like types of household (families, single, elderly). Socioeconomics and demographics data are widely used in this analysis.

According to what explained before in this study lifestyle is define as pattern of behavior of individual which presented their values by considering spatial indicators such as place of living and neighborhood characteristics. Variables which related to this definison and use in this study are income, gender, type of household(family/single/couple with children/couple without children), residential location(city center, suburb, between suburb and city center), type of houses, care (social network / health),residential environment (residences / public space / security),residents (diversity / income),living together (front-facing / dealing with each other / Binding), activity (sport / culture / socialize), education (secondary education / basic education) and number of immigrant and job seekers.

1.1.2MOBILITY

In general, mobility means movement in geographical space. There are two ways to define mobility in a city, one is linked to short-term mobility such as daily traveling and the second definition is about the long-term mobility which is connected to housing mobility and choice of location (Scheiner y Kasper, 2003). Mobility is purely instrumental and about getting from A to B in a city(Brömmelstroet et al., 2017). According to a definition provided by Bertolini (2006), the mobility of citizens is a physical movement in different scale of time like seasonal, weekly or daily which happen in different spatial scales like between home and work.

Costa, Neto, and Bertolde (2017) consider mobility as a social resource and articulator in society. Since mobility is directly related to the movement of people between different socio-spatial hierarchies. The variables such as modal choices, vehicle ownership, job status, gender, age, the satisfaction of transportation mode in a city and future demands regarding mobility are directly linked to mobility. The variables such as income, employment, gender, age, local transport modal type are directly linked to mobility. these variables can determine the individual’s mobility pattern in a city (Kleiman,2011).

In this research, the variables which used to measure mobility behavior of citizens are vehicle ownership, modal choice of citizens, level of satisfaction of transportation modes, residential location, age and future demands.

1.1.3SPATIAL AND TRANSPORT PLANNING IN THE NETHERLAND

The Netherland has a long history of the development of urban forms. Decentralization of urban land use has been implemented in the 1970s and 1980s (Dieleman et al. 1999; Bontje, 2001). During 1990s focus of urban development policy, was on compact urban growth (Hayer and Zonneveld, 2000). Changes in urban forms affect mobility behavior of citizens, implementing a new mode of transport can change passenger level or using new technologies such as using a different application to find routes and estimate real time of travel affects customer experiences (Rode et al., 2015).

Developing national transport is one of the responsibilities of the ministry of transport, public works, and water management. The minister sets the general policy framework for ten years in coordination with water management, economy, environment and spatial planning departments and then selection of key transport infrastructures are revised by the minister (Alpkokin, Kuriyama & Hayashi, 2004)

One of the main aspects of Dutch planning and development systems is integrated planning. Another feature is the central role of the local. The local draw up legally binding plans, this is the statutory planning powers (Korthals Altes, 2016).

1.1.4 THE CONNECTION BETWEEN LIFESTYLE AND MOBILITY

According to Move mobility consultancy framework for mobility plan will be the result of the co-creation between all the actors. There are three main pillars mentioned below as a way of planning a city (Figure 1):

A. Organization: a planning system that includes all the actors involved in a project. This ensures that all visions are taken into account, resulting in strong planning strategies, laws, regulations, and guidelines;

B: Hardware - planning, scenario development, designing and implementation of infrastructure and systems.

C: Software - culture, communication, education, health, etc.

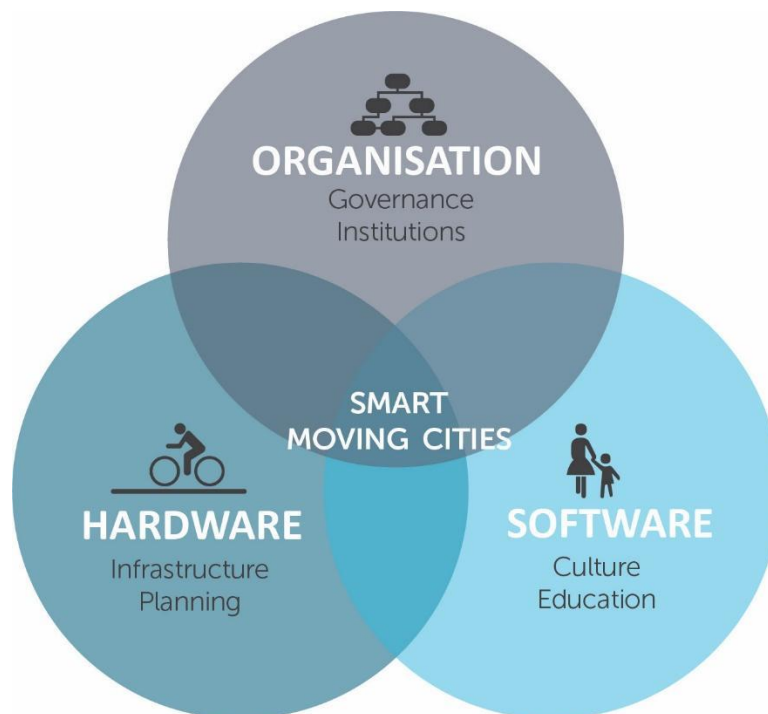


Figure 1: City planning structure (Source: MOVE Mobility, 2016)

Mobility researchers started to research on the relationship between lifestyle and mobility style in the 1990s (Scheiner & Kasper, 2003). The table below provide different perspectives on the relationship between mobility and lifestyles:

Table 2: Connection of lifestyle and mobility behavior (Author,2018)

Modal choice	<p>Normally mobility researcher translated the concept of lifestyle into mobility styles which is limited to modal choices (Scheiner& BKasper, 2003 Götz, Jahn & Schultz 1997). For example, Lenzendoorf(2002) used factor and cluster analysis to leisure and mobility data from four neighborhoods of Cologne, Germany and identified seven lifestyles which refer to the "mobility style." His studies confirm that the decisions of travel for leisure purposes are explained by mobility styles, but they were not significant effect on modal choice (Acker, Goodwin & Witlox,2016).</p> <p>More recently, Van Acker (2010) and Van Acker, Mokhtarian, and Witlox (2011) did some studies by using a structural equation approach to analyse the complicated relationship between lifestyles, the built environment, stage of life, car availability and travel behavior. The results show that lifestyle has a significnalty effect on modal choice (Acker, Goodwin & Witlox,2016).</p>
Travel behavior	<p>Salmon (1980) defined a lifestyle as the pattern of behavior which follows to the individual's orientation towards the three principal roles. Accordingly, these roles constitute household member, a worker, and a consumer of leisure. Also, Salmon (1980) stated that choice of a lifestyle is made by individual depending on the social context by which the individuals reside. However, these choices are either determined by an accepted style or a preferred lifestyle that should be examined in other places.</p>
geodemographic approach	<p>Wachs (1979, p. 21) stated: A particular combination of income, family status, educational attainment, residential density, and similar variables differentiates the patterns of living of those who share them from those who are represented by other ranges of the same variables.</p>
Spatial orientation	<p>Scheiner (2006) studied the spatial orientation of activity space in Stuttgart, Germany. The results show the two different travel behavior in this city first the groups with a concentraion on few destinations and second groups with dispense orientation. Different distances and modal choice have an impact on mobility style of individuals.</p>
Spatial environment	<p>Individual perception on different lifestyles is related to the spatial environment in which daily activities rely on "scenes" associated with that environment. This relation can be seen for example, in different places where people meet each other's (e.g., discos, pubs, sports facilities or other meeting points) (Goodwin & Witlox,2016, Schulze, 1992).</p>
Housing location	<p>The connection between lifestyle and housing location discussed in the 1970s in Anglo-American urban research (Scheiner& Kasper, 2003). However, this connection has not been analysed yet. Some people are interested to live in a neighborhood which is close by to shopping malls, sports facilities, while some other people are looking for other facilities such as internet access and delivery services(Scheiner& Kasper, 2003,Klee ,2001) .Daily life challenged by this different structure of houses, neighborhood and housing locations (Scheiner& Kasper, 2003; Klee ,2001)</p>
Segregation	<p>Discussion of segregation is come from sociology. Scheiner and kasper (2003) explained that the lifestyle is associated with young elites (Yuppies, Dinks etc.) with specific lifestyle, who effect of urban spaces symbolically and functionally and who influence place of living of other population group by occupying new neighborhoods ("gentrification").</p>

Housing unit	Housing location as a spatial distribution of social groups is about the type, size, and standard of houses. The unequal spatial distribution of housing types effects in the choice of housing location (Scheiner& BKasper, 2003)
activity-based studies	Many of studies based on activity-based travel modeling considered the connection of lifestyle and travel behavior to understand behavioral framework for simulation household travel behavior (e.g., Krizek, 2006; Krizek & Waddell, 2002). Utility maximization principle, which is usually used in transport economics and modeling, does not illuminate human behavior (Talvitie, 1997). Salmon and ben-Akiva (1983) considered daily travel patterns within a hierarchical decision structure, ranges from a short-term decision on daily activities and travel to mediate-term decision on vehicle ownership, house and workplace location and long-term decision. Integration of short-term and long-term decisions remain a significant challenge (Salmon &ben-Akiva,1983).

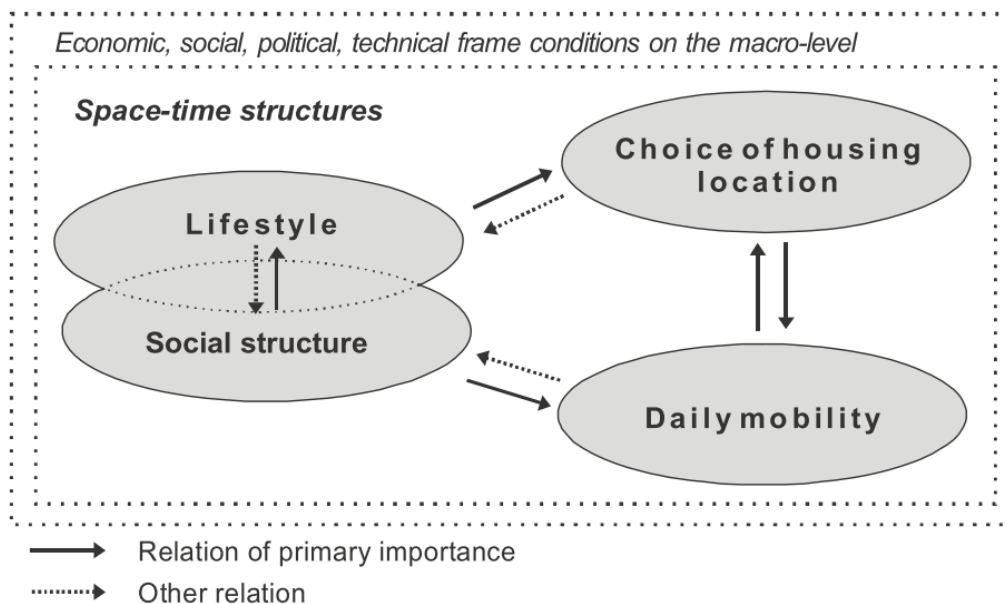


Figure 2: Relation between lifestyle and daily mobility (Scheiner & Kasper, 2003, p:9)

As said before there is a connection between lifestyle, daily mobility and choice of housing location which is shown in figure 2. Lifestyle has a stronger dependence on social status than vice versa. In addition to aesthetic schemes and consumption patterns, mobility depends on household types with their specific time-management and professional biographies and access to transport as well as information and communication technologies. Thus, "chosen" lifestyles are affected by structural frame conditions that might restrict or open further options (Scheiner & Kasper, 2003).

1.1.5 MOBILITY AND LIFESTYLE IN S-HERTOGENBOSCH

The city consists of three areas inner city, the second ring of neighborhoods and suburban areas (outside the ring of highways). Moreover, a fourth is a rural area. Municipality analyzed all these areas differ in use of modes of transport (Figure 3). As it shown in the figure 3, there are four different modes available in s-Hertogenbosch. Bike, Cars, bus and other. This figure shown the different modal choices to travel to the city center according to the location of residents. Binnenstad and muntel are the neighborhoods in the center of S-Hertogenbosch which have the highest amount of cyclist. The highest amount of car users belongs to Vinkle which is a neighborhood in the east part of the city.

According to modal choice and location of residency can determine three mobility behavior . People who live in suburban and use the car as a primary mode of transport. Citizens who live in the second ring of the neighborhood between the suburban and inner city, who commute by different modes due to their distances. Moreover, the last group is people who live in inner city and use bikes more than the other groups.

The municipality surveyed to determine demand of the citizens in s-Hertogenbosch related to their transportation. This survey will be the starting point for mobility planning. They will shift from an overall approach (less car more bike) and have a more geographical approach. It is not realistic to state people will use more bike if they own two or three cars in suburban areas. Also, public transport is a minor issue; especially bus use is low and will not rise. Figure 3 shows the mode choice in different quarters of the city.

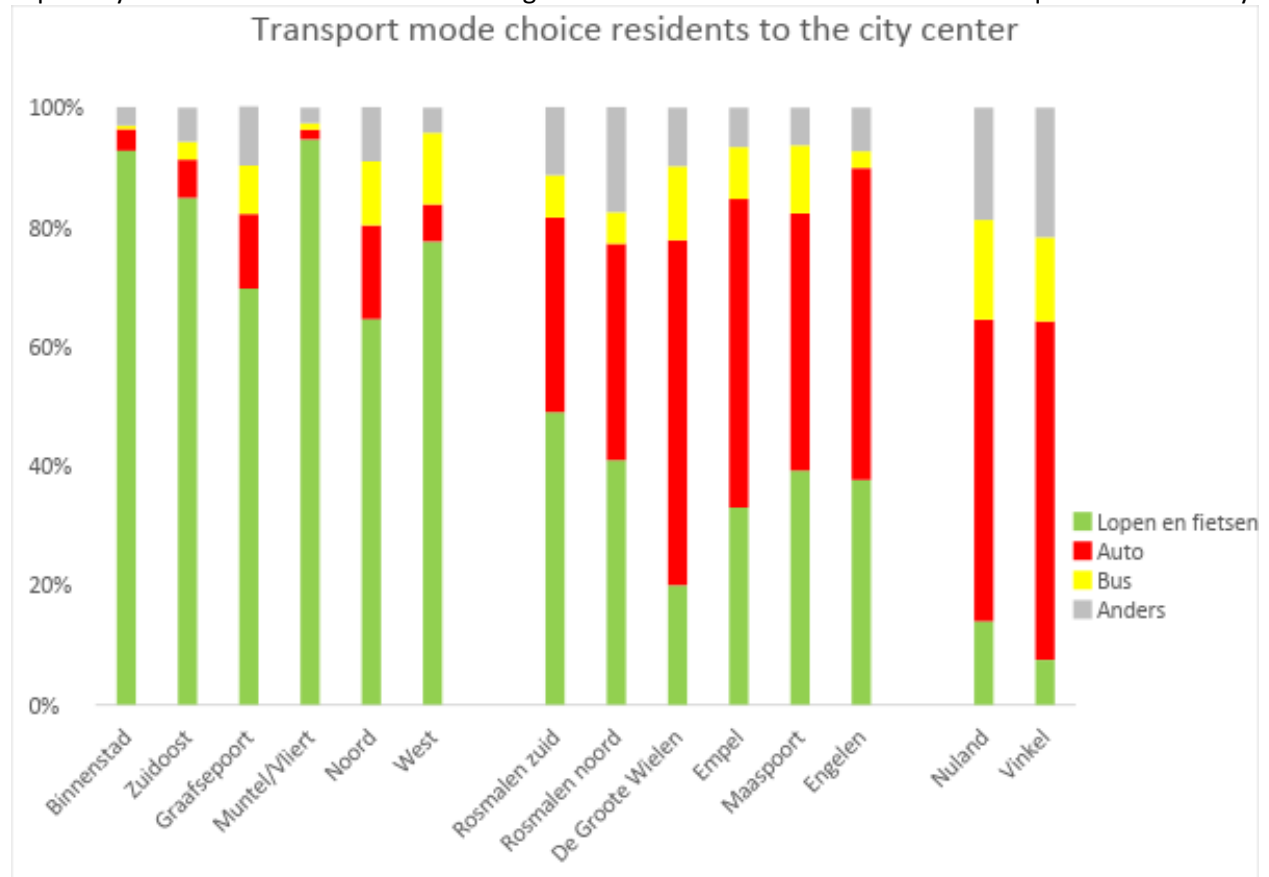


Figure 3: Transport mode choice residents to the city center (Municipality of S-Hertogenbosch, 2018)

1.2 RESEARCH OBJECTIVE

Understanding citizen mobility behaviors and lifestyles in order to implement an appropriate spatial/mobility planning in the s-Hertogenbosch is the main object of this research.

1.3 RESEARCH QUESTION

How different types of lifestyle do influence the mobility behavior of citizens in 's-Hertogenbosch and how do they influence spatial/mobility planning in that city?

In order to address the main research question, the following secondary research questions are formulated:

- A. Which factors are more influence mobility behavior in a city?
- B. What are the mobility behaviors of citizens?
- C. What are different lifestyles in 's-Hertogenbosch?
- D. What is the relationship between mobility behavior and lifestyle in 's-Hertogenbosch?
- E. What is the current spatial/mobility plan in 's-Hertogenbosch?
- F. How can the relationship between mobility behavior and different lifestyles effect on mobility plan in 's-Hertogenbosch?

1.4 RESEARCH FRAMEWORK

This research conducted in various steps (Figure 4). At first step, the literature review will be carried out on the issues of lifestyles, mobility behavior and current spatial/mobility planning in 's-Hertogenbosch. Next stage is using secondary data which is obtained by the municipality of 's-Hertogenbosch. Data has been conducted as a survey which shows mobility preferences per neighborhood. Based on that survey, the significant factors which have highest influence on mobility behavior are determined. Then by clustering quarters, mobility behavior of each quarter are clarified.

To identify lifestyles in the s-Hertogenbosch, WIN model used (TNS NIPO ,2006). This model is a dutch lifestyles model. Municipality of s-Hertogenbosch made reports about characteristic of each quarter, and identify the qualities of each quarter based on indicators such as income, age, quality of neighborhood and education. By comparing the output of this reports with WIN model, lifestyles of each quarter are recognized.

At the end the results of mobility behavior and lifestyles are connected to each other.

At the next phase, three interviewes with stakeholders who involve in mobility planning of 's-Hertogenbosch have been done. The main reasons for the interviews are to know, what the current situation is and how the results of previous steps can effect spatial/mobility plan setting in this city.

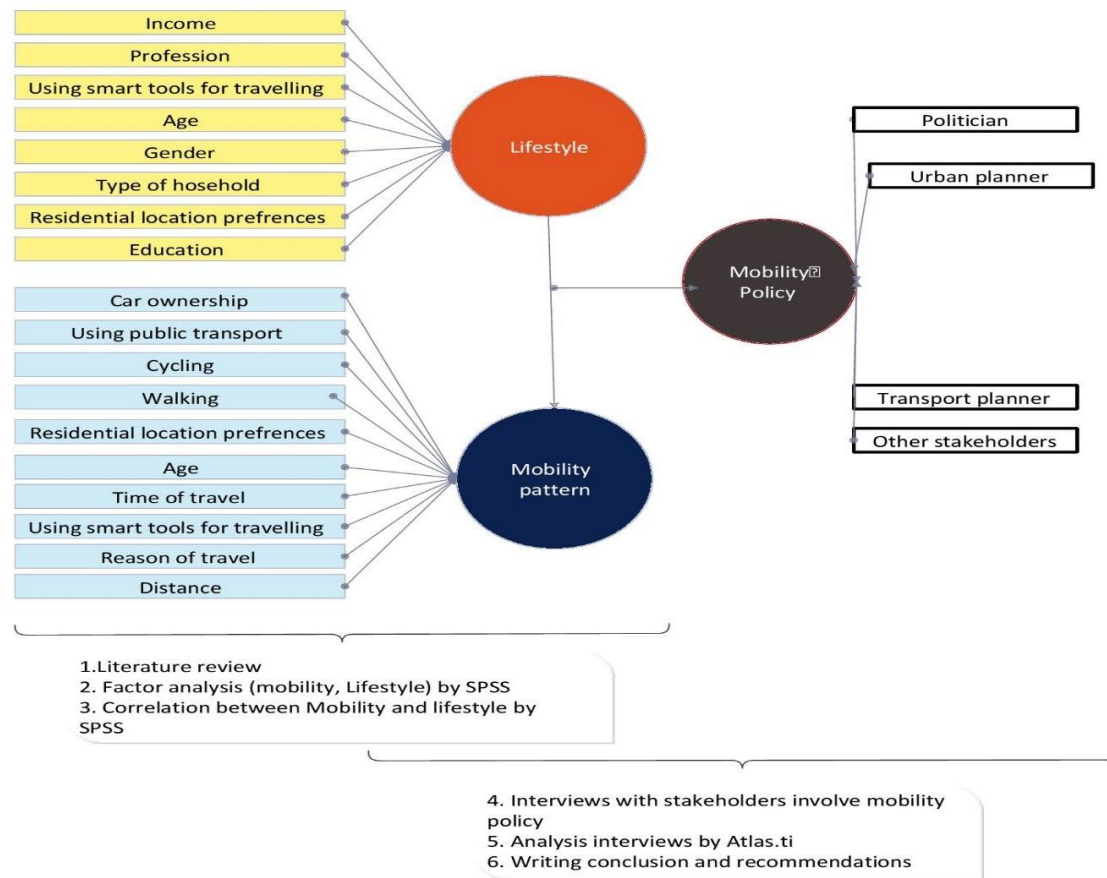


Figure 4: Research framework (Author, 2018)

2. THEORETICAL FRAMEWORK

In this chapter, one theory are explained in details as a theoretical framework of this research.

2.1 STRUCTURATION THEORY

Giddens (1984) explained the structuration as a research method. The fundamental concepts and ideas of the Structuration theory are that human agencies together create structures and the structures again influence the agencies. In other words, it means that they are continually changing, as human agencies also continuously change.

Giddens (1984) proposes that there is a recursive relationship between structure (external forces such as rules, resources, and social systems/macro) and agency (capability to make a difference). In his theory, agency and structures are both important equally.

In order to understand a Giddens theory for this research, six fundamental perceptions must be addressed and defined. Agency, Structure, the Duality of Structure, Institutions, the Dialectic of Control, and Time/Space relations.

2.1.1 AGENCY

Individuals play a critical role in structuration theory. Cloke (1991), mentioned agent as a "knowledgeable and capable subject, in this theory the people know exactly what they want and why. Giddens (1979) believes all acts are "intentional or purposeful," that is why people use a cost-benefit analysis to make a decision. If the benefits of undertaking an action are greater than the costs, the action is undertaken. According to Giddens (1984, p:282), "the knowledgeability of human actors is always bounded on the one hand by the unconscious and on the other by unacknowledged/unintended consequences of action."

In this research agency is s-Hertogenbosch citizens and stakeholders who involve in the planning process. Citizens choose action according to their lifestyles. Actions are about their mobility behavior and modal choices. For example, people who live in a city center prefer to live in a smaller house than people who live in the third ring of the city. Also, Stakeholders choose different dimensions for spatial/mobility planning based on citizens cost and benefit and national policies.

2.1.2 STRUCTURE

Structure is the second factor in Giddens structuration theory, which effects on social change. Giddens (1948), defines structure as, "Rules and resources, recursively implicated in the reproduction of social systems." Structure only exists in memory traces, the organic basis of human knowledgeability, and as instantiated in action" (Giddens, 1984, p:377).

Agents in their actions continuously produce, reproduce, and develop the social structures, which both constrain and enable them. 'All structural properties of social systems.....are the medium and outcome of the contingently accomplished activities of situated actors. The reflexive monitoring of action in situations of co-presence is the main anchoring feature of social integration' (Giddens ,1984 ,p:191).

2.1.3 DUALITY OF STRUCTURE

One of the essential points of Giddens theory is Duality of structure. According to Giddens (1979,p:66), “The theory of structuration involves that of the duality of structure, which relates to the fundamentally recursive character of social life, and expresses the mutual dependence of structure and agency”. Also, he mentions that rules and resources are drawn upon by actors in the production of interaction, but are thereby also reconstituted through such interaction” (Giddens, 1979, p:147).

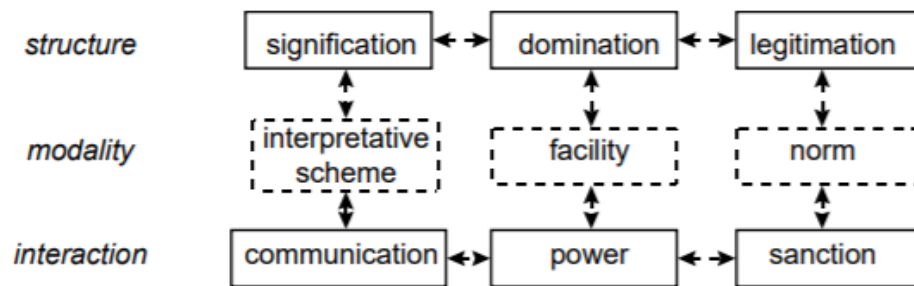


Figure 5: Dimensions of the duality of structure (Giddens, 1984, p:29)

Social structure and human interaction are divided into three dimensions. Thus, as human actors communicate, they draw on informative schemes to help make sense of interactions; and those interactions reproduce and modify those interpretative schemes, which are implanted in social structure as meaning. Likewise, the facility to deal with resources is enacted in the wielding of power and produces and reproduces social structures of domination, and moral codes (norms) help define what can be sanctioned in human interaction, which iteratively produces structures of legitimation (Rose & Scheepers, 2001).

For example, in a city, citizens cooperate with other stakeholders in order to develop an spatial/mobility city plan. In this case it refers to the two main features of Dutch planning which are integrated planning and active role of local in the decision-making process.

2.1.4 DIALECTIC OF CONTROL

According to Giddens, “all social actors, no matter how lowly, have some degree of penetration of the social forms which oppress them” (Giddens, 1984: 72). In this theory, all actors have their own power. If one agent has no power then becomes a ceases” (Giddens, 1984: 149). For example, in the mobility planning process, there are different stakeholders such as political parties; municipality, citizens and private sectors are playing role. In order to understand the influence of agents, it is necessary to understand the resources available to them.

2.1.5 INSTITUTIONS

Giddens categorizes four types of societal institutions. Each of them is influenced by signification, domination, and legitimation (Giddens, 1984: 107). The four types of institutions are (Giddens, 1984: 107):

1. Symbolic orders/modes of discourse
2. Political Institutions
3. Economic Institutions
4. Law/Modes of Sanction

In this study, all of them can find in an organization part.

2.1.6 TIME/SPACE RELATIONS

Giddens emphasizes in his social theory that time and space are important influences on the structure of society. Giddens has prominently declared that one of the main faults with the social theory is its lack of concern with issues related to the history and place-specific characteristics of a location. According to Giddens, this concentration on time-space intersections is a “fundamental theme” of his theory (Giddens, 1984: 54).

All social activities are positioned in three key relationships. Giddens (1984,p:54) refer to these as “three intersecting moments of difference”. Giddens sees the social activity as always being constituted in these three moments. The moments are (Giddens, 1984,p:54).

1. Temporally
2. Paradigmatically (invoking structure which is present only at its instantiation)
3. Spatially.

Each of these relations is important to understanding social changes. The history and geography of a region are essential to understanding social changes as they are strong influences on the range of actions available to agents. This emphasis on time and space relations is one of Giddens most significant contributions to social theory.

2.2 APPLICATION OF STRUCTURATION THEORY FRAMEWORK FOR ANALYSIS

First, structuration theory can help to determine how people interact in a society and involves in planning process of a city. Recent studies have shown the importance of the citizen involvement into the planning process for example Armstrong (2013), explained that the involvement of citizen can be in an extensive range of policymaking activities, including the determination of level of service, budget priorities in order to orientate government policy and planning toward citizen’s demands and build public support.

Second, Giddens’ theory can help to understand if and why people behave differently (e.g., different modal choice and lifestyles). Structuration theory admits that human behavior is forced and enabled by social structures, at the same time it highlights the power of the individual to ‘act differently’.^{REF} The meaning of this is that individuals draw on a different structure in similar structures.

Third, this theory can illustrate the gaps between hardware, software, and organization. Organization and hardware in a city have been found their position however software aspects such as cultural issues are not recognized well.

Finally, Giddens' theory mention that social structures are both a medium and outcome of human behavior (Giddens, 1984).

The aim of this thesis presented in the previous chapter with the general structuration theory: How different types of lifestyle do influence the mobility behavior of citizens in 's-Hertogenbosch and how do they affect spatial/mobility planning in that city? The process of answering the main research question has been divided into three steps. First, the mobility behaviors of the citizen are recognized. In the second step, lifestyles of each quarter of city are clarified. Finally, the current spatial/mobility plan of the city is explained, and effects of the first two steps on spatial and mobility planning of the city are recognized. To apply Giddens' theory in this study, the framework explained below can help to understand the structure of the society and planning system in this city.

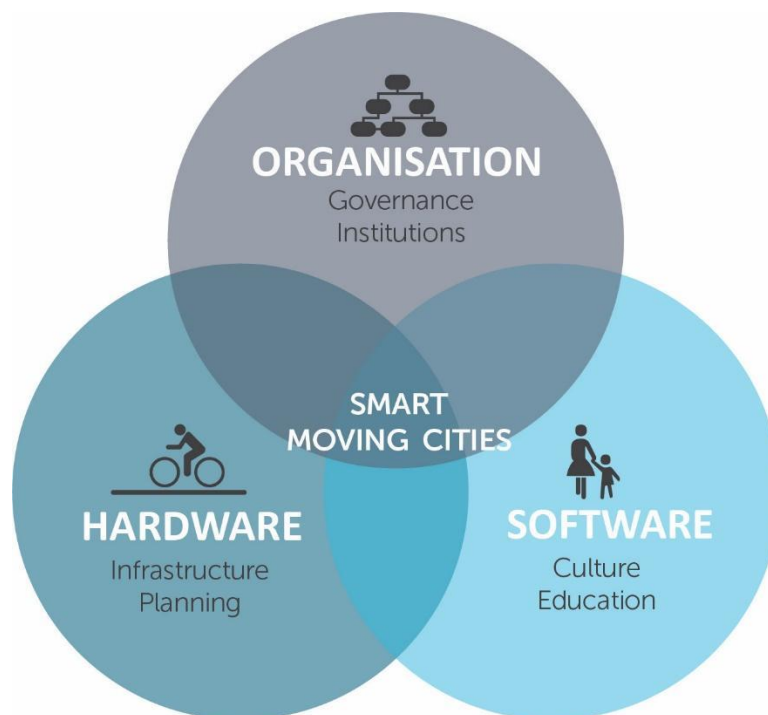


Figure 6: City planning structure (Source: MOVE Mobility,2016)

This framework constitutes three main pillars: Organization, Hardware, and Software.

In this framework, hardware is mainly about infrastructures of a city, which refers to available transportation modes such as train, bus, bike ,and car. Also, software refers to the cultural aspects which here include lifestyles and mobility behavior of the citizen.

Organization refers to the government and institutions which are involved in planning processes. According to Giddens' theory, the organization relates to agencies and structures. Each city has the specific policies, plans and, resources that influence the social changes. In this research, the structure can refer to the planning process because it involves different stakeholders from citizens to politicians. Structure of the urban planning in the Netherlands are shown in the figure below(https://www.mlit.go.jp/kokudokeikaku/international/spw/general/netherlands/index_e.html,2015)

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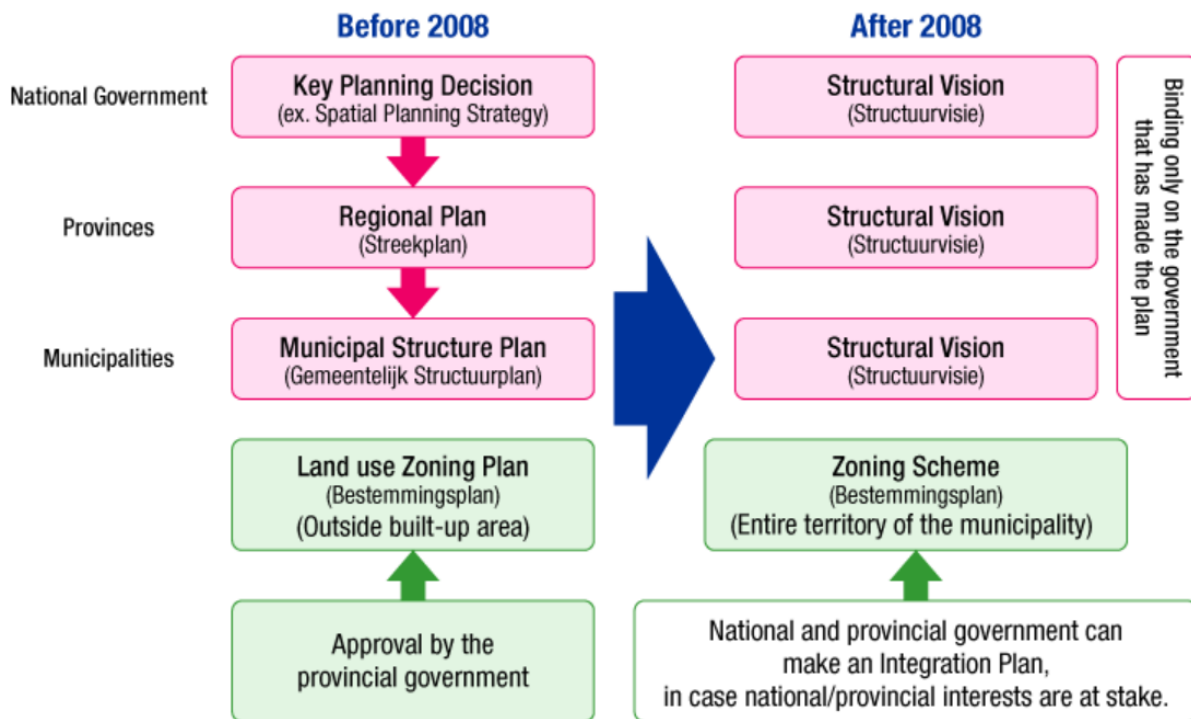


Figure 7: planning structure in the Netherlands (https://www.mlit.go.jp/kokudokeikaku/international/spw/general/netherlands/index_e.html,2015)

3. METHODOLOGY

The following chapter explains what research methods and analyzing process used in this research. First research strategies elaborated. Second, the data gathering and analyzing process discussed.

3.1 RESEARCH STRATEGY

This research is started with the interest in mobility behavior. Looking into mobility behavior the emergence of social demographics and characteristics were found which are related to lifestyle. Lifestyle affects mobility behavior and is affected by mobility behavior. Both concepts are comprehensive topics, which first of all a case study needed to be chosen to be able to get valid and in-depth insights on the subject. Beside that, to make it practical is necessary to know how this understanding can affect one mobility plan.

The topic of the role of lifestyle and mobility behavior in influencing spatial/mobility planning in is quite broad and studying the relationship of mobility behavior and lifestyle is new, so it is quite challenging to narrow down the research scope to exact boundaries. One of the approaches that are frequently used to define boundaries is the case study (Creswell, 2013) which is used in this study, too. The case study delves into a case or several cases within a real-life contemporary context or setting (Creswell, 2013). S-Hertogenbosch has been chosen due to the availability of empirical data for lifestyles as well as a dataset derived from a survey conducted by the municipality concerning the mobility behaviors of inhabitants of this city. To obtain the necessary data, a combined research strategy was used: both an empirical quantitative and qualitative approach were used. Nevertheless, the quantitative approach has been the primary strategy, and the qualitative approach has been fellow to this. To get the necessary data, used a survey-research since this approach makes it easy to get a lot of data on a specific case. Beside that interviews are done with some experts from municipality to find out how lifestyle can affect on mobility plan in this city.

The first advantage is that the case study (1) provides a complete or integral overview of the object of research. Here, the case study deviates from the experiment and the survey. With these methods, insights of aspects are generated instead of a complete picture. Furthermore, (2) the case study needs less structure than other research methods which makes the case study more flexible and is it more accessible to change directions during the research, if necessary. The last advantage of the case study (3) is that the results are more often accepted by 'the field.' This is because the researcher is less detached during the execution of the research than during the process of other types of research. Therefore results do have a universal character as mentioned in the first advantage of the case study. However, the case study does also know some disadvantages in comparison with other research methods. Due to the lower number of research cases, the external validity is affected; it is more challenging to administer the results to the universal issue or cases (Doorewaard & Verschuren, 2007).

3.1.1 MOBILITY BEHAVIOR AND LIFESTYLES

To answer the main research question, three phases are defined. The first phase is related to recognizing mobility behavior and the second phase is about clarifying lifestyles and the last phase is about the effect

of the two previous phases on mobility plan in this city. Each phase has different steps included qualitative and quantitative methods

First phase:

This phase aims to understand mobility behavior of inhabitants. So dataset derived from a survey conducted by the municipality concerning the mobility behavior of inhabitants were used in this phase (see chapter 4.3). This survey included three types of questions. First, questions are about the transportation modes satisfaction in the city. Second, there are some questions about "how people travel around the city," vehicle ownership and modal choices, and in the end, questions are related to future demands. One of the main question in this survey is "how people go to the inner city."

In the first step, to find indicators which influence "how people go to the inner city." correlation has been done by using SPSS as a statistical analysis tool.

In the second step, according to Berkus et al. (2011), multiple regression is used to assess the relative influence of many independent (predicting) variables when they are used to predict a dependent variable which in the study is "How people go to the inner city?," multiple regressions have been done by using SPSS as a statistical tool. Results of two first steps are used to analysis current spatial/mobility planning of the city.

In the third step to clarify mobility behaviors in a city, all quarters are clustered. To do this, k-means clustering done by SPSS .Cluster analysis is a collective term for several methods of discovering or delineating naturally occurring groups in data sets. It is by its nature a multivariate analysis used in an extensive range of claims, from business and social sciences to the physical sciences and engineering (Kaufman & Rouseeuw, 2005; Romesburg, 2004). Beyond merely classifying observations into original sets, cluster analysis has also been applied as a method to create scientific questions and hypotheses or, under the right circumstances, test such hypotheses (Romesburg, 2004). For this research, this tool used to identify similarities and to group the quarters of the city regarding mobility behavior and lifestyle.

There are in fact two steps to the cluster method that must be assumed before results can be analyzed: (a) determining the greatest, or number of groupings inherent in the data and (b) carrying out the cluster analysis itself to assign each observation to its best-fit group. The results of both of these steps are described.

Second phase:

In this phase first, the Dutch lifestyles model is explained in the details. This model is based on the Environmental Conduct Monitor (MGM) of Ministry of Housing, Spatial Planning and the Environment)VROM(as cited in Bartels, 1999). Many socio-demographic and economic data and values are known from this group. This model defined Dutch lifestyles in eight different types (TNS NIPO ,2006). Then according to the District and Neighborhood Monitor 2016 reports which are conducted by the municipality of the city and some other statistical data such as types of households and age characteristics of each quartes

are recognized. To be able to compare WIN model and empirical data for the understanding of lifestyles in each quarter, two tables conducted. The indicators of WIN model are translated according to indicators of District and Neighborhood Monitor 2016 reports.

Third phase:

This phase is included only qualitative methods. To be able to understand the effect of mobility behavior and lifestyles on spatial/mobility planning in S-Hertogenbosch, first the spatial/mobility planning are explained. Then three in-depth interviews have been done with experts of the municipality (mobility planners and policymaker). The main goal of these interviews is finding the effect of the relationship between lifestyles and mobility behavior on mobility plan of S-Hertogenbosch.

4. THE CASE STUDY: S-HERTOGENBOSCH

4.1 INTRODUCTION:

This chapter includes four subchapters: Mobility behavior in the city, lifestyles of inhabitants, the relationship between mobility behavior and lifestyles and mobility planning of the city.

First, subchapter is about understanding the citizen mobility behavior. The municipality of s-Hertogenbosch did a survey related to mobility of inhabitants (Municipality, 2018). In this survey, they gathered information about the number of trips made by different modes such as the car, bike, train and bus to city center and within neighborhoods, satisfaction of each mode (car, bike, train, and bus), age, future expectation and road safety. Recognizing mobility behavior has two phases. In the first phase, the correlation between variables is estimated by using a software which is SPSS. Then variables that have high correlation with “how people go to the inner city?” choose. In the second step, regression done by using SPSS to find out the variables with high effectiveness on people commuting to the inner city. In the second phase, to recognize mobility behaviors of each quarter, K-means clustering has been done by using SPSS.

The second subchapter is about identifying the lifestyles of each quarter. In the first part, characteristics of each quarter and neighborhood of s-Hertogenbosch have been explained. All data are given directly from the municipality of s-Hertogenbosch. The municipality provides insight into the current situation of the quarters and neighborhoods. (Municipality s-Hertogenbosch, 2018). The combination of the empirical and statistical data gives a clear picture about characteristics and social demography of each quarter. There is one lifestyles model is available in the Netherlands, which is called WIN model (TNS NIPO, 2006), by comparing empirical and statistical data with WIN model, lifestyles of quarters are recognized.

4.2 ‘s-Hertogenbosch

S-Hertogenbosch is the capital of the province of North Brabant in the south of the Netherlands (Map 1). According to municipality report (ADD), the population of the city was 152.471 until 2016(Kerncijfers, 2017). The municipality has 14 districts. For the municipality, it is more accessible to think of homes, businesses and sports fields by dividing city to smaller scales (Map 2)The municipal council establishes

one or more spatial plans (zoning plans) for the entire territory of the municipality. A zoning plan contains the rules for using and building an area (Kerncijfers, 2017).



Map 1: The Netherlands provinces (Kerncijfers, 2017, p:9)



Map 2: Neighborhood of 's-Hertogenbosch(Kerncijfers, 2017, p:10)

4.2 MOBILITY BEHAVIOR IN S-HERTOGENBOSCH:

This subchapter has three steps. All these steps are done by quantitative methods and by using SPSS software to do the analysis. In the first step, to identify the strength of the relationship between “How people go to the inner city” (Variable A10) and other variables, correlation done by SPSS. By finding variables which strongly correlated with variable A10, multiple regressions have been done. Results of multiple regressions shown how the variables effects on people commuting to the inner city of s-Hertogenbosch. The correlation and multiple regressions results are essential for analyzing the current city plan. In the next steps, mobility behavior of inhabitants based on quarters of the city are recognized. To recognizing mobility behavior, K-means clustering had been done by using SPSS software.4.2.1 Correlation between variables

4.2.1 CORRELATION

Correlation has been done to quantify the strength of the relationship between “How people go to the inner city” and other variables. The focus of this part is to understand the correlation between “how people go to the inner city” (Variable A10) and other variables. This question chose as a dependent variable because, among the survey question, this one is the best question which observed the citizen movement to the city center. Answers to this question can give a bigger picture of people’s mobility behavior since the inner city is one of the most important destinations in Dutch cities (Burgers and Musterd, 2008). Results of this part are used to analyze the current spatial planning in this city.

To analyze this table (Table 3: correlation between variable A10 and another variable), first, it should look at the printouts indicate that shows the strength of association between the variables. For example, between A10 and A1.1, r is positive, and the amount of r is 0.1, and that the correlation coefficient is very highly significantly different from zero ($P < 0.01$). In these results, the p -values for the correlation between variables are represented by stars, which indicates that the correlation coefficients are significant:

* $P \leq 0.05$

** $P \leq 0.01$

The Pearson's correlation was run to determine the relationship between all variables and “How people go to the inner city.”

The results of satisfaction part, show that there is a powerful, positive correlation between “train satisfaction” and “How people go to the inner city?” ($r=0.224$, $N=1923$, $P<0.01$) and there is a negative correlation between “Car satisfaction” and “How people go to the inner city?” ($r= -0.73$, $p<0.01$, $N=2507$)

In the second part, modal choices and ownerships are questioned. The most negative correlation is between “How do you usually go to the inner city?” and OV- chip card (bus users)($r=-0.22$, $p<0.01$, $N=2690$). The variable number A10 and “Car ownership” positively correlated ($r=+0.14$, $p<0.01$, $N=336$).

In the third part, results show that “Having OV card within five years” is positively correlated ($r=+0.257$, $p<0.01$, $N=2226$) with variable A10. In addition place of living has positive correlation ($r= +0.36$, $p<0.01$, $N=2697$).

Table 3: Correlation between variables (Author, 2018)

Variables	A10 How do you usually go to the inner city of 's-Hertogenbosch?		
	Pearson Correlation	Sig. (2-tailed)	N
A1.1 Bicycle. (How satisfied are you about the accessibility to and from the municipality of 's-Hertogenbosch?)	.100**	.000	2449
A1.4 Train. (How satisfied are you about the accessibility to and from the municipality of 's-Hertogenbosch?)	.224**	.000	1923
A2.1 on foot. (How satisfied are you about the accessibility within the municipality of 's-Hertogenbosch?)	.195**	.000	2525
A2.2 Bike. (How satisfied are you about the accessibility within the municipality of 's-Hertogenbosch?)	.151**	.000	2486
A2.3 Auto. (How satisfied are you about the accessibility within the municipality of 's-Hertogenbosch?)	-.052*	.011	2438
A3.1 on foot. (How satisfied are you with the accessibility of your own neighborhood?)	.130**	.000	2574
A3.2 Bike. (How satisfied are you with the accessibility of your own neighborhood?)	.094**	.000	2525
A3.3 Auto. (How satisfied are you with the accessibility of your own neighborhood?)	-.073**	.000	2507
A3.4 Bus. (How satisfied are you with the accessibility of your own neighborhood?)	.063**	.004	2056
A5a Bicycle. (What means of transport do you have?)	-.180**	.000	2690
A5h Ov chip card. (What means of transport do you have?)	-.220**	.000	2690
A5j Train route card / season ticket. (What means of transport do you have?)	-.133**	.000	2690
A6 I usually work / study: (Which situation applies to you?)	.110**	.000	2465
A7 With which means of transport do you travel the greatest distance of your journey?	.101**	.000	1619
A8 You still use another means of transport during this trip?	.105**	.000	1610
A9a On foot. (Which means of transport is that?)	-.040	.465	336
A9b Bike. (Which means of transport is that?)	-.160**	.003	336
A9e Car / engine. (Which means of transport is that?)	.142**	.009	336
A11.1 On foot. (I can easily get to the inner city ...) (Do you agree or disagree with the following statements?)	.311**	.000	2221
A11.2 With bicycle / electric bike. (I can easily get to the inner city ...) (Do you agree or disagree with the following statements?)	.254**	.000	2324
A11.4 By car / motorcycle. (I can easily get to the inner city ...) (Do you agree or disagree with the following statements?)	-.105**	.000	2182
A11.5 By bus. (I can easily get to the inner city ...) (Do you agree or disagree with the following statements?)	-.060**	.007	1968
A11.6 By train. (I can easily get to the inner city ...) (Do you agree or disagree with the following statements?)	.120**	.000	1337

A11.7 With the free bus or rental bike from a transferees. (I can easily get to the inner city ...) (Do you agree or disagree with the following statements?)	-.200**	.000	1453
A12.1 Bicycle / electric bicycle. (There are sufficient parking facilities in the city center for the) (Do you agree or disagree with the following statements?)	.196**	.000	2414
A13 Are you missing parking facilities in the city center for the bicycle / moped / scooter?	.105**	.000	1730
A17.1 Bicycle. (Which means of transport do you expect to have within 5 years?)	.237**	.000	2328
A17.4 Electric moped / scooter. (Which means of transport do you expect to have within 5 years?)	.063**	.006	1930
A17.6 Electric cars (hybrid or fully electric). (Which means of transport do you expect to have within 5 years?)	.125**	.000	2069
A17.7 Part car (eg Greenwheels). (Which means of transport do you expect to have within 5 years?)	.180**	.000	1957
A17.9 Electric motor. (Which means of transport do you expect to have within 5 years?)	.104**	.000	1950
A17.10 OV chip card. (Which means of transport do you expect to have within 5 years?)	.257**	.000	2226
A17.11 Bus route card / season ticket. (Which means of transport do you expect to have within 5 years?)	.092**	.000	1978
A17.12 Train route card / season ticket. (Which means of transport do you expect to have within 5 years?)	.217**	.000	1998
A17.13 Other means of transport, namely (open question) (Which means of transport do you expect to have within 5 years?)	-.088**	.004	1069
A18.1 The municipality must reserve more parking spaces for charging electric cars. (Do you agree or disagree with the following statements?)	.140**	.000	2633
A18.2 The municipality must provide more space for shared cars. (Do you agree or disagree with the following statements?)	.160**	.000	2590
A18.3 The municipality must encourage the use of electric bicycles. (Do you agree or disagree with the following statements?)	.070**	.000	2617
Age group	.112**	.000	2652
Quarters	.360**	.000	2697

4.2.2 REGRESSION

Regression analysis provides comprehensive insight into the relationship between a set of independent variables and the dependent variable which is “how people go to the inner city.” Results of the regression are used to analyze the current spatial planning in this city. The tables below provide the data needed to perform the multiple regression analysis.

In the first model, the variables which significantly correlated with variable A10 are chosen (see table 3) to do the regression.

Table 4: Modal Summary (Author, 2018)

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.454 ^a	.346	.194	1.382

The value given under the heading R square determine 34% of the variance in the dependent variable is explained by this model (Table 4).

Table of Coefficients (Table 5) shown which of these variables are more important to citizens traveling to the inner city. "Share cars" has the most negative impact on it. B coefficient explained how many units the criterion changes for one-unit increase/decrease on a predictor (How people go to the inner city?). A regression equation results from the below presented:

$Y = 1.89 + 0.114 (\text{Train satisfaction}) + 0.172 (\text{Pedestrian satisfaction}) + 0.152 (\text{Bike satisfaction}) - 0.131 (\text{Car satisfaction}) - 0.345 (\text{Bike users}) - 0.437 (\text{Electric bike users}) - 0.903 (\text{Share car users}) - 0.173 (\text{OV chip card}) + 0.420 (\text{Train users}) + 0.906 (\text{other vehicle}) + 0.122 (\text{place of living})$

Table 5: Coefficients (Author,2018)

Model	Unstandardized Coefficients		Standard ized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.890	.259		7.286	.000
A1.1 Bicycle. (How satisfied are you about the accessibility to and from the municipality of 's-Hertogenbosch?)	-.003	.039	-.002	-.084	.933
A1.2 Auto. (How satisfied are you about the accessibility to and from the municipality of 's-Hertogenbosch?)	.023	.049	.013	.465	.642
A1.3 Bus. (How satisfied are you in the municipality of s-Hertogenbosch?)	-.066	.030	-.075	-2.223	.026

A1.4 Train. (How satisfied are you about the accessibility to and from the municipality of 's-Hertogenbosch?)	.114	.030	.104	3.802	.000
A2.1 on foot. (How satisfied are you about the accessibility within the municipality of 's-Hertogenbosch?)	.172	.056	.091	3.049	.002
A2.2 Bike. (How satisfied are you about the accessibility within the municipality of 's-Hertogenbosch?)	.152	.063	.077	2.422	.016
A2.3 Auto. (How satisfied are you about the accessibility within the municipality of 's-Hertogenbosch?)	-.131	.045	-.082	-2.905	.004
A2.4 Bus. (How satisfied are you about the accessibility within the municipality of 's-Hertogenbosch?)	.023	.031	.025	.744	.457
A5a Bicycle. (What means of transport do you have?)	-.345	.133	-.071	-2.592	.010
A5b Electric bike. (What means of transport do you have?)	-.437	.110	-.111	-3.966	.000
A5c Brommer / scooter. (What means of transport do you have?)	.021	.138	.004	.154	.877
A5d Engine. (What means of transport do you have?)	-.065	.166	-.009	-.393	.695
A5e Car (petrol / diesel). (What means of transport do you have?)	.157	.123	.033	1.273	.203
A5f Electric car (hybrid or fully electric). (What means of transport do you have?)	-.033	.173	-.005	-.190	.849
A5g Share car (eg Greenwheels). (What means of transport do you have?)	-.903	.426	-.050	-2.119	.034
A5h Ov chip card. (What means of transport do you have?)	-.173	.079	-.055	-2.189	.029
A5i Bus route card / season ticket. (What means of transport do you have?)	.031	.230	.003	.136	.892
A5j Train route card / season ticket. (What means of transport do you have?)	-.420	.125	-.084	-3.359	.001
A6 I usually work / study: (Which situation applies to you?)	.061	.053	.030	1.142	.254
Age group	.016	.038	.011	.421	.674
District sample file	.122	.010	.298	12.136	.000

In order to test the validity of multiple regression model, it should turn to F test that requires an analysis of the variance identified in the ANOVA table above. From the data in the previous table (Table 6), it can be ascertained that the value of the calculated F is 17.307 for the variance generated by the regression. The critical value of F, at the significance level of 0.00 with 22 degrees of freedom. The values of F shows that this model does not significantly predict the regression among variable A10 and other variables, so this model cannot be a good predictor.

Table 6: Variation analysis - ANOVA (Author,2018)

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	726.858	22	33.039	17.307	.000 ^b
	Residual	2798.581	1466	1.909		
	Total	3525.439	1488			

a. Dependent Variable: A10 How do you usually go to the inner city of 's-Hertogenbosch?

To have a better model, second regression has been done. This time, variables which were not significant

Second Regression

In this case, the coefficient of determination R² is 0.580. In other words, this linear regression explained 58% of the variance in the data. To compare this regression with first one, R² become 24% more in this model.

Table 7: Modal summary of second regression (Author, 2018)

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.433 ^a	.580	.185	1.472



a. Predictors: (Constant), District_sample file, A5a Bicycle. (What means of transport do you have?), A1.3 Bus. (How satisfied are you in the municipality of 's-Hertogenbosch?), A5j Train route card / season ticket. (What means of transport do you have?), A2.1 on foot. (How satisfied are you about the accessibility within the municipality of 's-Hertogenbosch?), A5h Ov chip card. (What means of transport do you have?), A5b Electric bike. (What means of transport do you have?)

b. Dependent Variable: A10 How do you usually go to the inner city of 's-Hertogenbosch?

The value of F is 67 (Table 8), and significant which means that this model is better predictor.

Table 8: ANOVA (Author, 2018)

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1022.176	7	146.025	67.398	.000 ^b
	Residual	4432.874	2046	2.167		
	Total	5455.050	2053			

a. Dependent Variable: A10 How do you usually go to the inner city of 's-Hertogenbosch?

b. Predictors: (Constant), District_sample file, A5a Bicycle. (What means of transport do you have?), A1.3 Bus. (How satisfied are you in the municipality of 's-Hertogenbosch?), A5j Train route card / season ticket. (What means of transport do you have?), A2.1 on foot. (How satisfied are you about the accessibility within the municipality of 's-Hertogenbosch?), A5h Ov chip card. (What means of transport do you have?), A5b Electric bike. (What means of transport do you have?)

A new regression equation results from the above presented (Table 9):

$Y = 2.429 - 0.52(\text{Bus satisfaction}) + 0.113 (\text{Train Satisfaction}) + 0.187(\text{Pedestrian satisfaction}) - 0.482 (\text{bike ownership}) - 0.488 (\text{E-bike ownership}) - 0.307 (\text{OV-chip card}) - 0.371 (\text{Train card}) + 0.126 (\text{Place of living})$

Table 9: Coefficients (Author,2018)

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.429	.174		13.964	.000
	A1.3 Bus. (How satisfied are you in the municipality of 's-Hertogenbosch?)	-.052	.022	-.056	-2.350	.019
	A1.4 Train. (How satisfied are you about the accessibility to and from the municipality of 's-Hertogenbosch?)	.113	.029	.100	3.911	.000
	A2.1 on foot. (How satisfied are you about the accessibility within the municipality of 's-Hertogenbosch?)	.187	.044	.095	4.205	.000
	A5a Bicycle. (What means of transport do you have?)	-.482	.119	-.101	-4.033	.000
	A5b Electric bike. (What means of transport do you have?)	-.488	.101	-.120	-4.827	.000
	A5h Ov chip card. (What means of transport do you have?)	-.307	.076	-.094	-4.063	.000
	A5j Train route card / season ticket. (What means of transport do you have?)	-.371	.109	-.075	-3.387	.001
	District_sample file	.126	.010	.296	13.023	.000

a. Dependent Variable: A10 How do you usually go to the inner city of 's-Hertogenbosch?

Results:

In the first regression, the model with 14 variables was not a significant predictor. For this reason, a new regression elaborated. Eight indicators namely "Bus satisfaction", "Train satisfaction," "pedestrian satisfaction", "bike ownership", "E-bike ownership", "having OV card", "having train card" and "place of living" are significant predictors for the dependent variable, namely "how people go to the inner city."

4.2.4 CLUSTERING

To recognize mobility behaviors in the city, it needed to classify the outputs of the survey. The k-means clustering has been used as a statical method for categorizing the outputs of that survey.

To find out the best number of clusters, several K-means clustering done. (See Appendix C) by comparing the outputs of them and based on the first interview with policymaker in the municipality of s-Hertogenbosch regards to the modal choices among quarters, this model with 5 clusters are chosen as the best way to group the quarters.

Iteration history illustrated the process of the clustering. In early stages, cluster centers shift a lot. In the end, they have settled down to the general area of their final location.

Table 10: Iteration history (Author, 2018)

Iteration History ^a					
Iteration	Change in Cluster Centers				
	1	2	3	4	5
1	856.900	600.833	.000	645.103	724.752
2	356.935	.000	.000	.000	234.892
3	.000	.000	.000	.000	.000

Table 11 (Author,2018) Provide cluster membership of each quarters.

Table11: Cluster Membership (Author,2018)

Cluster Membership		
Case Number	Placename	Cluster
1	01 Binne	1
2	02 Zuido	1
3	03 Graaf	1
4	04 Munte	2
5	05 Rosma	2
6	06 Rosma	2
7	07 De Gr	2
8	08 Empel	2
9	09 Noord	4
10	10 Maasp	4
11	11 West	5
12	12 Engel	3
13	13 Nulan	3
14	14 Vinke	3

This table (Table 12) shows the Euclidean distances between the final cluster centers. Greater distances between clusters correspond to greater dissimilarities. Comparison between clusters to identify similarities and dissimilarities are identified below.

Table 12: Distances between final cluster centers (Author,2018)

Distances between Final Cluster Centers					
Cluster	1	2	3	4	5
1		2125.532	2813.293	3194.876	1808.899
2	2125.532		1877.882	4802.125	3216.871
3	2813.293	1877.882		5945.375	4423.127
4	3194.876	4802.125	5945.375		1644.631
5	1808.899	3216.871	4423.127	1644.631	

This comparison is based on of modal choices, the satisfaction of different modes and future demands. Table 13 provide the similarities and differences. In the end, some notable figures are presented to give an in-depth understanding of each mobility behavior. All statistics below provided by the author based on the survey result which is done by the municipality in 2018.

Cluster one / pattern one (Bike users):

This cluster included three quarters. Binnenstad, Zuidoost, Graaf. All of them are located in the center of the city. Most of the inhabitants are going to the inner city by bike except Binnenstad, which has the highest number of people who walk to the inner city. In the future, they expect normal bikes as a primary mode of transportation. This cluster is bike-users.

Cluster two / pattern two (Moderate users of all transportation modes):

This cluster included five quarters, Rosmalen Zuid, Rosmalen Noord, De Groote, Emple, and Munte. These are located out of the inner city in the first ring. Most of the residences have bikes, but only 40% of them go to the inner city by bike. More than 80% expect bike and 65 % expect car within five years. Half of the inhabitants go to the inner city by car. Only 7% of them go to the inner city by bus. This cluster is moderate.

Cluster three /pattern three (Car oriented):

This cluster included three quarters. Engelen, Nuland, and Vinkel. They were three villages, which attached to the city. This cluster has the highest amount of car users (93% of inhabitants). They expect the car as a primary mode of travel within five years, and they have the highest satisfaction of car (more than 85% of inhabitants). They have high dissatisfaction with buses. This cluster is car-oriented.

Cluster four /pattern four(Moderate users of all transportation modes) :















































































Noord and Masspoort are in this cluster. Satisfaction of walking is high. Half of the inhabitants go to the inner city by bike, and 30% of them go to the inner city by car. They use public transport as an average. This cluster uses different modes at the same time so they can be called moderate users.

Cluster five /pattern five (Public transport users):

This cluster has only one quarter, which is West. Only 44% of inhabitants go to the inner city by bike. Car ownership is quite high (89% of inhabitants). Only 6% of inhabitants go to the inner city by car. They expect public transport as a primary mode in the future. They have the highest satisfaction of buses. To compare with other clusters, this cluster has the highest amount of bus users. This cluster is mainly public transport user.

Table number 13 Shown that the number of bike ownership is high between all clusters. Besides, all citizen wants a bike within five years. On another hand, the number of car ownership among the citizens is also high. Using public transportation (Train and bus) in this city is not popular enough.

Table 13: Clustering output (Author, 2018) – based on mobility behavior

Transportation mode/Clusters	Bike users	Moderate users of all modes 1	Car oriented	Moderate users of all modes 2	Public transport users	
	Binnenstad,Zuid, Graaf	Romalen zuid,Romalen Noord,Emple,G roote wielen,Munte	Engelen,Nul and,Vinkel	Noord,Maaspoort	West	High 
						Medium 
						Low 
Bike						
Ownership						
E-bike						
Bike satisfaction						
Bike in future						
Go to inner city						
Car						
Ownership						
E-car/share car						
Future						
Go to inner city						
Bus						
Satisfaction						
Ov-card						
Go to inner city						
Train						
Satisfaction						
Future						
Go to inner city						

Walking						
Satisfaction						
Go to inner city						
Road safety						

Figure 7 present transport modal choices among five mobility behavior in s-Hertogenbosch. Using bike is the same among all mobility behavior except in mobility behavior three (car oriented). As it shown, mobility behavior three has the highest car users , 53% of citizens used cars to go to inner city.

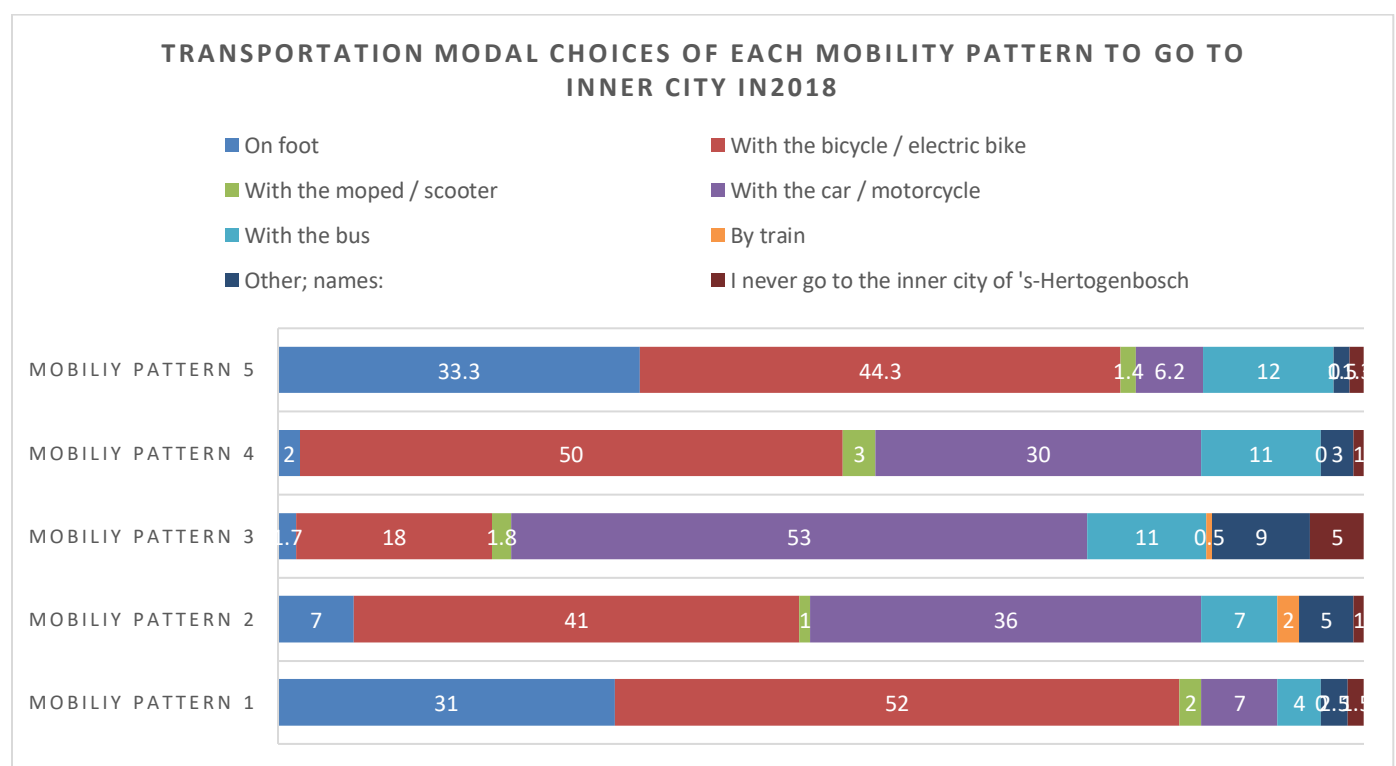


Figure 7: Transportation modal choices of each mobility behavior to go to inner city in 2018 (Author, 2018)

This two figures (Figure 8 & 9) illustrated the bike and E-bike ownership and bike ownership within five years, of each mobility pattern. As it shown, almost all mobility behaviors have the same amount of bike/E-bike ownership. More than 65% of all citizens in this city totally agree about bike ownership as a main transportation mode within 5 years.

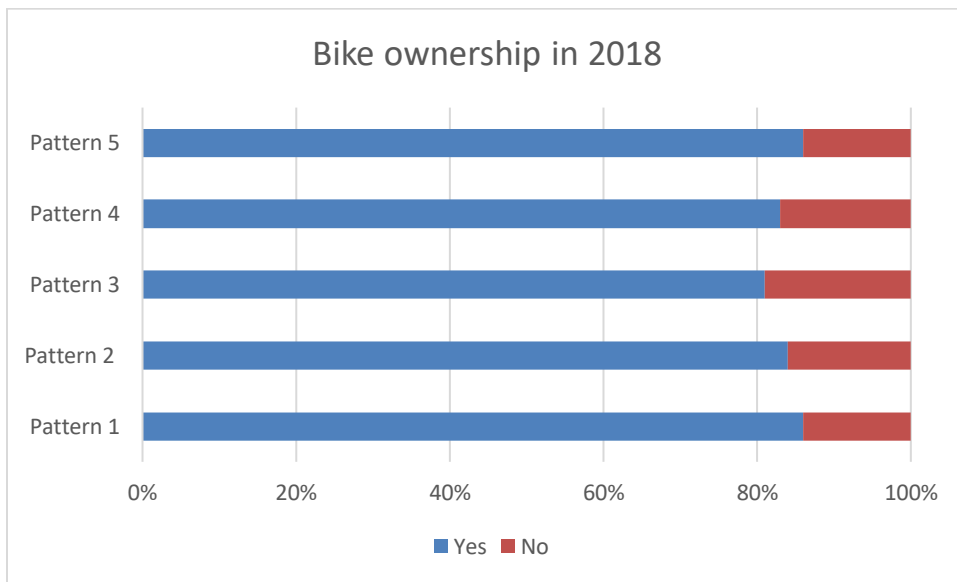


Figure 8: Bike ownership (Author,2018)

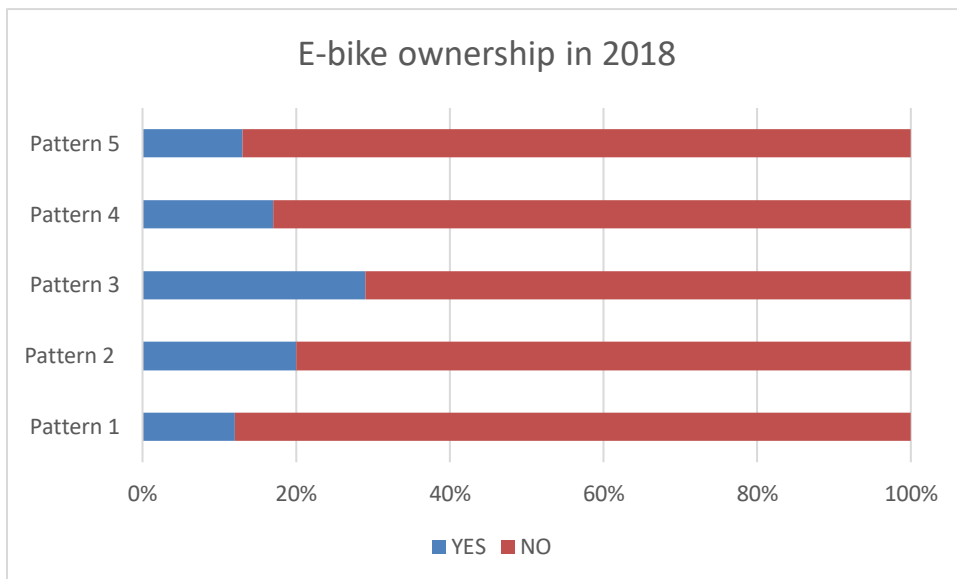


Figure 9: E-bike ownership (Author,2018)

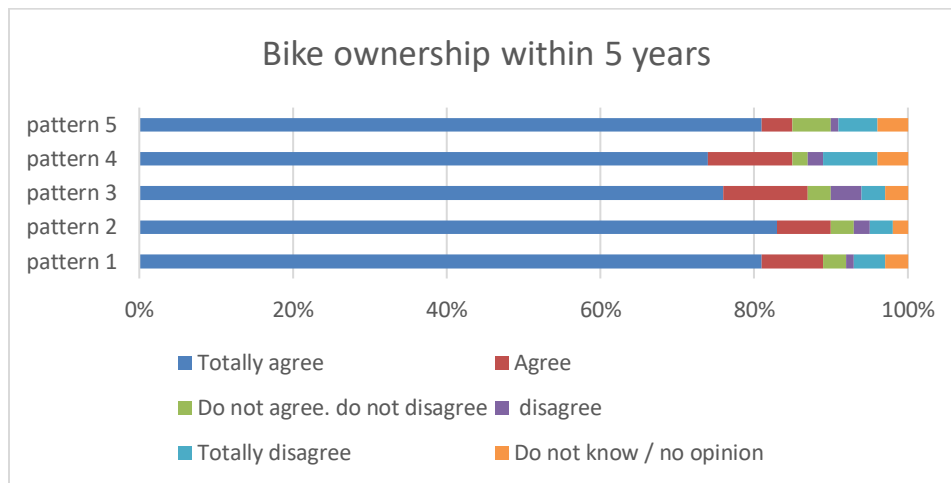


Figure 10 : Bike ownership within 5 years

Figure 11 and 12 provide information about car/E-car ownership in each mobility behaviour. As it illustrated more than 60% of inhabitants have car, while the amount of E-cars in this city is relatively low. As mentioned before only mobility behavior three (car oriented) has the highest number of car users. The amount of E-car among inhabitants is relatively low.

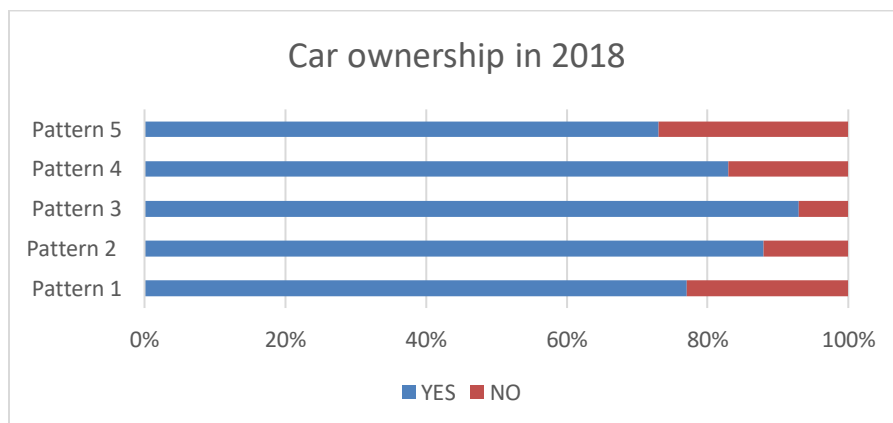


Figure 11: Car ownership (Authore,2018)

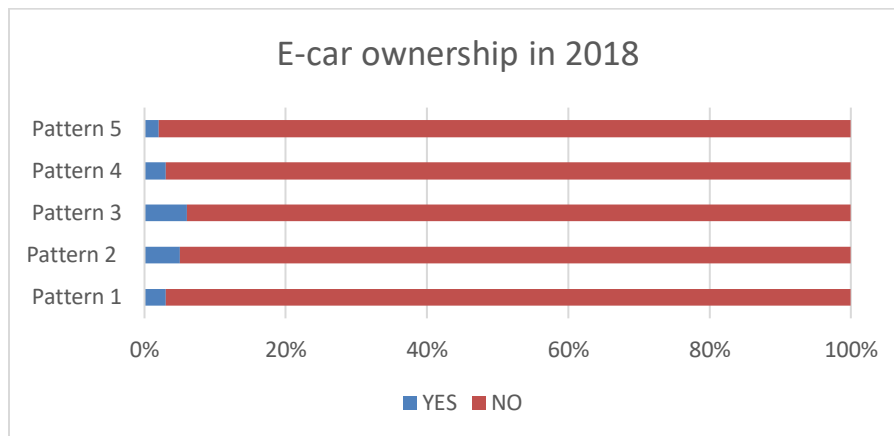


Figure 12: E-car ownership (Author, 2018)

4.2.5 SUMMARY OF RESULTS:

This subchapter provides an understanding of mobility behavior in s-Hertogenbosch. The analysis has been done in three steps. Firstly, the correlation between all variable and variable A10 are done to understand whether and how strongly variables are related to commuting inhabitants to the inner city. There is a strong positive relationship between “Train satisfaction,” “Car ownership,” “Having OV card within five years” and “place of living” and people transportation mode to go to the inner city. Furthermore, there is a strong negative relationship among “Car satisfaction” and “Having OV card.”

The final equation of regression is:

$$Y = 2.429 - 0.52(\text{Bus satisfaction}) + 0.113 (\text{Train Satisfaction}) + 0.187(\text{Pedestrian satisfaction}) - 0.482 (\text{Bike ownership}) - 0.488 (\text{E-bike ownership}) - 0.307 (\text{OV-chip card}) - 0.371 (\text{Train card}) + 0.126 (\text{Place of living})$$

In the final stage, five different mobility behaviors are recognized by k-means clustering. There are “car-oriented”, two different patterns of “moderate user of all transportation modes,” “public transport users” and “bike users.” Each mobility behavior is explained and analysis into the details.

4.3 LIFESTYLES:

This section is divided into four parts. First general explanation about lifestyles of Dutch people is given based on Waarden in the Netherlands (WIN model) (TNS NIPO, 2006). In the Second step current situation of each quarter of the city are explained based on Wijk- en buurtmonitor which is provided by the municipality of s-Hertogenbosch. This report is about current situation and characteristics of each quarters and neighborhoods and provided by studying different aspects of each quarter such as care (social network / health), residential environment (residences / public space / security), residents (diversity / income), living together (front-facing / dealing with each other / Binding), activity (sport / culture / socialize), education (secondary education / basic education). Besides that, other statistical data are available like age, gender, type of households, residential location, income and number of job seekers/immigrants. All data are combined and presented according to quarters. Each quarters information is compared to WIN model to clarify the lifestyles. In the end, five categories of recognized regarding lifestyles in the city.

4.3.1 LIFESTYLES IN THE NETHERLANDS:

There is not one type of citizen or consumer, but different preferences can distinguish different socio-cultural groups. In order to be able to communicate with large groups in society, it is essential for the government to know what opinions, goals, preferences, values and living patterns are of citizens. How they generally spend time, money, knowledge and other scarce resources to realize their benefits and goals. In short how they stand in life. On behalf of the Milieu- en Natuurplanbureau (MNP), TNS NIPO (leading data, insight and consultancy companies) investigated whether a useful segmentation of Dutch people could be constructed based on values. In the research, TNS NIPO used a panel of approximately 1,500 respondents who had participated for 12 years in the Environmental Conduct Monitor (MGM) of Ministry of Housing, Spatial Planning and the Environment)VROM((as cited in Bartels, 1999). Many socio-demographic and economic data and values are known from this group.

Values are prescriptive beliefs about desired behavior and goals, especially if the long term is at stake. Values of individuals appear stable or change only slowly over time (Alberts et al., 2006). They can be arranged in a value system. The segmentation called Waarden in the Netherlands (WIN model) was justified by TNS NIPO (as cited in Hessing and Reuling, 2002) and based on the work of Schwartz and Bilsky (1987).

First, they looked at the segment variables and classes used in the static traffic models National Model System (LMS)/ New Regional Model (NRM)2004. Variables that describe the characteristics of a person are called segment variables. Examples of this are age and type of households. A person segment is a group of people that fall within a combination of predefined classes of segment variables. Segment variables can be included in the model when:

1. They are explanatory for behavior and / or propose a homogeneously influence able group for the policy maker.

2. They can be included or derived from segments in available estimation sources Mobiliteitsonderzoek Nederland (MON), Onderzoek Verplaatsingen in Nederland (OVIN) and possibly additional sources.

3. Sufficient socio-economic and demographic data is available within the study area to be able to apply the found behavioral parameters.

Subsequently, they examined to what extent these segment variables and classes can be applied in the city-triangle model, given the available estimation data (Mobility research Netherlands(MON) / Research Movements in the Netherlands(OVIN)) and socio-economic data for the application. This provides the theoretically maximum achievable segmentation.

This has been translated into the definitive segmentation, in which the available amount of observations in the MON / OVIN, the desired segment variables from the policymaker's perspective are considered. In concrete terms, based on OVIN / MON file 2004-2010, segmentations were constructed per motive group. This was done top-down based on the segmentation description of the LMS/ NRM and the prioritization based on the importance of the segmentation variable.

In the model, the segments lying next to each other in the value space show kinship, whereas different segments can be regarded as opposing poles. A unique feature of the model is that this property not only applies to the values studied, but also to all kinds of other characteristics. Thus, they find the highest educated among the intellectuals and the lowest educated among the family conservatives, the highest incomes among the career makers, the lowest incomes among the caring Christians, et cetera.

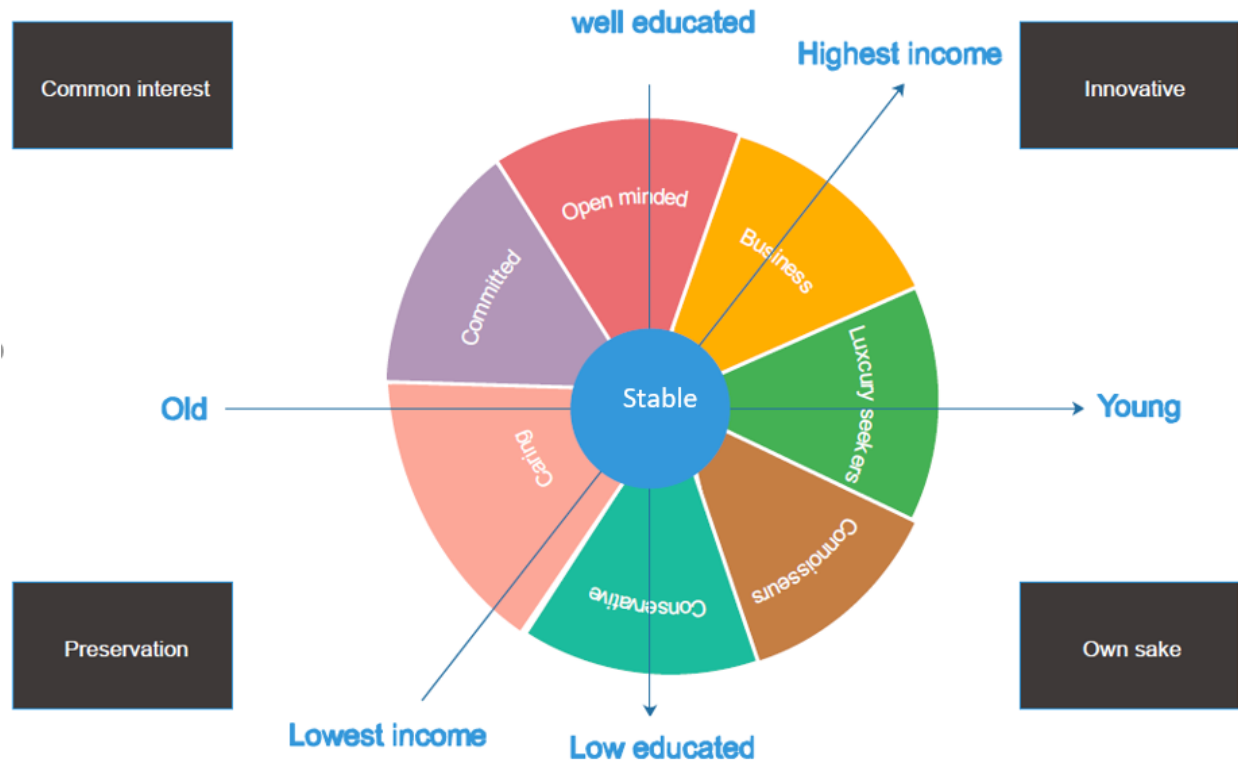


Figure 13: Lifestyles (Aalberts et al., 2006)

1. **1. Business:** They are ambitious and independent person. They focused on their development, and they are one of the highest skilled segments. They are hard worker, fast and creative thinker. They are who strives for challenges. The households in this segment consist of two-income households from the highest income category. They love luxury, trendy products and rare. They are sensitive to technical gadgets. Also, they also donate money to good causes. They are critical person, but very open to new things and other opinions. Watching television more than average, especially news. They are well informed about social issues and politics. Persons from other segments will tend to label this group of people, as 'yuppies.' The key word of this group is Self-determination.
2. **Luxury seekers:** As Luxury seekers, they have high ambitions and strive for success and recognition. Their value a comfortable life, but they do not like sitting still. They are looking for challenges and do not take too close to general (behavioral) rules. In the luxury seekers segment, the least religious persons occur. Their lifestyle is strongly arranged around their own needs, and they are not very concerned with other people's business. Judgment about others has quickly formed them. They are socially interested and get information from both newspapers and television programs. The Luxury Seekers segment comprises the most Veronica and Telegraaf subscribers. They own a lot of modern stuff that likes to show to others. Technological

developments cannot go fast enough. They are sensitive to trends, and they will be one of the first with the latest mobile phone model. The key word of this group is Performance.

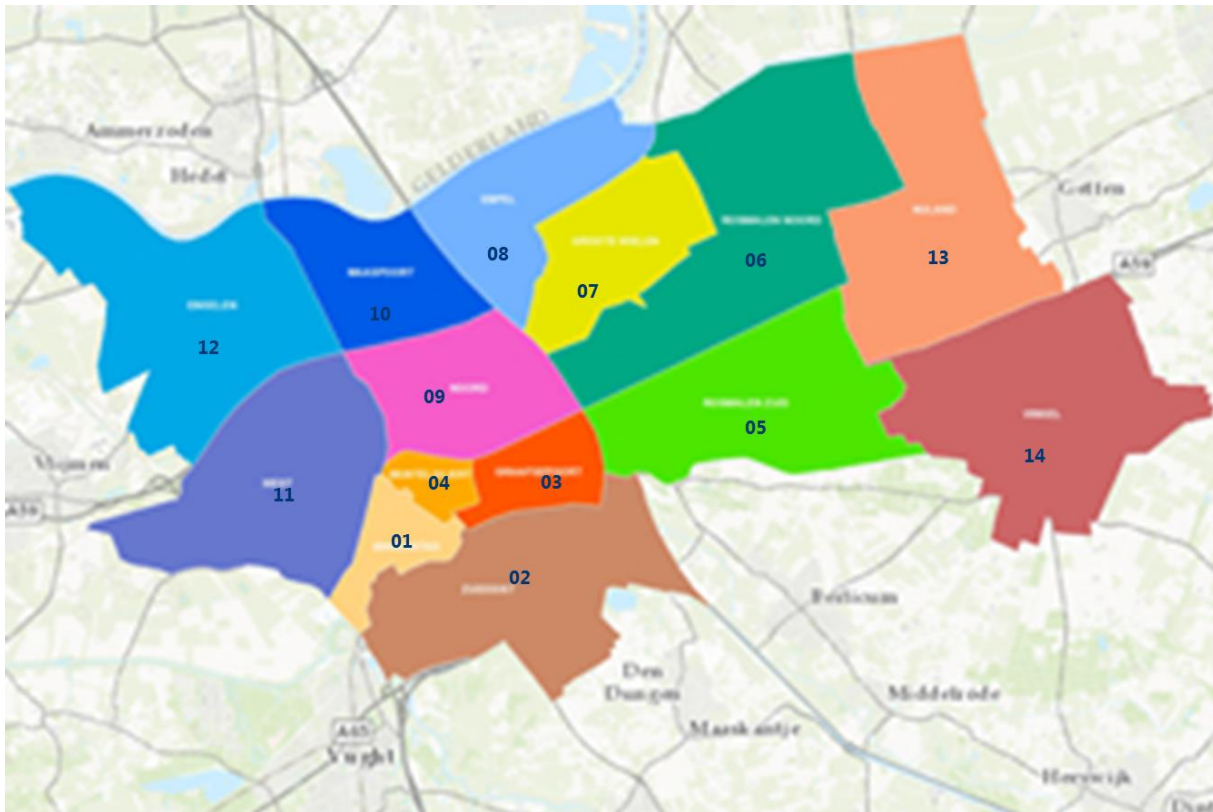
3. **Connoisseurs:** Connoisseurs are a real social animal. They organize their life around their pleasure both physically and emotionally. They are a sportier rather than a creative type. Challenging or risky situations are not avoided; they are looking for some form of excitement and adventure. They are indeed not a worrier and will in some situations even act somewhat lazily or impulsively. They like going out, even in company. Social issues and politics do not interest them very much. In contrast to reading, Connoisseurs watch TV more than average. Especially the commercial channels are their preference. They watch the news. They have an impulsive buying style. They like to spend money on eating outside and fresh, trendy gadgets. The key word of this group is Pleasure.
4. **Conservative:** As conservative, they are mainly focused on their living environment. The security of their own family is above everything, and they undertake a lot with family and friends. They are not a person who likes to stand out, and they do not like it when others do. They try to comply with standards and rules as well as possible, and they prefer not to interfere in dangerous situations and discussions. They cannot be called a long-term planner; rather they act impulsively. They are a tidy person and enjoy casual entertainment. Watching television is something they enjoy doing, where entertainment programs are accessible. Many Conservatives are disappointed in both society and politics and have little to do with it. They are not materialistic, but they do provide some luxurious, modern articles. The key word of this group is Conformism.
5. **Caring:** Careful focus on the welfare of others. They are therefore a socially minded person, who draws energy from helping their loved ones. Their lifestyle is sober, but they are very generous to third parties. They attach great importance to traditions and traditional values, which give them peace and security in life. They do not need much change, and they are modest. They are real companions, who like to make themselves meritorious in the (church) community. They are not very committed to creativity and more of administrative work than of the previous development process. Both reading and watching television are among their daily activities. Caring mainly read a regional newspaper. They are reasonably aware of developments in politics and the social situation. Luxury and modern items do not have priority for them; they prefer to keep goods that they know are working ethically. The key word of this group is Social.
6. **Committed:** As a Committed, they place a high value on harmony and stability, both in society as a whole and in their environment. They are a socially minded person and like to do things in a group. Those who are engaged are right associates. Furthermore, they are kind of person who works thoughtfully and deliberately. When making decisions, they think about the consequences these will have for their environment. They belong to a segment where comparatively older people occur, with a high level of education. They pick up a book rather than watch a television show, and they are interested in art, nature, and politics. They are not materialistic, but they are

interested in beautiful, tasty stuff. New gadgets in the field of technology have absolutely no influence on their buying behavior. The key word of this group is Safety.

7. **Open-minded:** They are a progressive person with a good education. They have many ideas, which are mainly left-oriented. They worry about social problems and try to improve the world, starting with themselves. They are therefore one of the most environmentally conscious group. They are very fond of their freedom, and they love to be able to go their way. They like a varied life with some risks. Self-development is very important to them, and they place high demands on themselves and others. They are open to the world around them and attach great value to the concepts of understanding and depth. They hate prejudices. They read a lot, watching television, especially the public channels. Political and social issues are fundamental to them. They have a flexible attitude and a modern outlook on life. The key word of this group is involved.
8. **Balanced:** As Balanced, they are most like the average of the entire population. Regarding interests, education, spending patterns, ideas and life situation, they fall into precisely the other seven groups. If their answers hover slightly closer to one of the segments, then they seem to be somewhat more than average on that segment. The key word for this group is ordinary.

4.3.2 QUARTERS:

S-Hertogenbosch has 14 different quarters (Map 3: Quarters in S-Hertogenbosch). The District and Neighborhood Monitor 2016 is based on the official neighborhood classification of Statistics Netherlands. According to this classification, the municipality of 's-Hertogenbosch consists of 14 districts. The youngest neighborhoods are Nuland and Vinkel. Due to a municipal reclassification, these have been included since 1 January 2015. The source of this part is District and Neighborhood Monitor 2016 which is provided by the municipality of s-Hertogenbosch. Besides that, the municipality has updated the statistical data of the city such as the number of inhabitants and age. Final data update the reports.



Map 3: Quarters of s-Hertogenbosch (Municipality of S-Hertogenbosch, 2018)

The municipality describes the situation in every district and neighborhood using a figure. This figure consists of three parts (Figure 13: District situation):

1. The middle ring: This middle ring is formed by six themes: residents, living together, active, learning, care and living environment.
2. The outer ring: Each theme consists of two or three aspects. In the outer ring, there are a total of fifteen aspects. For example, the theme of residents consists of the aspects of diversity and income. The aspects are built up again from different indicators. A conscious choice was made for a mix of both 'objective' and 'subjective' data

3. The middle dot: There is one central point. The score is based on the average of the six different themes.

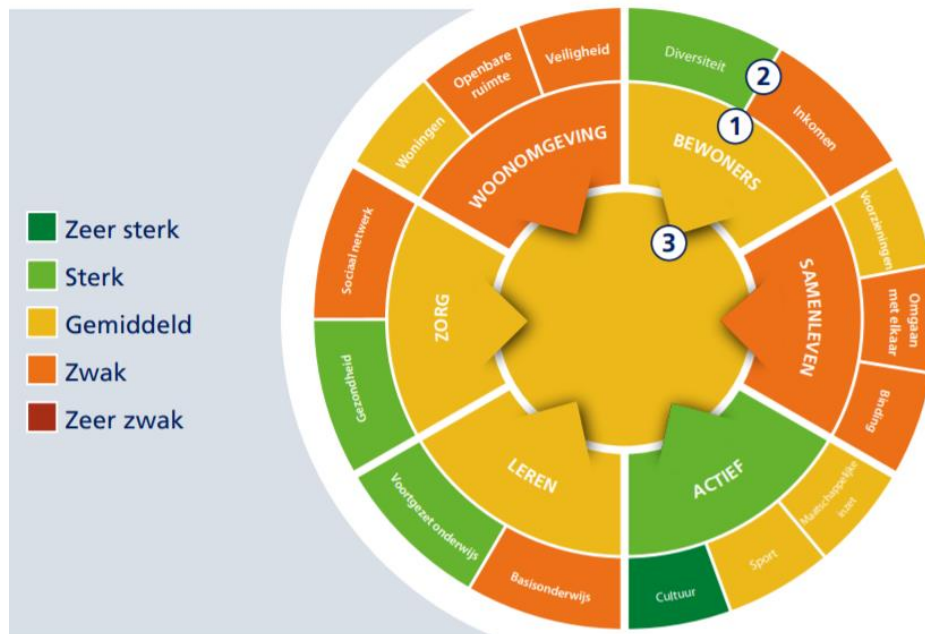


Figure 14: Example of District situation (Municipality of S-Hertogenbosch, 2018)

1. Binnenstad

The inner city of 's-Hertogenbosch is the oldest part of the city. In total, more than 12,840 inhabitants live in the city center. The number of young people who live in this quarter is low. Also, there are slightly fewer non-western immigrants than average and slightly more Western immigrants.

The Binnenstad scores is an "average" on all six themes (Healthcare, learning, activity, living together and residents) of LIVING ENVIRONMENT. Activity gains the most positive among the other themes. Especially on cultural the residents are more active than average. Also on other aspects (diversity of residents, secondary education, and health), the city center scores stronger than average.

The themes of living environment and living together are 'weak.'

Downtown center scores an 'average' in 2016. Tweethema's (active and care) score a 'strong.' Especially the proportion of residents who sometimes visit a cinema, concert or dance/house party is high.

The theme of living environment scores a 'weak.' Residents are particularly dissatisfied with the parking facilities nearby, but they are also less satisfied with public green spaces. Furthermore, it appears that residents experience much social nuisance in the neighborhood. Also, the neighborhood scores relatively poorly on the safety index. The concentration of many people in a relatively small area with diverse functions creates more incidents in the field of nuisance and crime.

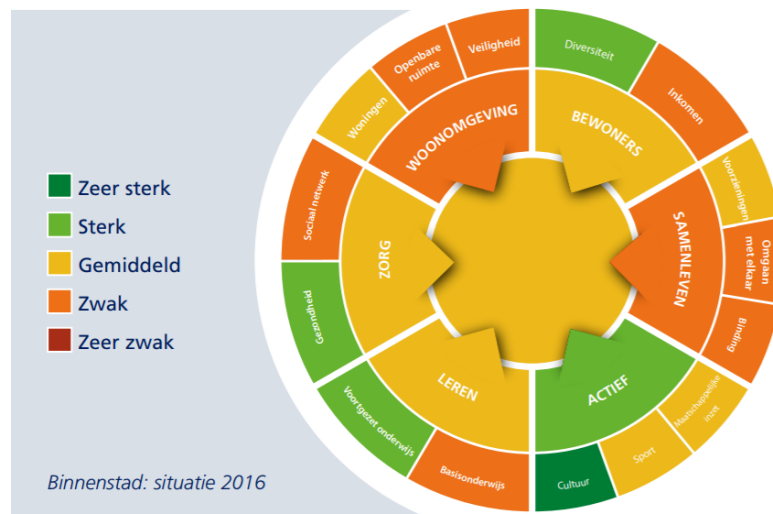


Figure 15: Binnenstad District situation (Municipality of S-Hertogenbosch, 2018)

Binnenstad oost

This neighborhood has 1.930 inhabitants. There are relatively few 0-19-year-olds and many people over 65. The proportion of non-western immigrants is lower than average. Furthermore, the proportion of unemployed job seekers is higher than average. This also applies to the share of households with a low income.

De Hofstad

The Hofstad is a densely populated and built-up neighborhood. The proportion of non-western immigrants, welfare recipients, and low-income households is relatively high. It is also noticeable that there are relatively many rented homes in the neighborhood.

Binnenstad Noord

There are numbers of care flats, which means that there are relatively many people over 65 live there. The share of young people is extremely low at 6% (22% on average). There are many rental properties. The neighborhood has nearly 900 inhabitants. The proportion of unemployed job-seekers and social assistance recipients is relatively high, as is the share of households with a low income.

Het Zand

There are lots of activities on the north side; there are many offices on the south side. The neighborhood has about 2,400 inhabitants: both the proportion of 0-19-year-olds and those over 65 are relatively low. The share of residents with social assistance benefits is higher than average, as is the share of households with a low income.

Vughterpoort

In this neighborhood, there are quite lots of expensive (pre-war) owner-occupied properties. It is a small neighborhood with about 360 inhabitants. The proportion of non-western immigrants, households with a low income and social assistance recipients, is relatively low.

2. Zuidoost

The Zuidoost district is south of the Inner City. The South expansion plan was established in 1947; the residential area has been realized globally within twenty years. Southeast is spacious with many green, wide roads and large lots. More than 12,400 people live in this district, almost a quarter of whom are 65 or older. This is significantly more than average in 's-Hertogenbosch. In Southeast, even 13% of residents are 75 years or older. Incidentally, in this district, two neighborhoods have been designated as attention areas: Gestel neighborhood and the Bossche Pad.

Zuidoost scored an 'average' in 2016 on all six themes. Two aspects get 'strong': public space and security.

The resident's theme shows "weak" as a score. This is mainly due to the composition of the population (vulnerable groups). For example, the proportion of over-75s in Southeast is the highest of all neighborhoods in 's-Hertogenbosch. Also, the aspects of social deployment, secondary education and housing score weak. For example, the proportion of volunteers is relatively low. The proportion of young people with a basic qualification is also lower than average, while in Southeast the proportion of early school leavers is substantially higher. There are relatively many (cheap) rental properties. Residents do assess their own home with the same score - namely a 7.9 - as average in 's-Hertogenbosch.

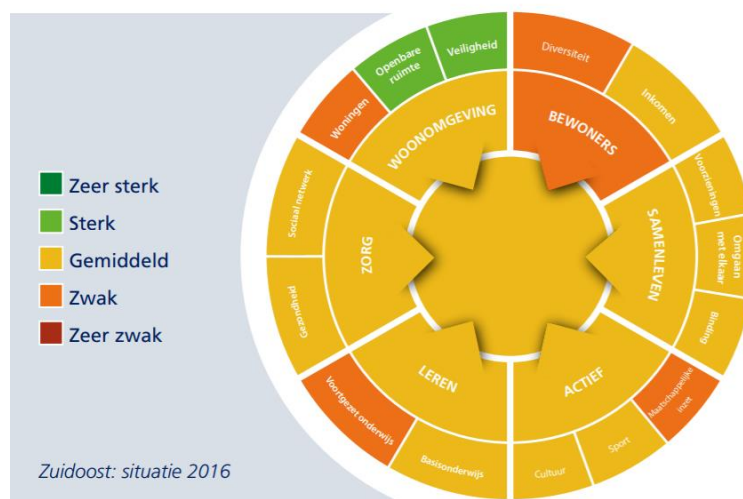


Figure 16: Zuidoost District situation (Municipality of S-Hertogenbosch, 2018)

Zuid

Almost 3,800 people live there, many of them are 65 or older (37%). The proportion of non-western immigrants is relatively low. In South, there are also relatively few residents with low income.

Bazeldonk

Bazeldonk has almost 1,600 inhabitants. The amount of residents with benefits is higher than average. The number of unemployed job seekers and households with a low income is high. Almost all houses in this area date from the period 1945-1969. Unusually large of the houses is a rental home.

Gestelse buurt

More than 1,200 people live there. The proportion of non-Western immigrants, low-income households, unemployed job seekers and residents with benefits is significantly higher than average.

De Meerendonk

They are mainly owner-occupied houses. There are more than 340 inhabitants; relatively often young people. The numbers of single-parent families, unemployed job seekers, residents with benefits and low-income households is relatively low in Meerendonk.

De Bossche Pad

More than 510 inhabitants live in Bossche Pad; remarkably few people over 65 live there. Furthermore, the amount of single-parent families is higher than average. The proportion of non-western immigrants, benefit recipients and households with a low income is also considerably higher.

Grevelingen

In this neighborhood has the high proportion of over-65s and low share of 0-19 year-olds. Furthermore, the proportion of unemployed job seekers, residents with benefits and households with a low income is higher than average. There are relatively many (cheap) rental properties in Grevelingen.

Aawijk Zuid

With over 4,100 inhabitants, Aawijk Zuid is the largest neighborhood in Southeast. It is striking that three-quarters of the houses date from the period 1945-1969.

3. Graafsepoort

Graafsepoort is located northeast of the city center. The district consists of various urban expansions that have been established in about ninety years. Almost 14,000 inhabitants live in the district. Graafsepoort scores in total is an 'average'. The same applies for most underlying themes and aspects. There are some negative outliers, such as the theme of residents. This is due to a low-income position. For example, the proportion of residents with a benefit and unemployed job seekers higher than average 'S-Hertogenbosch'.

Also, the aspects of culture, secondary education, health, and housing have a weak score. It is striking here that relatively few residents visit a performance, cinema or music concert. Housing scores particularly weak, because relatively less rental houses are located in the neighborhood. Incidentally, we see some positive figures in Graafsepoort: the proportion of informal careers is remarkably high, and residents are more than average satisfied with the play opportunities for children and the green areas in the neighborhood.

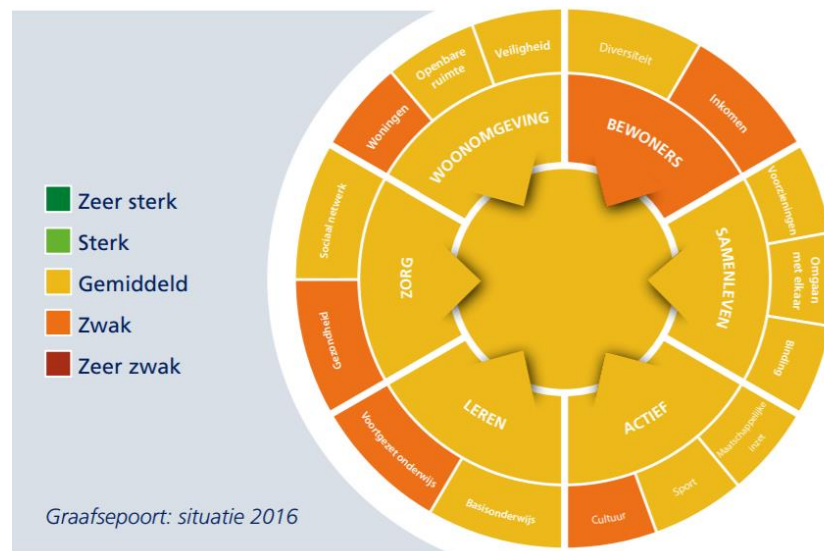


Figure 17: Graafsepoort District situation (Municipality of S-Hertogenbosch, 2018)

Hinthamerpoort

Barten Noord is entirely new after a rigorous demolition built up. Also, houses have been built in the more expensive segment. In total, there are many rental properties. More than 2,100 inhabitants live there. The number of residents with a low income is higher than average.

Graafsebuurt Zuid

There are comparatively fewer people over 65 than average in's-Hertogenbosch. The share single-parent families, residents with benefits, low-income households, and unemployed job seekers, are quite high. In this neighborhood, there are relatively many low-cost rental properties. The housing range consists mainly of terraced houses and some portico apartments.

Aawijk Noord

It is striking that the proportion of non-western immigrants is higher than the average. The same applies to the number of residents with benefits and unemployed job seekers. Almost three-quarters of all homes is a rental home. In the neighborhood are often terraced houses and some apartment buildings.

Graafsebuurt Noord

Graafsebuurt Noord is relatively spacious and has various housing types; from portico flats too (a few) detached houses. The neighborhood has almost 2,000 inhabitants. The share of residents with a benefit and households with a low income is higher than average here.

Hintham Zuid

With over 3,900 inhabitants, Hintham Zuid is the largest neighborhood in the Graafsepoort district.

Hintham Noord

Almost eight out of ten houses is an owner-occupied home. The neighborhood has nearly 2,200 inhabitants. It is striking that the proportion of non-Western ethnic minorities is significantly lower than average. The share of unemployed job seekers and residents with benefits is also low; this is even the lowest of the entire Graafsepoort district.

4. Muntel/Vliert

The Muntel / Vliert district is located north of the city center. The district consists of three different neighborhoods: the Muntel, the Vliert, and Orthenpoort. Almost 7,300 residents live in this district. As far as the population structure is concerned, the district is quite average; there are slightly fewer people over 65 than average. Also, there are relatively more unemployed job seekers and people with benefits. Almost half of the houses date from before 1945. There are cheaper (er) rental properties than average. The housing density is quite high.

On all six themes, Muntel / Vliert scores an 'average.' Positive outliers are culture, secondary education, and health. For example, residents more often attend a concert, dance/house party, cinema or museum than average.

The proportion of 18 to 22-year-olds with a primary qualification is higher than average, while more than 15-year-olds attend a HAVO or VWO program. Also, more residents assess their health as (very) good or excellent and fewer residents are overweight. One theme has been given a 'weak': residents. Regarding diversity, Muntel / Vliert still shows an average score, but the income aspect is rated as weak. There are more people with benefits, more unemployed job seekers and more households with a low income than average. Furthermore, it appears that residents are less satisfied with the facilities for young people and the elderly.

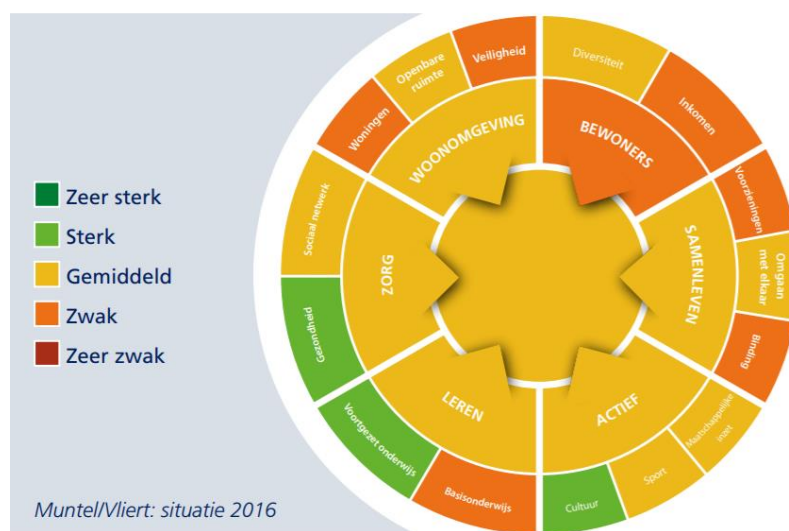


Figure 18: Muntel/Vliert District situation (Municipality of S-Hertogenbosch, 2018)

De Muntel

Almost 60% of the houses are rented accommodation; this is the highest in the whole district. More than 3,200 inhabitants live there. Relatively slightly less over-65s than average in 's-Hertogenbosch. It is also striking that the share of households with a low income and social assistance recipients is higher than average. There are also relatively more single-parent families.

De Vliert

This neighborhood has almost 3,500 inhabitants.

Orthenpoort

Orthenpoort is the smallest neighborhood of the district Muntel / Vliert with about 600 inhabitants. The share of unemployed job seekers and welfare recipients are higher than average in this neighborhood. The proportion of people aged over 65 is lower.

5. Rosmalen Noord

The district Rosmalen lies to the east of the highway A2 and consists of Rosmalen south and Rosmalen north. The original sand village of Rosmalen has grown considerably since the late 1950s as a commuter village. The railway line forms the border between the districts of Rosmalen south and Rosmalen north. Almost 12,300 inhabitants live in Rosmalen Noord. Furthermore, there are relatively few non-Western immigrants and residents with benefits. Three-quarters of the houses were built between 1970 and 2004. Rosmalen Noord scored an “average” for all six themes. There is a strong score on two themes, namely residents and living together. For residents, this is mainly due to a strong income position.

Ooststad scores average on all themes together. One theme, active, scores very strong. The same applies to all underlying aspects. For example, many residents are active as volunteers, they are often active, and people are active in the cultural field.

It is a neighborhood with relatively few unemployed job seekers, residents with benefits and low-income households. Residents give a reasonably high score (7.6) for the tolerance in the neighborhood. There are also strong outcomes for the aspects of sport, social network, housing, and safety. For example, the proportion of residents who are a member of a sports club is remarkably high. Also, relatively few people agree to meet their social network at most once a month. In Rosmalen Noord there are also quite a lot of (expensive) owner-occupied houses, which are rated excellent by residents with an 8.1. Finally, people do not feel 'often' unsafe.

Two aspects get a weak score, namely social commitment, and culture. The share of residents who have actively engaged in their neighborhood during the past year is slightly lower than average. In the cultural field, people are also less active than average. Residents, for example, visit a performance, cinema or music concert less often.

Rosmalen north has, on average, developed favorably compared to 2014. The themes active and care have developed more favorably than average. The results show that the proportion of residents who have at least once a month do sport or member of a sports club has increased. Residents often judge their health with excellent or (very) good; also, their social network has been strengthened. Relatively more residents can go to family or friends for help and support, while fewer people indicate to meet family or good acquaintances at most once a month. Positive outliers are also the aspects of bonding and safety. It is striking that residents often feel co-responsible.

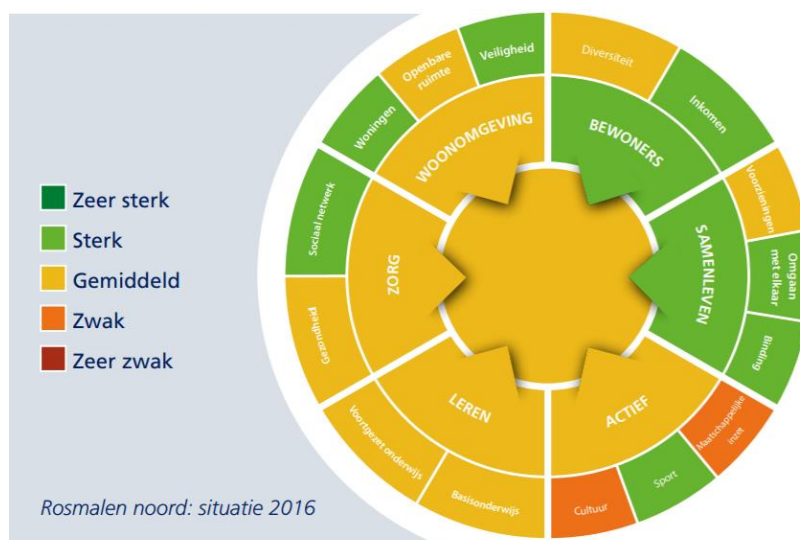


Figure 19: Rosmalen Noord District situation (Municipality of S-Hertogenbosch, 2018)

't Ven

Striking is the low proportion of non-western immigrants, residents with benefits and low-income households. More than 80% of the houses are owner-occupied homes.

Rosmalen centrum

The station Rosmalen is also located in this neighborhood. More than 1,400 inhabitants live in Rosmalen center. It is striking that there are relatively few 0-19-year-olds and many over-65s. It is also a neighborhood with relatively few non-Western immigrants and residents with a benefit.

Hondsberg

The population is over 2,300 inhabitants. The proportion of households with a low income and non-western immigrants is lower than average in's Hertogenbosch.

Kruisstraat

Almost all houses are (relatively expensive) owner-occupied homes. In this neighborhood, more than 540 inhabitants live. It is a sparsely populated neighborhood. Furthermore, it is striking that the share of single-parent households and non-Western immigrants is low. The same applies to the share of unemployed job seekers, low-income households and residents with benefits.

De Overlaet

In the northeast is the Johan van Vladerackepark. De Overlaet east is with almost 3,200 inhabitants the largest neighborhood of the entire district Rosmalen north. There are relatively many 0-19-year-olds and few over-65s. The proportion of non-Western immigrants is relatively low. On the other hand, the share of single-parent families is slightly higher than average in's-Hertogenbosch. Almost all homes were built between 1970 and 2004.

De Overlaet west

Furthermore, the neighborhood is known for the great tree on the Terpeborch. The Overlaet West has more than 2,600 inhabitants. The proportion of non-western immigrants is lower than average. The same applies to the share of unemployed job seekers, residents with benefits and low-income households.

6. Rosmalen Zuid

The district Rosmalen lies to the east of the highway A2 and consists of Rosmalen south and Rosmalen north. The original sand village of Rosmalen has grown considerably since the late 1950s as a commuter village. The railway line forms the border between the districts of Rosmalen south and Rosmalen north. Rosmalen south has about 9,400 inhabitants; relatively many over-65s (24%) In this neighborhood, few non-Western immigrants. There are also few households with a low income. More than 80% of the houses are owner-occupied homes. The average WOZ value of the houses is significantly higher than average.

Rosmalen Zuid gets a 'strong' on four of the six themes: residents, living together, an active and living environment. The social deployment aspect even scores very strongly. Relatively many residents volunteer or actively engage in their neighborhood.

Also, the aspects of income, provisions, dealing with each other, bonding, sports, housing and public space show a strong outcome. Some examples are few households with a low income; many residents are satisfied with the facilities for young people and those for the elderly, they give a high score for the tolerance in the neighborhood and many people feel co-responsible for their neighborhood. Moreover, there are many (expensive) owner-occupied houses, which are well assessed by residents. Furthermore, half of the residents are members of a sports club. This is also the highest of all neighborhoods.

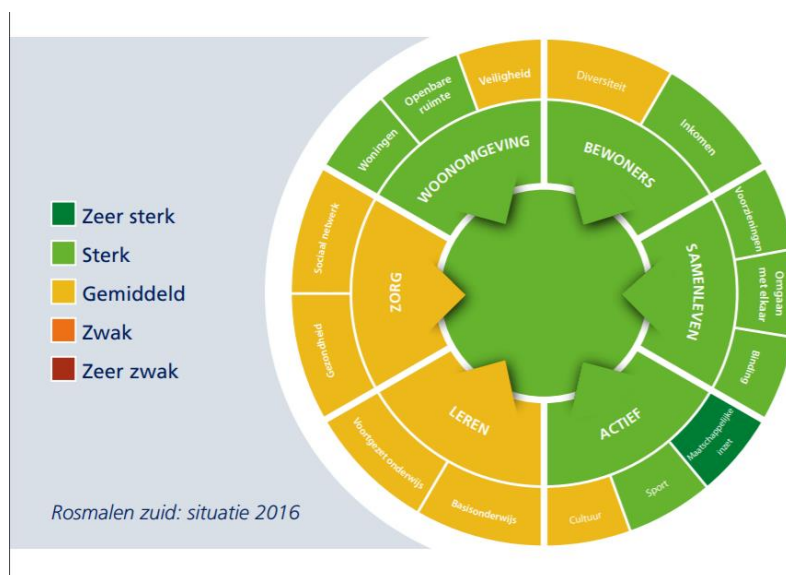


Figure 20: Rosmalen Zuid District situation (Municipality of S-Hertogenbosch, 2018)

Maliskamp oost

The neighborhood has over 1,000 inhabitants with a relatively large number of people over 65. Furthermore, it is striking that the percentage of single-parent households and non-western immigrants is relatively low. The same applies to the share of residents with benefits, unemployed job seekers and low-income households.

Sparrenburg

There are mainly terraced houses. In Sparrenburg almost 3,500 inhabitants live. There are relatively fewer non-Western immigrants and households with a low income than average in 's-Hertogenbosch.

Molenhoek

In Molenhoek there are relatively many (expensive) owner-occupied houses. The housing range is varied: from terraced houses to detached houses. Molenhoek has more than 3,800 inhabitants; relatively many

over-65s (30%). The share of single-parent households and non-western immigrants is relatively low. This also applies to the share of unemployed job seekers, low-income households and residents with benefits.

7. De Groote Wielen

In the eastern part of 's-Hertogenbosch lies, in the middle of the polder, a new residential area: the Groote Wielen. This district has 8242 inhabitants. The district is therefore still under development. The population is around 7,900 people. There are relatively many 0-19-year-olds and few over-65s. The percentage of single-parent households is remarkably higher than the average in 's-Hertogenbosch. In (the surroundings of) the Groote Wielen are many sports facilities, such as football, baseball, water sports, and tennis.

On all six themes together, the Groote Wielen scores an 'average'. Positive outliers are the themes residents, care, and living environment. Especially the income situation of the residents is strong. For example, the share of households with a low income and the share of unemployed job seekers is lower than average. Health care shows that relatively few residents feel limited in their daily lives because of their health, while many people can turn to their good social network for help. The strong score in the house environment can be explained by the fact that there are relatively expensive houses, which are well assessed by the residents. Relatively few residents experience degradation in the neighborhood or often feel unsafe. Finally, the score on the safety index can be described as good.

De Groote Wielen does not score 'weak' on any theme.

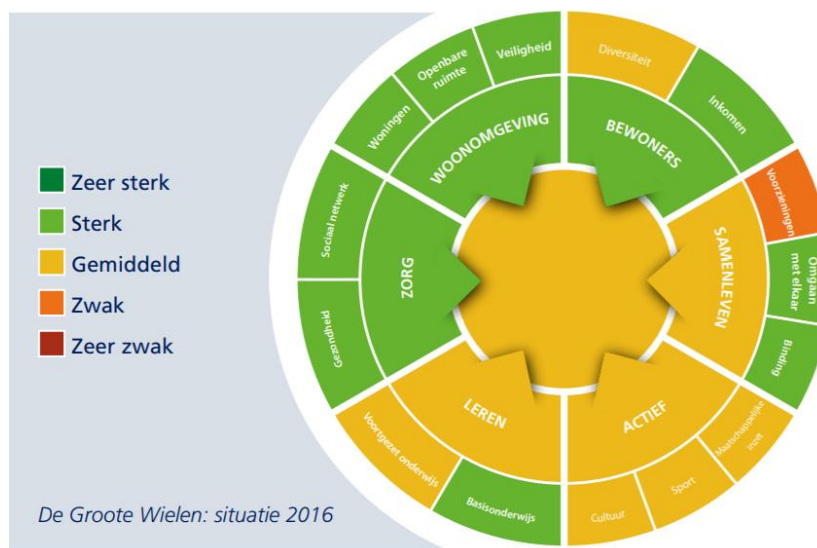


Figure 21: De Groote Wielen District situation (Municipality of S-Hertogenbosch, 2018)

Vlietdijk

The neighborhood has almost 250 inhabitants with relatively low 0-19-year-olds and people over 65. In Vlietdijk the percentage of non-Western immigrants and households with a low income is also lower than average in 's-Hertogenbosch.

Broekland

With almost 3,350 inhabitants, Broekland is the largest neighborhood of the Groote Wielen. Remarkably many residents are younger than 20 years old. Only 4.7% of the population is 65 years or older. The share of single-parent families is higher than average in 's-Hertogenbosch.

De Watertuinen

The share of owner-occupied houses here is the highest of the entire district. The population is over 1,500 inhabitants with relatively many 0-19-year-olds and few over-65s. The share of single-parent families is noticeably higher than average in 's-Hertogenbosch. The percentage of low-income households, residents with benefits and unemployed job seekers, on the other hand, is rather low.

De Hoven

The neighborhood has more than 2,700 inhabitants. The proportion of 0-19-year-olds is higher than average; the proportion of people over 65 is low. Relatively many single-parent families live there. The share of residents with benefits, unemployed job seekers and low-income households is relatively low.

8. Empel

Empel scores 'strong' for all six themes. The most positive outlier is the health aspect. Relatively many residents are satisfied with their health, and few people feel limited by their health during their daily activities.

With five themes, strong scores are residents, living together, learning, care and living environment. As a resident of Empel relatively few low-income households. Empel scores on these indicators the best of all neighborhoods in 's-Hertogenbosch. No theme or aspect scores weak; five aspects score on average. In these aspects, it is striking that there are relatively more single-parent families than average, but fewer people over the age of 75 and non-Western immigrants (diversity). In Empel, residents are less likely to call on family or friends for help and support (social network), and they feel more or less unsafe in the neighborhood. On the other hand, they experience less social nuisance than average (safety).

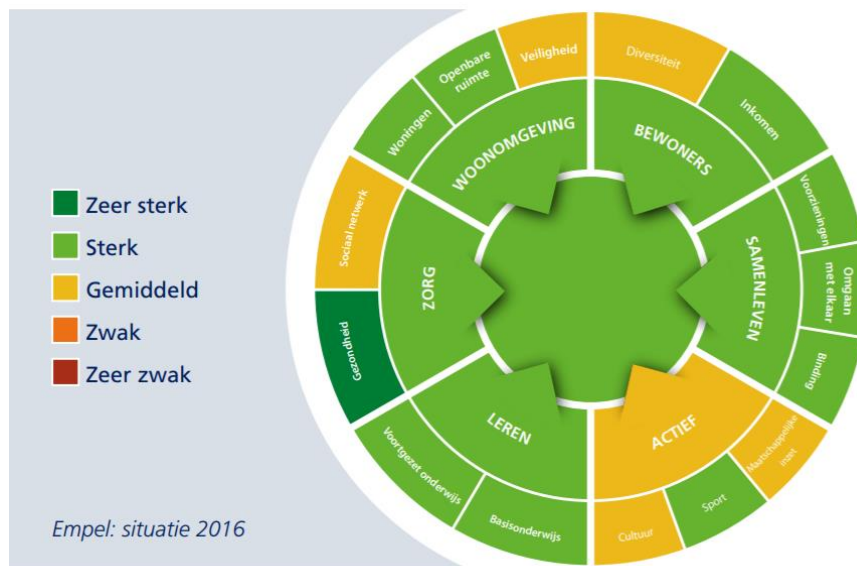


Figure 22: Empe District situation (Municipality of S-Hertogenbosch, 2018)

Kom Empel

Relatively few non-western immigrants live there. The same applies to unemployed job seekers, residents with benefits and households with a low income. There are many owner-occupied properties in this neighborhood.

Maasakker

In the west, there is a small-scale company site. Almost 2,700 inhabitants live there, with a remarkably large number of 0-19-year-olds and few over-65s. Furthermore, there are relatively few residents with benefits, low-income households, and non-working job seekers. There are quite a lot of expensive owner-occupied properties in the neighborhood.

Empel oost

There are relatively many (expensive) owner-occupied properties. Almost 2,500 inhabitants live in the area. The proportion of 0-19 year-olds is unusually high; the proportion of people over 65 with 3.1% low. In Empel East, more single-parent families (6.5%) live more than average. On the other hand, the percentage of unemployed job seekers, low-income households and residents with benefits is low

9. Noord

The Noord district is located north of the city center. It is a typical 70s residential area. The district consists of a series of neighborhoods that are designed in various ways. With around 19.400 inhabitants, it is one of the largest neighborhoods of s-Hertogenbosch. There are many non-western immigrants than average. Also, there are also more unemployed job seekers. There are relatively many cheap rental properties.

With all six themes together, Noord scores 'weak.' This also applies to five of the six themes: residents, living together, learning, care and living environment. For most themes, this is the sum of various indicators on which Noord does somewhat weaker than average.

There is a relatively high percentage of non-western immigrant and single-parent families. The number of unemployed job seekers is high among all neighborhoods. Also, there are relatively many 18 to 22-year-olds without basic qualifications. Regarding health, it is noticeable that the residents judge their health less well than the average and that a relatively large number of residents say that they also feel limited.

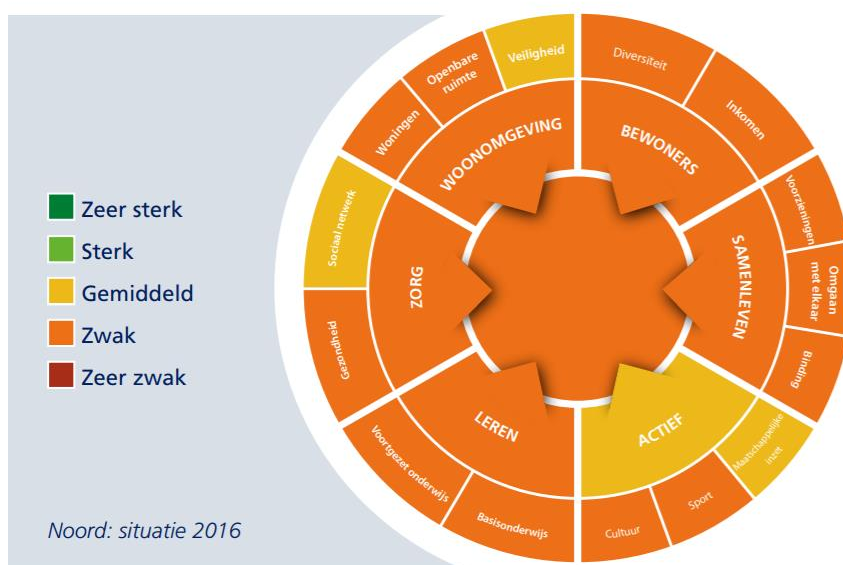


Figure 23: Noord District situation (Municipality of S-Hertogenbosch, 2018)

De Buitenpepers

In the southeast is train station's-Hertogenbosch Oost. The neighborhood has nearly 2,200 inhabitants. The proportion of non-western immigrants is much lower than average. The same applies to the percentage of social assistance claimants and households with a low income.

De Herven

The residential area consists mainly of (semi-) detached houses. There is also new construction: houses have been built on the site of the former Carolus hospital. It is a relatively spacious area with lots of green. There are almost only (expensive) owner-occupied properties. Nearly 800 residents live in the Herven, including a relatively large number of people over 65 and few non-western immigrants.

De Slagen

There are a few flats on the south side. Some institutions and companies are located in the western part. About 1,500 inhabitants live there; of which a remarkable number of people over 65. The proportion of non-western immigrants is twice as high as average.

De Haren

There are relatively many (cheap) rental properties. Almost 1,100 people live in the neighborhood. Both the proportion of Western and non-Western immigrants are high. Also, the percentage of unemployed job seekers, welfare recipients, and households with a low income is higher than average.

De Reit

The neighborhood has more than 1,630 inhabitants. The proportion of non-western immigrants is slightly higher than average. Also, it is striking that the percentage of residents with social assistance benefits is relatively high.

De Donk

Almost all houses have been completely restructured. In total, more than 2,000 people live in the Donk. Noticeably few over-65s and more welfare recipients than average.

De Rompert

This neighborhood, with almost 2,450 inhabitants, is the largest neighborhood in the entire Noord district. There are relatively many people over 65. Furthermore, it is striking that the proportion of non-western immigrants is slightly lower than the average in's-Hertogenbosch. The same applies to the percentage of households with a low income.

De Hambaken

The neighborhood has almost 1,400 inhabitants. There are slightly many young people than average. The proportion of non-western immigrants is more than twice as high as average.

Sprookjesbuurt

In this area, 1,700 people live. The proportion of non-western immigrants is three times higher than average at 33%. The proportion of unemployed job seekers, benefit recipients and households with a low income is much higher than average.

Muziekinstrumentenbuurt

Almost 1,300 people live there, the number of over-65s is relatively low. The high proportion of non-Western is almost four times as high as average. Furthermore, it is striking that the percentage of social assistance claimants and households with a low income is considerably higher than average.

Edelstenenbuurt

The neighborhood has nearly 1,200 inhabitants, including notably few over-65s. The proportion of unemployed job seekers and households with a low income is about twice as high as average. The number of residents with a benefit is almost three times as high. The Gemstone neighborhood is currently a focus area.

Orthen

There are mainly single-family households. More than 1,500 people live in Orthen. Relatively few non-Western immigrants and residents with social assistance benefits.

Orthen west

There are mainly terraced houses in this neighborhood. The neighborhood has more than 700 inhabitants. The proportion of people over 65 is lower than average. The percentage of unemployed job seekers and households with a low income is relatively high. The neighborhood is currently undergoing major changes due to restructuring. Orthen West has been designated as a focus area.

10.Maaspoort

In the mid-seventies, it was decided to let the city grow in the northerly direction to the banks of the Meuse: The Maaspoort district was born. At the start of construction in 1976, the project was hit by the recession. In the mid-1980s, the economic situation receded and the Maaspoort was reduced in the 1980s and 1990s. Now the district has about 17,000 inhabitants. Relatively slightly more young people and slightly fewer elderly people. There are also fewer residents with benefits, low-income households, and unemployed jobseekers than on average in's-Hertogenbosch.

On all six themes, the Maaspoort scores an 'average' in 2016. The theme of residents gets a 'strong,' because of the strong income position. Relatively few households have a low income. The aspects of bonding, basic education and safety also score strongly.

For example, relatively many residents feel co-responsible for the quality of life in the neighborhood. The score on the safety index is relatively good, and few residents feel 'unsafe' in the neighborhood. The Maaspoort scores weakly on one theme: care. Residents judge their health less than average and more residents live with obesity. The share of residents who can go to family and friends with one help is also relatively low. The weak assessment of social deployment is because relatively few residents volunteer, or actively commit themselves to the neighborhood.

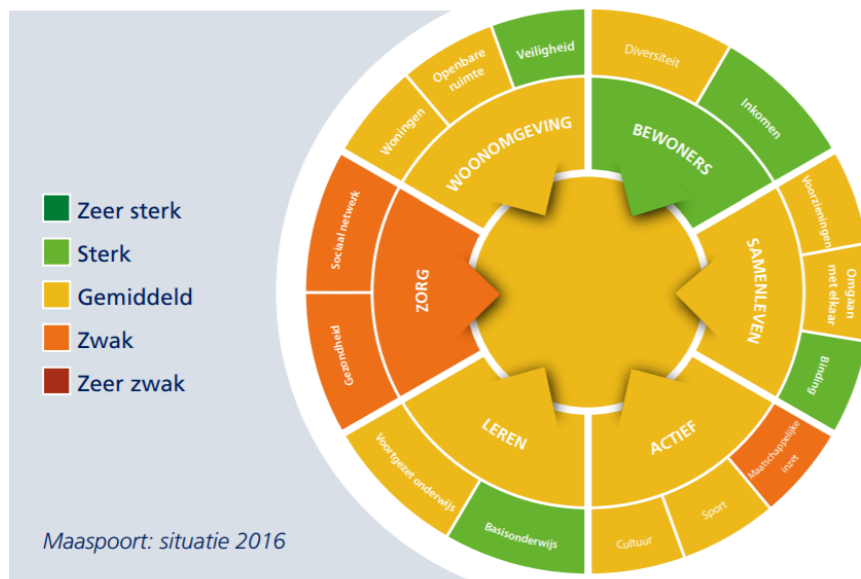


Figure 24: Maaspoort District situation (Municipality of S-Hertogenbosch, 2018)

Italiaanse buurt

The single-family households are spacious. Around 520 inhabitants live in the area; wich are remarkably large number of over-65s. The proportion of non-western immigrants is relatively low. The same applies to the number of social assistance recipients and households with a low income.

Maasdal

In the southern part, there are a number of recently built apartment complexes. Around 2,400 inhabitants live in the area.

Abdijenbuurt

The Maaspoorthal mainly knows this neighborhood (nationally). More than 1,100 people live in the Abdijenbuurt.

Lokeren

On the branches of the Buurtschappenlaan, the most important road, there are mainly terraced houses. The neighborhood has more than 1,400 inhabitants. Relatively few people over 65 live there.

Maasstroom

Furthermore, there are mainly terraced houses and two-under-one hairdressers. Almost all homes were built in the period 1970-1989. The neighborhood is crossed by water; parallel to the Sluisweg. Maasstroom has about 2,000 inhabitants. There are fewer people over 65 than average in s-Hertogenbosch.

Staatsliedenbuurt

As with the Maasstroom neighborhood (which lies to the east of the Staatsliedenbuurt), the northern part is separated from the southern one by the Sluisweg. In the southern part are single-family houses and apartments. The northern part has a slightly larger layout with detached houses. The Social-Cultural Center 'De Schans' is located in the Staatsliedenbuurt. The neighborhood has about 1,800 inhabitants.

Het Zilverpark

Most of the houses date from the period 1990-2004. There are relatively many owner-occupied houses in this neighborhood. The Zilverpark has more than 2,200 inhabitants, including relatively few over-65s. The proportion of non-western immigrants is also somewhat lower than average. The same applies to the number of persons entitled to benefits, unemployed job seekers and low-income households.

Maasvallei

The residential area consists mainly of terraced houses, two under-a-hairdressers, and detached houses. There are also some flats at the Goulmy and Baarplein. Almost all homes date from the period 1990-2004. The number of inhabitants is almost 2,400, including relatively few people over 65. There are relatively few non-western immigrants, social security claimants, unemployed job seekers and low-income households.

Maasoever

Nearly only (expensive) owner-occupied houses are located nearby. With more than 2,800 inhabitants, Maasbank is the largest neighborhood of the Maaspoort regarding population. The share of unemployed job seekers, low-income households, and social assistance recipients is significantly lower than average. This also applies to the percentage of non-western immigrants.

11. West

The West district is west of the center of s-Hertogenbosch. The neighborhood has arisen in the reconstruction period (1945 - 1960) with the Wolfsdonken business park. From there, West I (Boschveld and Deuteren) and West II (the Schutskamp and Kruiskamp) was developed. Since 1992, the Wolfsdonken converted into it Paleiskwartier: a new and multifunctional center area that serves as an overflow of and addition to the historic city center. 21,720 residents live in West. Few numbers of young people and slightly more elderly than average. Almost a quarter of the residents is a non-Western immigrant. This is more than two times higher than average. Incidentally, in West one designated as attention area: Boschveld.

Furthermore, the proportion of people entitled to benefits, unemployed, job seekers and households with a low income are higher than average. Additionally, residents give a low score for both tolerances in the neighborhood and dealing with each other. The theme of learning even scores 'very weak': satisfaction with primary education is lower than average, while school absenteeism is much higher among 5 to 12-year-olds. We also see this high absenteeism among 13 to 17-year-olds. Finally, the weak score for the living environment is mainly explained by the fact that there are many (cheap) rented houses in West, residents experience much rundowns, they give a low score for the living environment, and relatively many residents feel 'often' unsafe. The score on the safety index is also weak.

The West district scores, on all six themes together, 'weak.' This also applies to four of the six themes: residents, living together, active and living environment. For example, relatively many non-Western immigrants (24%) live in West. This is the highest percentage of all neighborhoods.

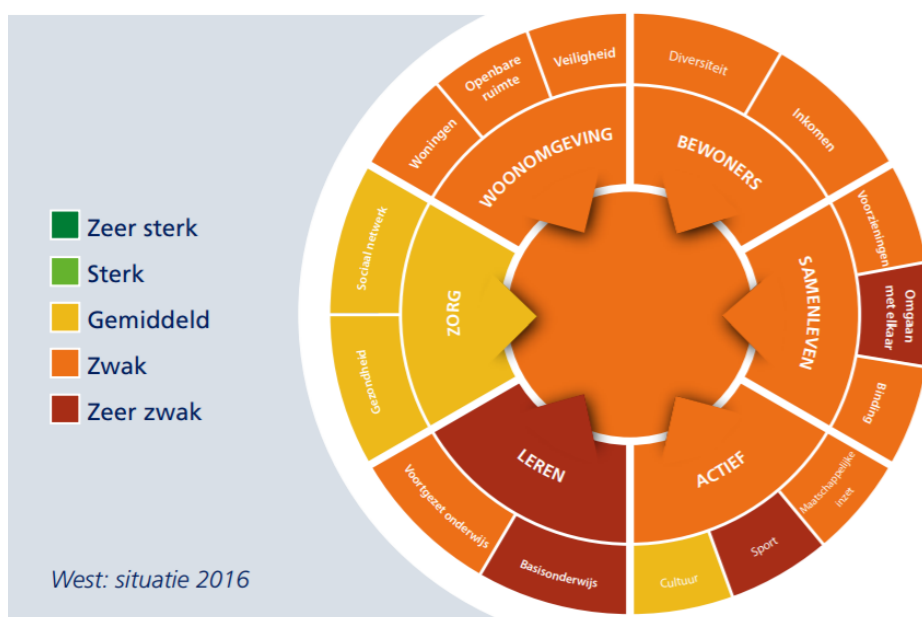


Figure 25: West District situation (Municipality of S-Hertogenbosch, 2018)

Boschveld

A pathway of physical and social neighborhood renewal has been running in Boschveld since 2008. In phases, houses are demolished, newly built and renovated. More than 3,000 inhabitants live there; relatively few over-65s. The proportion of non-western immigrants is almost three times as high as average. The percentage of unemployed job-seekers, welfare recipients and households with a low income is also considerably higher than average. Boschveld is currently a focus area.

Paleiskwartier

There are exclusively apartment complexes. The majority of them are owner-occupied houses. Almost 2,600 people live there, relatively fewer young people than average. Furthermore, it is striking that the proportion of Western immigrants is relatively high, the proportion of non-western immigrants is lower than average.

Deutenen

There are different types of housing: from terraced houses to apartment complexes. Two-thirds of all houses are (cheap) rental home. There are 1,540 inhabitants in Deutenen. The number of people entitled to benefits is slightly higher than average, as is the number of unemployed job seekers. The amount of households with a low income is also higher than average.

De Moerputten

Two-thirds of the houses are owner-occupied. The Moerputten is a sparsely populated and built up neighborhood with more than 250 inhabitants. The proportion of western and non-western immigrants is relatively low. It is striking that the share of single-parent families is much higher than average. The same applies to the share of households with a low income.

De Schutskamp

The neighborhood mainly consists of terraced houses and some flats. About 60% of all homes is a (cheap) rental home. The neighborhood has about 4,560 inhabitants, over a quarter of whom are over 65 (on average 17%). The proportion of non-Western immigrants is also significantly higher than average at 28%.

De Kruiskamp

Part of the Kruiskamp has recently been renovated. This neighborhood, with more than 8,000 inhabitants, is the largest neighborhood in the entire West district. The proportion of non-western immigrants is considerably higher than average.

Ertveld

To the south of the marina is a small industrial area. The buildings are mainly north of the marina next to the railway. Nine out of ten houses are for sale. About 300 people live in this relatively sparsely populated and built-up neighborhood. Relatively fewer people over 65 and non-western foreigners than average live there. Furthermore, their number of households with a low income is more than average.

12. Engelen

The district of Engelen is located northwest of 's-Hertogenbosch. The district consists of the villages Engelen and Bokhoven. The district is also known for 'the castles.' Engelen has developed over the years as a typical commuter village with many detached houses and green spaces. More than 5,800 inhabitants

live in Engelen; more young people than average and fewer elderly people. Also, there are fewer non-western immigrants, benefit claimants, and unemployed job seekers. The average WOZ value of the houses is the highest in all neighborhoods.

Engelen scores a 'strong' on all six themes. This also applies to four of the six themes. The houses in Engelen scores is "very strong." The score for the living environment is also very high at 8.0. Also, Engelen scores strongly on the themes of living and learning. The proportion of 18 to 22-year-olds with a basic qualification is slightly higher than average.

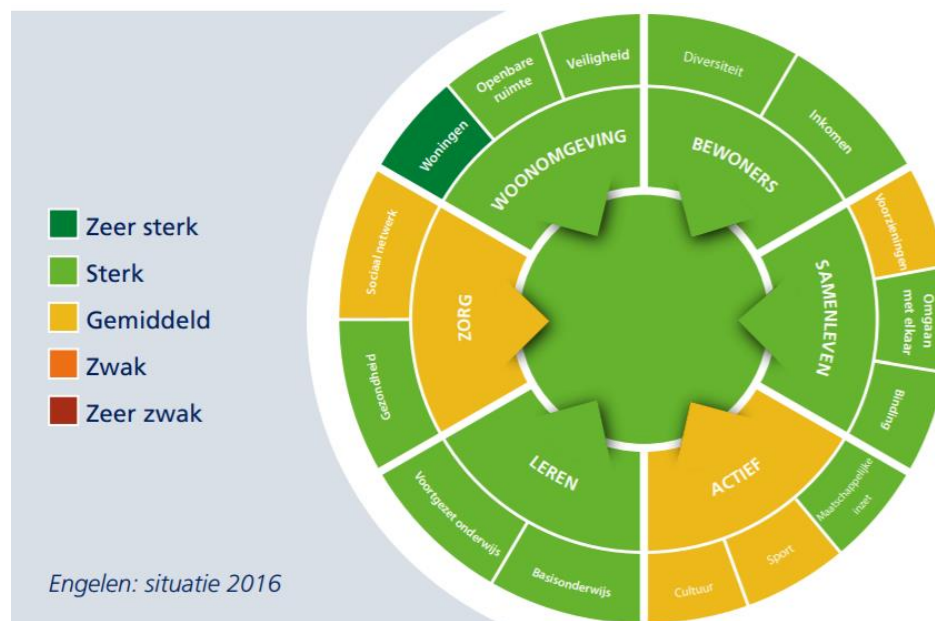


Figure 26: Engelen District situation (Municipality of S-Hertogenbosch, 2018)

Kom Engelen

There are fewer non-western immigrants than average. The same applies to the percentage of unemployed job seekers, welfare claimants, and low-income households. Most of the houses are owner-occupied home.

De Haverleij

There are relatively many owner-occupied houses in this neighborhood. 2,430 inhabitants live in the Haverleij. The percentage of unemployed job seekers, welfare recipients, and households with a low income is considerably lower than average.

Bokhoven

More than 20% of inhabitants are 65 years or older. More than nine out of ten houses is a (relatively expensive) owner-occupied houses; the majority of them are detached. The proportion of immigrants is relatively low. The same applies to the number of social assistance recipients.

13. Nuland

The original agricultural village of Nuland is located south of the A59 motorway between 's-Hertogenbosch and Oss. Until 1993, Nuland was an independent municipality. After this, the village became part of the municipality of Maasdonk. At the start of 2015, Nuland became part of the municipality of 's-Hertogenbosch using a municipal reorganization. There are various sports clubs and recreational facilities. The district has about 4,300 inhabitants, with relatively more over-75s (10%) than average in 's-Hertogenbosch (6.9%). On the other hand, the proportion of non-western immigrants, residents with a benefit and households with a low income is rather low. The housing stock consists largely of expensive owner-occupied homes.

On all six themes, Nuland scores are 'average.' Positive outliers are the themes residents, living together, learning and living environment. The aspect of dealing with each other has even been assessed as very strong. The share of residents who feel that fellow residents pleasantly interact with each other is quite high at 87%.

Perhaps this is due to the rich club life in Nuland. Many residents are active as volunteers in this district. The share of premature school-leavers in Nuland is even the lowest of all neighborhoods in 's-Hertogenbosch. The same applies to the score on the safety index (the lower, the safer). For the care theme, Nuland score as 'weak', particularly because of the health aspect. Relatively more residents than average are overweight, while more people feel limited in their daily lives because of their health. The latter is probably explained by the fact that there are relatively (older) older people living than average. Also, the culture aspect has a weak score. Residents visit a museum, cinema or dance/house party less often than in 's-Hertogenbosch.

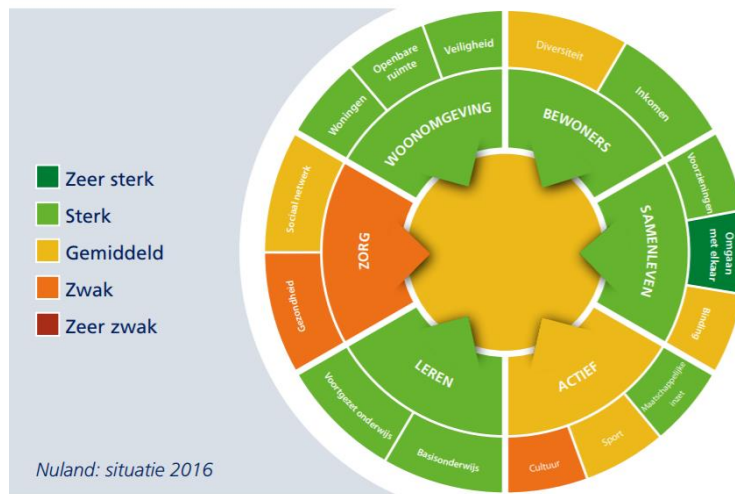


Figure 27: Nuland District situation (Municipality of S-Hertogenbosch, 2018)

Kom Nuland

On the east side, the new Pelgrimsche Hoeve housing estate is under construction. With almost 3,300 inhabitants, Kom Nuland is the largest neighborhood in the Nuland district. The proportion of non-western immigrants, residents with benefits and households with a low income, is relatively low. Three-quarters of all houses is a house for sale.

Heeseind

Almost 550 people live in Heeseind, a quarter of them are 75 years or older. There is a care center in this neighborhood. Heeseind is a sparsely populated neighborhood. The share of single-parent families and residents with a benefit is rather low. The same applies to the percentage of non-western immigrants and non-working job seekers.

14. Vinkel

Vinkel borders in the north on the A59 motorway between 's-Hertogenbosch and Oss. After a reclassification in 1993, the largest part fell under the municipality of Maasdonk. At the start of 2015, Vinkel became part of the municipality of 's-Hertogenbosch through a municipal reorganization. Vinkel is a village with more than 2,553 inhabitants and plenty of space and green space. The proportion of non-western immigrants, residents with a benefit and households with a low income, is lower than average. The housing stock consists largely of the expensive owner-occupied housing. Since 2006, Vinkel has a new residential area, the Somerset Bos.

Vinkel gets 'strong' on all six themes. Vinkel scored the best of all neighborhoods in 's-Hertogenbosch on all indicators. For example, 52% of the residents do voluntary work, and 88% of the residents feel that their neighbors pleasantly interact with each other. A possible explanation for this is the strong club life, varying from sports clubs to music companies. Also, residents experience little social nuisance in the

neighborhood, and the score on the safety index is good. No theme or aspect scores a 'weak'; four aspects score on average. It is striking that residents are satisfied with the facilities for the elderly, but less satisfied with the shops for daily groceries. Finally, residents are less satisfied with primary education, but the absenteeism among primary school pupils is nevertheless rather low.

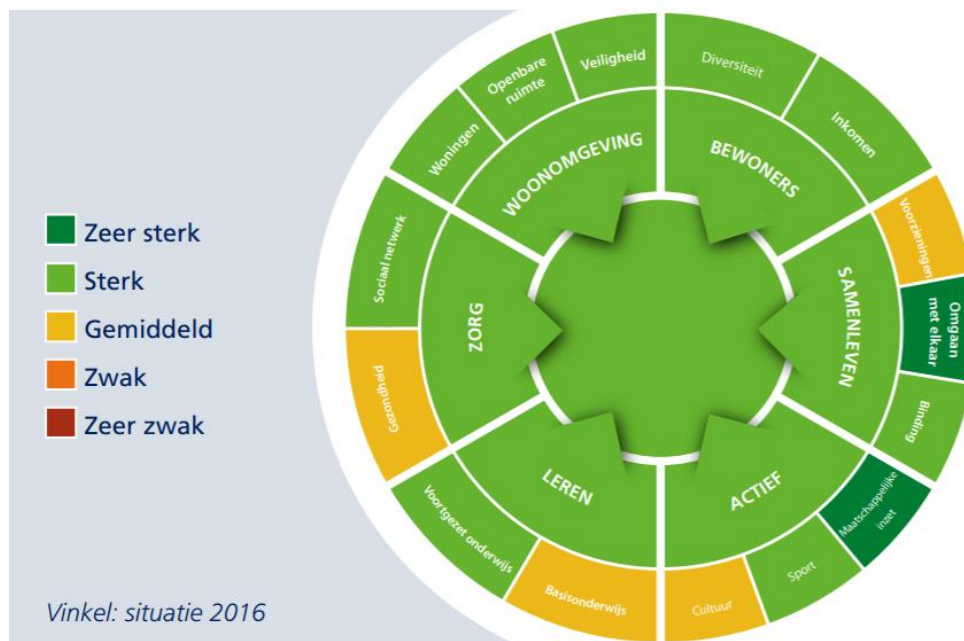


Figure 28: Vinkle District situation (Municipality of S-Hertogenbosch, 2018)

Kom Vinkel

With more than 1,100 inhabitants, Kom Vinkel is the largest neighborhood in the Vinkel district. The proportion of households with a low income and single-parent families is relatively low. Relatively few residents with benefits, non-western immigrants, and non-working job-seekers live there. There are relatively many expensive owner-occupied properties in this neighborhood.

Vinkeloord

More than 430 people live in Vinkeloord: both the percentage of 0-19-year-olds and 75-year-olds are remarkably lower than average in 's-Hertogenbosch. There are slightly more unemployed job seekers and residents with benefits than in the rest of the neighborhood.

Landelijk gebied Vinkel

It is a sparsely populated neighborhood. Relatively few non-western immigrants, residents with benefits and unemployed job seekers live there. The share of single-parent families is also reasonably low. The housing stock consists mainly of expensive owner-occupied homes.

4.3.3 LIFESTYLES IN THE S-HERTOGENBOSCH:

To understand lifestyles in s-Hertogenbosch, two sources of data are available. The first source is Wijk- en buurtmonitor which is provided by the municipality of s-Hertogenbosch, which are explained before. (see chapter 4.3.2) Also, there are statistic data related to socio-demographic characteristics such as income, age, type of household, location, and gender of each quarter of s-Hertogenbosch which already combined to the first source.

To be able to compare empirical and statistical data with WIN model, table 14 provided. This table translated the WIN model features to six themes of the municipality. For example, residence theme is related to income, education and age are similar between them, activity is about going out or doing sport and the residential environment is about who citizens interact with their neighborhood. These features are similar between WIN model and six themes in the quarters.

The meaning of colors which are used in two tables below have the same meaning as municipality theme.

Table 14: Translation of WIN model based on Wijk- en buurtmonitor (Author,2018)

Meaning	Strong	Average	Weak	Very weak
Color				

	Residential einvrionment (Woonomgeving)	Residents (Bewoners)	Living together (Samenleven)	Activity (Actief)	Education (Leren)	Age
Business						Young/Middle-aged
Luxury seekers						Young
Connoisseurs						Young/Middle-aged
Conservative						Middle-aged
Caring						Old
Committed						Old/Middle-aged
Open-minded						Middle-aged
Balanced						

Table 15: Summary of Wijk- en buurtmonitor (Author,2018)

Quarters	Residential environment (Woonomgeving)	Residents (Bewoners)	Living together (Samenleven)	Activity (Actief)	Education (Leren)	Care (Zorg)	Age	Type of house holds	Lifestyles
1. Binnenstraat							25-39	Single	Luxury seekers/Caring
2.Zuidoost							25-39	Single	Luxury/Caring
3.Graaf							25-39 40-54	Single	Stable
4.Munte							25-39 40-54	Single Two-person house hold	Stable
5.Rosmalen zuid							40-54 65-74	Family	Business/open minded
6.Rosmalen Noord							40-54 55-64	Family	Business/open minded
7.De Groote							4-11 25-39	Family	Business/open minded
8.Emple							40-54	Family	Business/open minded
9.Noord							25-39 40-54	Family	Conservative/caring
10.Maaspoort							25-39 40-54	Two-person	Stable
11. West							25-39 40-54	Single	Conservative/caring
12. Engelen							40-54	Family Two person	Open minded/ Committed
13. Nuland							40-54	Family Two person	Open minded/ Committed
14. Vinkle							40-54	Family Two person	Open minded/ Committed

Group one - Luxury seekers/Caring :

This group included Binnenstraat and Zuidoost. These quarters are located in the center of the city. Number of Elderlies (65+ years old) and young people (20-39 years old) are high. Expect of one neighborhood (Vughterpoot), which has expensive houses other neighborhoods have many (cheap) rented houses. The amounts of immigrants, low income and job seekers are average. This cluster has the diverse type of lifestyles. Most of them are in Caring and Luxury seekers.

Group two- Stable:

This group is included in three quarters: Graafsepoort, Munte, and Maaspoort. All of them are located in the north of the city center. They gain more than average on all themes. The amounts of low income, job seekers, and immigrants are less than average.

Lifestyles of them are Stable.

Group three- Business/open minded :

Rosmalen Zuid, Rosmalen Noord, Empe and De Groote are in cluster three. These regions gain strong on six themes. Houses are expensive. Numbers of house ownership in these quarters are high. Most of the people have a high income. Most of them are 30-59 years old. Many single parents are live there.

Mostly they are in Open minded and Business.

Group four- Committed and Open minded:

This cluster included Engle, Nuland, and Vinkle. They were villages, which are attached to the city. They all located far from the city center, in the third ring. Type of households is family. Houses are expensive. These regions have life club which causes to have a high rate of activities between residences. Regarding quality of life, these quarters are the best in the city.

They are in Businesses and Open minded.

Group five- Conservative:

This cluster has two quarters: Noord and west. It is located in the north part of city center. This quarter is the biggest quarter in the city. The score of six themes is weak. It has the highest number of single parents. The number of immigrants, low income and job seekers are relatively high. Most of the houses are cheap houses.

The type of lifestyle is Conservative.

4.4 LIFESTYLE AND MOBILITY PATTERN:

The table below shows the relationship between mobility behavior and lifestyles. This table (table 16) expressions how lifestyle groups and mobility behaviors are connected based on quarters. Almost each mobility behavior is connected to one lifestyle cluster. To understand the relationship between lifestyles and mobility behavior, is it necessary to consider significant features of each of them. By considering figure (see chapter_), can understand the significant features of lifestyles such as income, age, and education. In general income, job status, car ownership, socio-economic and household type playing a key role in understanding the connection between mobility behaviors and lifestyles. Considering all these factors make it complicated to interpret the table below.

Comparing mobility behaviors and lifestyles in s-Hertogenbosch show that in this city, as expected people with lower income who are less educated, non-western immigrants and religious people are more in favor of using public transportation than the others. They expect train as a primary mode of transportation within five years.

Bike users are diverse groups of people, mainly live in city center or close to it. Regarding quality of the neighborhoods, they gain average in all aspects. Satisfaction using the bike is high among them. They own car less than the other. The number of young people is high.

Moderate users of all modes, almost use all available modes in the city. The satisfaction of public transportation is low. Most of them have a high income, well educated, type of household are single parents and family. The score of neighborhoods regarding quality they gain more than “average.”

Car-oriented citizens who are often with high income and educational level and live far from the city center. They expect the car as a primary mode of transportation within five years.

These aspects provide the policy maker with opportunities for targeted action and information based on inhabitants needs and demands.

Table 16: Relationship between lifestyles and mobility behavior per quarters (Author, 2018)

	Mobility behaviour		Life
Quarters	Mobility behavior	Lifestyles	
1.Binnen	Bike users	Caring and Luxury seekers.	
2.Zuid	Bike users	Caring and Luxury seekers.	
3.Graaf	Bike users	Stable.	
4.Munte	Moderate users of all transportation modes	Stable.	
5.Rosmalen zuid	Moderate users of all transportation modes	Open minded and Business.	
6.Rosmalen Noord	Moderate users of all transportation modes	Open minded and Business.	
7.De Groote	Moderate users of all transportation modes	Open minded and Business.	
8.Emple	Moderate users of all transportation modes	Open minded and Business.	
9.Noord	Moderate users of all transportation modes	Conservative.	
	2		

10.Maaspoort	Moderate users of all transportation modes 2	Stable.
11. West	Public transport users	Conservative.
12. Engelen	Car oriented	Businesses and Open minded.
13. Nuland	Car oriented	Businesses and Open minded.
14. Vinkle	Car oriented	Businesses and Open minded.

4.5 SPATIAL AND MOBILITY PLANNING OF S-HERTOGENBOSCH:

Rudinger, Donaghy, and Poppelreuter (2006) defined policies as rules for responding to recurring conditions. As such, they can be both explicit and implicit about what they permit or forbid. To beginning for planning based on lifestyles require a deeper understanding of each person mobility behavior and lifestyle and to know what the effect of established land use pattern on lifestyles and attitudes might be (Rudinger, Donaghy & Poppelreuter, 2006). Rudinger, Donaghy, and Poppelreuter (2006) explain that by focusing on the needs of particular user groups, there is a clear need to establish a consistent classification of social exclusion and its relationship with mobility needs as accommodated by transport systems.

In this part, first the current spatial planning according to Ruimtelijke Structuurvisie Stad tussen Stromen, 2014 is explained, the results of interviews that are about the effect of lifestyles and mobility behavior are described. In the last part, recommendations to improve the current spatial planning based on the results of previous part and interviews are clarified. The first part (4.5.1) is translated from Ruimtelijke Structuurvisie Stad tussen Stromen, 2014 to English.

4.5.1 S-HERTOGENBOSCH CITY PLAN

The spatial development of the city remains focused on sustainability, the main spatial structure in which a good balance between “ Red-for-green as well as between living and moving forms the basis. Red-for-green is such a new mechanism, which is increasingly used in Dutch spatial developments (Ministries of LNV & VROM, 2009). Red is referred to housing, commercial development, and industrial estates; green is about rural land uses such as landscape, recreational areas, and nature (Wolff & Spaans, 2010).

The dynamics of the city take place in the urban backbone, in particular in the city center including the railway zone, and in the A2 zone. This zone is a residential area which is located in Rosmalen Zuid. The DNA (the individuality) of ' s-Hertogenbosch is strongly influenced by its bottom layer of water and soil, geomorphology, and cultural history. In close connection with the development of the main infrastructure, a characteristic shape of the city body has arisen. It consists of a core with wings, spatially articulated by foothills of the outer area and the green-blue (blue refers to water management) garlands penetrating deep into the city. These green-blue carriers derive from the location of the city in the Diezedelta. The city body is partly surrounded by the rivers Dommel, Aa and Dieze and the Zuid-Willemsvaart and is largely surrounded by large open green areas (polders). This contains the necessary drainage streams, water storage areas and remnants of the Stelling van 's-Hertogenbosch. This natural and cultural landscape around and in the city has been given the appropriate name 'De Groene Delta.' (Map 3) (Ruimtelijke Structuurvisie Stad tussen Stromen,2014).



Ruimtelijke Dynamiek 's-Hertogenbosch

Map 5:'s-Hertogenbosch city plan (Ruimtelijke Structuurvisie Stad tussen Stromen,2014, p:11).

In the spatial structure vision (Ruimtelijke Structuurvisie Stad tussen Stromen,2014), the compact, complete and contrast-rich city was introduced as the starting point for spatial development. This 'spatial motto' for the city continues to be applied, convinced that this provides the right basis for a sustainable spatial main structure.

Mobility

In recent years the share of public transport and the share of the bicycle in and around s-Hertogenbosch have increased. The volume of car traffic in the city has been relatively stable for years, but the Randweg opened in 2011 has led to a sharp shift in traffic flows. Besides, the use of the parking has increased significantly in recent years. Total mobility will increase even further in and around the city. The congestion on the primary road network probably moves to the critical access roads of the city. The expected congestion requires the necessary far-reaching measures because the accessibility and quality

of the urban environment will remain under pressure in the coming decades. As a result, strong demand continues to exist on improving accessibility, partly in the interest of economic functioning of city and region. Measures include stimulating the use of bicycles and public transport and at the same time-solving congestion through utilization and smart infrastructural measures (such as parking garage Hekellaan, Transferium Willemspoort, Willems, and Wilhelminaplein). Increasing mobility (modal shift, environmental zone, supply/drainage in the city center, transport management, public transport, electric transport, car sharing system, etc.) will have its place on various fronts.

The wing city

The concept of the wing city is maintained. The urban expansions can be regarded as urban 'wings' that are connected to the city center. The outlying area attractively penetrates the urban expansions through the city, so that the Bosschenaar always lives close to nature. The city body is thus spatially articulated in an attractive, natural way by the stream valleys of Dommel, Aa and Dieze and the nature reserve the Heinis. The highly canalized river has made the experience of the water more attractive. There is plenty of room for small boats. The remnants of the embankment of the Beerse Overlaat in the nature reserve the Heinis form a self-evident natural separation between the northern Maas Wing and the eastern urban extensions, part of the Rosmalen wing. The old dike, together with the route of the Hervense Dijk, the Ketsheuvel and the Orthense dike, forms an attractive part of the recreational 'Vestingroute.' More spatial coherence within the wings has been achieved by removing the barriers of significant infrastructure (especially railways and motorways) in strategic places as much as possible for cyclists and pedestrians. A few locations for wind turbines (De Brand, Rietvelden / Treurenburg / A59), more natural water structures and applications (green façades) - in combination with recreation - and more sustainable forms of mobility will mainly form the image of sustainability.



Map 6: City plan (Municipality of s-Hertogenbosch, 2018, page:28)

The city center

The city center is optimally accessible from all corners of the wind by bicycle and public transport. Inhabitants can cycle through the entire city center, and there are sufficient bicycle parking facilities available. The regular public transportation no longer drives through the inner city but uses the new decorated inner city ring and the new large-scale inner-city centers on the inner city ring. In the city center, there is an additional small-scale electric bus. Car drivers who want to visit the city center are primarily referred to transfer near the approach roads. Those who do not want to make use of it will still be accommodated in parking garages on the outskirts of the city center. Only short-term parking spaces are available for visitors in the city center. The city center is mostly designed as a residential area. As a result, various smaller squares, the banks along the city walls, the old canal, and the City Dune have also been redesigned attractively. Since the restoration and renewal of the fortifications and the reduction of through traffic on the inner ring, the inner city has also been given an attractive residential climate. The city center has become car-free. Purchased items in the city center can be delivered at home. Provision of shops and businesses in the inner city mainly takes place with environmentally friendly modes of transport.

1. The Angel Wing (Engelervleugel)

The districts West and Angels and the business parks De Rietvelden and De Vutter form the northwest wing, the Angel wing. With the revitalization and restructuring of these business parks, the working climate and the cityscape have improved considerably. The continuation of the Parallelweg to the Hambakenweg has led to a complete metamorphosis of the business park Ertveld, which is easily accessible. This has changed to an attractive working landscape on the water. The villages of Engelen and

Bokhoven, separated by the estate De Haverleij, have retained their character. This area, together with the further developed recreational lake Engelermeer, now forms a prominent recreation area on the outskirts of the city. The radial west has been extended as a cycle path to the Haverleij and the Engelermeer (and Vlijmen).

2. Maas wing (Maasvleugel)

Since the development of the North wing, the Maas Wing, the city borders the Meuse, the urban connecting axis, the radial north, has been extended from the Rompert as a slow traffic route to Oud-Empel and the Maasboulevard. Here, the Bosschenaar can enjoy the water activities and nature on and along the Meuse. The construction of a small berth for pleasure yachts has stimulated the arrival of a catering facility at the head of the Maasboulevard and animated this striking city edge. This development took place simultaneously with the further development of the nature of the floodplains, in combination with the expansion of the riverbed. As a result, high water in the Meuse can drain more quickly. Train station Maaspoort have a good connection from the north side of the city: on the one hand towards the center of the city with the central station and the other hand towards Utrecht.

3. The Rosmalen wing (Rosmalense-vleugel)

The eastern, Rosmalen wing connects the city with Rosmalen and the expansion site De Groote Wielen. Rosmalen is separated from the city by the canal park along the re-routed Zuid Willemsvaart and a new stream, the Rosmalense AA. This wing is modestly extended to the east with a new residential area: The Bunders formerly referred to as De Blokken. Rosmalen and the city are now well connected by various car and bicycle connections such as a quick cycle route along the track. Also, Rosmalen and the central station are connected by high-quality public transport (HOV) axis. The new Oostelijke Landweg offers new access on the east side of Rosmalen and is a condition for a continuation of the Kom Rosmalen. The crucial urban communication routes between the city center and the beautifully improved Rosmalen's is via the Graafsebaan and the Bruistensingel. Also from this village center, good slow traffic routes run to the outskirts: Gewande aan de Maas, Autotron, and Hooze Heide. Autotron has been (further) developed into an exciting event site.

4. The Gestelse wing (Gestelsevleugel)

The development of the southeast wing, the Gestel wing, is firmly determined by the landscape development of the Kloosterstraat and the further urbanization of the Meerendonk with a new residential area, football fields and an elevated neighborhood park on the former waste mountain. Along the A2 the contours of the monastery cave have become visible again. In De Meerendonk, smaller business villas have been erected on islands along the highway before the more or less adjacent business buildings, along the foot of the green hill. This has resulted in robust wet nature, which forms a link between the dynamic stream valley of the Aa and the Dommel valley. In this renewed landscape are spread out on terpen boerenhofsteden. The N279 has been upgraded to the motorway and has a well-functioning connection to the A2. The new city entrance now lies along the south side of the old route of the Zuid-Willemsvaart and guarantees optimal access to the Meerendonk. The new large-scale transferium has been extended

to include urban amenities such as childcare, pick-up point for shopping in the center, loan bikes and an urban information desk. The Lambooy Bridge has also been tackled. The new urban development accentuates this city entrance and now forms the backbone of the Gestel wing.

5. The Vughter Wing (Vughtervleugel)

The oldest urban wing is mainly outside the municipal boundaries. It concerns the southwestern or Vughter wing. In Vught, the elite of the city traditionally lived, attracted by the greenery and the space of the higher sandy soils. The monumental Taalstraat connects the center of this village with the Bossche center. De Randweg, together with the important ecological links between the nature reserves of the Bossche Broek and De Gement, forms a fully-fledged southern city entrance. With the redesign of the 'Heetmanplein,' the fortifications that have disappeared have appeared again. The Vughterweg has also become very attractive through re-profiling.

Urban connection axes, radial access structure

Urban communication axes between the centers of the wings and the inner city ensure that the wings are well connected to the city center. These axes form major spatial carriers of the city boroughs with existing roads. Together with the radial structure of the regional road structure, the inner city has become more and more physically and mentally the heart of the city and the region. Due to the construction of large transfer areas along the approach roads and extensive parking facilities on the edge of the city center, the inner city has become more traffic-free, and the quality of life will be improved. The streets and squares will be redecorated with more space for pedestrians. For the cyclists, extensive parking facilities will be installed in the city center and at the station. Fast, comfortable and frequent bus connections link the inner city with the district centers. Attractive pedestrian and recreational cycle paths along the watercourses, dikes and in the green areas provide attractive, relaxed alternatives. From the centers in the wings, footpaths and cycle paths have also been laid out for attraction points in the city edges. So inhabitants can cycle from the Rompert via a separate cycle path to the Maasboulevard and from the Rosmalen bowl to the Hertogemaal in Gewande.

Infrastructure and public space

The measures from the price note have improved the accessibility and livability of the city. By giving priority to the pedestrian, the residential areas have been considerably enlarged, and the extension of the road structure has remained virtually limited to improving the main road structure (flow axes). For the sake of a suitable living environment, an optimal balance in the public space between the facilities has been worked on. For traffic movements and traffic-free residential areas, parks and public gardens have become more attractive by dealing with the urban water issue creatively. Electric cars and buses have significantly reduced traffic noise and emissions. Bicycle traffic and the use of public transport have increased. The share of car traffic has declined and moved further to the outskirts of the city. Together with the development of a new central access road to the city, a 'Ring' of motorways around the city and some 'flow-through axes' in the city, unnecessary driving around the city has been significantly reduced. Beautiful city entrances mark the entrance to the city from the highway. The axes connect the urban

wings directly with each other. Just like De Groote Wielen, Rosmalen is opened up from ring roads, so that continuous connections through the cores and the city center are no longer necessary. The city center is accessible for car traffic using exits from the flow axes and via old approach roads from the region. From transfer stations on all directions, fast bus connections and water taxis take passengers to the city center. A city distribution center prevents unnecessary freight traffic in the city center and is a collection point for E-commerce products. A multimodal transport hub in the Rietveldhaven encourages the ever-growing freight transport over water. The reconstructed Zuid-Willemsvaart makes new inland shipping possible from the Maas to Eindhoven and Helmond and forms an essential link in the system of canals in the south of the Netherlands and Flanders.

Mobility and infrastructure

Given the expectation of sustained growth in mobility and perhaps a doubling in freight transport, substantial efforts are being made to improve accessibility, also in the interest of the quality of life and the economic functioning of the city and region. The main aim here is to develop the cross-linking of the infrastructure to spatial developments. At the same time, promoting accessibility by road, rail and water are essential. The city focuses on good accessibility and livability. Waste of energy is countered, and spatial quality is improved by limiting mobility through a right balance between moving and staying. This means that the urban design structure and the infrastructure are carefully coordinated. Maximum effort is being made to make mobility more sustainable by, among other things, innovation (such as electric transport) and the use of public transportation and bicycles. This is aimed at limiting the use of the car. Selective accessibility and a more selective parking policy cannot be avoided. However, building, refurbishing or better-utilizing infrastructure remains necessary to facilitate transport demand. A significant challenge for the city is the intensification of the use of space. The accompanying growth of motorized traffic and rail transport put the livability in the city under constant pressure. This mainly concerns noise and air pollution, but also the safety of the transportation of hazardous substances.

Local main infrastructure

The central infrastructure of the city is formed by an integrated system of flow axes for cars, bicycles and public transport. The objective of flow-through channels is to guarantee the flow of traffic there as fast as possible.

For the approach of this system of flow through axes, work is being done by the 'Verdaas Ladder,' which first looks at stimulating bicycle use and public transport, traffic management (including route and parking information) and utilization of existing infrastructure and only then for large-scale physical interventions. First and foremost, it is, of course, essential to coordinate spatial developments and infrastructure through an integrated spatial vision so that as much use as possible can be made of existing infrastructure and better utilization of existing infrastructure.

4.5.2 EFFECTS OF MOBILITY BEHAVIOR AND LIFESTYLE IN MOBILITY PLANNING

Bringing about planned behavioral changes that promote current transport systems will require a deeper understanding of complicated social phenomena; hence, it will require research on the behavioral foundations of such phenomena (Rudinger, Donaghy & Poppelreuter, 2006).

Interview with policymaker and mobility planner explained that policymakers in the municipality have an adaptive and dynamic mobility plan consisting on long-term goals (10 years) and an execution plan for two years. Every two years they make a new plan which gives more opportunities to adapt to changing circumstances. For example; if the rise of e-bike or electric cars grows faster than expected, they can improve their policy more quickly. Nowadays policy experts based on studies, data analysis, talking with stakeholders and government, write the mobility plans for the city. The plan is focused on four pillars: hardware (infrastructure), software (ICT/smart mobility), mindware (behavioral measures) and Edgware (organization, cooperation between stakeholders). The plan's goals include accessibility, livability, sustainability, hospitality, and activity. Therefore, they explicitly focus beyond 'only' accessibility and include these other goals, such as creating a healthy and sustainable city. The third pillar of mobility plan in this city is mindware, which is still needed to be focused on that.

Policymaker of s-Hertogenbosch, Ron Bos believes that only by connecting fundamental values of inhabitants such as health, income, easiness, sustainability, etc. lifestyles of people can effect on city planning. Interview with expert emphasis on the other aspects of inhabitants which is life phase. People's needs change during life. For example, If they ask the students in the city, their answers are different after graduating and when they become employees, same accounts for people once they have children or when retiring.

On another hand, mobility planners of this city considering lifestyles as a new tool. With this tool, they can easily influence the mobility behavior of people. Besides, this tool can help them to recognize the need of citizens in the details.

5. CONCLUSION AND RECOMMENDATION

This section focuses on answering the research questions presented in the introduction. These questions are formulated to highlight more clearly the research objective of this study. Notably, the conclusion of each case study/chapter is not repeated here exactly.

1. Which factors are used to define lifestyle and mobility behavior in a city?

In this research and based on data availability we used the following attributes such as satisfaction of using different transportation modes, modal choice of inhabitants in mobility, transportation expectation within five years and age range are the factors which were used to define mobility behaviour . To identify different types of lifestyle, socio-demographic factors have been considered including age, income, type of households, quality of neighborhood, activity, insurance and educational level.

2. What are the different lifestyles in 's-Hertogenbosch?

In total, the inhabitants are categorized in eight lifestyles. In this city, five types of this lifestyles are determined such as business oriented, luxury oriented, connoisseurs, conservative, committed, open-minded and moderate people.

3. What are the current mobility behavior of citizens?

The findings of this study show that there is not a considerable difference between mobility behavior of the citizens. According to the results of k-means, clustering mobility behavior are divided into five patterns as the cyclists, two different moderate patterns, public transport users and car-oriented citizens.

4. What is the relationship between mobility behavior and citizens' lifestyle in 's-Hertogenbosch?

Comparing mobility behaviors and lifestyles in s-Hertogenbosch show that in this city, as expected people with lower income who are less educated, non-western immigrants and religious people are more in favor of using public transportation than the others. They expect train as a primary mode of transportation within five years. Bike users are diverse groups of people, mainly live in city center or close to it. Regarding quality of the neighborhoods, they gain average in all aspects. Satisfaction using the bike is high among them. They own car less than the other. The number of young people is high. Moderate users of all modes, almost use all available modes in the city. The satisfaction of public transportation is low. Most of them have a high income, well educated, type of household are single parents and family. The score of neighborhoods regarding quality they gain more than "average." Car-oriented citizens who are often with high income and educational level and live far from the city center. They expect the car as a primary mode of transportation within five years. These aspects provide the policy maker with opportunities for targeted action and information based on inhabitants needs and demands.

5. What is the current mobility plan in 's-Hertogenbosch?

Looking to the spatial structural vision, the compact and contrast-rich city was introduced as the starting point for spatial development. This 'spatial motto' plan is continuously being applied, convincing the urban planners that this scheme provides the right basis for a sustainable spatial mobility planning.

6. How can correlation between mobility behavior and different lifestyles affect mobility plan in 's-Hertogenbosch?

One of the main outcomes of this study is that mobility planning in the Netherlands are mainly based on "Hardware" and "Organization". Cultural aspects have not influenced planning yet. Only by connecting fundamental values of inhabitants such as health, money, easiness, etc. lifestyles of people can influence city mobility plan.

Data scarcity is one of the main limiting issues in this study. For example, the survey only focused on how people commute to inner city, and the data does not provide a bigger picture in terms of inhabitant's movements to other destinations in the city. On the other hand, data was only based on quarters of the city, and was not a well representative of the individuals throughout the city.

on lifestyle issue and connecting it to the mobility behavior and mobility plan of the city is new concept for the Netherlands. To develop an in-depth understanding of mobility behavior and lifestyle, it is recommended to design a new survey, which, include mobility and lifestyle factors. One way of proper planning can be recognizing values and mobility behavior of each inhabitant. By having this through information, urban planners of the target city in this study are able to better determine citizen's demands and its effect on their lifestyles and mobility behavior. Since this study focused only on the aspect of daily mobility to one destination, to have a better overview, it is worth to analyze other aspects such as long-term mobility pattern, to find out why and how inhabitants of a city choose a particular neighborhood and place to live.

Final remarks

By what studied and based on the results of different steps, several critical points regarding the effect of lifestyles and mobility behavior in the city on spatial/mobility planning must be mentioned here.

- Map 6 (see chapter 4.5.1) shown that the city development is only based on geographic division. In other words, city planning is based on hardware layers, and software layers it is not included yet. Adding cultural division as another layer on this map which shows how different mobility behavior and lifestyles are scattered in the city can provide an in-depth understanding of software pillar for planners and policymakers.
- The municipality needs to conduct a new survey or add some questions into the current survey, to be able to clarify lifestyles.

- Results of correlation and regressions shows that, to improve the current situation these variables need more attention (see chapter 4.2) : “Bus satisfaction”, “train satisfaction”, “Car satisfaction”, “Pedestrian satisfaction”, “OV- chip card “(bus users), “Car ownership”, “bike ownership”, “E-bike ownership”, “Having OV card within five years” and “place of living “. The final equation of regression efficiently can use as a tool to know how changing different variables can effect on the current situation of the city.

Reflection on working and learning process

In the beginning, I underestimated writing this thesis. Study one city regarding lifestyles, mobility behavior, and Spatial and mobility planning was a considerable work. Before I start writing my thesis I had an interview with a policy maker in the municipality of s-Hertogenbosch, after that, I feel confident about my subject, but when I received data from them, I found out the data was not the way I expected. So I must learn new techniques to deal with data. It was not a natural process. But finally, not only I analyzed data but also I learn lots of new way of analyzing statistical information. I enjoyed this step.

Due to lack of time, I could not have time to interview with inhabitants regards to lifestyles. So I consider each quarter of the city has same lifestyles. Through this process, I learned a lot about lifestyles in the Netherlands, WIN model and how this model can influence marketing as well.

In this process, my supervisor helped me a lot. I did not have this chance to meet him face to face, but even via email, his feedbacks were helpful enough.

Besides studying, I'm working as an urban planner. During this study, I deal with a new pillar of planning which is software. Learning more about this pillar is useful in my profession, too. Coping with lifestyles issue and plan based on that has not been sufficiently addressed in practice.

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Appendix-A (Interview questions):

Hi,

My thesis is about “The role of lifestyle and mobility behavior in influencing spatial/mobility planning in s-Hertogenbosch. At first step, I studied different mobility behavior and life styles in the city, and now I want to find the effect of that on policy setting in the city.

1. May I ask you to introduce yourself?
2. What do you do?
3. What is your background?
4. What is the current situation regarding mobility behavior in the city?
5. What is the level of mobility policy setting in this city? (National, local,..)
6. What are the strengths of transportation in this city? Why?
7. What are the weaknesses? Why?
8. What is the mobility plan for next five years?
9. How do you make a mobility plan? Do you have any specific framework or rules to stick on it?
10. How residence involved in this process?
11. How do you recognize residence demands?
12. What do you think about the relationship between lifestyle and mobility pattern?
13. Do you think by influencing people’s lifestyle can you effect on mobility behavior in a city?
14. How much municipality is aware of the influence of residence lifestyle in planning?
15. I want to show you my results about studying mobility behavior and lifestyle .Are they make significant changes on current policy setting?

Thanks!

Appendix B (Interviews summary)

Interview 1

The first interview was done with Ron Bos. This interview done by email, 25-5-2018

Hi,

My thesis is about “The role of lifestyle and mobility patterns in influencing mobility policy in s-Hertogenbosch”. At first step, I studied different mobility pattern and life style in the city, and now I want to find the effect of that on policy setting in the city.

1. May I ask you to introduce yourself?

My name is Ron Bos, MSc in urban planning, working 2 years now as a policy advisor on strategic urban mobility at municipality of DB. Before I have worked 10 years as a mobility consultant focusing on mobility issues in relation to urban development.

2. What do you do?

I am working as one of the policy makers at the municipality, co-responsible for the urban mobility plan of DB ‘Actualisatie Koersnota 2017’. I mainly focus on studies regarding the future accessibility of the city and projects related to smart mobility and mobility management with stakeholder in the city.

3. What is your background?

Bsc Urban Planning at NHTV Breda and Msc urban planning at Wageningen university.

4. What is the current situation regarding mobility pattern in the city?

Regarding the external accessibility of DB this is a hot topic as both rail and highway accessibility are becoming more problematic. Regarding the internal accessibility, we have some focus points (knelpunten) in Paleiskwartier (a dense urban area in the southern part of the city). Next to that, the need for sustainable mobility (CO2) is a topic.

5. What is the level of mobility policy setting in this city? (National, local,...)

As being a municipality the main focus is local, though the last years the regional and especially national level are becoming more important. We now are in study with the regional (province) and national government, both regarding the rail accessibility and road accessibility.

6. What are the strengths of transportation in this city? Why?

One of our strengths is a coherent and safe bicycle infrastructure network consisting of several non-stop cycle paths connecting suburbs with the city center. This is now being elaborated with cycle highways connecting the regional towns with the city. We also have enlarged our bicycle parking's at the main station.

The same accounts for car accessibility; we have several 'doorstroomassen' (main axes) which provide enough capacity for cars to flow, reducing car traffic in the living areas itself.

7. What are the weaknesses? Why?

Db have been building more suburbs in the north and east, enlarging the travel distances to the city center and main station. Combined with a lot of highways surrounding these suburbs, the use of cars and car ownership is high in these areas. In other words: the car accessibility is better the bike or PT accessibility.

8. What is the mobility plan for next five years?

We have an adaptive and dynamic mobility plan consisting on long term goals (10 years) and an executive plan for 2 years. Each 2 years we make a new plan which gives us more opportunities to adapt to changing circumstances. For example; if the rise of e-bike or electric cars grows faster than expected, we can change our policy faster.

9. How do you make a mobility plan? Do you have any specific framework or rules to stick on it?

We wrote the plan ourselves, based on studies, data analysis, talking with stakeholders and government. The plan is focused on 4 pillars: hardware (infrastructure), software (ICT/smart mobility), mindware (behavioural measures) and orgware (organization, cooperation between stakeholders). The plan's goals include accessibility, livability, sustainability, hospitality and activity. Therefore, we explicitly focus beyond 'only' accessibility and also include these other goals, such as creating a healthy and sustainable city.

10. How residence involved in this process?

Each 2 years we make a survey (you have it now) asking our citizens how they feel about mobility. Next to that, we organized meetings with stakeholders.

11. How do you recognize residence demands?

Based on the survey and meetings with 'lobby groups' which were included in the meetings.

12. What do you think about the relationship between lifestyle and mobility pattern?

People on the one hand choose their own lifestyle, though sometimes they are constrained to some limits. For example, if the travel time of PT or bicycle is more than 2x the car, it is logical they choose the car. On the other hand, people choose their living locations based on their preferences; some choose inner city urban living lifestyle, other prefer to have multiple cars.

13. Do you think by influencing people's lifestyle can you effect on mobility pattern in a city?

Yes. But only by connecting to their basic values such as health, money, easiness, sustainability, etc. Not by telling them to use the bike only because it is better for the city or planet.

14. How much municipality is aware of the influence of residence lifestyle in planning?

I think this is being recognized but not enough yet. Our third pillar 'mindware' of the mobility plan is focused on behavior and lifestyle, but more information is needed I think.

15. I want to show you my results about studying mobility pattern and lifestyle .what do you think about them? Are they make significant changes on current policy setting? How much municipality is aware of the influence of residence lifestyle in planning?

I think this is being recognized but not enough yet. Our third pillar 'mind ware' of the mobility plan is focused on behavior and lifestyle, but more information is needed I think. By working with lifestyles and knowing where these lifestyles are situated (in which areas) we have a better understanding of what the needs are for the inhabitants regarding mobility. This might help improving our policy and measures taken.

Interview 2

Seconde interview done with Tonny Bosch, at 10-06-2018 by email but he write it down the answers on paper and send the hardcopy. He is a mobility planner. In below there is a summary of interview with him:

I am Tonny bosch. I am a mobility planner. I was as a director at Goudappel Coffeng (1991-2011) and now I have my own company which cooperate with different municipality in the Netherlands.

About mobility planning: since that start of my profession on traffic and transportation planner, multi modality has grown up.... Environmental issues, road safety, interactive plan processing , health and private are new in this field.

Hardware and mobility: On a national level , they gathered 10 years data The next step will be the national and local level.

Lifestyle as a tool: On local level there is important to know the mobility patterns . He explained an example about using lifestyle as a tool in USA. To promote the cycling they asked a dress designer to design dresses only for cyclist to encourage people to cycle.

Strength of lifestyle: The strength of this lifestyle tool is representative of that local authorities needs and demands.....

Interview 3

The last interview done with Nico Aardoom at 8-06-2018.

? What do you do? What is your background?

I studied Applied Physics at the Delft University of Technology. After my studies, I worked as a researcher in socio-economic research at the Ministry of Housing, Spatial Planning and the Environment. Here I gained experience with socio-economic analyzes and the translation into policy in the field of public housing, as well as the development of dynamic housing market model

What is the current situation regarding mobility behavior in the city? What are the strengths of transportation in this city? Why? What are the weaknesses? Why? What is the mobility plan for next five years?

In short; the city consists of 3 area's: inner city, the second ring of neighborhoods and suburban areas (outside the circle of highways). And a fourth is a rural area. We analyzed all these areas differ in use of modes of transport. This will be the starting point for our mobility policy. We will shift from an overall approach (less car more bike) and have a more geographical approach. It is not realistic to state people will use more bike if they own 2 or 3 vehicles in suburban areas... Also, public transport is a minor issue; especially bus use is low and will not rise.

Because the city is growing very fast there is more and more traffic, and so there is more congestion, and the buses are between the cars. Therefore, we have a lot of discussion about how to manage this one way is building more separate infrastructure but there is not enough space, sometimes there is but sometimes there is not. Therefore, you discuss to getting a ride of the cars in the city. City and our policy are to force the cars to go out the rings and then you can get more room only in excising infrastructure for the public transport. Is a complicated issue because of different parties about

Appendix C : Clustering results

Quick Cluster

Notes

Output Created	24-MAY-2018 17:46:09	
Comments		
Input	Data	D:\Radboud\Thesis\Municipality data\My data.sav
	Active Dataset	DataSet2
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	14
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on cases with no missing values for any clustering variable used.

Syntax

QUICK CLUSTER VSBTF SBTf
NSNUBTf USBTF VUSBTF DNKBTF
VSCTf SCTf NSNUCTf USCTf
VUCTf DNKCTf VAR00009
VAR00010 VAR00011 VAR00012
VAR00013 VAR00014 VAR00015
VAR00016 VAR00017 VAR00018
VAR00019 VAR00020 VAR00021
VAR00022 VAR00023 VAR00024
VAR00025 VAR00026 VAR00027
VAR00028 VAR00029 VAR00030
VAR00031 VAR00032 VAR00033
VAR00034 VAR00035 VAR00036
VAR00037 VAR00038 VAR00039
VAR00040 VAR00041 VAR00042
VAR00043 VAR00044 VAR00045
VAR00046 VAR00047 VAR00048
VAR00049 VAR00050 VAR00001
VAR00002 VAR00003 VAR00004

VAR00005 VAR00006 VAR00007
VAR00008 VAR00051 VAR00052
VAR00053 VAR00054 VAR00055
VAR00056 VAR00058 VAR00059
VAR00060 VAR00061 VAR00062
VAR00063 VAR00064 VAR00065
VAR00066 VAR00067 HB NHB HEB
NHEB HBOM NHBOM HM NHM HC
NHC HEC NHEC HSHC NHSHC HOV
NHOV HBC NHBC HTC NHTC Study
Work NSNW Onfoot WB WM WC
WBUS BTrain NEVER TAF AF
DADDISf DISf TDISf DKf TAB AB
DADDISB DISB TDISB DKB TAM AM
DADDISM DISM TDISM DKM TAC AC
DADDISC DISC TDISC DKC TABU
ABU DADDISBU DISBUS TDISBU
DKBus TAT AT DADDIST DIST TDIST
DKT

			Man019 man2039 m4059 m6079 M80 W019 w2039 w4059 w6079 w80
			/MISSING=LISTWISE
			/CRITERIA=CLUSTER(5) MXITER(10) CONVERGE(0)
			/METHOD=KMEANS(NOUPDATE)
			/SAVE CLUSTER DISTANCE
			/PRINT ID(Placename) INITIAL ANOVA CLUSTER DISTAN.
Resources	Processor Time		00:00:00.06
	Elapsed Time		00:00:00.06
	Workspace Required		40920 bytes
Variables	Created	or QCL_5	Cluster Number of Case
Modified		QCL_6	Distance of Case from its Classification Cluster Center

Initial Cluster Centers

	Cluster				
	1	2	3	4	5
High satisfaction by bike to and from	71.95	48.96	43.59	12.73	84.70
Satisfied by bike to and from	111.62	92.96	102.71	68.80	106.04
Not sat/not un by bike to and from	11.39	12.96	13.53	13.27	20.46

Unsatisfied by bike to and from	5.28	.00	2.34	5.56	4.84
Very unsatisfied by bike to and from	.63	.00	.50	.00	.88
Do not know by bike to and from	10.13	5.12	4.18	6.63	3.08
High satisfaction by car to and from	36.23	16.38	30.91	20.45	42.86
Satisfied by Car to and from	136.83	113.26	90.05	74.92	140.45
Not sat/not un by car to and from	21.11	14.35	25.20	13.22	31.69
Unsatisfied by car to and from	6.21	8.27	12.26	1.36	12.54
Very unsatisfied by car to and from	2.90	3.74	2.86	.79	.00
Do not know by car to and from	3.52	.00	6.55	2.26	.68
High satisfaction by car to and from	26.31	15.71	17.67	.69	25.60
Satisfied by bus to and from	64.44	74.64	62.61	11.95	52.60
Not sat/not un by bus to and from	24.52	16.96	22.33	17.29	26.60
Unsatisfied by bus to and from	10.74	2.78	3.15	25.20	27.80
Very unsatisfied by bus to and from	.54	5.28	1.23	16.00	14.80
Do not know by bus to and from	52.45	23.63	30.00	14.88	52.60

High satisfaction by train to and from	91.02	24.97	46.73	3.70	49.35
Satisfied by train to and from	87.54	58.41	64.81	14.84	136.50
Not sat/not un by train to and from	13.74	7.70	5.81	8.62	15.12
Unsatisfied by train to and from	1.85	.55	4.49	8.12	1.89
Very unsatisfied by train to and from	1.85	2.20	1.45	6.50	.00
Do not know by train to and from	9.02	16.17	8.84	14.22	7.14
High satisfaction by foot within	88.24	46.08	53.70	8.77	59.81
Satisfied by foot within	125.63	105.12	106.15	67.52	144.03
Not sat/not un by foot within	10.49	11.32	11.64	8.47	13.66
Unsatisfied by foot within	2.05	.66	5.01	9.59	3.14
Very unsatisfied by foot within	.00	.00	1.25	1.22	.90
Do not know by foot within	1.82	.82	1.07	6.53	2.69
High satisfaction by bike within	79.21	52.00	49.65	7.21	74.81
Satisfied by bike within	113.71	99.59	110.37	79.29	130.76
Not sat/not un by bike within	17.79	9.78	8.82	5.83	12.21
Unsatisfied by bike within	1.74	1.63	3.46	7.63	1.55
Very unsatisfied by bike within	.65	.00	.00	.00	.00
Do not know by foot within	4.12	.00	.52	6.04	2.66

High satisfaction by car within	17.40	16.64	16.95	6.55	23.84
Satisfied by car within	101.00	91.52	85.09	75.15	129.84
Not sat/not un by car within	56.00	29.60	31.62	19.98	51.53
Unsatisfied by car within	14.40	18.08	21.03	5.33	13.62
Very unsatisfied by car within	4.20	4.32	2.61	1.67	1.59
Do not know by car within	7.00	.00	5.71	2.44	6.58
High satisfaction by bus within	15.93	14.99	16.68	.00	14.31
Satisfied by bus within	69.27	77.91	65.25	22.28	55.86
Not sat/not un by bus within	28.46	20.58	23.64	6.97	34.89
Unsatisfied by bus within	7.88	9.11	12.04	14.42	22.74
Very unsatisfied by bus within	1.07	1.47	.00	17.98	11.96
Do not know by bus within	56.21	22.93	27.41	19.36	56.25
High satisfaction by foot own	100.11	49.22	77.38	30.06	97.63
Satisfied by foot own	116.68	100.97	93.37	66.44	106.45
Not sat/not un by foot own	6.81	4.87	10.04	10.51	12.88
Unsatisfied by foot own	1.14	10.92	3.91	5.31	5.20
Very unsatisfied by foot own	.00	1.85	.56	.68	3.84
Do not know by foot own	2.50	.00	.56	.00	.00
High satisfaction by bike own	88.53	56.86	75.86	30.28	97.67
Satisfied by bike own	106.82	90.56	86.42	65.20	107.71
Not sat/not un by bike own	18.06	7.13	11.26	13.00	8.25
Unsatisfied by bike own	2.90	7.45	1.58	4.63	6.69

Very unsatisfied by bike own	1.78	.00	.00	.00	2.01
Do not know by bike own	4.68	.00	1.06	.00	.67
High satisfaction by car own	27.13	36.51	47.15	30.74	79.00
Satisfied by car own	88.97	105.79	77.40	68.93	112.96
Not sat/not un by car own	47.52	7.82	24.00	9.94	24.26
Unsatisfied by car own	38.19	11.08	13.35	3.39	11.55
Very unsatisfied by car own	12.59	1.96	4.39	.00	2.54
Do not know by car own	2.39	.00	2.70	.00	.69
High satisfaction by car own	27.23	25.03	31.23	2.85	13.62
Satisfied by bus own	61.41	67.64	61.72	5.18	50.05
Not sat/not un by bus own	22.78	19.88	18.80	7.74	25.58
Unsatisfied by bus own	15.66	10.44	10.51	22.48	27.05
Very unsatisfied by bus own	2.31	2.57	3.26	24.67	20.98
Do not know by bus own	48.59	17.45	22.50	10.07	47.10
High satisfaction by road safety	3.00	8.60	4.20	4.96	18.32
Satisfied by road safety	76.46	78.32	80.41	65.02	114.23
Not sat/not un by road safety	56.36	31.11	39.35	24.43	48.68
Unsatisfied by road safety	57.52	42.46	48.71	21.59	41.93
Very unsatisfied by road safety	37.19	22.33	17.00	1.89	16.39
Do not know by road safety	.69	.00	1.53	.00	1.45
Having bike	15.48	33.30	27.41	25.32	38.32
Does not have bike	215.52	150.70	165.59	94.68	202.68
Have electric bike	219.91	155.48	169.65	79.44	171.11

Dont have electric bike	11.09	28.52	23.35	40.56	69.89
have bommer	216.91	168.36	179.49	101.28	226.06
dont have bommer	14.09	15.64	13.51	18.72	14.94
have motor	221.76	177.93	184.89	109.32	222.93
dont have bommer	9.24	6.07	8.11	10.68	18.08
have car	62.83	42.50	51.72	3.96	17.59
do not have car	168.17	141.50	141.28	116.04	223.41
have electric car	221.30	178.48	187.40	115.08	228.47
do not have electric car	9.70	5.52	5.60	4.92	12.53
have share car	227.54	183.45	192.42	119.28	238.59
do not have share car	3.47	.55	.58	.72	2.41
have ov	76.23	89.42	71.41	89.76	107.73
do not have ov	154.77	94.58	121.59	30.24	133.27
have bus card	226.84	173.51	183.16	120.00	229.43
dont have bus card	4.16	10.49	9.84	.00	11.57
have train card	188.03	165.60	163.47	117.48	211.36
dont have train card	42.97	18.40	29.53	2.52	29.64
Study	69.76	46.24	182.00	41.41	59.21
Work	106.17	59.68	11.00	36.46	12.99
Not study not work	41.86	54.08	51.81	25.13	74.98
by foot to inner city	134.11	6.22	67.55	.65	1.60
by bike to inner city	67.27	102.31	51.64	7.45	110.12
by moped to inner city	.00	5.54	58.94	1.73	.91
by car go to inner city	7.81	26.38	78.41	61.24	74.33

by bus go to inner city	1.30	17.98	2.48	15.23	16.19
by train go to inner city	.00	.00	10.97	.00	10.94
I've never go to inner city	.00	1.18	21.24	8.42	2.28
On foot. (I can easily get to the inner city ...)	162.76	54.90	85.84	17.60	58.46
On foot. (I can easily get to the inner city ...)	55.16	66.00	64.63	34.20	50.63
On foot. (I can easily get to the inner city ...)	6.36	13.80	9.52	6.06	20.71
On foot. (I can easily get to the inner city ...)	2.72	11.10	6.35	8.63	24.19
On foot. (I can easily get to the inner city ...)	.00	2.85	.50	12.70	16.88
On foot. (I can easily get to the inner city ...)	.00	1.20	.00	3.82	3.13
With bicycle / electric bike. (I can easily get to the inner city ...)	111.11	70.36	75.31	19.39	99.63
With bicycle / electric bike. (I can easily get to the inner city ...)	77.70	77.84	80.24	48.29	91.31
With bicycle / electric bike. (I can easily get to the inner city ...)	9.84	5.77	5.44	7.20	12.48
With bicycle / electric bike. (I can easily get to the inner city ...)	2.87	.62	5.10	6.62	2.29
With bicycle / electric bike. (I can easily get to the inner city ...)	.00	.00	.85	3.55	1.04

With bicycle / electric bike. (I can easily get to the inner city ...)	3.49	1.40	2.89	10.94	1.46
With the moped / scooter. (I can easily get to the inner city ...)	28.53	19.68	17.91	5.75	20.23
With the moped / scooter. (I can easily get to the inner city ...)	19.17	31.82	30.41	23.75	24.71
With the moped / scooter. (I can easily get to the inner city ...)	9.54	7.40	4.37	4.40	2.03
With the moped / scooter. (I can easily get to the inner city ...)	1.62	2.66	.00	3.40	.00
With the moped / scooter. (I can easily get to the inner city ...)	.54	.00	1.26	.65	.00
With the moped / scooter. (I can easily get to the inner city ...)	30.60	12.43	20.05	12.05	23.03
By car / motorcycle. (I can easily get to the inner city ...)	19.21	14.16	8.44	13.73	29.68
By car / motorcycle. (I can easily get to the inner city ...)	50.66	55.73	50.52	47.90	101.16
By car / motorcycle. (I can easily get to the inner city ...)	44.03	37.10	35.51	17.09	38.67
By car / motorcycle. (I can easily get to the inner city ...)	37.91	34.87	28.01	12.58	30.10
By car / motorcycle. (I can easily get to the inner city ...)	11.56	5.81	8.31	1.44	4.60

By car / motorcycle. (I can easily get to the inner city ...)	6.46	1.34	3.35	3.26	4.81
By bus. (I can easily get to the inner city ...)	18.33	28.08	26.40	6.32	19.08
By bus. (I can easily get to the inner city ...)	48.36	77.32	60.59	25.36	71.82
By bus. (I can easily get to the inner city ...)	16.78	14.99	14.92	10.48	22.32
By bus. (I can easily get to the inner city ...)	10.86	6.62	11.22	21.52	15.30
By bus. (I can easily get to the inner city ...)	1.69	1.32	.53	6.96	13.68
By bus. (I can easily get to the inner city ...)	44.98	18.82	18.35	9.36	37.98
By train. (I can easily get to the inner city ...)	38.08	9.94	14.70	1.28	41.66
By train. (I can easily get to the inner city ...)	70.31	25.27	31.43	20.36	109.37
By train. (I can easily get to the inner city ...)	9.79	15.68	9.03	5.74	16.74
By train. (I can easily get to the inner city ...)	3.81	7.70	4.20	8.06	8.00
By train. (I can easily get to the inner city ...)	3.26	.00	4.20	10.85	2.23
By train. (I can easily get to the inner city ...)	10.74	11.34	6.37	11.66	8.18
Man019	647.00	2145.00	1983.00	280.00	1116.00
man2039	2638.00	2394.00	3481.00	244.00	844.00
m4059	1704.00	2445.00	2720.00	454.00	1319.00

m6079	1131.00	2108.00	1905.00	279.00	1172.00
M80	200.00	236.00	395.00	37.00	208.00
W019	642.00	2092.00	1949.00	262.00	1001.00
w2039	2700.00	2349.00	3347.00	217.00	744.00
w4059	1475.00	2671.00	2485.00	403.00	1372.00
w6079	1183.00	2257.00	2093.00	253.00	1241.00
w80	412.00	528.00	596.00	41.00	359.00

Iteration History^a

Iteration	Change in Cluster Centers				
	1	2	3	4	5
1	856.900	600.833	.000	645.103	724.752
2	356.935	.000	.000	.000	234.892
3	.000	.000	.000	.000	.000

a. Convergence achieved due to no or small change in cluster centers. The maximum absolute coordinate change for any center is .000. The current iteration is 3. The minimum distance between initial centers is 1573.234.

Cluster Membership

Case Number	Placename	Cluster
1	01 Binne	1
2	02 Zuido	1
3	03 Graaf	1
4	04 Munte	2
5	05 Rosma	2
6	06 Rosma	2
7	07 De Gr	2
8	08 Empel	2
9	09 Noord	4
10	10 Maasp	4
11	11 West	5
12	12 Engel	3
13	13 Nulan	3
14	14 Vinke	3

Final Cluster Centers

	Cluster				
	1	2	3	4	5

High satisfaction by bike to and from	69.66	50.35	43.59	46.07	70.90
Satisfied by bike to and from	105.65	114.30	102.71	97.14	115.16
Not sat/not un by bike to and from	8.18	7.75	13.53	12.49	9.87
Unsatisfied by bike to and from	2.45	.00	2.34	5.51	3.21
Very unsatisfied by bike to and from	.53	.69	.50	2.09	.85
Do not know by bike to and from	6.20	4.91	4.18	8.76	5.82
High satisfaction by car to and from	38.46	22.89	30.91	36.38	31.22
Satisfied by Car to and from	113.73	121.83	90.05	115.20	137.30
Not sat/not un by car to and from	20.46	19.38	25.20	18.31	25.44
Unsatisfied by car to and from	8.50	9.23	12.26	6.94	9.58
Very unsatisfied by car to and from	2.99	4.27	2.86	2.63	3.79
Do not know by car to and from	4.12	.40	6.55	1.63	2.00
High satisfaction by car to and from	24.85	16.85	17.67	2.15	14.02
Satisfied by bus to and from	60.63	81.96	62.61	28.78	58.39
Not sat/not un by bus to and from	25.27	18.86	22.33	22.43	33.25
Unsatisfied by bus to and from	9.86	5.89	3.15	42.48	25.50

Very unsatisfied by bus to and from	2.53	3.94	1.23	25.75	11.84
Do not know by bus to and from	36.85	28.60	30.00	25.06	40.96
High satisfaction by train to and from	56.34	23.07	46.73	12.02	34.25
Satisfied by train to and from	81.31	69.16	64.81	39.34	109.47
Not sat/not un by train to and from	13.73	9.90	5.81	13.40	14.05
Unsatisfied by train to and from	2.30	3.52	4.49	9.76	3.16
Very unsatisfied by train to and from	.82	4.27	1.45	9.51	1.17
Do not know by train to and from	9.50	17.09	8.84	13.64	13.73
High satisfaction by foot within	76.83	44.44	53.70	33.07	60.89
Satisfied by foot within	109.96	121.86	106.15	108.99	131.58
Not sat/not un by foot within	10.93	12.16	11.64	13.91	9.71
Unsatisfied by foot within	1.39	1.63	5.01	8.54	4.58
Very unsatisfied by foot within	.32	.40	1.25	1.55	.47
Do not know by foot within	1.86	1.41	1.07	5.72	2.79
High satisfaction by bike within	73.01	48.09	49.65	35.59	67.64
Satisfied by bike within	105.81	119.45	110.37	118.53	126.18
Not sat/not un by bike within	9.48	9.86	8.82	9.44	10.06
Unsatisfied by bike within	2.34	1.51	3.46	5.48	2.23

Very unsatisfied by bike within	1.90	.70	.00	1.41	.31
Do not know by foot within	2.54	1.39	.52	4.41	1.42
High satisfaction by car within	21.59	21.19	16.95	17.81	19.71
Satisfied by car within	89.46	105.04	85.09	112.87	122.14
Not sat/not un by car within	47.24	31.67	31.62	30.97	45.78
Unsatisfied by car within	14.18	15.67	21.03	11.90	11.62
Very unsatisfied by car within	2.99	3.43	2.61	1.92	2.61
Do not know by car within	4.53	.59	5.71	2.50	3.79
High satisfaction by bus within	19.82	16.84	16.68	2.86	11.28
Satisfied by bus within	62.27	84.08	65.25	40.05	60.15
Not sat/not un by bus within	32.87	24.09	23.64	18.46	37.02
Unsatisfied by bus within	11.75	13.01	12.04	29.48	22.30
Very unsatisfied by bus within	3.00	1.63	.00	19.92	9.96
Do not know by bus within	33.61	22.77	27.41	25.00	39.73
High satisfaction by foot own	86.38	52.29	77.38	52.89	83.06
Satisfied by foot own	107.29	118.24	93.37	101.66	114.26
Not sat/not un by foot own	6.48	5.20	10.04	12.97	8.78
Unsatisfied by foot own	1.66	9.05	3.91	7.93	4.32
Very unsatisfied by foot own	.32	1.33	.56	3.15	2.11
Do not know by foot own	1.35	.31	.56	.40	.59
High satisfaction by bike own	86.41	57.34	75.86	58.14	88.98

Satisfied by bike own	95.15	112.40	86.42	103.34	108.07
Not sat/not un by bike own	9.34	5.15	11.26	12.17	7.91
Unsatisfied by bike own	1.95	4.42	1.58	4.79	3.82
Very unsatisfied by bike own	1.59	.69	.00	1.63	1.26
Do not know by bike own	1.81	.00	1.06	.23	.49
High satisfaction by car own	46.44	37.86	47.15	53.09	57.42
Satisfied by car own	99.09	115.49	77.40	110.01	120.61
Not sat/not un by car own	26.07	14.01	24.00	10.07	20.05
Unsatisfied by car own	14.65	10.44	13.35	4.35	7.05
Very unsatisfied by car own	4.74	3.88	4.39	2.81	2.47
Do not know by car own	1.88	.00	2.70	.00	1.61
High satisfaction by car own	27.96	24.66	31.23	4.36	13.43
Satisfied by bus own	64.91	77.82	61.72	15.60	52.04
Not sat/not un by bus own	21.28	21.03	18.80	14.85	29.75
Unsatisfied by bus own	15.37	12.17	10.51	35.32	26.17
Very unsatisfied by bus own	4.17	2.87	3.26	36.91	20.32
Do not know by bus own	31.03	20.96	22.50	16.62	34.16
High satisfaction by road safety	9.48	11.24	4.20	12.52	10.32
Satisfied by road safety	82.69	95.15	80.41	93.26	101.06
Not sat/not un by road safety	51.11	37.47	39.35	35.65	50.50
Unsatisfied by road safety	41.97	35.88	48.71	36.52	44.24
Very unsatisfied by road safety	23.72	20.06	17.00	8.27	13.41
Do not know by road safety	1.03	.33	1.53	1.07	.88

Having bike	28.98	33.47	27.41	30.69	31.56
Does not have bike	182.02	167.03	165.59	155.79	190.44
Have electric bike	200.99	167.36	169.65	108.48	176.42
Dont have electric bike	17.67	33.14	23.35	53.40	45.58
have bommer	192.94	182.70	179.49	136.54	208.54
dont have bommer	18.06	17.80	13.51	20.36	13.46
have motor	202.30	190.19	184.89	141.56	212.08
dont have bommer	8.70	10.31	8.11	14.48	9.92
Do not have car	48.77	33.40	51.72	11.64	26.86
have car	162.23	167.10	141.28	175.96	195.14
Do not have electric car	204.12	194.38	187.40	145.83	210.42
have electric car	6.88	6.12	5.60	11.95	11.58
Do not have share car	208.99	199.79	192.42	153.52	220.64
have share car	2.01	.71	.58	.48	1.36
have ov	88.10	89.20	71.41	113.22	101.86
do not have ov	122.90	111.30	121.59	57.28	120.14
Do not have bus card	205.96	193.30	183.16	151.59	214.92
have bus card	5.04	7.20	9.84	4.77	7.08
have train card	182.49	182.19	163.47	149.16	198.99
dont have train card	28.51	18.31	29.53	6.91	23.01
Study	63.08	53.50	182.00	55.76	71.10
Work	81.80	72.27	11.00	66.89	71.91
Not study not work	46.38	52.23	51.81	46.35	45.50
by foot to inner city	63.80	3.41	67.55	2.72	14.31

by bike to inner city	97.32	90.83	51.64	35.52	86.68
by moped to inner city	4.11	5.12	58.94	2.51	2.49
by car go to inner city	13.99	57.15	78.41	92.75	72.46
by bus go to inner city	7.10	20.62	2.48	19.36	13.90
by train go to inner city	.00	.00	10.97	.97	4.99
Ive bever go to inner city	2.28	2.12	21.24	8.45	2.59
On foot. (I can easily get to the inner city ...	118.49	46.77	85.84	32.98	67.43
On foot. (I can easily get to the inner city ...	64.53	65.76	64.63	50.86	62.17
On foot. (I can easily get to the inner city ...	7.23	22.19	9.52	13.30	16.78
On foot. (I can easily get to the inner city ...	1.92	13.28	6.35	15.62	20.16
On foot. (I can easily get to the inner city ...	1.68	8.15	.50	16.58	14.48
On foot. (I can easily get to the inner city ...	.88	2.78	.00	4.33	2.17
With bicycle / electric bike. (I can easily get to the inner city ...)	106.05	67.65	75.31	47.08	89.89
With bicycle / electric bike. (I can easily get to the inner city ...)	69.58	94.86	80.24	83.80	92.22
With bicycle / electric bike. (I can easily get to the inner city ...)	5.57	4.54	5.44	8.79	7.85

With bicycle / electric bike. (I can easily get to the inner city ...)	1.89	.59	5.10	5.66	4.09
With bicycle / electric bike. (I can easily get to the inner city ...)	.70	.28	.85	2.09	.63
With bicycle / electric bike. (I can easily get to the inner city ...)	1.93	2.08	2.89	5.25	1.32
With the moped / scooter. (I can easily get to the inner city ...)	26.95	17.38	17.91	14.34	18.99
With the moped / scooter. (I can easily get to the inner city ...)	21.21	32.69	30.41	32.10	29.99
With the moped / scooter. (I can easily get to the inner city ...)	8.17	4.77	4.37	6.41	4.13
With the moped / scooter. (I can easily get to the inner city ...)	1.25	1.33	.00	3.19	1.70
With the moped / scooter. (I can easily get to the inner city ...)	1.57	.00	1.26	.79	.00
With the moped / scooter. (I can easily get to the inner city ...)	22.14	14.32	20.05	13.20	26.62
By car / motorcycle. (I can easily get to the inner city ...)	17.91	14.75	8.44	17.05	22.21
By car / motorcycle. (I can easily get to the inner city ...)	50.49	81.51	50.52	77.50	89.78

By car / motorcycle. (I can easily get to the inner city ...)	42.67	34.92	35.51	32.95	39.69
By car / motorcycle. (I can easily get to the inner city ...)	29.42	29.00	28.01	21.23	23.70
By car / motorcycle. (I can easily get to the inner city ...)	8.15	6.14	8.31	7.06	6.04
By car / motorcycle. (I can easily get to the inner city ...)	5.97	.67	3.35	2.21	4.50
By bus. (I can easily get to the inner city ...)	22.34	29.14	26.40	9.79	19.44
By bus. (I can easily get to the inner city ...)	54.87	87.61	60.59	39.01	63.40
By bus. (I can easily get to the inner city ...)	19.46	19.76	14.92	17.47	24.11
By bus. (I can easily get to the inner city ...)	12.57	8.98	11.22	29.17	19.95
By bus. (I can easily get to the inner city ...)	3.58	1.12	.53	19.77	12.09
By bus. (I can easily get to the inner city ...)	25.89	18.56	18.35	14.73	30.04
By train. (I can easily get to the inner city ...)	21.39	8.02	14.70	7.76	22.99
By train. (I can easily get to the inner city ...)	46.33	26.81	31.43	27.74	71.90
By train. (I can easily get to the inner city ...)	9.33	12.88	9.03	9.54	17.11
By train. (I can easily get to the inner city ...)	5.05	7.46	4.20	8.37	8.80
By train. (I can easily get to the inner city ...)	2.94	3.08	4.20	11.72	3.96

By train. (I can easily get to the inner city ...)	10.95	11.66	6.37	10.83	13.07
Man0-19	1065.00	2099.00	1983.00	528.33	1177.40
man20-39	2042.00	2149.00	3481.00	388.00	996.20
m40-59	1744.00	2607.50	2720.00	720.33	1329.20
m60-79	1221.33	1858.00	1905.00	429.67	732.40
M 80+	250.67	193.00	395.00	58.67	99.60
W0-19	1064.00	1967.00	1949.00	515.33	1115.80
w20-39	2104.33	2122.50	3347.00	358.33	1027.80
w40-59	1696.00	2739.00	2485.00	695.33	1355.00
w60-79	1349.33	1934.00	2093.00	399.00	770.00
w80 +	467.33	375.50	596.00	103.67	161.00

Distances between Final Cluster Centers

Cluster	1	2	3	4	5
1		2125.532	2813.293	3194.876	1808.899
2	2125.532		1877.882	4802.125	3216.871
3	2813.293	1877.882		5945.375	4423.127
4	3194.876	4802.125	5945.375		1644.631
5	1808.899	3216.871	4423.127	1644.631	

ANOVA

	Cluster		Error		F	Sig.
	Mean Square	df	Mean Square	df		
High satisfaction by bike to and from	477.119	4	311.196	9	1.533	.272
Satisfied by bike to and from	183.347	4	370.690	9	.495	.741
Not sat/not un by bike to and from	12.781	4	27.261	9	.469	.758
Unsatisfied by bike to and from	9.625	4	2.713	9	3.548	.053
Very unsatisfied by bike to and from	1.206	4	1.279	9	.943	.482
Do not know by bike to and from	6.923	4	18.964	9	.365	.828
High satisfaction by car to and from	86.690	4	108.651	9	.798	.556
Satisfied by Car to and from	633.951	4	453.849	9	1.397	.310
Not sat/not un by car to and from	32.762	4	21.505	9	1.523	.275
Unsatisfied by car to and from	6.469	4	10.997	9	.588	.680
Very unsatisfied by car to and from	1.217	4	5.719	9	.213	.925
Do not know by car to and from	9.158	4	3.859	9	2.373	.130
High satisfaction by car to and from	200.379	4	24.765	9	8.091	.005
Satisfied by bus to and from	926.353	4	127.365	9	7.273	.007
Not sat/not un by bus to and from	103.964	4	36.602	9	2.840	.089
Unsatisfied by bus to and from	657.806	4	133.821	9	4.916	.022
Very unsatisfied by bus to and from	266.697	4	65.024	9	4.102	.037
Do not know by bus to and from	145.092	4	121.152	9	1.198	.376
High satisfaction by train to and from	835.932	4	365.577	9	2.287	.139
Satisfied by train to and from	2442.622	4	593.014	9	4.119	.036
Not sat/not un by train to and from	19.249	4	26.473	9	.727	.595

Unsatisfied by train to and from	27.080	4	15.395	9	1.759	.221
Very unsatisfied by train to and from	40.487	4	21.023	9	1.926	.190
Do not know by train to and from	22.815	4	38.192	9	.597	.674
High satisfaction by foot within	816.644	4	312.242	9	2.615	.106
Satisfied by foot within	379.569	4	516.524	9	.735	.591
Not sat/not un by foot within	8.771	4	15.014	9	.584	.682
Unsatisfied by foot within	23.648	4	8.606	9	2.748	.096
Very unsatisfied by foot within	.833	4	.405	9	2.055	.170
Do not know by foot within	8.720	4	.681	9	12.797	.001
High satisfaction by bike within	728.321	4	298.418	9	2.441	.123
Satisfied by bike within	210.926	4	418.892	9	.504	.735
Not sat/not un by bike within	.456	4	18.017	9	.025	.999
Unsatisfied by bike within	6.823	4	3.737	9	1.826	.208
Very unsatisfied by bike within	1.602	4	2.351	9	.682	.622
Do not know by foot within	5.555	4	3.045	9	1.824	.208
High satisfaction by car within	8.344	4	70.140	9	.119	.972
Satisfied by car within	661.138	4	417.755	9	1.583	.260
Not sat/not un by car within	194.460	4	82.556	9	2.356	.131
Unsatisfied by car within	23.214	4	17.347	9	1.338	.328
Very unsatisfied by car within	.795	4	1.833	9	.434	.781
Do not know by car within	7.052	4	8.515	9	.828	.539
High satisfaction by bus within	125.490	4	13.706	9	9.156	.003
Satisfied by bus within	599.063	4	209.519	9	2.859	.088
Not sat/not un by bus within	193.863	4	86.370	9	2.245	.144

Unsatisfied by bus within	164.454	4	130.571	9	1.259	.354
Very unsatisfied by bus within	164.721	4	34.221	9	4.813	.024
Do not know by bus within	161.197	4	184.143	9	.875	.515
High satisfaction by foot own	782.416	4	395.816	9	1.977	.182
Satisfied by foot own	180.791	4	435.936	9	.415	.794
Not sat/not un by foot own	23.947	4	8.520	9	2.811	.091
Unsatisfied by foot own	23.787	4	9.179	9	2.591	.108
Very unsatisfied by foot own	3.611	4	1.984	9	1.820	.209
Do not know by foot own	.476	4	.667	9	.714	.603
High satisfaction by bike own	704.638	4	258.506	9	2.726	.097
Satisfied by bike own	190.957	4	505.988	9	.377	.819
Not sat/not un by bike own	17.806	4	17.149	9	1.038	.439
Unsatisfied by bike own	4.503	4	5.099	9	.883	.511
Very unsatisfied by bike own	.744	4	1.964	9	.379	.818
Do not know by bike own	1.423	4	1.534	9	.928	.489
High satisfaction by car own	159.880	4	308.053	9	.519	.724
Satisfied by car own	510.666	4	509.237	9	1.003	.455
Not sat/not un by car own	116.778	4	147.017	9	.794	.558
Unsatisfied by car own	50.672	4	97.559	9	.519	.724
Very unsatisfied by car own	3.039	4	15.576	9	.195	.935
Do not know by car own	2.920	4	2.660	9	1.098	.414
High satisfaction by car own	304.885	4	53.865	9	5.660	.015
Satisfied by bus own	1473.924	4	226.083	9	6.519	.010
Not sat/not un by bus own	115.012	4	88.619	9	1.298	.341

Unsatisfied by bus own	267.268	4	108.174	9	2.471	.120
Very unsatisfied by bus own	581.311	4	213.002	9	2.729	.097
Do not know by bus own	180.374	4	139.943	9	1.289	.344
High satisfaction by road safety	13.931	4	32.863	9	.424	.788
Satisfied by road safety	202.813	4	381.325	9	.532	.716
Not sat/not un by road safety	167.494	4	47.183	9	3.550	.053
Unsatisfied by road safety	56.670	4	103.422	9	.548	.705
Very unsatisfied by road safety	106.096	4	49.640	9	2.137	.158
Do not know by road safety	.298	4	.649	9	.459	.764
Having bike	9.645	4	172.782	9	.056	.993
Does not have bike	661.368	4	1072.904	9	.616	.662
Have electric bike	3538.174	4	1047.945	9	3.376	.060
Dont have electric bike	624.971	4	302.056	9	2.069	.168
have bommer	2507.842	4	1446.806	9	1.733	.226
dont have bommer	27.655	4	16.301	9	1.696	.234
have motor	2489.403	4	1353.442	9	1.839	.206
dont have bommer	16.158	4	36.631	9	.441	.776
have car	649.561	4	258.849	9	2.509	.116
do not have car	941.029	4	1009.201	9	.932	.487
have electric car	2139.308	4	1652.552	9	1.295	.342
do not have electric car	24.561	4	22.078	9	1.112	.408
have share car	2222.421	4	1651.889	9	1.345	.326
do not have share car	1.124	4	2.265	9	.496	.740
have ov	479.942	4	1379.893	9	.348	.839

do not have ov	2319.388	4	727.221	9	3.189	.069
have bus card	2032.847	4	1738.024	9	1.170	.386
dont have bus card	7.243	4	21.933	9	.330	.851
have train card	1239.446	4	1550.553	9	.799	.555
dont have train card	217.330	4	197.641	9	1.100	.413
Study	3453.687	4	107.343	9	32.174	.000
Work	982.805	4	835.039	9	1.177	.383
Not study not work	22.573	4	303.304	9	.074	.988
by foot to inner city	2329.545	4	1202.351	9	1.937	.188
by bike to inner city	1970.517	4	1179.149	9	1.671	.240
by moped to inner city	722.822	4	5.283	9	136.813	.000
by car go to inner city	2652.857	4	1143.801	9	2.319	.135
by bus go to inner city	112.103	4	94.947	9	1.181	.382
by train go to inner city	35.002	4	21.865	9	1.601	.256
Ive bever go to inner city	91.802	4	13.021	9	7.050	.007
On foot. (I can easily get to the inner city ...	3130.219	4	1632.901	9	1.917	.192
On foot. (I can easily get to the inner city ...	102.733	4	100.864	9	1.019	.448
On foot. (I can easily get to the inner city ...	82.728	4	56.552	9	1.463	.291
On foot. (I can easily get to the inner city ...	172.122	4	59.643	9	2.886	.086
On foot. (I can easily get to the inner city ...	133.503	4	52.616	9	2.537	.113

On foot. (I can easily get to the inner city ...)	6.048	4	3.799	9	1.592	.258
With bicycle / electric bike. (I can easily get to the inner city ...)	1526.031	4	522.483	9	2.921	.084
With bicycle / electric bike. (I can easily get to the inner city ...)	298.771	4	397.826	9	.751	.582
With bicycle / electric bike. (I can easily get to the inner city ...)	8.436	4	15.733	9	.536	.713
With bicycle / electric bike. (I can easily get to the inner city ...)	10.756	4	6.134	9	1.753	.222
With bicycle / electric bike. (I can easily get to the inner city ...)	1.374	4	.923	9	1.489	.284
With bicycle / electric bike. (I can easily get to the inner city ...)	7.784	4	8.481	9	.918	.494
With the moped / scooter. (I can easily get to the inner city ...)	64.758	4	61.257	9	1.057	.431
With the moped / scooter. (I can easily get to the inner city ...)	61.280	4	56.288	9	1.089	.418
With the moped / scooter. (I can easily get to the inner city ...)	8.853	4	7.959	9	1.112	.408
With the moped / scooter. (I can easily get to the inner city ...)	2.594	4	2.919	9	.889	.508
With the moped / scooter. (I can easily get to the inner city ...)	1.465	4	1.151	9	1.272	.349
With the moped / scooter. (I can easily get to the inner city ...)	107.898	4	67.134	9	1.607	.254
By car / motorcycle. (I can easily get to the inner city ...)	50.855	4	32.597	9	1.560	.266
By car / motorcycle. (I can easily get to the inner city ...)	899.024	4	663.423	9	1.355	.323

By car / motorcycle. (I can easily get to the inner city ...)	45.270	4	70.604	9	.641	.647
By car / motorcycle. (I can easily get to the inner city ...)	36.907	4	57.164	9	.646	.644
By car / motorcycle. (I can easily get to the inner city ...)	2.892	4	10.121	9	.286	.880
By car / motorcycle. (I can easily get to the inner city ...)	10.951	4	14.736	9	.743	.586
By bus. (I can easily get to the inner city ...)	134.560	4	37.046	9	3.632	.050
By bus. (I can easily get to the inner city ...)	745.312	4	135.374	9	5.506	.016
By bus. (I can easily get to the inner city ...)	32.002	4	39.794	9	.804	.552
By bus. (I can easily get to the inner city ...)	172.554	4	127.536	9	1.353	.323
By bus. (I can easily get to the inner city ...)	168.960	4	153.842	9	1.098	.414
By bus. (I can easily get to the inner city ...)	134.306	4	120.022	9	1.119	.406
By train. (I can easily get to the inner city ...)	164.557	4	162.796	9	1.011	.451
By train. (I can easily get to the inner city ...)	1316.802	4	699.590	9	1.882	.198
By train. (I can easily get to the inner city ...)	43.676	4	31.177	9	1.401	.309
By train. (I can easily get to the inner city ...)	9.884	4	11.268	9	.877	.514
By train. (I can easily get to the inner city ...)	40.087	4	23.725	9	1.690	.236

By train. (I can easily get to the inner city ...)	10.214	4	19.014	9	.537	.713
Man019	909990.890	4	90888.652	9	10.012	.002
man2039	2640573.729	4	112883.422	9	23.392	.000
m4059	1505465.365	4	96264.441	9	15.639	.000
m6079	942057.295	4	129145.393	9	7.295	.007
M80	32758.170	4	5340.948	9	6.133	.012
W019	802276.562	4	98079.274	9	8.180	.005
w2039	2562927.574	4	118465.404	9	21.634	.000
w4059	1535973.762	4	124367.407	9	12.350	.001
w6079	1143478.190	4	156573.852	9	7.303	.007
w80	96811.774	4	26072.426	9	3.713	.047

The F tests should be used only for descriptive purposes because the clusters have been chosen to maximize the differences among cases in different clusters. The observed significance levels are not corrected for this and thus cannot be interpreted as tests of the hypothesis that the cluster means are equal.

**Number of Cases in each
Cluster**

Cluster	1	3.000
	2	2.000
	3	1.000
	4	3.000
	5	5.000

Valid	14.000
Missing	.000

Quick Cluster

Notes

Output Created	24-MAY-2018 17:51:39
Comments	
Input	Data
	D:\Radboud\Thesis\Municipality data\My data.sav
	Active Dataset
	DataSet2
	Filter
	<none>
	Weight
	<none>
	Split File
	<none>

	N of Rows in Working Data File	14
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on cases with no missing values for any clustering variable used.

Syntax

QUICK CLUSTER VSBTF SBTf
NSNUBTF USBTF VUSBTF DNKBTF
VSCTF SCTF NSNUCTF USCTF
VUCTF DNKCTF VAR00009
VAR00010 VAR00011 VAR00012
VAR00013 VAR00014 VAR00015
VAR00016 VAR00017 VAR00018
VAR00019 VAR00020 VAR00021
VAR00022 VAR00023 VAR00024
VAR00025 VAR00026 VAR00027
VAR00028 VAR00029 VAR00030
VAR00031 VAR00032 VAR00033
VAR00034 VAR00035 VAR00036
VAR00037 VAR00038 VAR00039
VAR00040 VAR00041 VAR00042
VAR00043 VAR00044 VAR00045
VAR00046 VAR00047 VAR00048
VAR00049 VAR00050 VAR00001
VAR00002 VAR00003 VAR00004

VAR00005 VAR00006 VAR00007
VAR00008 VAR00051 VAR00052
VAR00053 VAR00054 VAR00055
VAR00056 VAR00058 VAR00059
VAR00060 VAR00061 VAR00062
VAR00063 VAR00064 VAR00065
VAR00066 VAR00067 HB NHB HEB
NHEB HBOM NHBOM HM NHM HC
NHC HEC NHEC HSHC NHSHC HOV
NHOV HBC NHBC HTC NHTC Study
Work NSNW Onfoot WB WM WC
WBUS BTrain NEVER TAF AF
DADDISF DISf TDISf DKf TAB AB
DADDISB DISB TDISB DKB TAM AM
DADDISM DISM TDISM DKM TAC AC
DADDISC DISC TDISC DKC TABU
ABU DADDISBU DISBUS TDISBU
DKBus TAT AT DADDIST DIST TDIST
DKT

			Man019 man2039 m4059 m6079 M80 W019 w2039 w4059 w6079 w80
			/MISSING=LISTWISE
			/CRITERIA=CLUSTER(6) MXITER(10) CONVERGE(0)
			/METHOD=KMEANS(NOUPDATE)
			/SAVE CLUSTER DISTANCE
			/PRINT ID(Placename) INITIAL ANOVA CLUSTER DISTAN.
Resources	Processor Time		00:00:00.03
	Elapsed Time		00:00:00.05
	Workspace Required		45920 bytes
Variables	Created	or QCL_7	Cluster Number of Case
Modified		QCL_8	Distance of Case from its Classification Cluster Center

Initial Cluster Centers

	Cluster					
	1	2	3	4	5	6
High satisfaction by bike to and from	71.95	43.59	48.96	12.73	84.70	76.43
Satisfied by bike to and from	111.62	102.71	92.96	68.80	106.04	129.87
Not sat/not un by bike to and from	11.39	13.53	12.96	13.27	20.46	5.91

Unsatisfied by bike to and from	5.28	2.34	.00	5.56	4.84	4.38
Very unsatisfied by bike to and from	.63	.50	.00	.00	.88	1.53
Do not know by bike to and from	10.13	4.18	5.12	6.63	3.08	.88
High satisfaction by car to and from	36.23	30.91	16.38	20.45	42.86	31.19
Satisfied by Car to and from	136.83	90.05	113.26	74.92	140.45	154.81
Not sat/not un by car to and from	21.11	25.20	14.35	13.22	31.69	28.48
Unsatisfied by car to and from	6.21	12.26	8.27	1.36	12.54	8.36
Very unsatisfied by car to and from	2.90	2.86	3.74	.79	.00	2.49
Do not know by car to and from	3.52	6.55	.00	2.26	.68	.68
High satisfaction by car to and from	26.31	17.67	15.71	.69	25.60	8.14
Satisfied by bus to and from	64.44	62.61	74.64	11.95	52.60	45.14
Not sat/not un by bus to and from	24.52	22.33	16.96	17.29	26.60	39.04
Unsatisfied by bus to and from	10.74	3.15	2.78	25.20	27.80	38.48
Very unsatisfied by bus to and from	.54	1.23	5.28	16.00	14.80	17.39
Do not know by bus to and from	52.45	30.00	23.63	14.88	52.60	36.82

High satisfaction by train to and from	91.02	46.73	24.97	3.70	49.35	30.30
Satisfied by train to and from	87.54	64.81	58.41	14.84	136.50	133.36
Not sat/not un by train to and from	13.74	5.81	7.70	8.62	15.12	12.74
Unsatisfied by train to and from	1.85	4.49	.55	8.12	1.89	3.28
Very unsatisfied by train to and from	1.85	1.45	2.20	6.50	.00	.00
Do not know by train to and from	9.02	8.84	16.17	14.22	7.14	13.51
High satisfaction by foot within	88.24	53.70	46.08	8.77	59.81	51.08
Satisfied by foot within	125.63	106.15	105.12	67.52	144.03	151.42
Not sat/not un by foot within	10.49	11.64	11.32	8.47	13.66	11.53
Unsatisfied by foot within	2.05	5.01	.66	9.59	3.14	7.91
Very unsatisfied by foot within	.00	1.25	.00	1.22	.90	.90
Do not know by foot within	1.82	1.07	.82	6.53	2.69	3.16
High satisfaction by bike within	79.21	49.65	52.00	7.21	74.81	63.14
Satisfied by bike within	113.71	110.37	99.59	79.29	130.76	139.70
Not sat/not un by bike within	17.79	8.82	9.78	5.83	12.21	9.90
Unsatisfied by bike within	1.74	3.46	1.63	7.63	1.55	3.96
Very unsatisfied by bike within	.65	.00	.00	.00	.00	1.54
Do not know by foot within	4.12	.52	.00	6.04	2.66	1.54

High satisfaction by car within	17.40	16.95	16.64	6.55	23.84	16.43
Satisfied by car within	101.00	85.09	91.52	75.15	129.84	129.87
Not sat/not un by car within	56.00	31.62	29.60	19.98	51.53	53.66
Unsatisfied by car within	14.40	21.03	18.08	5.33	13.62	12.70
Very unsatisfied by car within	4.20	2.61	4.32	1.67	1.59	4.16
Do not know by car within	7.00	5.71	.00	2.44	6.58	2.41
High satisfaction by bus within	15.93	16.68	14.99	.00	14.31	9.91
Satisfied by bus within	69.27	65.25	77.91	22.28	55.86	36.46
Not sat/not un by bus within	28.46	23.64	20.58	6.97	34.89	39.14
Unsatisfied by bus within	7.88	12.04	9.11	14.42	22.74	30.41
Very unsatisfied by bus within	1.07	.00	1.47	17.98	11.96	16.30
Do not know by bus within	56.21	27.41	22.93	19.36	56.25	35.78
High satisfaction by foot own	100.11	77.38	49.22	30.06	97.63	70.15
Satisfied by foot own	116.68	93.37	100.97	66.44	106.45	138.92
Not sat/not un by foot own	6.81	10.04	4.87	10.51	12.88	11.50
Unsatisfied by foot own	1.14	3.91	10.92	5.31	5.20	6.90
Very unsatisfied by foot own	.00	.56	1.85	.68	3.84	1.61
Do not know by foot own	2.50	.56	.00	.00	.00	.69
High satisfaction by bike own	88.53	75.86	56.86	30.28	97.67	83.17
Satisfied by bike own	106.82	86.42	90.56	65.20	107.71	131.08
Not sat/not un by bike own	18.06	11.26	7.13	13.00	8.25	7.68
Unsatisfied by bike own	2.90	1.58	7.45	4.63	6.69	3.39

Very unsatisfied by bike own	1.78	.00	.00	.00	2.01	.00
Do not know by bike own	4.68	1.06	.00	.00	.67	.90
High satisfaction by car own	27.13	47.15	36.51	30.74	79.00	56.83
Satisfied by car own	88.97	77.40	105.79	68.93	112.96	144.97
Not sat/not un by car own	47.52	24.00	7.82	9.94	24.26	13.10
Unsatisfied by car own	38.19	13.35	11.08	3.39	11.55	3.33
Very unsatisfied by car own	12.59	4.39	1.96	.00	2.54	2.44
Do not know by car own	2.39	2.70	.00	.00	.69	1.55
High satisfaction by car own	27.23	31.23	25.03	2.85	13.62	6.14
Satisfied by bus own	61.41	61.72	67.64	5.18	50.05	35.03
Not sat/not un by bus own	22.78	18.80	19.88	7.74	25.58	35.86
Unsatisfied by bus own	15.66	10.51	10.44	22.48	27.05	28.72
Very unsatisfied by bus own	2.31	3.26	2.57	24.67	20.98	27.06
Do not know by bus own	48.59	22.50	17.45	10.07	47.10	33.20
High satisfaction by road safety	3.00	4.20	8.60	4.96	18.32	9.20
Satisfied by road safety	76.46	80.41	78.32	65.02	114.23	122.01
Not sat/not un by road safety	56.36	39.35	31.11	24.43	48.68	46.73
Unsatisfied by road safety	57.52	48.71	42.46	21.59	41.93	45.55
Very unsatisfied by road safety	37.19	17.00	22.33	1.89	16.39	11.80
Do not know by road safety	.69	1.53	.00	.00	1.45	.71
Having bike	15.48	27.41	33.30	25.32	38.32	36.58
Does not have bike	215.52	165.59	150.70	94.68	202.68	199.42
Have electric bike	219.91	169.65	155.48	79.44	171.11	173.46

Dont have electric bike	11.09	23.35	28.52	40.56	69.89	62.54
have bommer	216.91	179.49	168.36	101.28	226.06	219.95
dont have bommer	14.09	13.51	15.64	18.72	14.94	16.05
have motor	221.76	184.89	177.93	109.32	222.93	219.24
dont have bommer	9.24	8.11	6.07	10.68	18.08	16.76
have car	62.83	51.72	42.50	3.96	17.59	28.32
do not have car	168.17	141.28	141.50	116.04	223.41	207.68
have electric car	221.30	187.40	178.48	115.08	228.47	221.37
do not have electric car	9.70	5.60	5.52	4.92	12.53	14.63
have share car	227.54	192.42	183.45	119.28	238.59	236.00
do not have share car	3.47	.58	.55	.72	2.41	.00
have ov	76.23	71.41	89.42	89.76	107.73	127.20
do not have ov	154.77	121.59	94.58	30.24	133.27	108.80
have bus card	226.84	183.16	173.51	120.00	229.43	231.04
dont have bus card	4.16	9.84	10.49	.00	11.57	4.96
have train card	188.03	163.47	165.60	117.48	211.36	222.31
dont have train card	42.97	29.53	18.40	2.52	29.64	13.69
Study	69.76	182.00	46.24	41.41	59.21	76.94
Work	106.17	11.00	59.68	36.46	12.99	71.46
Not study not work	41.86	51.81	54.08	25.13	74.98	54.81
by foot to inner city	134.11	67.55	6.22	.65	1.60	.85
by bike to inner city	67.27	51.64	102.31	7.45	110.12	86.07
by moped to inner city	.00	58.94	5.54	1.73	.91	1.06
by car go to inner city	7.81	78.41	26.38	61.24	74.33	76.74

by bus go to inner city	1.30	2.48	17.98	15.23	16.19	11.24
by train go to inner city	.00	10.97	.00	.00	10.94	13.99
I've never go to inner city	.00	21.24	1.18	8.42	2.28	4.88
On foot. (I can easily get to the inner city ...)	162.76	85.84	54.90	17.60	58.46	50.96
On foot. (I can easily get to the inner city ...)	55.16	64.63	66.00	34.20	50.63	74.62
On foot. (I can easily get to the inner city ...)	6.36	9.52	13.80	6.06	20.71	19.29
On foot. (I can easily get to the inner city ...)	2.72	6.35	11.10	8.63	24.19	24.39
On foot. (I can easily get to the inner city ...)	.00	.50	2.85	12.70	16.88	11.65
On foot. (I can easily get to the inner city ...)	.00	.00	1.20	3.82	3.13	1.09
With bicycle / electric bike. (I can easily get to the inner city ...)	111.11	75.31	70.36	19.39	99.63	75.48
With bicycle / electric bike. (I can easily get to the inner city ...)	77.70	80.24	77.84	48.29	91.31	109.34
With bicycle / electric bike. (I can easily get to the inner city ...)	9.84	5.44	5.77	7.20	12.48	7.96
With bicycle / electric bike. (I can easily get to the inner city ...)	2.87	5.10	.62	6.62	2.29	5.51
With bicycle / electric bike. (I can easily get to the inner city ...)	.00	.85	.00	3.55	1.04	1.63

With bicycle / electric bike. (I can easily get to the inner city ...)	3.49	2.89	1.40	10.94	1.46	4.08
With the moped / scooter. (I can easily get to the inner city ...)	28.53	17.91	19.68	5.75	20.23	12.70
With the moped / scooter. (I can easily get to the inner city ...)	19.17	30.41	31.82	23.75	24.71	39.85
With the moped / scooter. (I can easily get to the inner city ...)	9.54	4.37	7.40	4.40	2.03	3.13
With the moped / scooter. (I can easily get to the inner city ...)	1.62	.00	2.66	3.40	.00	4.26
With the moped / scooter. (I can easily get to the inner city ...)	.54	1.26	.00	.65	.00	.00
With the moped / scooter. (I can easily get to the inner city ...)	30.60	20.05	12.43	12.05	23.03	27.06
By car / motorcycle. (I can easily get to the inner city ...)	19.21	8.44	14.16	13.73	29.68	21.31
By car / motorcycle. (I can easily get to the inner city ...)	50.66	50.52	55.73	47.90	101.16	107.74
By car / motorcycle. (I can easily get to the inner city ...)	44.03	35.51	37.10	17.09	38.67	39.40
By car / motorcycle. (I can easily get to the inner city ...)	37.91	28.01	34.87	12.58	30.10	24.92
By car / motorcycle. (I can easily get to the inner city ...)	11.56	8.31	5.81	1.44	4.60	6.63

By car / motorcycle. (I can easily get to the inner city ...)	6.46	3.35	1.34	3.26	4.81	.80
By bus. (I can easily get to the inner city ...)	18.33	26.40	28.08	6.32	19.08	13.94
By bus. (I can easily get to the inner city ...)	48.36	60.59	77.32	25.36	71.82	56.91
By bus. (I can easily get to the inner city ...)	16.78	14.92	14.99	10.48	22.32	18.37
By bus. (I can easily get to the inner city ...)	10.86	11.22	6.62	21.52	15.30	21.81
By bus. (I can easily get to the inner city ...)	1.69	.53	1.32	6.96	13.68	18.37
By bus. (I can easily get to the inner city ...)	44.98	18.35	18.82	9.36	37.98	34.60
By train. (I can easily get to the inner city ...)	38.08	14.70	9.94	1.28	41.66	35.84
By train. (I can easily get to the inner city ...)	70.31	31.43	25.27	20.36	109.37	106.14
By train. (I can easily get to the inner city ...)	9.79	9.03	15.68	5.74	16.74	17.40
By train. (I can easily get to the inner city ...)	3.81	4.20	7.70	8.06	8.00	5.22
By train. (I can easily get to the inner city ...)	3.26	4.20	.00	10.85	2.23	.70
By train. (I can easily get to the inner city ...)	10.74	6.37	11.34	11.66	8.18	8.53
Man019	647.00	1983.00	2145.00	280.00	1116.00	1427.00
man2039	2638.00	3481.00	2394.00	244.00	844.00	1263.00
m4059	1704.00	2720.00	2445.00	454.00	1319.00	1953.00

m6079	1131.00	1905.00	2108.00	279.00	1172.00	1330.00
M80	200.00	395.00	236.00	37.00	208.00	170.00
W019	642.00	1949.00	2092.00	262.00	1001.00	1363.00
w2039	2700.00	3347.00	2349.00	217.00	744.00	1168.00
w4059	1475.00	2485.00	2671.00	403.00	1372.00	2104.00
w6079	1183.00	2093.00	2257.00	253.00	1241.00	1409.00
w80	412.00	596.00	528.00	41.00	359.00	276.00

Iteration History^a

Iteration	Change in Cluster Centers					
	1	2	3	4	5	6
1	.000	.000	600.833	645.103	982.606	639.308
2	.000	.000	.000	.000	.000	.000

a. Convergence achieved due to no or small change in cluster centers. The maximum absolute coordinate change for any center is .000. The current iteration is 2. The minimum distance between initial centers is 1265.162.

Cluster Membership

Case Number	Placename	Cluster	Distance
1	01 Binne	1	.000
2	02 Zuido	6	598.572

3	03 Graaf	6	560.219
4	04 Munte	5	660.073
5	05 Rosma	5	982.606
6	06 Rosma	6	639.308
7	07 De Gr	5	905.317
8	08 Empel	5	578.906
9	09 Noord	3	600.833
10	10 Maasp	3	600.833
11	11 West	2	.000
12	12 Engel	4	684.337
13	13 Nulan	4	317.061
14	14 Vinke	4	645.103

Final Cluster Centers

	Cluster					
	1	2	3	4	5	6
High satisfaction by bike to and from	71.95	43.59	50.35	46.07	69.51	71.15
Satisfied by bike to and from	111.62	102.71	114.30	97.14	111.48	111.73
Not sat/not un by bike to and from	11.39	13.53	7.75	12.49	10.86	6.36
Unsatisfied by bike to and from	5.28	2.34	.00	5.51	2.92	2.15

Very unsatisfied by bike to and from	.63	.50	.69	2.09	.67	.83
Do not know by bike to and from	10.13	4.18	4.91	8.76	7.05	3.11
High satisfaction by car to and from	36.23	30.91	22.89	36.38	31.23	36.78
Satisfied by Car to and from	136.83	90.05	121.83	115.20	132.93	119.72
Not sat/not un by car to and from	21.11	25.20	19.38	18.31	24.68	22.92
Unsatisfied by car to and from	6.21	12.26	9.23	6.94	9.88	9.22
Very unsatisfied by car to and from	2.90	2.86	4.27	2.63	4.12	2.86
Do not know by car to and from	3.52	6.55	.40	1.63	2.33	3.17
High satisfaction by car to and from	26.31	17.67	16.85	2.15	15.49	18.80
Satisfied by bus to and from	64.44	62.61	81.96	28.78	61.70	54.20
Not sat/not un by bus to and from	24.52	22.33	18.86	22.43	31.80	30.11
Unsatisfied by bus to and from	10.74	3.15	5.89	42.48	22.26	19.11
Very unsatisfied by bus to and from	.54	1.23	3.94	25.75	10.46	8.15
Do not know by bus to and from	52.45	30.00	28.60	25.06	42.00	31.64
High satisfaction by train to and from	91.02	46.73	23.07	12.02	35.23	36.10
Satisfied by train to and from	87.54	64.81	69.16	39.34	103.50	96.59

Not sat/not un by train to and from	13.74	5.81	9.90	13.40	14.38	13.40
Unsatisfied by train to and from	1.85	4.49	3.52	9.76	3.12	2.78
Very unsatisfied by train to and from	1.85	1.45	4.27	9.51	1.47	.20
Do not know by train to and from	9.02	8.84	17.09	13.64	13.79	11.00
High satisfaction by foot within	88.24	53.70	44.44	33.07	63.34	64.44
Satisfied by foot within	125.63	106.15	121.86	108.99	126.61	118.55
Not sat/not un by foot within	10.49	11.64	12.16	13.91	9.25	11.28
Unsatisfied by foot within	2.05	5.01	1.63	8.54	3.75	3.34
Very unsatisfied by foot within	.00	1.25	.40	1.55	.36	.62
Do not know by foot within	1.82	1.07	1.41	5.72	2.70	2.31
High satisfaction by bike within	79.21	49.65	48.09	35.59	68.77	67.66
Satisfied by bike within	113.71	110.37	119.45	118.53	122.80	114.47
Not sat/not un by bike within	17.79	8.82	9.86	9.44	10.10	6.85
Unsatisfied by bike within	1.74	3.46	1.51	5.48	1.79	3.08
Very unsatisfied by bike within	.65	.00	.70	1.41	.00	2.20
Do not know by foot within	4.12	.52	1.39	4.41	1.39	1.68
High satisfaction by car within	17.40	16.95	21.19	17.81	20.53	21.26
Satisfied by car within	101.00	85.09	105.04	112.87	120.21	99.08

Not sat/not un by car within	56.00	31.62	31.67	30.97	43.81	46.46
Unsatisfied by car within	14.40	21.03	15.67	11.90	11.34	13.62
Very unsatisfied by car within	4.20	2.61	3.43	1.92	2.22	2.98
Do not know by car within	7.00	5.71	.59	2.50	4.14	3.00
High satisfaction by bus within	15.93	16.68	16.84	2.86	11.62	17.81
Satisfied by bus within	69.27	65.25	84.08	40.05	66.07	51.33
Not sat/not un by bus within	28.46	23.64	24.09	18.46	36.49	36.43
Unsatisfied by bus within	7.88	12.04	13.01	29.48	20.27	19.26
Very unsatisfied by bus within	1.07	.00	1.63	19.92	8.37	8.08
Do not know by bus within	56.21	27.41	22.77	25.00	40.71	26.80
High satisfaction by foot own	100.11	77.38	52.29	52.89	86.29	76.39
Satisfied by foot own	116.68	93.37	118.24	101.66	108.09	114.71
Not sat/not un by foot own	6.81	10.04	5.20	12.97	8.09	8.04
Unsatisfied by foot own	1.14	3.91	9.05	7.93	3.67	3.58
Very unsatisfied by foot own	.00	.56	1.33	3.15	2.24	.86
Do not know by foot own	2.50	.56	.31	.40	.56	.74
High satisfaction by bike own	88.53	75.86	57.34	58.14	90.43	84.62
Satisfied by bike own	106.82	86.42	112.40	103.34	102.32	103.24
Not sat/not un by bike own	18.06	11.26	5.15	12.17	7.96	5.88
Unsatisfied by bike own	2.90	1.58	4.42	4.79	3.93	2.11
Very unsatisfied by bike own	1.78	.00	.69	1.63	1.58	1.00
Do not know by bike own	4.68	1.06	.00	.23	.39	.55
High satisfaction by car own	27.13	47.15	37.86	53.09	57.56	56.34

Satisfied by car own	88.97	77.40	115.49	110.01	114.52	117.76
Not sat/not un by car own	47.52	24.00	14.01	10.07	21.79	14.59
Unsatisfied by car own	38.19	13.35	10.44	4.35	7.98	3.03
Very unsatisfied by car own	12.59	4.39	3.88	2.81	2.48	1.36
Do not know by car own	2.39	2.70	.00	.00	1.62	1.60
High satisfaction by car own	27.23	31.23	24.66	4.36	15.25	20.93
Satisfied by bus own	61.41	61.72	77.82	15.60	56.29	56.11
Not sat/not un by bus own	22.78	18.80	21.03	14.85	28.22	25.64
Unsatisfied by bus own	15.66	10.51	12.17	35.32	25.53	19.72
Very unsatisfied by bus own	2.31	3.26	2.87	36.91	18.64	12.42
Do not know by bus own	48.59	22.50	20.96	16.62	34.40	25.90
High satisfaction by road safety	3.00	4.20	11.24	12.52	10.59	11.55
Satisfied by road safety	76.46	80.41	95.15	93.26	95.82	97.88
Not sat/not un by road safety	56.36	39.35	37.47	35.65	51.44	47.90
Unsatisfied by road safety	57.52	48.71	35.88	36.52	43.91	37.98
Very unsatisfied by road safety	37.19	17.00	20.06	8.27	13.81	15.26
Do not know by road safety	.69	1.53	.33	1.07	.92	1.04
Having bike	15.48	27.41	33.47	30.69	30.30	36.02
Does not have bike	215.52	165.59	167.03	155.79	188.20	176.65
Have electric bike	219.91	169.65	167.36	108.48	177.16	185.51
Dont have electric bike	11.09	23.35	33.14	53.40	41.34	34.82
have bommer	216.91	179.49	182.70	136.54	205.69	193.95
dont have bommer	14.09	13.51	17.80	20.36	12.81	18.71

have motor	221.76	184.89	190.19	141.56	210.29	201.46
dont have bommer	9.24	8.11	10.31	14.48	8.21	11.21
have car	62.83	51.72	33.40	11.64	26.50	37.27
do not have car	168.17	141.28	167.10	175.96	192.00	175.40
have electric car	221.30	187.40	194.38	145.83	207.68	204.14
do not have electric car	9.70	5.60	6.12	11.95	10.82	8.53
have share car	227.54	192.42	199.79	153.52	216.80	211.81
do not have share car	3.47	.58	.71	.48	1.70	.85
have ov	76.23	71.41	89.20	113.22	95.52	105.09
do not have ov	154.77	121.59	111.30	57.28	122.98	107.58
have bus card	226.84	183.16	193.30	151.59	210.89	207.36
dont have bus card	4.16	9.84	7.20	4.77	7.61	5.30
have train card	188.03	163.47	182.19	149.16	193.17	193.91
dont have train card	42.97	29.53	18.31	6.91	25.33	18.75
Study	69.76	182.00	53.50	55.76	69.63	65.47
Work	106.17	11.00	72.27	66.89	72.03	70.23
Not study not work	41.86	51.81	52.23	46.35	43.18	50.70
by foot to inner city	134.11	67.55	3.41	2.72	17.68	19.38
by bike to inner city	67.27	51.64	90.83	35.52	86.83	103.58
by moped to inner city	.00	58.94	5.12	2.51	2.85	4.46
by car go to inner city	7.81	78.41	57.15	92.75	71.39	36.97
by bus go to inner city	1.30	2.48	20.62	19.36	14.56	10.41
by train go to inner city	.00	10.97	.00	.97	2.74	4.66
Ive bever go to inner city	.00	21.24	2.12	8.45	2.02	3.90

On foot. (I can easily get to the inner city ...	162.76	85.84	46.77	32.98	71.55	81.22
On foot. (I can easily get to the inner city ...	55.16	64.63	65.76	50.86	59.05	71.01
On foot. (I can easily get to the inner city ...	6.36	9.52	22.19	13.30	16.16	11.55
On foot. (I can easily get to the inner city ...	2.72	6.35	13.28	15.62	19.11	9.14
On foot. (I can easily get to the inner city ...	.00	.50	8.15	16.58	15.19	5.56
On foot. (I can easily get to the inner city ...	.00	.00	2.78	4.33	2.44	1.25
With bicycle / electric bike. (I can easily get to the inner city ...)	111.11	75.31	67.65	47.08	93.49	94.18
With bicycle / electric bike. (I can easily get to the inner city ...)	77.70	80.24	94.86	83.80	87.94	80.13
With bicycle / electric bike. (I can easily get to the inner city ...)	9.84	5.44	4.54	8.79	7.82	4.94
With bicycle / electric bike. (I can easily get to the inner city ...)	2.87	5.10	.59	5.66	3.73	2.77
With bicycle / electric bike. (I can easily get to the inner city ...)	.00	.85	.28	2.09	.38	1.24
With bicycle / electric bike. (I can easily get to the inner city ...)	3.49	2.89	2.08	5.25	.63	2.12

With the moped / scooter. (I can easily get to the inner city ...)	28.53	17.91	17.38	14.34	20.56	21.67
With the moped / scooter. (I can easily get to the inner city ...)	19.17	30.41	32.69	32.10	27.53	28.10
With the moped / scooter. (I can easily get to the inner city ...)	9.54	4.37	4.77	6.41	4.38	6.03
With the moped / scooter. (I can easily get to the inner city ...)	1.62	.00	1.33	3.19	1.06	2.13
With the moped / scooter. (I can easily get to the inner city ...)	.54	1.26	.00	.79	.00	1.39
With the moped / scooter. (I can easily get to the inner city ...)	30.60	20.05	14.32	13.20	26.51	20.96
By car / motorcycle. (I can easily get to the inner city ...)	19.21	8.44	14.75	17.05	22.43	18.61
By car / motorcycle. (I can easily get to the inner city ...)	50.66	50.52	81.51	77.50	85.29	69.52
By car / motorcycle. (I can easily get to the inner city ...)	44.03	35.51	34.92	32.95	39.76	41.12
By car / motorcycle. (I can easily get to the inner city ...)	37.91	28.01	29.00	21.23	23.40	25.09
By car / motorcycle. (I can easily get to the inner city ...)	11.56	8.31	6.14	7.06	5.90	6.51
By car / motorcycle. (I can easily get to the inner city ...)	6.46	3.35	.67	2.21	5.42	4.09

By bus. (I can easily get to the inner city ...)	18.33	26.40	29.14	9.79	20.81	20.88
By bus. (I can easily get to the inner city ...)	48.36	60.59	87.61	39.01	65.02	57.72
By bus. (I can easily get to the inner city ...)	16.78	14.92	19.76	17.47	25.54	19.99
By bus. (I can easily get to the inner city ...)	10.86	11.22	8.98	29.17	19.49	16.22
By bus. (I can easily get to the inner city ...)	1.69	.53	1.12	19.77	10.52	9.14
By bus. (I can easily get to the inner city ...)	44.98	18.35	18.56	14.73	28.90	22.43
By train. (I can easily get to the inner city ...)	38.08	14.70	8.02	7.76	19.77	20.65
By train. (I can easily get to the inner city ...)	70.31	31.43	26.81	27.74	63.34	58.27
By train. (I can easily get to the inner city ...)	9.79	9.03	12.88	9.54	17.03	11.86
By train. (I can easily get to the inner city ...)	3.81	4.20	7.46	8.37	9.70	5.52
By train. (I can easily get to the inner city ...)	3.26	4.20	3.08	11.72	4.77	2.09
By train. (I can easily get to the inner city ...)	10.74	6.37	11.66	10.83	14.20	10.22
Man019	647.00	1983.00	2099.00	528.33	1115.00	1325.00
man2039	2638.00	3481.00	2149.00	388.00	929.50	1583.67
m4059	1704.00	2720.00	2607.50	720.33	1173.25	1827.00
m6079	1131.00	1905.00	1858.00	429.67	583.00	1287.67

M80	200.00	395.00	193.00	58.67	82.00	240.67
W019	642.00	1949.00	1967.00	515.33	1054.00	1304.33
w2039	2700.00	3347.00	2122.50	358.33	992.75	1593.67
w4059	1475.00	2485.00	2739.00	695.33	1167.75	1905.67
w6079	1183.00	2093.00	1934.00	399.00	610.25	1424.67
w80	412.00	596.00	375.50	103.67	132.25	422.00

Distances between Final Cluster Centers

Cluster	1	2	3	4	5	6
1		2872.503	2832.849	3678.446	2714.856	1889.213
2	2872.503		1877.882	5945.375	4694.962	3095.412
3	2832.849	1877.882		4802.125	3543.848	1882.998
4	3678.446	5945.375	4802.125		1374.983	2980.774
5	2714.856	4694.962	3543.848	1374.983		1772.783
6	1889.213	3095.412	1882.998	2980.774	1772.783	

ANOVA

	Cluster		Error		F	Sig.
	Mean Square	df	Mean Square	df		
High satisfaction by bike to and from	382.562	5	349.554	8	1.094	.432

Satisfied by bike to and from	112.792	5	438.205	8	.257	.924
Not sat/not un by bike to and from	17.172	5	26.326	8	.652	.669
Unsatisfied by bike to and from	8.947	5	2.273	8	3.935	.043
Very unsatisfied by bike to and from	.936	5	1.457	8	.643	.675
Do not know by bike to and from	14.771	5	15.564	8	.949	.500
High satisfaction by car to and from	61.467	5	127.161	8	.483	.780
Satisfied by Car to and from	374.521	5	593.480	8	.631	.682
Not sat/not un by car to and from	19.376	5	28.464	8	.681	.651
Unsatisfied by car to and from	6.899	5	11.294	8	.611	.696
Very unsatisfied by car to and from	1.361	5	6.192	8	.220	.944
Do not know by car to and from	6.001	5	5.170	8	1.161	.404
High satisfaction by car to and from	135.512	5	43.356	8	3.126	.074
Satisfied by bus to and from	764.682	5	128.536	8	5.949	.014
Not sat/not un by bus to and from	67.799	5	50.785	8	1.335	.341
Unsatisfied by bus to and from	455.973	5	194.468	8	2.345	.136
Very unsatisfied by bus to and from	196.633	5	83.605	8	2.352	.135

Do not know by bus to and from	185.314	5	93.020	8	1.992	.184
High satisfaction by train to and from	1023.480	5	189.565	8	5.399	.018
Satisfied by train to and from	1702.651	5	824.295	8	2.066	.173
Not sat/not un by train to and from	15.698	5	29.595	8	.530	.749
Unsatisfied by train to and from	21.656	5	17.325	8	1.250	.370
Very unsatisfied by train to and from	33.038	5	23.246	8	1.421	.313
Do not know by train to and from	16.437	5	44.100	8	.373	.854
High satisfaction by foot within	662.886	5	345.290	8	1.920	.197
Satisfied by foot within	151.721	5	676.048	8	.224	.942
Not sat/not un by foot within	7.886	5	16.348	8	.482	.781
Unsatisfied by foot within	15.554	5	11.784	8	1.320	.346
Very unsatisfied by foot within	.721	5	.422	8	1.710	.238
Do not know by foot within	6.793	5	.881	8	7.711	.006
High satisfaction by bike within	593.115	5	329.185	8	1.802	.219
Satisfied by bike within	42.207	5	550.337	8	.077	.994
Not sat/not un by bike within	18.325	5	9.044	8	2.026	.179
Unsatisfied by bike within	6.083	5	3.813	8	1.595	.265
Very unsatisfied by bike within	2.000	5	2.195	8	.911	.519

Do not know by foot within	5.191	5	2.959	8	1.754	.228
High satisfaction by car within	7.615	5	78.320	8	.097	.990
Satisfied by car within	299.464	5	613.379	8	.488	.777
Not sat/not un by car within	178.548	5	78.513	8	2.274	.144
Unsatisfied by car within	18.629	5	19.479	8	.956	.496
Very unsatisfied by car within	1.259	5	1.672	8	.753	.607
Do not know by car within	7.843	5	8.203	8	.956	.496
High satisfaction by bus within	86.671	5	23.995	8	3.612	.053
Satisfied by bus within	567.865	5	180.325	8	3.149	.073
Not sat/not un by bus within	159.846	5	94.194	8	1.697	.241
Unsatisfied by bus within	115.231	5	157.099	8	.733	.619
Very unsatisfied by bus within	122.682	5	44.183	8	2.777	.096
Do not know by bus within	261.832	5	124.115	8	2.110	.166
High satisfaction by foot own	712.491	5	391.194	8	1.821	.215
Satisfied by foot own	147.253	5	488.790	8	.301	.899
Not sat/not un by foot own	17.460	5	10.646	8	1.640	.254
Unsatisfied by foot own	17.470	5	11.301	8	1.546	.278
Very unsatisfied by foot own	2.813	5	2.279	8	1.234	.376
Do not know by foot own	.779	5	.501	8	1.556	.275
High satisfaction by bike own	572.867	5	285.096	8	2.009	.181
Satisfied by bike own	93.375	5	606.356	8	.154	.973
Not sat/not un by bike own	36.098	5	5.635	8	6.406	.011

Unsatisfied by bike own	3.431	5	5.843	8	.587	.711
Very unsatisfied by bike own	.706	5	2.140	8	.330	.881
Do not know by bike own	3.620	5	.175	8	20.726	.000
High satisfaction by car own	239.834	5	276.603	8	.867	.542
Satisfied by car own	365.507	5	599.782	8	.609	.696
Not sat/not un by car own	242.965	5	71.931	8	3.378	.062
Unsatisfied by car own	210.263	5	3.676	8	57.196	.000
Very unsatisfied by car own	20.548	5	6.200	8	3.314	.065
Do not know by car own	2.412	5	2.944	8	.819	.568
High satisfaction by car own	191.779	5	93.178	8	2.058	.174
Satisfied by bus own	1121.790	5	290.186	8	3.866	.044
Not sat/not un by bus own	70.700	5	113.016	8	.626	.686
Unsatisfied by bus own	191.193	5	135.834	8	1.408	.317
Very unsatisfied by bus own	413.122	5	272.082	8	1.518	.285
Do not know by bus own	221.093	5	109.440	8	2.020	.180
High satisfaction by road safety	22.401	5	29.936	8	.748	.610
Satisfied by road safety	108.895	5	462.338	8	.236	.936
Not sat/not un by road safety	145.436	5	45.931	8	3.166	.072
Unsatisfied by road safety	101.115	5	81.488	8	1.241	.374
Very unsatisfied by road safety	136.390	5	23.650	8	5.767	.015
Do not know by road safety	.248	5	.725	8	.342	.874
Having bike	68.652	5	156.295	8	.439	.810
Does not have bike	730.487	5	1081.147	8	.676	.654

Have electric bike	2896.565	5	1137.671	8	2.546	.115
Dont have electric bike	354.482	5	430.748	8	.823	.566
have bommer	2008.418	5	1626.316	8	1.235	.376
dont have bommer	26.395	5	15.669	8	1.685	.244
have motor	2023.095	5	1502.889	8	1.346	.337
dont have bommer	15.463	5	39.625	8	.390	.843
have car	555.426	5	268.844	8	2.066	.173
do not have car	490.084	5	1299.563	8	.377	.851
have electric car	1740.947	5	1840.683	8	.946	.501
do not have electric car	13.175	5	28.884	8	.456	.799
have share car	1764.600	5	1866.711	8	.945	.502
do not have share car	1.780	5	1.997	8	.891	.529
have ov	440.049	5	1517.320	8	.290	.906
do not have ov	2191.892	5	607.885	8	3.606	.053
have bus card	1653.835	5	1938.053	8	.853	.550
dont have bus card	7.119	5	23.847	8	.299	.901
have train card	894.746	5	1804.879	8	.496	.772
dont have train card	250.523	5	174.434	8	1.436	.309
Study	2745.438	5	131.706	8	20.845	.000
Work	963.929	5	828.366	8	1.164	.403
Not study not work	40.775	5	327.019	8	.125	.983
by foot to inner city	3288.626	5	462.026	8	7.118	.008
by bike to inner city	1755.336	5	1214.716	8	1.445	.306
by moped to inner city	580.361	5	4.629	8	125.373	.000

by car go to inner city	1663.638	5	1573.431	8	1.057	.448
by bus go to inner city	101.333	5	99.534	8	1.018	.466
by train go to inner city	22.170	5	28.244	8	.785	.588
I've never go to inner city	76.014	5	13.041	8	5.829	.015
On foot. (I can easily get to the inner city ...)	2885.393	5	1598.752	8	1.805	.218
On foot. (I can easily get to the inner city ...)	143.361	5	75.238	8	1.905	.199
On foot. (I can easily get to the inner city ...)	49.982	5	73.746	8	.678	.653
On foot. (I can easily get to the inner city ...)	72.620	5	107.773	8	.674	.655
On foot. (I can easily get to the inner city ...)	98.535	5	64.360	8	1.531	.282
On foot. (I can easily get to the inner city ...)	5.356	5	3.950	8	1.356	.334
With bicycle / electric bike. (I can easily get to the inner city ...)	1175.491	5	616.127	8	1.908	.199
With bicycle / electric bike. (I can easily get to the inner city ...)	76.058	5	549.404	8	.138	.978
With bicycle / electric bike. (I can easily get to the inner city ...)	9.499	5	15.981	8	.594	.706
With bicycle / electric bike. (I can easily get to the inner city ...)	7.150	5	7.810	8	.916	.517

With bicycle / electric bike. (I can easily get to the inner city ...)	1.450	5	.819	8	1.771	.225
With bicycle / electric bike. (I can easily get to the inner city ...)	7.713	5	8.613	8	.896	.527
With the moped / scooter. (I can easily get to the inner city ...)	38.284	5	77.366	8	.495	.773
With the moped / scooter. (I can easily get to the inner city ...)	33.171	5	73.232	8	.453	.801
With the moped / scooter. (I can easily get to the inner city ...)	5.377	5	10.019	8	.537	.744
With the moped / scooter. (I can easily get to the inner city ...)	2.387	5	3.089	8	.773	.595
With the moped / scooter. (I can easily get to the inner city ...)	.911	5	1.458	8	.625	.686
With the moped / scooter. (I can easily get to the inner city ...)	96.676	5	69.053	8	1.400	.320
By car / motorcycle. (I can easily get to the inner city ...)	39.210	5	37.593	8	1.043	.455
By car / motorcycle. (I can easily get to the inner city ...)	361.616	5	969.853	8	.373	.854
By car / motorcycle. (I can easily get to the inner city ...)	35.899	5	79.628	8	.451	.802
By car / motorcycle. (I can easily get to the inner city ...)	51.499	5	50.576	8	1.018	.466

By car / motorcycle. (I can easily get to the inner city ...)	5.883	5	9.156	8	.643	.675
By car / motorcycle. (I can easily get to the inner city ...)	9.014	5	16.420	8	.549	.736
By bus. (I can easily get to the inner city ...)	105.593	5	42.962	8	2.458	.124
By bus. (I can easily get to the inner city ...)	619.282	5	137.901	8	4.491	.030
By bus. (I can easily get to the inner city ...)	35.208	5	38.764	8	.908	.520
By bus. (I can easily get to the inner city ...)	130.419	5	148.243	8	.880	.535
By bus. (I can easily get to the inner city ...)	120.557	5	182.204	8	.662	.663
By bus. (I can easily get to the inner city ...)	177.525	5	91.225	8	1.946	.192
By train. (I can easily get to the inner city ...)	187.228	5	148.406	8	1.262	.366
By train. (I can easily get to the inner city ...)	831.640	5	925.665	8	.898	.526
By train. (I can easily get to the inner city ...)	25.825	5	40.772	8	.633	.681
By train. (I can easily get to the inner city ...)	11.555	5	10.396	8	1.111	.425
By train. (I can easily get to the inner city ...)	34.176	5	25.374	8	1.347	.337
By train. (I can easily get to the inner city ...)	12.485	5	18.695	8	.668	.659
Man019	792863.752	5	61705.333	8	12.849	.001

man2039	2205971.210	5	68548.708	8	32.181	.000
m4059	1297371.102	5	50173.240	8	25.858	.000
m6079	844837.676	5	88293.667	8	9.568	.003
M80	26717.576	5	5689.167	8	4.696	.027
W019	709490.876	5	68045.667	8	10.427	.002
w2039	2107344.069	5	97647.323	8	21.581	.000
w4059	1371880.726	5	50474.760	8	27.180	.000
w6079	1025089.202	5	107203.927	8	9.562	.003
w80	75279.402	5	30687.740	8	2.453	.124

The F tests should be used only for descriptive purposes because the clusters have been chosen to maximize the differences among cases in different clusters. The observed significance levels are not corrected for this and thus cannot be interpreted as tests of the hypothesis that the cluster means are equal.

**Number of Cases in each
Cluster**

Cluster	1	1.000
	2	1.000
	3	2.000
	4	3.000
	5	4.000
	6	3.000
Valid		14.000

Missing	.000
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Quick Cluster

Notes

Output Created		24-MAY-2018 17:52:34
Comments		
Input	Data	D:\Radboud\Thesis\Municipality data\My data.sav
	Active Dataset	DataSet2
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	14
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on cases with no missing values for any clustering variable used.

Syntax

QUICK CLUSTER VSBTF SBTf
NSNUBTF USBTF VUSBTF DNKBTF
VSCTF SCTF NSNUCTF USCTF
VUCTF DNKCTF VAR00009
VAR00010 VAR00011 VAR00012
VAR00013 VAR00014 VAR00015
VAR00016 VAR00017 VAR00018
VAR00019 VAR00020 VAR00021
VAR00022 VAR00023 VAR00024
VAR00025 VAR00026 VAR00027
VAR00028 VAR00029 VAR00030
VAR00031 VAR00032 VAR00033
VAR00034 VAR00035 VAR00036
VAR00037 VAR00038 VAR00039
VAR00040 VAR00041 VAR00042
VAR00043 VAR00044 VAR00045
VAR00046 VAR00047 VAR00048
VAR00049 VAR00050 VAR00001
VAR00002 VAR00003 VAR00004

VAR00005 VAR00006 VAR00007
VAR00008 VAR00051 VAR00052
VAR00053 VAR00054 VAR00055
VAR00056 VAR00058 VAR00059
VAR00060 VAR00061 VAR00062
VAR00063 VAR00064 VAR00065
VAR00066 VAR00067 HB NHB HEB
NHEB HBOM NHBOM HM NHM HC
NHC HEC NHEC HSHC NHSHC HOV
NHOV HBC NHBC HTC NHTC Study
Work NSNW Onfoot WB WM WC
WBUS BTrain NEVER TAF AF
DADDISF DISf TDISf DKf TAB AB
DADDISB DISB TDISB DKB TAM AM
DADDISM DISM TDISM DKM TAC AC
DADDISC DISC TDISC DKC TABU
ABU DADDISBU DISBUS TDISBU
DKBus TAT AT DADDIST DIST TDIST
DKT

			Man019 man2039 m4059 m6079 M80 W019 w2039 w4059 w6079 w80
			/MISSING=LISTWISE
			/CRITERIA=CLUSTER(7) MXITER(10) CONVERGE(0)
			/METHOD=KMEANS(NOUPDATE)
			/SAVE CLUSTER DISTANCE
			/PRINT ID(Placename) INITIAL ANOVA CLUSTER DISTAN.
Resources	Processor Time		00:00:00.03
	Elapsed Time		00:00:00.03
	Workspace Required		50928 bytes
Variables	Created	or QCL_7	Cluster Number of Case
Modified		QCL_8	Distance of Case from its Classification Cluster Center

Initial Cluster Centers

	Cluster						
	1	2	3	4	5	6	7
High satisfaction by bike to and from	71.95	12.73	51.74	48.96	84.70	76.43	43.59
Satisfied by bike to and from	111.62	68.80	135.63	92.96	106.04	129.87	102.71
Not sat/not un by bike to and from	11.39	13.27	2.55	12.96	20.46	5.91	13.53

Unsatisfied by bike to and from	5.28	5.56	.00	.00	4.84	4.38	2.34
Very unsatisfied by bike to and from	.63	.00	1.37	.00	.88	1.53	.50
Do not know by bike to and from	10.13	6.63	4.70	5.12	3.08	.88	4.18
High satisfaction by car to and from	36.23	20.45	29.40	16.38	42.86	31.19	30.91
Satisfied by Car to and from	136.83	74.92	130.40	113.26	140.45	154.81	90.05
Not sat/not un by car to and from	21.11	13.22	24.40	14.35	31.69	28.48	25.20
Unsatisfied by car to and from	6.21	1.36	10.20	8.27	12.54	8.36	12.26
Very unsatisfied by car to and from	2.90	.79	4.80	3.74	.00	2.49	2.86
Do not know by car to and from	3.52	2.26	.80	.00	.68	.68	6.55
High satisfaction by car to and from	26.31	.69	17.99	15.71	25.60	8.14	17.67
Satisfied by bus to and from	64.44	11.95	89.27	74.64	52.60	45.14	62.61
Not sat/not un by bus to and from	24.52	17.29	20.76	16.96	26.60	39.04	22.33
Unsatisfied by bus to and from	10.74	25.20	9.00	2.78	27.80	38.48	3.15
Very unsatisfied by bus to and from	.54	16.00	2.60	5.28	14.80	17.39	1.23
Do not know by bus to and from	52.45	14.88	33.56	23.63	52.60	36.82	30.00

High satisfaction by train to and from	91.02	3.70	21.17	24.97	49.35	30.30	46.73
Satisfied by train to and from	87.54	14.84	79.92	58.41	136.50	133.36	64.81
Not sat/not un by train to and from	13.74	8.62	12.10	7.70	15.12	12.74	5.81
Unsatisfied by train to and from	1.85	8.12	6.48	.55	1.89	3.28	4.49
Very unsatisfied by train to and from	1.85	6.50	6.34	2.20	.00	.00	1.45
Do not know by train to and from	9.02	14.22	18.00	16.17	7.14	13.51	8.84
High satisfaction by foot within	88.24	8.77	42.80	46.08	59.81	51.08	53.70
Satisfied by foot within	125.63	67.52	138.60	105.12	144.03	151.42	106.15
Not sat/not un by foot within	10.49	8.47	13.00	11.32	13.66	11.53	11.64
Unsatisfied by foot within	2.05	9.59	2.60	.66	3.14	7.91	5.01
Very unsatisfied by foot within	.00	1.22	.80	.00	.90	.90	1.25
Do not know by foot within	1.82	6.53	2.00	.82	2.69	3.16	1.07
High satisfaction by bike within	79.21	7.21	44.18	52.00	74.81	63.14	49.65
Satisfied by bike within	113.71	79.29	139.30	99.59	130.76	139.70	110.37
Not sat/not un by bike within	17.79	5.83	9.95	9.78	12.21	9.90	8.82
Unsatisfied by bike within	1.74	7.63	1.39	1.63	1.55	3.96	3.46
Very unsatisfied by bike within	.65	.00	1.39	.00	.00	1.54	.00
Do not know by foot within	4.12	6.04	2.79	.00	2.66	1.54	.52

High satisfaction by car within	17.40	6.55	25.74	16.64	23.84	16.43	16.95
Satisfied by car within	101.00	75.15	118.56	91.52	129.84	129.87	85.09
Not sat/not un by car within	56.00	19.98	33.74	29.60	51.53	53.66	31.62
Unsatisfied by car within	14.40	5.33	13.26	18.08	13.62	12.70	21.03
Very unsatisfied by car within	4.20	1.67	2.54	4.32	1.59	4.16	2.61
Do not know by car within	7.00	2.44	1.17	.00	6.58	2.41	5.71
High satisfaction by bus within	15.93	.00	18.69	14.99	14.31	9.91	16.68
Satisfied by bus within	69.27	22.28	90.25	77.91	55.86	36.46	65.25
Not sat/not un by bus within	28.46	6.97	27.59	20.58	34.89	39.14	23.64
Unsatisfied by bus within	7.88	14.42	16.91	9.11	22.74	30.41	12.04
Very unsatisfied by bus within	1.07	17.98	1.78	1.47	11.96	16.30	.00
Do not know by bus within	56.21	19.36	22.61	22.93	56.25	35.78	27.41
High satisfaction by foot own	100.11	30.06	55.35	49.22	97.63	70.15	77.38
Satisfied by foot own	116.68	66.44	135.51	100.97	106.45	138.92	93.37
Not sat/not un by foot own	6.81	10.51	5.54	4.87	12.88	11.50	10.04
Unsatisfied by foot own	1.14	5.31	7.18	10.92	5.20	6.90	3.91
Very unsatisfied by foot own	.00	.68	.82	1.85	3.84	1.61	.56
Do not know by foot own	2.50	.00	.62	.00	.00	.69	.56
High satisfaction by bike own	88.53	30.28	57.82	56.86	97.67	83.17	75.86
Satisfied by bike own	106.82	65.20	134.24	90.56	107.71	131.08	86.42
Not sat/not un by bike own	18.06	13.00	3.17	7.13	8.25	7.68	11.26

Unsatisfied by bike own	2.90	4.63	1.39	7.45	6.69	3.39	1.58
Very unsatisfied by bike own	1.78	.00	1.39	.00	2.01	.00	.00
Do not know by bike own	4.68	.00	.00	.00	.67	.90	1.06
High satisfaction by car own	27.13	30.74	39.20	36.51	79.00	56.83	47.15
Satisfied by car own	88.97	68.93	125.20	105.79	112.96	144.97	77.40
Not sat/not un by car own	47.52	9.94	20.20	7.82	24.26	13.10	24.00
Unsatisfied by car own	38.19	3.39	9.80	11.08	11.55	3.33	13.35
Very unsatisfied by car own	12.59	.00	5.80	1.96	2.54	2.44	4.39
Do not know by car own	2.39	.00	.00	.00	.69	1.55	2.70
High satisfaction by car own	27.23	2.85	24.29	25.03	13.62	6.14	31.23
Satisfied by bus own	61.41	5.18	88.00	67.64	50.05	35.03	61.72
Not sat/not un by bus own	22.78	7.74	22.18	19.88	25.58	35.86	18.80
Unsatisfied by bus own	15.66	22.48	13.90	10.44	27.05	28.72	10.51
Very unsatisfied by bus own	2.31	24.67	3.17	2.57	20.98	27.06	3.26
Do not know by bus own	48.59	10.07	24.46	17.45	47.10	33.20	22.50
High satisfaction by road safety	3.00	4.96	13.89	8.60	18.32	9.20	4.20
Satisfied by road safety	76.46	65.02	111.97	78.32	114.23	122.01	80.41
Not sat/not un by road safety	56.36	24.43	43.83	31.11	48.68	46.73	39.35
Unsatisfied by road safety	57.52	21.59	29.30	42.46	41.93	45.55	48.71
Very unsatisfied by road safety	37.19	1.89	17.79	22.33	16.39	11.80	17.00
Do not know by road safety	.69	.00	.65	.00	1.45	.71	1.53
Having bike	15.48	25.32	33.64	33.30	38.32	36.58	27.41
Does not have bike	215.52	94.68	183.37	150.70	202.68	199.42	165.59

Have electric bike	219.91	79.44	179.24	155.48	171.11	173.46	169.65
Dont have electric bike	11.09	40.56	37.76	28.52	69.89	62.54	23.35
have bommer	216.91	101.28	197.04	168.36	226.06	219.95	179.49
dont have bommer	14.09	18.72	19.96	15.64	14.94	16.05	13.51
have motor	221.76	109.32	202.46	177.93	222.93	219.24	184.89
dont have bommer	9.24	10.68	14.54	6.07	18.08	16.76	8.11
have car	62.83	3.96	24.30	42.50	17.59	28.32	51.72
do not have car	168.17	116.04	192.70	141.50	223.41	207.68	141.28
have electric car	221.30	115.08	210.27	178.48	228.47	221.37	187.40
do not have electric car	9.70	4.92	6.73	5.52	12.53	14.63	5.60
have share car	227.54	119.28	216.13	183.45	238.59	236.00	192.42
do not have share car	3.47	.72	.87	.55	2.41	.00	.58
have ov	76.23	89.76	88.97	89.42	107.73	127.20	71.41
do not have ov	154.77	30.24	128.03	94.58	133.27	108.80	121.59
have bus card	226.84	120.00	213.09	173.51	229.43	231.04	183.16
dont have bus card	4.16	.00	3.91	10.49	11.57	4.96	9.84
have train card	188.03	117.48	198.77	165.60	211.36	222.31	163.47
dont have train card	42.97	2.52	18.23	18.40	29.64	13.69	29.53
Study	69.76	41.41	60.76	46.24	59.21	76.94	182.00
Work	106.17	36.46	84.87	59.68	12.99	71.46	11.00
Not study not work	41.86	25.13	50.37	54.08	74.98	54.81	51.81
by foot to inner city	134.11	.65	.61	6.22	1.60	.85	67.55
by bike to inner city	67.27	7.45	79.36	102.31	110.12	86.07	51.64
by moped to inner city	.00	1.73	4.69	5.54	.91	1.06	58.94

by car go to inner city	7.81	61.24	87.92	26.38	74.33	76.74	78.41
by bus go to inner city	1.30	15.23	23.26	17.98	16.19	11.24	2.48
by train go to inner city	.00	.00	.00	.00	10.94	13.99	10.97
I've never go to inner city	.00	8.42	3.06	1.18	2.28	4.88	21.24
On foot. (I can easily get to the inner city ...)	162.76	17.60	38.64	54.90	58.46	50.96	85.84
On foot. (I can easily get to the inner city ...)	55.16	34.20	65.52	66.00	50.63	74.62	64.63
On foot. (I can easily get to the inner city ...)	6.36	6.06	30.58	13.80	20.71	19.29	9.52
On foot. (I can easily get to the inner city ...)	2.72	8.63	15.46	11.10	24.19	24.39	6.35
On foot. (I can easily get to the inner city ...)	.00	12.70	13.44	2.85	16.88	11.65	.50
On foot. (I can easily get to the inner city ...)	.00	3.82	4.37	1.20	3.13	1.09	.00
With bicycle / electric bike. (I can easily get to the inner city ...)	111.11	19.39	64.95	70.36	99.63	75.48	75.31
With bicycle / electric bike. (I can easily get to the inner city ...)	77.70	48.29	111.87	77.84	91.31	109.34	80.24
With bicycle / electric bike. (I can easily get to the inner city ...)	9.84	7.20	3.31	5.77	12.48	7.96	5.44
With bicycle / electric bike. (I can easily get to the inner city ...)	2.87	6.62	.55	.62	2.29	5.51	5.10

With bicycle / electric bike. (I can easily get to the inner city ...)	.00	3.55	.55	.00	1.04	1.63	.85
With bicycle / electric bike. (I can easily get to the inner city ...)	3.49	10.94	2.76	1.40	1.46	4.08	2.89
With the moped / scooter. (I can easily get to the inner city ...)	28.53	5.75	15.08	19.68	20.23	12.70	17.91
With the moped / scooter. (I can easily get to the inner city ...)	19.17	23.75	33.57	31.82	24.71	39.85	30.41
With the moped / scooter. (I can easily get to the inner city ...)	9.54	4.40	2.14	7.40	2.03	3.13	4.37
With the moped / scooter. (I can easily get to the inner city ...)	1.62	3.40	.00	2.66	.00	4.26	.00
With the moped / scooter. (I can easily get to the inner city ...)	.54	.65	.00	.00	.00	.00	1.26
With the moped / scooter. (I can easily get to the inner city ...)	30.60	12.05	16.21	12.43	23.03	27.06	20.05
By car / motorcycle. (I can easily get to the inner city ...)	19.21	13.73	15.36	14.16	29.68	21.31	8.44
By car / motorcycle. (I can easily get to the inner city ...)	50.66	47.90	107.30	55.73	101.16	107.74	50.52
By car / motorcycle. (I can easily get to the inner city ...)	44.03	17.09	32.75	37.10	38.67	39.40	35.51
By car / motorcycle. (I can easily get to the inner city ...)	37.91	12.58	23.13	34.87	30.10	24.92	28.01

By car / motorcycle. (I can easily get to the inner city ...)	11.56	1.44	6.48	5.81	4.60	6.63	8.31
By car / motorcycle. (I can easily get to the inner city ...)	6.46	3.26	.00	1.34	4.81	.80	3.35
By bus. (I can easily get to the inner city ...)	18.33	6.32	30.20	28.08	19.08	13.94	26.40
By bus. (I can easily get to the inner city ...)	48.36	25.36	97.91	77.32	71.82	56.91	60.59
By bus. (I can easily get to the inner city ...)	16.78	10.48	24.52	14.99	22.32	18.37	14.92
By bus. (I can easily get to the inner city ...)	10.86	21.52	11.35	6.62	15.30	21.81	11.22
By bus. (I can easily get to the inner city ...)	1.69	6.96	.92	1.32	13.68	18.37	.53
By bus. (I can easily get to the inner city ...)	44.98	9.36	18.30	18.82	37.98	34.60	18.35
By train. (I can easily get to the inner city ...)	38.08	1.28	6.09	9.94	41.66	35.84	14.70
By train. (I can easily get to the inner city ...)	70.31	20.36	28.35	25.27	109.37	106.14	31.43
By train. (I can easily get to the inner city ...)	9.79	5.74	10.08	15.68	16.74	17.40	9.03
By train. (I can easily get to the inner city ...)	3.81	8.06	7.21	7.70	8.00	5.22	4.20
By train. (I can easily get to the inner city ...)	3.26	10.85	6.16	.00	2.23	.70	4.20
By train. (I can easily get to the inner city ...)	10.74	11.66	11.97	11.34	8.18	8.53	6.37
Man019	647.00	280.00	2053.00	2145.00	1116.00	1427.00	1983.00

man2039	2638.00	244.00	1904.00	2394.00	844.00	1263.00	3481.00
m4059	1704.00	454.00	2770.00	2445.00	1319.00	1953.00	2720.00
m6079	1131.00	279.00	1608.00	2108.00	1172.00	1330.00	1905.00
M80	200.00	37.00	150.00	236.00	208.00	170.00	395.00
W019	642.00	262.00	1842.00	2092.00	1001.00	1363.00	1949.00
w2039	2700.00	217.00	1896.00	2349.00	744.00	1168.00	3347.00
w4059	1475.00	403.00	2807.00	2671.00	1372.00	2104.00	2485.00
w6079	1183.00	253.00	1611.00	2257.00	1241.00	1409.00	2093.00
w80	412.00	41.00	223.00	528.00	359.00	276.00	596.00

Iteration History^a

Iteration	Change in Cluster Centers						
	1	2	3	4	5	6	7
1	.000	645.103	.000	.000	982.606	639.308	.000
2	.000	.000	.000	.000	.000	.000	.000

a. Convergence achieved due to no or small change in cluster centers. The maximum absolute coordinate change for any center is .000. The current iteration is 2. The minimum distance between initial centers is 1201.665.

Cluster Membership

Case Number	Placename	Cluster	Distance
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1	01 Binne	1	.000
2	02 Zuido	6	598.572
3	03 Graaf	6	560.219
4	04 Munte	5	660.073
5	05 Rosma	5	982.606
6	06 Rosma	6	639.308
7	07 De Gr	5	905.317
8	08 Empel	5	578.906
9	09 Noord	4	.000
10	10 Maasp	3	.000
11	11 West	7	.000
12	12 Engel	2	684.337
13	13 Nulan	2	317.061
14	14 Vinke	2	645.103

Final Cluster Centers

	Cluster						
	1	2	3	4	5	6	7
High satisfaction by bike to and from	71.95	46.07	51.74	48.96	69.51	71.15	43.59
Satisfied by bike to and from	111.62	97.14	135.63	92.96	111.48	111.73	102.71
Not sat/not un by bike to and from	11.39	12.49	2.55	12.96	10.86	6.36	13.53

Unsatisfied by bike to and from	5.28	5.51	.00	.00	2.92	2.15	2.34
Very unsatisfied by bike to and from	.63	2.09	1.37	.00	.67	.83	.50
Do not know by bike to and from	10.13	8.76	4.70	5.12	7.05	3.11	4.18
High satisfaction by car to and from	36.23	36.38	29.40	16.38	31.23	36.78	30.91
Satisfied by Car to and from	136.83	115.20	130.40	113.26	132.93	119.72	90.05
Not sat/not un by car to and from	21.11	18.31	24.40	14.35	24.68	22.92	25.20
Unsatisfied by car to and from	6.21	6.94	10.20	8.27	9.88	9.22	12.26
Very unsatisfied by car to and from	2.90	2.63	4.80	3.74	4.12	2.86	2.86
Do not know by car to and from	3.52	1.63	.80	.00	2.33	3.17	6.55
High satisfaction by car to and from	26.31	2.15	17.99	15.71	15.49	18.80	17.67
Satisfied by bus to and from	64.44	28.78	89.27	74.64	61.70	54.20	62.61
Not sat/not un by bus to and from	24.52	22.43	20.76	16.96	31.80	30.11	22.33
Unsatisfied by bus to and from	10.74	42.48	9.00	2.78	22.26	19.11	3.15
Very unsatisfied by bus to and from	.54	25.75	2.60	5.28	10.46	8.15	1.23
Do not know by bus to and from	52.45	25.06	33.56	23.63	42.00	31.64	30.00

High satisfaction by train to and from	91.02	12.02	21.17	24.97	35.23	36.10	46.73
Satisfied by train to and from	87.54	39.34	79.92	58.41	103.50	96.59	64.81
Not sat/not un by train to and from	13.74	13.40	12.10	7.70	14.38	13.40	5.81
Unsatisfied by train to and from	1.85	9.76	6.48	.55	3.12	2.78	4.49
Very unsatisfied by train to and from	1.85	9.51	6.34	2.20	1.47	.20	1.45
Do not know by train to and from	9.02	13.64	18.00	16.17	13.79	11.00	8.84
High satisfaction by foot within	88.24	33.07	42.80	46.08	63.34	64.44	53.70
Satisfied by foot within	125.63	108.99	138.60	105.12	126.61	118.55	106.15
Not sat/not un by foot within	10.49	13.91	13.00	11.32	9.25	11.28	11.64
Unsatisfied by foot within	2.05	8.54	2.60	.66	3.75	3.34	5.01
Very unsatisfied by foot within	.00	1.55	.80	.00	.36	.62	1.25
Do not know by foot within	1.82	5.72	2.00	.82	2.70	2.31	1.07
High satisfaction by bike within	79.21	35.59	44.18	52.00	68.77	67.66	49.65
Satisfied by bike within	113.71	118.53	139.30	99.59	122.80	114.47	110.37
Not sat/not un by bike within	17.79	9.44	9.95	9.78	10.10	6.85	8.82
Unsatisfied by bike within	1.74	5.48	1.39	1.63	1.79	3.08	3.46
Very unsatisfied by bike within	.65	1.41	1.39	.00	.00	2.20	.00
Do not know by foot within	4.12	4.41	2.79	.00	1.39	1.68	.52

High satisfaction by car within	17.40	17.81	25.74	16.64	20.53	21.26	16.95
Satisfied by car within	101.00	112.87	118.56	91.52	120.21	99.08	85.09
Not sat/not un by car within	56.00	30.97	33.74	29.60	43.81	46.46	31.62
Unsatisfied by car within	14.40	11.90	13.26	18.08	11.34	13.62	21.03
Very unsatisfied by car within	4.20	1.92	2.54	4.32	2.22	2.98	2.61
Do not know by car within	7.00	2.50	1.17	.00	4.14	3.00	5.71
High satisfaction by bus within	15.93	2.86	18.69	14.99	11.62	17.81	16.68
Satisfied by bus within	69.27	40.05	90.25	77.91	66.07	51.33	65.25
Not sat/not un by bus within	28.46	18.46	27.59	20.58	36.49	36.43	23.64
Unsatisfied by bus within	7.88	29.48	16.91	9.11	20.27	19.26	12.04
Very unsatisfied by bus within	1.07	19.92	1.78	1.47	8.37	8.08	.00
Do not know by bus within	56.21	25.00	22.61	22.93	40.71	26.80	27.41
High satisfaction by foot own	100.11	52.89	55.35	49.22	86.29	76.39	77.38
Satisfied by foot own	116.68	101.66	135.51	100.97	108.09	114.71	93.37
Not sat/not un by foot own	6.81	12.97	5.54	4.87	8.09	8.04	10.04
Unsatisfied by foot own	1.14	7.93	7.18	10.92	3.67	3.58	3.91
Very unsatisfied by foot own	.00	3.15	.82	1.85	2.24	.86	.56
Do not know by foot own	2.50	.40	.62	.00	.56	.74	.56
High satisfaction by bike own	88.53	58.14	57.82	56.86	90.43	84.62	75.86
Satisfied by bike own	106.82	103.34	134.24	90.56	102.32	103.24	86.42
Not sat/not un by bike own	18.06	12.17	3.17	7.13	7.96	5.88	11.26

Unsatisfied by bike own	2.90	4.79	1.39	7.45	3.93	2.11	1.58
Very unsatisfied by bike own	1.78	1.63	1.39	.00	1.58	1.00	.00
Do not know by bike own	4.68	.23	.00	.00	.39	.55	1.06
High satisfaction by car own	27.13	53.09	39.20	36.51	57.56	56.34	47.15
Satisfied by car own	88.97	110.01	125.20	105.79	114.52	117.76	77.40
Not sat/not un by car own	47.52	10.07	20.20	7.82	21.79	14.59	24.00
Unsatisfied by car own	38.19	4.35	9.80	11.08	7.98	3.03	13.35
Very unsatisfied by car own	12.59	2.81	5.80	1.96	2.48	1.36	4.39
Do not know by car own	2.39	.00	.00	.00	1.62	1.60	2.70
High satisfaction by car own	27.23	4.36	24.29	25.03	15.25	20.93	31.23
Satisfied by bus own	61.41	15.60	88.00	67.64	56.29	56.11	61.72
Not sat/not un by bus own	22.78	14.85	22.18	19.88	28.22	25.64	18.80
Unsatisfied by bus own	15.66	35.32	13.90	10.44	25.53	19.72	10.51
Very unsatisfied by bus own	2.31	36.91	3.17	2.57	18.64	12.42	3.26
Do not know by bus own	48.59	16.62	24.46	17.45	34.40	25.90	22.50
High satisfaction by road safety	3.00	12.52	13.89	8.60	10.59	11.55	4.20
Satisfied by road safety	76.46	93.26	111.97	78.32	95.82	97.88	80.41
Not sat/not un by road safety	56.36	35.65	43.83	31.11	51.44	47.90	39.35
Unsatisfied by road safety	57.52	36.52	29.30	42.46	43.91	37.98	48.71
Very unsatisfied by road safety	37.19	8.27	17.79	22.33	13.81	15.26	17.00
Do not know by road safety	.69	1.07	.65	.00	.92	1.04	1.53
Having bike	15.48	30.69	33.64	33.30	30.30	36.02	27.41
Does not have bike	215.52	155.79	183.37	150.70	188.20	176.65	165.59

Have electric bike	219.91	108.48	179.24	155.48	177.16	185.51	169.65
Dont have electric bike	11.09	53.40	37.76	28.52	41.34	34.82	23.35
have bommer	216.91	136.54	197.04	168.36	205.69	193.95	179.49
dont have bommer	14.09	20.36	19.96	15.64	12.81	18.71	13.51
have motor	221.76	141.56	202.46	177.93	210.29	201.46	184.89
dont have bommer	9.24	14.48	14.54	6.07	8.21	11.21	8.11
have car	62.83	11.64	24.30	42.50	26.50	37.27	51.72
do not have car	168.17	175.96	192.70	141.50	192.00	175.40	141.28
have electric car	221.30	145.83	210.27	178.48	207.68	204.14	187.40
do not have electric car	9.70	11.95	6.73	5.52	10.82	8.53	5.60
have share car	227.54	153.52	216.13	183.45	216.80	211.81	192.42
do not have share car	3.47	.48	.87	.55	1.70	.85	.58
have ov	76.23	113.22	88.97	89.42	95.52	105.09	71.41
do not have ov	154.77	57.28	128.03	94.58	122.98	107.58	121.59
have bus card	226.84	151.59	213.09	173.51	210.89	207.36	183.16
dont have bus card	4.16	4.77	3.91	10.49	7.61	5.30	9.84
have train card	188.03	149.16	198.77	165.60	193.17	193.91	163.47
dont have train card	42.97	6.91	18.23	18.40	25.33	18.75	29.53
Study	69.76	55.76	60.76	46.24	69.63	65.47	182.00
Work	106.17	66.89	84.87	59.68	72.03	70.23	11.00
Not study not work	41.86	46.35	50.37	54.08	43.18	50.70	51.81
by foot to inner city	134.11	2.72	.61	6.22	17.68	19.38	67.55
by bike to inner city	67.27	35.52	79.36	102.31	86.83	103.58	51.64
by moped to inner city	.00	2.51	4.69	5.54	2.85	4.46	58.94

by car go to inner city	7.81	92.75	87.92	26.38	71.39	36.97	78.41
by bus go to inner city	1.30	19.36	23.26	17.98	14.56	10.41	2.48
by train go to inner city	.00	.97	.00	.00	2.74	4.66	10.97
I've never go to inner city	.00	8.45	3.06	1.18	2.02	3.90	21.24
On foot. (I can easily get to the inner city ...)	162.76	32.98	38.64	54.90	71.55	81.22	85.84
On foot. (I can easily get to the inner city ...)	55.16	50.86	65.52	66.00	59.05	71.01	64.63
On foot. (I can easily get to the inner city ...)	6.36	13.30	30.58	13.80	16.16	11.55	9.52
On foot. (I can easily get to the inner city ...)	2.72	15.62	15.46	11.10	19.11	9.14	6.35
On foot. (I can easily get to the inner city ...)	.00	16.58	13.44	2.85	15.19	5.56	.50
On foot. (I can easily get to the inner city ...)	.00	4.33	4.37	1.20	2.44	1.25	.00
With bicycle / electric bike. (I can easily get to the inner city ...)	111.11	47.08	64.95	70.36	93.49	94.18	75.31
With bicycle / electric bike. (I can easily get to the inner city ...)	77.70	83.80	111.87	77.84	87.94	80.13	80.24
With bicycle / electric bike. (I can easily get to the inner city ...)	9.84	8.79	3.31	5.77	7.82	4.94	5.44
With bicycle / electric bike. (I can easily get to the inner city ...)	2.87	5.66	.55	.62	3.73	2.77	5.10

With bicycle / electric bike. (I can easily get to the inner city ...)	.00	2.09	.55	.00	.38	1.24	.85
With bicycle / electric bike. (I can easily get to the inner city ...)	3.49	5.25	2.76	1.40	.63	2.12	2.89
With the moped / scooter. (I can easily get to the inner city ...)	28.53	14.34	15.08	19.68	20.56	21.67	17.91
With the moped / scooter. (I can easily get to the inner city ...)	19.17	32.10	33.57	31.82	27.53	28.10	30.41
With the moped / scooter. (I can easily get to the inner city ...)	9.54	6.41	2.14	7.40	4.38	6.03	4.37
With the moped / scooter. (I can easily get to the inner city ...)	1.62	3.19	.00	2.66	1.06	2.13	.00
With the moped / scooter. (I can easily get to the inner city ...)	.54	.79	.00	.00	.00	1.39	1.26
With the moped / scooter. (I can easily get to the inner city ...)	30.60	13.20	16.21	12.43	26.51	20.96	20.05
By car / motorcycle. (I can easily get to the inner city ...)	19.21	17.05	15.36	14.16	22.43	18.61	8.44
By car / motorcycle. (I can easily get to the inner city ...)	50.66	77.50	107.30	55.73	85.29	69.52	50.52
By car / motorcycle. (I can easily get to the inner city ...)	44.03	32.95	32.75	37.10	39.76	41.12	35.51
By car / motorcycle. (I can easily get to the inner city ...)	37.91	21.23	23.13	34.87	23.40	25.09	28.01

By car / motorcycle. (I can easily get to the inner city ...)	11.56	7.06	6.48	5.81	5.90	6.51	8.31
By car / motorcycle. (I can easily get to the inner city ...)	6.46	2.21	.00	1.34	5.42	4.09	3.35
By bus. (I can easily get to the inner city ...)	18.33	9.79	30.20	28.08	20.81	20.88	26.40
By bus. (I can easily get to the inner city ...)	48.36	39.01	97.91	77.32	65.02	57.72	60.59
By bus. (I can easily get to the inner city ...)	16.78	17.47	24.52	14.99	25.54	19.99	14.92
By bus. (I can easily get to the inner city ...)	10.86	29.17	11.35	6.62	19.49	16.22	11.22
By bus. (I can easily get to the inner city ...)	1.69	19.77	.92	1.32	10.52	9.14	.53
By bus. (I can easily get to the inner city ...)	44.98	14.73	18.30	18.82	28.90	22.43	18.35
By train. (I can easily get to the inner city ...)	38.08	7.76	6.09	9.94	19.77	20.65	14.70
By train. (I can easily get to the inner city ...)	70.31	27.74	28.35	25.27	63.34	58.27	31.43
By train. (I can easily get to the inner city ...)	9.79	9.54	10.08	15.68	17.03	11.86	9.03
By train. (I can easily get to the inner city ...)	3.81	8.37	7.21	7.70	9.70	5.52	4.20
By train. (I can easily get to the inner city ...)	3.26	11.72	6.16	.00	4.77	2.09	4.20
By train. (I can easily get to the inner city ...)	10.74	10.83	11.97	11.34	14.20	10.22	6.37
Man019	647.00	528.33	2053.00	2145.00	1115.00	1325.00	1983.00

man2039	2638.00	388.00	1904.00	2394.00	929.50	1583.67	3481.00
m4059	1704.00	720.33	2770.00	2445.00	1173.25	1827.00	2720.00
m6079	1131.00	429.67	1608.00	2108.00	583.00	1287.67	1905.00
M80	200.00	58.67	150.00	236.00	82.00	240.67	395.00
W019	642.00	515.33	1842.00	2092.00	1054.00	1304.33	1949.00
w2039	2700.00	358.33	1896.00	2349.00	992.75	1593.67	3347.00
w4059	1475.00	695.33	2807.00	2671.00	1167.75	1905.67	2485.00
w6079	1183.00	399.00	1611.00	2257.00	610.25	1424.67	2093.00
w80	412.00	103.67	223.00	528.00	132.25	422.00	596.00

Distances between Final Cluster Centers

Cluster	1	2	3	4	5	6	7
1		3678.446	2837.525	2953.052	2714.856	1889.213	2872.503
2	3678.446		4511.798	5146.502	1374.983	2980.774	5945.375
3	2837.525	4511.798		1201.665	3253.947	1710.561	2302.133
4	2953.052	5146.502	1201.665		3905.323	2210.734	1573.234
5	2714.856	1374.983	3253.947	3905.323		1772.783	4694.962
6	1889.213	2980.774	1710.561	2210.734	1772.783		3095.412
7	2872.503	5945.375	2302.133	1573.234	4694.962	3095.412	

ANOVA

	Cluster		Error		F	Sig.
	Mean Square	df	Mean Square	df		
High satisfaction by bike to and from	319.447	6	398.937	7	.801	.599
Satisfied by bike to and from	245.735	6	370.741	7	.663	.684
Not sat/not un by bike to and from	23.344	6	22.344	7	1.045	.470
Unsatisfied by bike to and from	7.456	6	2.598	7	2.870	.097
Very unsatisfied by bike to and from	.937	6	1.530	7	.612	.717
Do not know by bike to and from	12.324	6	17.775	7	.693	.664
High satisfaction by car to and from	65.349	6	133.218	7	.491	.798
Satisfied by Car to and from	336.594	6	657.268	7	.512	.784
Not sat/not un by car to and from	24.560	6	25.319	7	.970	.507
Unsatisfied by car to and from	6.060	6	12.641	7	.479	.806
Very unsatisfied by car to and from	1.227	6	6.997	7	.175	.975
Do not know by car to and from	5.054	6	5.863	7	.862	.564
High satisfaction by car to and from	113.362	6	49.176	7	2.305	.149
Satisfied by bus to and from	655.059	6	131.620	7	4.977	.027

Not sat/not un by bus to and from	57.704	6	57.008	7	1.012	.486
Unsatisfied by bus to and from	383.198	6	219.490	7	1.746	.241
Very unsatisfied by bus to and from	164.463	6	95.033	7	1.731	.244
Do not know by bus to and from	162.649	6	99.263	7	1.639	.266
High satisfaction by train to and from	854.104	6	215.613	7	3.961	.047
Satisfied by train to and from	1457.433	6	909.003	7	1.603	.275
Not sat/not un by train to and from	14.692	6	32.443	7	.453	.823
Unsatisfied by train to and from	20.977	6	17.288	7	1.213	.398
Very unsatisfied by train to and from	28.957	6	25.345	7	1.143	.427
Do not know by train to and from	13.977	6	50.161	7	.279	.930
High satisfaction by foot within	553.304	6	393.847	7	1.405	.331
Satisfied by foot within	219.821	6	692.580	7	.317	.908
Not sat/not un by foot within	6.808	6	18.481	7	.368	.878
Unsatisfied by foot within	13.277	6	13.198	7	1.006	.489
Very unsatisfied by foot within	.655	6	.437	7	1.499	.303
Do not know by foot within	5.777	6	.907	7	6.367	.014

High satisfaction by bike within	499.357	6	371.844	7	1.343	.351
Satisfied by bike within	166.560	6	516.339	7	.323	.905
Not sat/not un by bike within	15.273	6	10.334	7	1.478	.309
Unsatisfied by bike within	5.074	6	4.354	7	1.165	.418
Very unsatisfied by bike within	1.828	6	2.371	7	.771	.616
Do not know by foot within	4.973	6	2.827	7	1.759	.238
High satisfaction by car within	13.247	6	83.594	7	.158	.980
Satisfied by car within	310.483	6	648.778	7	.479	.806
Not sat/not un by car within	150.215	6	88.508	7	1.697	.252
Unsatisfied by car within	17.460	6	20.602	7	.847	.572
Very unsatisfied by car within	1.315	6	1.684	7	.781	.611
Do not know by car within	6.650	6	9.277	7	.717	.650
High satisfaction by bus within	73.364	6	26.447	7	2.774	.104
Satisfied by bus within	485.902	6	195.215	7	2.489	.129
Not sat/not un by bus within	137.300	6	104.140	7	1.318	.360
Unsatisfied by bus within	101.091	6	175.201	7	.577	.740
Very unsatisfied by bus within	102.243	6	50.488	7	2.025	.189
Do not know by bus within	218.202	6	141.838	7	1.538	.292
High satisfaction by foot own	596.870	6	444.399	7	1.343	.351
Satisfied by foot own	222.111	6	473.417	7	.469	.812
Not sat/not un by foot own	14.586	6	12.136	7	1.202	.403

Unsatisfied by foot own	15.727	6	11.914	7	1.320	.359
Very unsatisfied by foot own	2.432	6	2.529	7	.962	.511
Do not know by foot own	.681	6	.546	7	1.248	.385
High satisfaction by bike own	477.465	6	325.759	7	1.466	.312
Satisfied by bike own	236.852	6	556.659	7	.425	.841
Not sat/not un by bike own	31.388	6	5.320	7	5.900	.017
Unsatisfied by bike own	5.925	6	4.050	7	1.463	.313
Very unsatisfied by bike own	.749	6	2.308	7	.324	.904
Do not know by bike own	3.016	6	.200	7	15.113	.001
High satisfaction by car own	200.464	6	315.602	7	.635	.702
Satisfied by car own	335.995	6	658.546	7	.510	.785
Not sat/not un by car own	215.234	6	71.266	7	3.020	.087
Unsatisfied by car own	175.356	6	4.084	7	42.942	.000
Very unsatisfied by car own	18.355	6	6.030	7	3.044	.086
Do not know by car own	2.010	6	3.365	7	.597	.726
High satisfaction by car own	159.861	6	106.451	7	1.502	.302
Satisfied by bus own	969.373	6	302.029	7	3.210	.076
Not sat/not un by bus own	59.357	6	128.783	7	.461	.818
Unsatisfied by bus own	160.328	6	154.381	7	1.039	.473
Very unsatisfied by bus own	344.298	6	310.925	7	1.107	.442
Do not know by bus own	188.349	6	121.556	7	1.549	.289
High satisfaction by road safety	20.997	6	32.216	7	.652	.691
Satisfied by road safety	185.095	6	447.516	7	.414	.849

Not sat/not un by road safety	134.689	6	40.928	7	3.291	.072
Unsatisfied by road safety	98.697	6	80.757	7	1.222	.395
Very unsatisfied by road safety	115.370	6	25.561	7	4.513	.034
Do not know by road safety	.242	6	.798	7	.303	.916
Having bike	57.219	6	178.615	7	.320	.907
Does not have bike	697.678	6	1159.363	7	.602	.724
Have electric bike	2460.857	6	1259.865	7	1.953	.201
Dont have electric bike	302.513	6	486.187	7	.622	.710
have bommer	1742.208	6	1799.910	7	.968	.508
dont have bommer	23.554	6	16.572	7	1.421	.326
have motor	1736.068	6	1674.597	7	1.037	.474
dont have bommer	18.860	6	40.165	7	.470	.812
have car	490.459	6	283.590	7	1.729	.245
do not have car	626.857	6	1297.969	7	.483	.803
have electric car	1535.022	6	2031.438	7	.756	.626
do not have electric car	11.100	6	32.906	7	.337	.897
have share car	1559.521	6	2057.080	7	.758	.624
do not have share car	1.492	6	2.275	7	.656	.688
have ov	366.725	6	1734.065	7	.211	.961
do not have ov	1919.841	6	614.785	7	3.123	.081
have bus card	1508.757	6	2103.008	7	.717	.649
dont have bus card	9.542	6	24.159	7	.395	.861
have train card	837.320	6	1984.120	7	.422	.844

dont have train card	208.772	6	199.351	7	1.047	.469
Study	2305.434	6	135.462	7	17.019	.001
Work	856.143	6	901.387	7	.950	.517
Not study not work	35.125	6	372.754	7	.094	.995
by foot to inner city	2743.139	6	525.787	7	5.217	.024
by bike to inner city	1506.695	6	1350.606	7	1.116	.439
by moped to inner city	483.695	6	5.239	7	92.334	.000
by car go to inner city	1702.045	6	1527.624	7	1.114	.439
by bus go to inner city	86.768	6	111.762	7	.776	.613
by train go to inner city	18.475	6	32.278	7	.572	.743
Ive never go to inner city	63.641	6	14.650	7	4.344	.038
On foot. (I can easily get to the inner city ...	2426.527	6	1808.260	7	1.342	.352
On foot. (I can easily get to the inner city ...	119.487	6	85.970	7	1.390	.336
On foot. (I can easily get to the inner city ...	65.105	6	64.178	7	1.014	.485
On foot. (I can easily get to the inner city ...	62.098	6	121.813	7	.510	.785
On foot. (I can easily get to the inner city ...	91.458	6	65.544	7	1.395	.334
On foot. (I can easily get to the inner city ...	5.300	6	3.797	7	1.396	.334
With bicycle / electric bike. (I can easily get to the inner city ...)	982.010	6	702.059	7	1.399	.333

With bicycle / electric bike. (I can easily get to the inner city ...)	159.874	6	545.182	7	.293	.922
With bicycle / electric bike. (I can easily get to the inner city ...)	8.420	6	17.832	7	.472	.810
With bicycle / electric bike. (I can easily get to the inner city ...)	5.959	6	8.925	7	.668	.681
With bicycle / electric bike. (I can easily get to the inner city ...)	1.234	6	.914	7	1.350	.349
With bicycle / electric bike. (I can easily get to the inner city ...)	6.581	6	9.712	7	.678	.674
With the moped / scooter. (I can easily get to the inner city ...)	33.674	6	86.901	7	.387	.866
With the moped / scooter. (I can easily get to the inner city ...)	27.897	6	83.476	7	.334	.899
With the moped / scooter. (I can easily get to the inner city ...)	6.783	6	9.477	7	.716	.650
With the moped / scooter. (I can easily get to the inner city ...)	2.580	6	3.024	7	.853	.569
With the moped / scooter. (I can easily get to the inner city ...)	.760	6	1.667	7	.456	.821

With the moped / scooter. (I can easily get to the inner city ...)	81.755	6	77.896	7	1.050	.468
By car / motorcycle. (I can easily get to the inner city ...)	32.795	6	42.860	7	.765	.620
By car / motorcycle. (I can easily get to the inner city ...)	523.003	6	918.412	7	.569	.745
By car / motorcycle. (I can easily get to the inner city ...)	31.497	6	89.648	7	.351	.888
By car / motorcycle. (I can easily get to the inner city ...)	54.404	6	47.955	7	1.134	.431
By car / motorcycle. (I can easily get to the inner city ...)	4.939	6	10.432	7	.473	.809
By car / motorcycle. (I can easily get to the inner city ...)	7.662	6	18.637	7	.411	.851
By bus. (I can easily get to the inner city ...)	88.368	6	48.779	7	1.812	.227
By bus. (I can easily get to the inner city ...)	551.373	6	127.339	7	4.330	.038
By bus. (I can easily get to the inner city ...)	36.905	6	37.817	7	.976	.504
By bus. (I can easily get to the inner city ...)	110.548	6	167.821	7	.659	.686
By bus. (I can easily get to the inner city ...)	100.478	6	208.221	7	.483	.803
By bus. (I can easily get to the inner city ...)	147.960	6	104.238	7	1.419	.326
By train. (I can easily get to the inner city ...)	157.258	6	168.548	7	.933	.526

By train. (I can easily get to the inner city ...)	693.824	6	1057.225	7	.656	.688
By train. (I can easily get to the inner city ...)	24.134	6	44.356	7	.544	.762
By train. (I can easily get to the inner city ...)	9.649	6	11.865	7	.813	.592
By train. (I can easily get to the inner city ...)	31.642	6	26.288	7	1.204	.402
By train. (I can easily get to the inner city ...)	10.437	6	21.338	7	.489	.799
Man019	661425.127	6	69915.810	7	9.460	.005
man2039	1858317.675	6	61191.381	7	30.369	.000
m4059	1089944.669	6	49796.202	7	21.888	.000
m6079	724864.730	6	83049.905	7	8.728	.006
M80	22880.980	6	5973.619	7	3.830	.051
W019	596450.730	6	73302.190	7	8.137	.007
w2039	1773220.808	6	96939.155	7	18.292	.001
w4059	1144775.272	6	56364.298	7	20.310	.000
w6079	889017.335	6	92710.488	7	9.589	.004
w80	70484.919	6	28427.060	7	2.480	.130

The F tests should be used only for descriptive purposes because the clusters have been chosen to maximize the differences among cases in different clusters. The observed significance levels are not corrected for this and thus cannot be interpreted as tests of the hypothesis that the cluster means are equal.

**Number of Cases in each
Cluster**

Cluster	1	1.000
	2	3.000
	3	1.000
	4	1.000
	5	4.000
	6	3.000
	7	1.000
Valid		14.000
Missing		.000