

# On-street parking and shopping street vitality

*Comparing customer and shopkeeper perspectives on shopping practices and experiences in Markveien, Oslo*

Ingvild Mørk



Master Thesis in Human Geography

Department of Sociology and Human Geography

UNIVERSITY OF OSLO

May 2016



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# Abstract

There is an on-going debate about how road space reallocation from parking, to space for pedestrians and cyclists, affects city centre vitality. The trade sector is concerned that reduced accessibility for car driving customers has negative impacts on business vitality. The aim of this case study is to expand the understanding on the relation between on-street parking and shopping street vitality by conducting a comparison of customer practices and experiences of shopping to shopkeeper assumptions and perspectives on these issues in Markveien, Oslo.

The main objective is to investigate how (1) present configurations, and future scenarios, of on-street parking in shopping street design affect *practices* and *experiences* of shopping and shopping related travel, and (2) to compare this to shopkeepers' assumptions thereof. The objective is investigated through answering research questions targeting: (1) customers' travel patterns; (2) customers' money spending by transport mode; (3) perceptions on suitability for different transport mode users; (4) perceptions on the need for on-street parking, and impact of the presence of cars on customers' experiences of shopping; (5) factors involved in customers' evaluation of Markveien's attractiveness; and lastly, (6) the preferred street design, and potential impact on shopping street vitality in Markveien.

The research questions is analysed by the application of a relational approach and analytical concepts from mainly practice- and place theories. The research questions are empirically addressed through a mixed methods approach in which the main focus is given to qualitative interviews. The qualitative material is supplemented and triangulated by quantitative questionnaire data, and both methods are conducted as ethnographic 'go-along' interviews.

Main findings include that shopkeepers generally know their customer base quite well. Pedestrians account for the largest share of customers and total turnover, followed by public transport users. Customers' location choice appears related to atmospheric aspects and instrumental factors, but never to parking accessibility. A majority of customers and shopkeepers prefers to reallocate the parking spaces in Markveien to pedestrians and cyclists. Such redesign is believed to enhance the experience for visitors and increase the business vitality.



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### **List of abbreviations**

BYM	Agency for Urban Environments
CO2	Carbon Dioxide
EFTA	European Free Trade Association
EU	European Union
GHG	Greenhouse gas
IPCC	Intergovernmental Panel on Climate Change
MOS	Department of Environment and Transport
NPRA	Norwegian Public Roads Administration
OHF	Oslo Handelsstands Forening
SPSS	Statistical Package for the Social Sciences
TØI	Institute of Transport Economics







# 1 INTRODUCTION

From an environmental perspective, car traffic must be reduced. There is an on-going debate about how road space reallocation from parking, to space for pedestrians and cyclists, affects city centre vitality. The trade sector is concerned that reduced accessibility for car driving customers has negative impacts on customer spending and business vitality. There is a lack of knowledge concerning the relation between on-street parking and shopping street vitality. Accordingly, the aim of this thesis is to expand the understanding by conducting a comparison of customer practices and experiences of shopping to shopkeeper assumptions and perspectives on these issues in Markveien, Oslo.

## 1.1 Background

### *The pressing need to reduce GHG emissions from transport*

World leading research has established that climate changes create harmful consequences for environments and for the people living in affected areas. According to the Intergovernmental Panel on Climate Change's (IPCC) report from 2014 it is extremely likely that more than half of the global temperature rising between 1951 and 2010 is a consequence of human produced emissions of greenhouse gases (GHG) (IPCC 2014). It has been a longstanding political goal to achieve reduced GHG emissions from transportation. For instance, the European Union (EU) has defined an ambitious goal of reducing 80% of the emissions by 2050, compared to 1990 levels (European Union 2011). This is a challenging goal considering that emissions from transport continued to rise until 2008, due to growth in the volume of personal and freight transport. Road transport alone contributes to about 20% of EU's total emissions of carbon dioxide (CO<sub>2</sub>), the main GHG (European Union 2016).

Air pollution is an important national concern in Norway. In October 2015, the European Free Trade Association (EFTA) found Norway guilty of violating the EU's air quality directive, after registering widespread local air pollution in Norway's

biggest cities: Oslo, Bergen and Trondheim. The verdict came after Norway's own national federation against asthma and allergies had reported the poor air quality to EFTA officials (Osloby 2015a). Air quality has been on the political agenda for a while and there is an acknowledged need for substantial reductions in traffic volumes, as well as increases in the shares of environmental-friendly modes of transport, on a national level (Samferdselsdepartementet 2013), and in Oslo (City council declaration 2015, Oslo kommune 2015a).

Oslo is one of the fastest growing capitals in Europe and the population is expected to increase by almost 200 000 inhabitants in the next twenty years. This rapid expansion puts tremendous pressure on the city's transportation systems. In an attempt to meet the municipal climate goals, a transition towards a renewable and sustainable society, "The green shift", has been proposed (Oslo kommune 2015a). The city council of Oslo has developed new climate goals for Oslo and aims to become the most GHG-reducing capitol in Europe. Given the substantial transportation challenges that Oslo is currently facing, it is reasonable to propose that most changes will have to take place in this sector. The city council of Oslo aims at making Oslo fossil free by 2030, and to reduce 50% of GHG emissions by 2020 (compared to 1990-levels) and 95% by 2030 (City council declaration 2015).

A range of different strategies will have to be combined to effectuate transport change. There are several strategies than can be implemented to reduce greenhouse gas emissions from transport, including technical innovations related to fuel and engines. Norway is seeking to reduce its GHG emissions by increasing the share of electric vehicles (The New York Times 2015). Norway is the country in the world that has the highest proportion of electric cars. Accordingly, it has become a model state for researchers and policy makers around the world who want to study how generous subsidies incentivise the population to invest in electric vehicles. Nevertheless, a wider set of strategies in combination is necessary to reduce car use and emissions from transport. Moreover, a car-based society is commonly associated with other societal issues, such as physically inactive lifestyles and the space cars consume.

Removal of parking spaces represents one of the available planning measures that may restrict car traffic and reduce the associated GHG emissions in Oslo. Internationally, several cities have changed parking policies, and removed on-street parking in an attempt to reduce car traffic. The impacts of new parking policies in

European cities have led to impressive reductions in private car trips, reduced air pollution, and improved quality of life in general (Kodransky & Herman 2011). In Norway, parking as a way of managing traffic has been a topic in urban planning since the 1970s (Hanssen & Lerstang 2002). Today parking restrictions, fees and limited access to parking are central policy measures for reducing car traffic in Norwegian cities (Samferdselsdepartementet 2013). A comprehensive enquiry of city life in Oslo from 2014 (Vamberg et al.), argued that car traffic creates barriers for pedestrians and cyclists in the city centre. Accordingly, it is currently recommended to remove on-street parking to stimulate growths in the proportion of environmental friendly modes of transportation.

### *Increased walkability and cycleability on the expense of driveability*

To reduce private car use, transportation systems must be organised in a manner that will effectuate transport change. Political efforts are made in an attempt to incentivise individuals to change their travel habits. The city council of Oslo wants to enhance street life by prioritising accessibility for pedestrians, cyclists and public transport users on the expense of cars (City council declaration 2015). In 2015, the municipality of Oslo passed a new and ambitious bicycle strategy for the next ten years. One of the main goals is to double the proportion of bicycle users from 2014-level (8%) to 16% (Kummel et al. 2014). The current city council however, aims to increase the bicycle share to 25% within the same time period (City council declaration 2015). To achieve this, big investments are needed to upgrade existing, and build new, infrastructure. Road space is not infinite and reallocation of parking is necessary to liberate space to these developments. There is also a focus on enhancing suitability for pedestrians in Oslo. Plans are now made for developing a walking-strategy for the city centre to increase the walking activity (Aftenposten 2016).

### *The fear of the dead city centre*

Car regulative measures are contested topics. Policy initiatives that are aimed at reducing car traffic and promoting walking, cycling and public-transport facilities often meet resistance (Tønnesen 2015). The retail sector has traditionally opposed interventions that will limit the availability of on-street parking, scepticism that is

often based on presumed negative impacts of traffic calming schemes on commerce (De Jong 2012).

By 2019 the inner city centre of Oslo is planned to be free of private cars (City council declaration 2015). This proposal attracted international attention (The Guardian 2015), as well as local scepticism and concern from politicians (VG 2015) and the retailers' interest union, Oslo Handelsstands Forening (OHF) (Aftenposten 2015). The head of OHF expressed the fear of how a parking removal might lead to a dead city centre and explained: "usually retail is the biggest contributor to vibrant environments. A decline in shopping activity decreases street life and then we will get a poorer city"<sup>1</sup>. Based on this statement, the impression is that a parking removal will probably lead to a decrease in shopping activity.

Competition from outlying shopping centres is one of the major reasons for why shopkeepers in the city centre fear that they will lose customers if parking spaces are removed. Empirical research evidence confirms this threat. Research literature shows a clear tendency of city centres losing market shares to more remotely located trade (Tennøy et al. 2015). In the last decade all growth in urban shopping activity took place in shopping centres and other warehouses outside the city centres. Total turnover in Norwegian city centres have experienced a weak retrogression and in cities such as Oslo, Stavanger, Porsgrunn and Drammen, the city centre's share of revenue has decreased in the time period 2006-2011, whereas the shopping centres' share have increased (Haagensen 2012). There has been a substantial development of shopping areas outside city centres in Norway during the last decades. Regional shopping parks are often located in the periphery, where much of housing- and workplace development has taken place the last years. These developments have made the city centre less accessible for a bigger share of the population because travel distances have increased, and demonstrates how the overall urban development affects the opportunities to develop attractive, vibrant and competitive city centres (Tennøy et al. 2015). This situation also provides an understanding of why shopkeepers fear further losses of customers to peripherally located shopping centres, if parking is removed from inner city shopping streets.

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<sup>1</sup> My own translation. In Norwegian: «Det er ofte handelen som er den store bidragsyteren for å skape liv. Med mindre handel blir det også mindre liv og da får vi en fattigere by»

Nevertheless, empirical studies have revealed that access to parking is rarely decisive for customers' shopping destination choice (Teller 2008, Vamberg et al. 2014). Should shopkeepers in Oslo worry about a future desolated city centre if, or when, parking spaces are removed? There is limited knowledge on the association between on-street parking and shopping street vitality, especially from a Norwegian context. Empirical studies from Oslo have mainly investigated customers' travel and spending patterns (e.g. Ipsos MMI 2014). However, an important step in the process of understanding the significance of on-street parking is to gain insight into *why* customers shop at certain locations. Accordingly, this thesis will investigate both customers' travel and shopping practices, and factors underlying shopping location choice.

Since shopkeepers are involved in producing and negotiating images and outcomes of planning suggestions, it will be important to also include their perspectives on the relation between on-street parking and shopping street vitality. This group may have limited knowledge about customers' practices and lobby for planning solutions that are not in their best interest. To inform the debate and future decision making it is important to investigate their perspectives and assumptions on customer practices and compare these to the actual empirical evidence.

The following objective and research questions are formulated to contribute to the academic literature available on this topic.

## **1.2 Objective and research questions**

The main objective of this study is to investigate how (1) present configurations, and future scenarios, of on-street parking in shopping street design affect *practices* and *experiences* of shopping and shopping related travel, and (2) to compare this to shopkeepers' assumptions thereof. Practices refer to travel and spending patterns. Experiences refer to how different instrumental or non-instrumental factors affect the experience of mobility and shopping in Markveien. Primary focus is on the present day situation. Other design elements that are aimed at improving accessibility for pedestrians and cyclists will also be discussed with regard to the vitality of shopping streets.

The research objective will be addressed along the lines of the following six research questions:

- 1) From where, and how, do Markveien's customers travel, and what are shopkeepers' assumptions on this?*
- 2) Which transport mode user(s) have the greatest impact per trip and on the total turnover in Markveien, and what are shopkeepers' assumptions on this?*
- 3) How do customers and shopkeepers perceive suitability for different mode users in Markveien?*
- 4) How do customers and shopkeepers perceive the need for on-street parking in Markveien, and how does the presence of cars affect customers' experiences of shopping?*
- 5) Which factors are involved in customers' evaluation of Markveien's attractiveness, and what are shopkeepers' assumptions on this?*
- 6) If customers and shopkeepers want a new design for Markveien, which solution would they choose and what are the potential effects on shopping activity?*

These research questions are empirically addressed through mixed methods. The main focus is given to qualitative interviews and the qualitative material is supplemented and triangulated by quantitative questionnaire data. Both methods are conducted through ethnographic 'go-along' interviews, which will be presented in Chapter 3. Research questions are analysed through a relational approach and by applying analytical concepts from mainly social practice- and place theories.

The research is conducted as a case study where Markveien in Oslo is chosen for in-depth study. Located in the eastern borough, Grünerløkka, Markveien is a vibrant shopping street. Pedestrians, cyclists and car users all got dedicated space in the street design, and there is a line of parking along the kerbstone on one side of the street. In August 2010, the city council of Oslo decided that Markveien was going to be developed into a pedestrianised shopping street. To achieve this, parking spaces must be removed (Osloby 2015b). Today, Markveien looks the same as in 2010, but the political wish to make infrastructural changes is still present (Oslo kommune 2015b). In the light of this situation it is interesting to investigate Markveien and explore how customers and shopkeepers use and perceive the street today as well as to

assess how a potential reallocation of parking to pedestrians and cyclists might affect the shopping activity and vitality of the street in the future.

This thesis is relevant both because the topic is present in the urban debate, and because of methodological and theoretical contributions. This study aims to (1) verify and expand the existing knowledge base on this topic, which have been called for (Tennøy et al. 2015); (2) add experiences of shopping to the knowledge base; (3) apply mixed methods; (4) investigate and compare both shoppers and shopkeepers to reveal similarities and discrepancies in perceptions, assumptions and practices; and (5) investigate both present and future situations of on-street parking in shopping street design.

### **1.3 Structure of the thesis**

The second chapter of this thesis report provides the theoretical framework applied in this study. This includes theories of the relation between land-use and transport behaviour, and analytical concepts from mainly practice- and place theory. The chapter ends by presenting a conceptual model for analysis. Chapter 3 introduces the methodological approach, chosen methods and methodological challenges that were met during and after data collection. Chapter 4 presents the case of this study, Markveien, to give an understanding of the context, the distribution of parking within the street and the current planning situation. Chapter 5, 6, 7 and 8 presents the results and analysis, and respond to the research questions. Chapter 5 looks at customers' practices of shopping and the shopping related travel, and compares these findings to shopkeepers' assumptions on these patterns. Chapter 6 explores how both shopkeepers and customers perceive suitability for different transport modes and the need for on-street parking, as well as how the presence of the cars affect customers' experience of shopping. Chapter 7 identifies factors that are involved in customers' evaluation of Markveien's attractiveness, and shopkeepers' assumptions on this relationship. Chapter 8 explores whether shopkeepers and customers want a new design for Markveien, and if so, which solution they perceive as the most attractive. This chapter also investigates believed impacts of a reallocation on business vitality. Lastly, Chapter 9 contains the final conclusions and discussion with regard to theoretical and societal relevance. The chapter ends with recommendations for future research.

## **2 THEORETICAL FRAMEWORK**

With regard to the current goals to reduce GHG emissions from transport it is important to discuss how trade and the transportation systems can be coordinated and developed in order to contribute to environmentally sustainable trade structures. Transport literature explains many aspects of travel and how policies can affect travel behaviour through coordinating land use and transport, and by facilitating changes in transport modes. Parking regulation and reallocations are some of the policy measures local authorities can apply to contribute to modal shifts. Nevertheless, there is a need to supplement existing transport theories to understand whether a parking reallocation in a shopping environment might give the intended effects on car volumes.

A relational approach is chosen to analyse practices and experiences of shopping and shopping related travel. This approach acknowledges the close connection between the situational experiences of-, and practices of shopping. Analytical concepts will mainly be derived from practice- and place theories.

With this starting point, this chapter first presents a literature review of relevant empirical studies for the proposed research questions. Subsequently, theories of land-use and transport management are presented before introducing the relational approach to this case study and the analytical concepts that will be applied in the analysis. At the end of this chapter a conceptual model for the analysis will be presented. This model illustrates the possible connections between on-street parking, accessibility for different transport modes, shopping experiences and practices of shopping and the related travel.

### **2.1 The impact of on-street parking on retail in city centres: A literature review**

There are not many studies that have addressed the direct effect of parking reallocation on shopping activity (Tennøy et al. 2015) or the experience of shopping. However, existing studies can say something indirectly about the possible outcomes of a parking reallocation in a city centre by responding to (1) why customers visit the city centre; (2) how shoppers travel; and (3) which transport mode group that spends the most

money on city centre shopping. In 2015, the Institute of Transport Economics (TØI) published a literature review investigating relationships between retail, accessibility and the urban environment (Tennøy et al. 2015). Later in 2015, The Norwegian Public Roads Administration (NPRA) published a report that presented a literature study on the relationship between on-street parking and retail (Gjellebæk & Olimstad 2015a). In the following sections relevant literature from these reports will be presented and supplied by some additional studies. It is important to bear in mind that findings from other case studies are always dependent on the local and regional contexts they were situated in. Thus, empirical research from abroad cannot be transferred directly to the context of Oslo.

### *Attractiveness of inner city shopping*

The vitality of the city centre depends on how interested people are in travelling there, which often depends on how easy or difficult it is to get there. There has to be a temptation in terms of both accessibility and attractiveness in order to attract customers to the city centre. The accessibility for different transport modes depends on how urban environments are designed and shaped. The urban form says something about which transport modes that are given priority (Tennøy et al. 2015). With regard to attractiveness, literature shows that shoppers have different purposes when they visit the city centre. Gehl Architects (Vamberg et al. 2014) investigated city centre life in Oslo over two years and found that most visitors had several purposes for their time spent in the city centre. The most common activities to combine were to meet up with friend and to eat or drink. For 81% of the respondents, social activities were their main purpose of visiting the centre. To experience the urban vibe or to conduct planned shopping were also important factors. Similar results have been found in Copenhagen (Gehl & Gemzøe 1996). Based on the findings from Oslo, it is suggested that the city centre must offer a wide range of services and attractions within a relatively small area, to accommodate peoples' wishes and to sustain a vibrant urban environment (Vamberg et al. 2014). If a city succeeds in offering this, the city centre will be able to compete against remotely located shopping centres.

City centre visitors appreciate different qualities. In the city life investigation from Oslo (Vamberg et al. 2014), the urban life, atmosphere, green areas and good accessibility, were the most reported elements that attracted customers. Furthermore,

using a web-based survey of almost 1000 consumers, Teller (2008) found that a variety of shops as well as atmosphere were the most important qualities for attracting customers to both shopping streets and shopping centres in Vienna. Teller and Reutterer (2008) made similar findings in Vienna, from 2000 on-site interviews of customers of an inner city shopping street and a competing peripheral shopping centre. Access to parking was not found to have a significant effect on the attractiveness of the shopping area.

Car traffic in the city centre can affect negatively on visitors' experience of the urban environment. A study from Copenhagen (Gehl & Gemzøe 1996) shows that 30% of respondents experienced cars and the related pollution as the biggest problems in the city centre. When asked how the city centre could improve, less car traffic was mentioned by 44%, followed by 17% who emphasised more plants and trees. Findings from Oslo show the same; when visitors were asked what they liked the least about the city centre, car traffic was one of the negative factors (Vamberg et al. 2014). City centre users appreciate pedestrianised public spaces that offer good conditions for walking. Among the cities where public life and walking have been strongly reinforced during the past 20 to 30 years are Barcelona, Birmingham, Bristol, Lyon, Strasbourg, Freiburg, Copenhagen, Portland and Melbourne (Transport for London 2004). Cities that improve walking conditions in the centre often see increased popularity of these areas and positive effects on retail (Tennøy et al. 2015).

Other studies have however found that parking distribution can be a reason to choose shopping centres rather than the city centre for shopping purposes. Reimers (2013) interviewed Australian consumers about what made a shopping centre attractive. They found that parking was a factor that increased the shopping centres' attractiveness over the city centre. It is, however, important to be aware that respondents in this study lived in the suburbs and might have been more dependent on cars in general, compared to urban residents who live in denser neighbourhoods. When parking is found to be of importance, it is normally because two similar shopping destinations compete over the same customer group (Gjellebæk & Olimstad 2015a).

### *Car customers are least important for retail sales*

Mingardo and van Meerkerk (2012) suggest that there are three assumptions that underlie shopkeepers' idea that parking is crucial for business. The assumptions are

that 1) most customers use a car to go shopping; 2) car users are the most important customer group because they spend more money than customers coming with other transport modes; and 3) that car driving customers' choices of where to go shopping is strongly influenced by the availability of parking (Mingardo & van Meerkerk 2011, p. 195). We already know that the third assumption is not necessarily true with regard to city centre shopping (Teller & Reutterer 2008, Vamberg et al. 2014).

Empirical studies give a more nuanced picture of the value of parking in relation to city centre vitality. To be able to discuss consequences of a potential parking reallocation it is important to investigate how people travel to the city centre for their shopping practices. In Norway, the car is the most used transport mode when looking at all shopping travels, including shopping for groceries (Hjorthol et al. 2014). This research evidence confirms the first assumption posed by Mingardo and van Meerkerk (2012). However, the share of car users is lower in bigger cities compared to smaller cities. To be able to properly discuss potential impacts of a parking reallocation it is more relevant to look at which mode users that are the biggest contributors to total revenue in a street or an area. Empirical research from bigger cities shows that car users often spend the most per shopping trip, but in return they do not visit the same location as frequently as other mode users. Several studies show that car drivers have less impact on total turnover compared to other mode users, because there are few of them (Bent & Singa 2009, Bernier-Heroux & Ryan 2012, Clifton 2012, Ipsos MMI 2014, O'Connor et al. 2011, TNS Gallup 2005, 2014, Transport for London 2011, Vamberg et al. 2014). These studies normally look at how people travel, how much customers spent and how often they shop in a specific street or area.

There is little research on this topic from a Norwegian context, especially on small cities (Tennøy et al. 2015), but some studies have been conducted in Oslo. Findings from the inner city streets; Karl Johans gate (Vamberg et al. 2014), Thereses gate (Ipsos MMI 2014), Bogstadveien (TNS Gallup 2005) and Thorvald Meyers gate (TNS Gallup 2014) show that pedestrians, cyclists and public transportation users constitute a greater share of shoppers than car drivers. In Thereses gate, Ipsos MMI (2014) found that cyclists and pedestrians contributed most to the turnover (76%), whilst public transport users (14%), and car drivers (10%) had less impact in total. Tennøy et al. (2015) argue that since shopping frequency for different mode users was not accounted for in this study, there is reason to believe that pedestrians might have

had an even higher share of the turnover if this aspect was included. In 2005, TNS Gallup conducted a study in another shopping street in Oslo, Bogstadveien, and found that car driving customers spent the most per trip, but only accounted for 13% of the total turnover. Again pedestrians, cyclists and public transport users spent less per trip, but had a much greater impact on total turnover. The findings from Oslo confirm what the above mentioned research finds: driving customers might spend the most on each shopping trip, but when shopping frequency and the size of the mode group is taken into consideration, pedestrians, cyclists and public transport users account for a much bigger share of total turnover in a street per week and per year.

### *Effects of retrofitting urban streets*

In recent years the notion of ‘retrofitting’ or re-engineering existing urban environments has gained increased prominence within research and policy agendas due to the aim to become more sustainable (Dixon & Eames 2013, p. 499). To reallocate road space to bicycle lanes and widened pavements, are examples of retrofitting. A common goal when removing on-street parking is to better adapt the streets for pedestrians, cyclists and public transportation users. A parking removal will decrease the accessibility for cars and this might affect the share of driving customers negatively, but the increased accessibility for other mode users will often result in higher numbers of other mode users (DOT 2013, Gehl 1980, Rowe 2013). An example of this is Strøget, the main shopping street in Copenhagen, where parking spaces were reallocated and a pedestrian street was developed in 1962 (Gehl 1980). Sceptics argued that the street would become desolate, but today Strøget is a vibrant place. Such redesigns of urban environments have become an important strategy in city centre development. Unfortunately the effects of parking reallocations are rarely documented through investigations before- and after implementation (Tennøy et al. 2015). Existing studies and data are therefore scarce. There is one relevant example from Grønland (Tennøy 1999). During the 1990s the streets named Grønland and Grønlandsleiret was rebuilt to become thriving and pedestrian friendly. The number of car lanes was reduced, a bicycle lane came into place, and pavements were widened. Also, elements such as trees and bicycle racks made the street more pleasant and inviting. Questionnaires answered by people in the street before and after the implementation showed that the share of people who found the streets thriving had

increased. Additionally the shopping frequency increased by 5% in two years (MMI 1997). The share of cyclists almost doubled in the period 1994-1998 and the share of pedestrians increased by 9%. The car share was on the other hand reduced.

More recent investigations have been conducted in New York, USA. The New York City Department of Transport (DOT) (2013) has installed several pedestrian plazas and hundreds of miles of bicycle lanes over the last years through retrofitting existing urban environments. In many cases this has involved removing on-street parking spaces. The agency set out to create their own methodology to analyse the effects of these measures. Using tax data the DOT analysed the impact of street redesign and transportation enhancements on retail sales, by comparing sites where a variety of improvements had been implemented, to spots nearby, and with the borough as a whole. DOT concluded that projects that improved safety and design, and invited pedestrians, cyclists and public transport users, experiences higher retail sales. An example of this is Brooklyn's Vanderbilt Avenue that experienced a doubling in retail sales in three years after the installation of bicycle lanes and trees. Other empirical studies have found that replacing on-street parking with bicycle facilities does not affect retail sales negatively and increase the number of cycling customers (Meisel 2010, Rowe 2013).

### *Shopkeepers' perceptions, estimations and assumptions*

There are only a few studies that have investigated shopkeepers' assumptions of where their customers travel from, and how they travel. In a study from Bristol (Sustrans 2006) shopkeepers were asked to estimate customers' behaviour according to travel mode, travel distance and the number of shops visited. The same measures were explored through investigating the actual customer practices. This gave a valuable insight into how customer behaviour compares with the traders' perception. The shopkeepers estimated that almost twice as many customers arrived by car (41%), compared to the actual travel practices (22%). They also underestimated the share of pedestrians by suggesting a 42% share when the actual percentage was 55%. The Bristol study was inspired by a study from Graz, in Austria, where shopkeepers similarly overestimated the car share and underestimated the pedestrian share (Sustrans 2003). Similar results have also been found in Dublin (O'Connor et al. 2011). In a study from Halifax, (de Jong 2012), about half of the shopkeepers

estimated that at least 76% of customers arrived by car, while the actual number was only 16%. 70% of customers walked and 14% cycled. In Bristol (Sustrans 2006), shopkeepers also underestimated where their customers travelled from. Shopkeepers estimated that 12% of the customers lived within 800 meters of their shops, when the actual number was 42%.

Based on these few studies findings are that shopkeepers generally overestimate the share of customers that travel from further away, and the share of customers that arrive by car, compared to customers using other travel modes. The above mentioned research on actual travel behaviour in comparison to shopkeeper assumptions shows how shopping activity is local to a greater extent than assumed, and therefore is not as dependent on motorised transportation. In the next section theoretical and empirical literature on how to reduce car traffic will be presented, before the relational approach will be emphasised in relation to this.

## **2.2 Mechanisms and instruments supporting sustainable mobility**

The nature of travel is changing and today there is an increase in leisure-based travel. According to Banister (2008, p. 73) there are two fundamental, and problematic, principles embedded in the dominating transport planning and transport analysis. The first principle is that transport is a derived demand that people do not want to undertake for its own sake. He exemplifies this by suggesting that much leisure-based travel is in itself perceived as valuable. The second principle is that people minimise their costs of travel, by means of both travel expenses and the time taken for travel. Banister sees these principles as fundamental problems with the traditional planning perspective and proposes an alternative sustainable mobility approach. The sustainable mobility paradigm suggests four necessary mechanisms for developing sustainable mobility: (1) reducing the need to travel by substituting activities through technology, such as internet shopping; (2) modal shifts through transport policy measures, such as parking controls; (3) distance reduction through land-use policy measures and; (4) efficiency increase through technological innovation related to engine design, alternative fuels and the use of renewable sources. I will in the following only focus on suggestion 2 and 3.

There seems to be a broad agreement between several transport researchers (Banister 2008, Newman 2006, Newman & Kenworthy 1989, Næss 2012, Tennøy 2012) with regard to how urban spaces and transportation systems should be developed in a sustainable way. The general idea is that land use development largely affects the degree of car traffic volume that is generated. Urban planning can reduce the number of car trips and reduce the average length of these trips through urban densification (Tennøy 2012). This important strategy involves coordination of land use- and transportation policy by developing new housing, work places and service functions in city centres and around transportation hubs (Tennøy et al. 2015). Tennøy (2012, p. 87) defines densification: “(...) as increasing the average density in number of people per km<sup>2</sup> in an area.” The literature shows a strong link between the density of people and jobs on one side, and car use on the other side. This link is explained by the reduced distances and increased accessibility to destinations. Newman (2006, p. 281) perceives this relation as obvious: “The relationship between transport and density appears to be quite obvious in theory, as the closer people live together then the shorter the distances to travel and the more viable public transportation becomes.” A literature review of 30 Nordic studies, conducted by Næss (2012), concludes that dense cities show more climate-friendly patterns of travel. Jane Jacobs (1961) proposed this relationship already in 1961 in her influential book *The Death and Life of Great American Cities*, and the popular term compact city has its roots in this book. The ideal of compact cities has long been emphasised in Norwegian planning to achieve national climate goals (Samferdselsdepartementet 2013).

A popular concept that relates to the presented literature on how the built environment influences travel demand, are Cervero and Kockelman's (1997, p. 199) three principal dimensions of density, diversity and design, also called the '3Ds'. In their study of residents in San Francisco they found that compact development, land-use diversity and pedestrian-friendly design generally reduce trip rates. Similar findings have been made in Norway (Engebretsen & Strand 2010). These planning strategies allow both 'high-quality accessibility' and a 'high-quality environment' (Banister 2008, p. 74). The intention is not to prohibit the use of cars, the intention is rather to design cities in such a way that people do not need to have a car. If high quality density is achieved, most activities become accessible for the inhabitants by environmental-friendly travel modes. The only mode user that is not benefitted in a

compact city is the car user, who might struggle with queues, restricted parking accessibility and expensive parking (Tennøy et al. 2015).

It is however important to be aware that people might select themselves into dense and diverse urban environments based on their values, such as the choice to purposely live without a car. Mixed-use and pedestrian-friendly neighbourhoods may simply be attracting residents that have similar interests and characteristics (Talen & Koschinsky 2013), more than confirming the assumed links between urban form and travel behaviour.

### *Relative accessibility for different transport modes*

Closely related to strategies to reduce the need for travel through land use policy, are strategies that target a reduction in private car usage by incentivising people to modal shifts. Motivational campaigns or incentives to change travel modes is one such strategy (Tønnesen 2015). An example of this is the temporary campaign piloted by the City of Oslo, where inhabitants could get economic support for purchasing an electric bicycle (Oslo kommune 2015c). Another instrument to facilitate transport change is functional improvements in walking and cycling infrastructure that makes them safer and more accessible. In the last decade there has been a big interest in the development of walkable neighbourhoods, motivated by both environmental, health, economic and communitarian goals. The term ‘walkability’ is used to characterise the geographical access and quality of a route (Talen & Koschinsky 2013, p. 42). Cities all over the world now apply goals of walkability (see e.g. Transport for London 2004). Transport for London defines walkability as “the extent to which walking is readily available as a safe connected, accessible and pleasant mode of transport” (2004, p. 5). The current international attention to bicycle adaptation can similarly be translated into an aim of ‘cycleability’. Bicycle-friendly environments also contribute to safer environments for pedestrians (Speck 2012).

Increased shares of walking, cycling and public transport also result from strategies that makes car usage less attractive, such as increasing the cost of car use for daily purposes through either toll-road payment, or congestion charging schemes, which have been successful in reducing motorised traffic in London (Beevers & Carslaw 2005), or through parking regulations.

Parking is a way to influence travel behaviour, through steering costs and access. Parking schemes can lower transport emissions. However, they might also have the opposite effect (Marsden 2006). A strict parking regime in the city centre combined with free parking at outlying shopping centres may result in customers' flight to the periphery. Cities might fear losing customers to neighbouring cities with weaker parking regulations, and thereby influence negatively on urban vitality (Marsden 2006). On the other hand, if there is good access to parking in city centres people might take the car for daily purposes instead of walking, cycling or using public transportation.

Transport geography has been dominated by quantitative methods such as statistical analysis, but social theory has shown that this focus may be problematic because it often assumes that people act rationally. The traditional approach in transport geography often excludes relevant factors that drive participation in activities, such as status, identity, and a wide range of affects, feelings and emotions (Ettema & Schwanen 2012). Røe (2000) emphasises that quantitative analysis can be very useful, but it cannot provide answers to questions that requires an understanding of social processes and needs to be supplemented by a more interpretative approach. There is a concern that non-instrumental factors have not received much attention in transport studies in general. A relational approach to travel on the other hand, acknowledges how different material and immaterial factors influences people's engagement in activities at a specific cite.

### **2.3 A relational approach to the study**

Travel is conducted to participate in a range of different social activities, such as shopping. There is a growing focus among scholars in transport studies on understanding travel based on the fundamental question of why individuals engage in certain activities (Ettema & Schwanen 2012, Næss 2012, Røe 2000). As a result, shopping related travel behaviour cannot be fully understood by solely looking at the built environment or the travel options, such as travel time and costs. I argue that it is important to explore customers' motivation for shopping at a specific place, and their experiences of this place, to be able to assess the significance of on-street parking for shopping street vitality. Accordingly, a relational approach will be applied to explore shopping activities within the complex and dynamic relations they are situated in, such

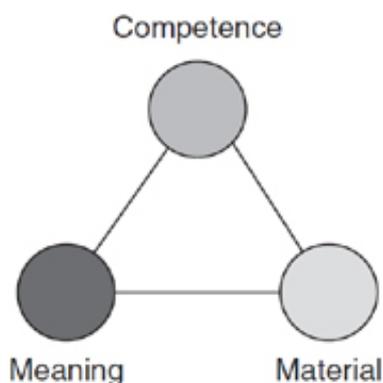
as the different people and objects present, as well as immaterial phenomena such as values, emotions (Ettema & Schwanen 2012), and the sense of place (Cresswell 2015). I will in the following present central ideas from practice theory as a means of conceptualising these dynamics.

### *A social practice perspective*

With roots in cultural and social theory, practice theory is a beneficial approach to better understand travel in relation to shopping activities. Following Giddens' structuration theory the ambition is to focus on practices rather than individuals: "[T]he basic domain of study of the social sciences (...) is neither the experience of the individual actor, nor the existence of any form of societal totality, but social practices ordered across space and time." (Giddens 1984, p. 2, quoted in Hargreaves 2011, p. 82) One of the later theorists in the practice theory tradition, Reckwitz (2002, p. 249), defines a practice as:

a routinized type of behaviour which consists of several elements, interconnected to one other: forms of bodily activities, forms of mental activities, 'things' and their use, a background knowledge in the form of understanding, know-how, states of emotion and motivational knowledge.

These elements can in a simplified way be conceptualised as materials, competences and meanings (Shove, Pantzar & Watson 2012). A practice is seen as dependent on the existence and interconnectedness of all the different elements, and it cannot be reduced to any one of these (Reckwitz 2002).



**Figure 2.1:** Constitutive elements of a social practice (Source: Shove et al. 2012, p. 24)

Studying shopping practices through a practice theory lens provides an opportunity to illuminate the different elements a practice is made up of, and how they converge and affect each other (Watson 2012). The *materiality* of Markveien encompasses infrastructures such as the architecture and the spatial configuration of the street, other material objects, such as bicycle- and car parking, and the people that frequent the street. The human bodies contain know-how, background knowledge, experience and *competence*. Competence is about various forms of understanding and practical knowledge. For practices in Markveien this involves to know the place based on earlier experiences, to understand traffic rules and the ability to navigate on the street and locate parking for bicycles or cars. The *meaning* of a practice includes a range of elements related to mental activities, emotions and motivational knowledge, such as the social status of shopping in Markveien or attachment to the place related to previous experiences (Shove, Pantzar & Watson 2012).

Practices are seen as an outcome of the active integration of the different elements, through people's 'doing' of the practice. A shopping practice is "carried, enacted and reproduced" by ordinary people (Shove & Walker 2010, p. 473). Without normal people doing shopping practices in Markveien, it would not exist as it does today.

Placing practices centre-stage rather than individuals does not mean that peoples' behaviour is fully controlled by structures. Practice theories do not see individuals as passive actors dictated by different practices, it rather "conceives of them as skilled agents who actively negotiate and perform a wide range of practices in the normal course of everyday life." (Hargreaves 2011, p. 83) To conceptualise shopping activities and the related travel in this way makes it possible to analyse the dynamics taking place in the street without overlooking any important aspect of urban design, culture or social processes (Shove & Walker 2010). The practice approach bridges the tension between behaviour models used in transport planning of rational individuals, and structure oriented analysis in which one supposes that human behaviour is determined by elements such as the built environment. In practice theories structure and agency is tied together and both are seen as drivers of human behaviour (Ettema & Schwanen 2012).

The aim of applying a practice theory approach is not to conduct a systemic analysis of how shopping practices fit within this conceptual vocabulary. Practice theory must be regarded as a heuristic device or a way to see and analysing social phenomena, rather than as a complete theoretical model. The approach can, however, enable researchers to make certain empirical statements (Reckwitz 2002).

A specific shopping practice cannot be studied in isolation. The practice theory approach provides a lens through which to analyse how singular shopping practices are made up of an assemblage of elements, as well as to understand how practices are interconnected and affect each other. Different practices needs to be coordinated with one another. Examples of this are how shoppers must coordinate their practice of shopping with practices of work or family obligations, as well as how pedestrians and cyclists in Markveien must coordinate their movement through the street. In this way practice theories acknowledge the systemic interconnection of practices in space and time. This approach is useful to map out the ‘co-existence, colocation, cooperation and competition’ between different practices and to examine their interrelation (Watson 2012, p. 493).

### *The importance of understanding place in order to understand location choices*

To understand why people choose to shop in certain locations it is important to understand qualities with regard to place, which adds the dimension of atmosphere. Place is a contested concept in geography and it has been conceptualised in many different ways (Cresswell 2015). Cresswell (2015, p. 215) argues that “[i]t is necessary to get beyond consideration of the material form of places and representations of them in order to fully comprehend the complexity of place.” Accordingly, the physical landscape and material setting for shopping practices in Markveien affects the practices taking place, but it cannot explain all dimensions of why people come to Markveien to shop. In addition to where a place is located and how it visually looks, a place must have some relationship to people to be meaningful. With the emergence of humanistic geography in the 1970s, different writers such as Yi-Fu Tuan and Edward Relph developed the idea of place, compared to the empty notion of space, as a central and meaningful component in human life that form the basis for human interaction (Cresswell 2015). Sense of place refers to the subjective and emotional attachment

people can have to a particular place (Agnew 1987, cited in Cresswell 2015), both personally and shared. From a practice perspective, sense of place is part of the concept of *meanings*.

### *Conceptualisations of place in relation to mobility*

The relation between space and place can be compared to the terms of movement and mobility. Movement is, similar to space, content-less without meaning and history, whereas mobility is practiced, experienced and embodied (Cresswell 2006), and related to the concept of *competence*. Mobility helps to produce a sense of place. This approach understands places as constantly being produced and reproduced. The humanistic geographer David Seamon (1980, cited in Cresswell 2015), focuses on the everyday movements and suggests that places are performed on a daily basis through people living their everyday life. Most of everyday movements are habituated, and the combinations of many space-time routines of habits in a particular location create a strong sense of place. This mobility produces a feeling of insiderness, or a sense of belonging, for people in the place where habitual activity is performed. To feel inside, where a practice is performed, is also associated to other writers such as Tim Cresswell (1996) and Edvard Relph (1976). Relph separates between the experience of insiderness and outsiderness in the human experience of places. Insiderness is about belonging to and identifying with a place, while outsiderness is the opposite. Cresswell (1996) similarly uses the terms 'in-place' and 'out-of-place' to describe the close connection between place and assumptions about normative behaviour. Being in- or out of place are socially and culturally created, and this formation is likely to reproduce practices (Ettema & Schwanen 2012). The sense of being inside or in-place is believed to be of critical importance for shopping location choices and the associated shopping activities.

Seamon (1980, cited in Cresswell 2015, p. 64) uses the metaphor 'place-ballet' to describe the experience of a place where several habitual performances of time-space routines takes place. Seamon is not the only one who has described everyday street life as a dance. The idea of a sense of place being generated by experiencing people and their daily routines is also connected to Jane Jacob's (1961, p. 50) elaborate descriptions from New York, of the constant reproduction of places:

This order is all composed of movement and change, and although it is life, not art, we may fancifully call it the art form of the city and liken it to the dance (...) to an intricate ballet in which the individual dancers and ensembles all have distinctive parts which miraculously reinforce each other and compose an orderly whole. The ballet of the good city pavement never repeats itself from place to place, and in any one place is always replete with new improvisations.

Similarly, the Danish architect, Jan Gehl (1980), in his famous book *Life between buildings* (see Livet Mellem Husene), argues that the presence of other people in urban spaces is perceived as the most important factor to attract other people. “The life between the buildings is one of the most substantial attractions in a city whatsoever<sup>2</sup>” (Gehl 1980, p. 27). People orient themselves towards other people and will in most cases choose to frequent where there is human activity. From a practice perspective the human bodies are conceptualised as part of the *material* element of a practice.

Places are always becoming, through the relations between structure and agency. They are constructed by people’s doings and in this sense constantly being performed (Cresswell 2015). Practice theories are useful to empirically explore the processes of location choice because they understand place as processes (Ettema & Schwanen 2012). This approach perceives practices as both conditioned by physical infrastructure and by individuals’ relations to a specific place, and it also understands power relations inherent in place formation. Whether people are in- or out of place can be investigated in terms of *competence*, understood as the outcome of negotiations between people (Ettema & Schwanen 2012). I will in the following introduce a conceptualisation of space as either prescribed or negotiated.

### *Spaces of prescription and spaces of negotiation*

The situated experiences that occur within Markveien can be analysed using Murdoch’s (1998) conceptualisation of ‘spaces of prescription’ and ‘spaces of negotiation’. Some spaces prescribe certain expected behaviour, almost like a ‘script’, as they provide specific rules of behaviour. Other spaces might on the other hand give more room for spontaneous interactions and negotiations. Spaces of negotiation are characterized by fluidity and variation because of unstable actors or coalition of actors

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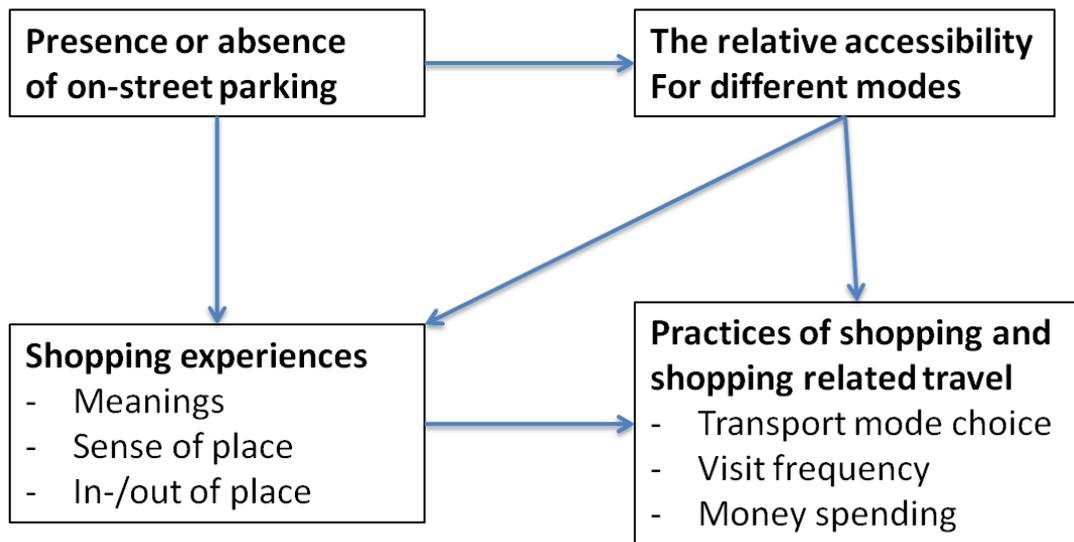
<sup>2</sup> My own translation. In Danish: “livet mellem husene – en af de væsentligste byattraktioner overheadet”

that come together to negotiate their place in the street. The practices of different road users are supported or hindered by the spatial design of an urban environment. A set of behavioural norms and values in different sections of a street is either expected through social practices, or obliged based on formal rules. As a pedestrian the formal rule is to walk only on the pavement. However, even in some of the most formalized systems, local negotiation is necessary for making the system work (Murdoch 1998). Highly prescribed situations, such as a car lane, can transform into chaotic situations where behaviour is less standardized and in which spontaneous, particular and unexpected interactions can take place. An example could be when people cross the street other places than where it is prescribed. Similarly, spontaneous interaction and negotiation within a pavement might take place between pedestrians with or without a pram, and other less typical actors like wheel chair users. Still, it is primarily a prescribed situation. This conceptualisation of spaces can be seen in connection to the concept of feeling in- or out of place. People who do not understand the script for how to behave and do not manage the expected routine might appear or feel out-of-place.

## **2.4 Conceptual model for analysis**

In this chapter, I have outlined a theoretical basis in order to inform the analysis of how the presence or absence of parking might affect practices and experiences of shopping in Markveien, and the shopping related travel. The aim has most importantly been to present the theoretical lens provided by practice theories for being able to understand the different elements that together make up practices of shopping.

Figure 2.2 shows the different relations that are believed to impact on practices of shopping and the shopping related travel. Theoretical work about the relation between land-use and transportation, and empirical findings, explain many aspects of the relations between the presence or absence of on-street parking, accessibility for different mode users, and the shopping practices generated. This study aims to verify and expand this existing knowledge and to provide new insights by comparing customer findings to shopkeeper assumptions.



**Figure 2.2:** Conceptual model of the relationships that affect practices of shopping and the shopping related travel

After exploring the relations between parking, accessibility and practices of shopping, and the related travel, the element of experiences will be emphasised. The added insight will especially be of relevance when discussing how a potential parking reallocation to pedestrians and cyclists may impact on shopping street vitality.

# 3 METHODS AND DATA COLLECTION

In this case study of on-street parking and shopping street vitality, the research questions is investigated through method and data triangulation. The main methods applied are quantitative questionnaires and semi-structured qualitative interviews. I argue that to understand the assemblage of factors that impact on shopping practices and the related travel, there is a need for rich qualitative data, supplemented by quantitative data. In this chapter, the chosen approach to research design in this study is presented first before introducing the applied methods. Following this, the chapter presents the research process and assessments that were made before and during my data collection concerning the recruitment of informants, the implementation of the interviews, the role of me as a researcher and how the data later was analysed. The chapter concludes with an assessment of the study's transferability.

## 3.1 Case study research

Researchers argue that there is a need for more experimentation in research with regard to methodologies and methods, to better understand travel practices (Ettema & Schwanen 2012, Sheller & Urry 2006, Røe 2000). Transport studies in general often apply time-space diaries and questionnaires to get knowledge of how people travel. This type of transport research has confirmed a link between urban form and travel behaviour, but questions that have not yet been fully explored concern *why* people travel where they travel, and *how* they experience the place they travel to. In the study of shopping practices and experiences in Markveien, answers to these questions are of critical importance to assess how parking removals might affect urban life and shopping street vitality. Case study research, compared to other methods, is the preferred approach to answer the why and how-questions (Yin 2014). This is because case studies represent a way to cover contextual conditions that is seen as relevant to what is being studied. Yin (2014, p. 16) defines a case study as an empirical inquiry that “investigates a contemporary phenomenon (the ”case”) within its real-life

context.” With regard to the impact of on-street parking on shopping street vitality in Markveien, a proper explanation of this situation is likely to involve important contextual conditions, such as how shoppers relate to their surroundings, Here, the case study research fits well with the relational approach to the study of shopping practices and experiences, that acknowledge how both structures and human agency in an integrated way shape places and social practices.

According to Baxter (2010), a case study is more of an approach to research design, or a methodology, than a method to collect data. This is because the case study approach is based on philosophical assumptions about what can be researched, how it can be researched and to what advantage, rather than as a method to collect data. Baxter argues that: “The primary guiding philosophical assumption is that in-depth understanding about one manifestation of a phenomenon (a case) is valuable on its own without specific regard to how the phenomenon is manifest in cases that are not studied” (2010, p. 82). This does not necessarily mean that findings cannot be generalised. Case studies are well suited to either expand or falsify existing explanatory concepts, or to develop new concepts (‘theory). The depth of understanding a well-designed case study may provide, can be used to both solve concrete problems associated with the case, or to broaden a theoretical understanding about the phenomenon in general (Baxter 2010). The findings from Markveien will hopefully be both valuable in itself with regard to the future planning of the street, and to provide new theoretical insights to the debate concerning on-street parking and shopping street vitality in general. I will return to this matter in the last section of the chapter where the potential transferability of the findings will be discussed.

Case studies allow the researcher to (1) *explain* presumed causal links that are too complex for a questionnaire to alone explain; (2) *illustrate* certain topics in a descriptive mode and; (3) *enlighten* those situations in which the intervention that is evaluated has no clear set of outcomes (Yin 2014). This thesis’ study seeks to *explain* the links between on-street parking, accessibility for different transport mode users, shopping experiences and shopping practices. Additionally, it seeks to *illustrate* the spatial complexity that creates conflicts between transport modes. The final results chapter aims to *enlighten* possible outcomes of a reallocation from parking spaces to soft mode users. Equally important, in addition to providing a deeper understanding of the complex set of factors that shape shopping practices, the case study approach

allows the researcher to compare different perspectives within a given context (Ettema & Schwanen 2012), such as the different perspectives of customers and shopkeepers on the same topics.

Case studies are often associated with qualitative methods, but it is also common to mix quantitative and qualitative research methods within a case study (Yin 2014). Researchers have given increasing attention to mixed methods research (Winchester & Rofe 2010).

### **3.2 Mixed methods approach**

Mixed methods research is mixing or combining quantitative and qualitative research techniques, methods, approaches or concepts into a single study in an integrated way. This way the researcher “can address more complicated research question and collect a richer and stronger array of evidence than can be accomplished by any single method alone” (Yin 2014, p. 66). The opportunity to use many different sources of evidence (data) is regarded as a major strength of case studies. To use multiple sources of evidence is called triangulation. A precondition for collecting data from multiple sources is that the different sources of data are triangulating on the same set of research questions (Yin 2014).

There are different types of triangulation (Patton 2002, cited in Yin 2014), such as the triangulation of data sources (data triangulation) and of methods (method triangulation). In the Markveien study, data is collected from two different sources, the customers and the shopkeepers, in an attempt to corroborate the same questions from different perspectives. The data collected from these two groups are first analysed separately before they are compared and analysed together.

Method triangulation is understood as the utilisation of multiple data collection techniques for reaching a more thorough and in-depth understanding of the object of study. Qualitative and quantitative methods, such as interviews combined with questionnaires, provide both specific and more general perspectives on an issue (Winchester & Rofe 2010). Another strength of method triangulation is, according to Bradshaw and Stratford (2010), the aspect of achieving trustworthy and rigorous research. By mixing methods the research design develops ‘converging lines of enquiry’ that contributes to strengthen the validity of the case study (Yin 2014, p. 120-121). By utilizing different comparable sources of information and different

techniques the validity of the findings can be strengthened through a cross-checking of the results (Winchester & Rofe 2010).

The main methods applied in this study are quantitative questionnaires and qualitative interviews. The questionnaires and interviews are supplemented by non-structured direct and participatory observations, in addition to document studies. Exploring theoretical and contextual literature was an important starting point for developing a research design and the research questions. Studies from both national and international contexts, policy documents, newspaper articles as well as conversations with people engaged on the topic, informed the early stages of the research process. Additionally, theoretical and contextual literature was examined during data collection and analysed in interaction with the data I had collected. The following elaborates on the main methods applied.

### *Quantitative questionnaires*

Studies based on quantitative data are good for (1) identifying more general empirical patterns; (2) testing and correcting hypotheses and; (3) to some extent predict future happenings and trends (Ragin & Amoroso 2011). In this thesis' study the questionnaire data is important in order to (1) explore empirical patterns in a more comprehensive way than what has been done in similar studies in Oslo; (2) test whether the results will confirm or deviate from earlier findings and; (3) assess whether and how a potential reallocation of parking spaces to other uses will affect shopping street vitality. Additionally, the aim is to compare shopkeeper assumptions and perceptions with customer practices and perceptions.

In the study of shopping experiences and practices in Markveien, anonymous questionnaires are applied. Questionnaires are information-gathering technique frequently used in mixed-methods research. Questionnaires pose standardized and structured questions to a group of individuals that is often presumed to be a sample of a broader population (McGuirk & O'Neill 2010). Questionnaires can involve both quantitative and qualitative data, but have some limitations when it comes to the depth and extent of the qualitative data. Despite this, they have several strengths, including their ability to provide insights into social trends, processes, values, attitudes and interpretations. In addition, they can facilitate extensive research, and can be combined effectively with more intensive forms of qualitative research, such as interviews. In a

mixed-methods format, data from a questionnaire can provide “a framework for the in-depth interviews, allowing key themes, concepts, meanings to be teased out and developed” (McGuirk & O’Neill 2010, p. 192). This was similarly a strategy for the Markveien study, where the questionnaire functioned as an interview guide for the in-depth interviews. The questionnaire questionnaires are conducted as personal interviews. The shopkeepers are interviewed in their stores while the customers are interviewed walking in the street. I later return to this specific method. Data is collected by me personally, with the help of an iPad.

I conducted interviews spontaneously in Markveien using a sampling technique that can be termed purposive sampling. Purposive sampling is a common technique where recruitment of informants is structured according to some known common characteristics. The sampling strategy does not primarily aim to make generalizable claims, but rather to establish patterns in experiences, behaviours and understandings (McGuirk & O’Neill 2010). Requirements for participation in the Markveien questionnaire was that the respondent had used one or more services in the street, and that he or she was 15 years or older.

The questionnaires were designed using a program called SurveyMonkey. The first questionnaire implemented was the customer questionnaire. The customer questionnaire includes more questions compared to the shopkeeper questionnaire that was developed later. However, both questionnaires covers the same six topics (1) travel practices; (2) car use and parking; (3) shopping practices; (4) attractiveness and suitability for transport modes; (5) alternative design solutions and effects on business vitality; and (6) customer background variables. Customers answered the questions based on their own practices and perceptions. The shopkeepers answered some of the questions according to their assumptions or estimations of customer practices, whilst other questions targeted the shopkeepers’ own perceptions on different topics, such as suitability for different mode users, and preferred design solutions for Markveien. The questionnaire questions cover four distinct typologies of question content: *attributes* and *behaviour* of the customers, and *attitudes* and *beliefs* of both shopkeepers and customers (McGuirk & O’Neill 2010). Many of the questions are *closed*, such as the ones related to attributes and behaviour. One of the benefits of such questions is that they are easily coded and analysed, but a list of possible answers can also be limiting.

There was, however, always an option to type in additional information if the pre-designed response-categories would not cover the respondents' answer.

*Open* questions generally have a greater potential to capture how meaning is attached to practices (McGuirk & O'Neill 2010). The questionnaire is designed with different response categories for all questions in the customer questionnaire, and for most questions in the shopkeeper questionnaire. Still, all questions were asked in an open-ended fashion. This design did not restrict responses to pre-defined categories, but rather invited the respondents to express their understandings, experiences and opinions in their own words. While piloting the questionnaire the response-categories were adapted to cover most repeated responses so that the analysis of the questionnaire data could be based on a structured data set, rather than investing time to structure open-ended responses from a big number of respondents. The questionnaire data was anyway going to be combined with transcribed qualitative interviews covering the same topics.

### *Qualitative interviews*

The decision to do an interview-based study was grounded in a wish to gain insight into the variety of contextual factors that may impact on customers' location choice and experience of being in Markveien. A second reason for this approach was to get the shopkeepers' perspective on their customers' behaviour and on Markveien in general, and to compare the two. However, the customers' viewpoints were given the main priority in this study. Due to scope and time limitations, only interviews with the customers were recorded and transcribed, as this group is the main focus of the study. Notes were taken during the shopkeeper interviews in order to represent their views as well. Consequently, the voice of the shopkeepers' was not as strong when comparing the data evidence, but hopefully future studies can address this.

Qualitative interviews as a research method are suitable for filling knowledge gaps where other methods cannot produce the same information. Here the researcher can investigate complex patterns of behaviour and motivations, and map a variety of meanings, experiences and perceptions. In comparison to extensive quantitative research, qualitative research is more focused in its approach, investigating only a few units. In this way the researcher can gather more data about the chosen units (Dunn 2010). The qualitative interviews have been crucial for getting a more nuanced

understanding of how customers perceive the attractiveness of Markveien and their experiences of mobility in the street.

The interviews can be characterised as semi structured. This design is advantageous in that it allows informants to influence the direction of the conversation to topics that are relevant for the investigation (Dunn 2010). Respondents were welcome to elaborate on their opinions, which sometimes led me to ask additional questions. Still, the questionnaire functioned as an interview guide to ensure that all informants provided responses to all topics. The reason to apply the questionnaire as an interview guide twofold: First and foremost this design was chosen out of feasibility because I was going to recruit informants spontaneously in Markveien. The potential to recruit customers was believed to be, and later confirmed to be, easier when starting out with a questionnaire. The interviews would therefore, similar to the plain questionnaires, be conducted anonymously. Secondly, the aim was to develop a convergent design for the later handling and structuring of the data from both methods, and from both groups of informants.

### *Mobile methods: Go-along interviews*

There is a call to apply qualitative and interpretative methods to better understand the interplay between individual's mobility and the wider situation of which they are a part (Ettema & Schwanen 2012, Sheller & Urry 2006, Røe 2000). Ethnographic methods are suggested to provide rich data, such as participant observation and mobile interviews (Ettema & Schwanen 2012). The case-study approach is important in this regard. The places where practices are situated are important for understanding the practices. This is one of the reasons why I chose to apply a mobile interview technique where I would be walking with the respondents in the urban environment they were interviewed about. To conduct interviews 'on the move' has attracted significant academic attention across social sciences over the last few years (Evans & Jones 2011, Hein, Evans & Jones 2008). One of the more commonly used approaches is the hybrid of interviewing and participant observation known as a 'go-along' (Kusenbach 2003). This means following interviewees on journeys that they would be making regardless, asking them questions along the way. Go-along interviews can capture the sometimes hidden relations individuals have with place and the environment because it may highlight environmental perception, spatial practices and biographies in the data

gathered. Kusenbach (2003, p. 464) argues that only this way can researchers produce data “that would greatly enhance our understanding of the subjects authentic practices and interpretations.”

Like Kusenbach, this study is confined to natural go-alongs. This technique is commonly used when respondents are recruited according to some known characteristics. My main reasons for choosing this mobile and spontaneous technique was, firstly, to make participation as unproblematic as possible, considering that people might not have the time or interest to participate in a sit-down interview. Secondly, my reason for choosing this specific method was the potential to get richer data. Evans & Jones (2011) state that data generated through walking interviews are profoundly informed by the landscapes in which they take place. It is believed that respondents are less likely to try and give the socially desirable answer in a moving interview setting, compared to a sedentary interview setting (Evans & Jones 2011). When walking along with the respondents on their journeys, the researcher and the respondents are more exposed to the affective experience of being in Markveien. It is, however, important to be aware that the act of walking will exclude certain types of participants like those who are either unable or unwilling to walk for a long time, but this never became an issue during data collection in Markveien.

### **3.3 Collecting data**

My fieldwork took place mainly in two time periods. Customers were interviewed between December 9<sup>th</sup> and 20<sup>th</sup>, and on an additional Saturday on January 16<sup>th</sup>, to get a more even distribution across weekdays and weekends. Temperatures ranged between -5 and 3 degrees Celsius. It is important to be aware that interviews were conducted during the season for Christmas shopping. This may have caused a sample bias, potentially inferring the outcomes. However, customers were all asked about this and a majority performed their practices as normal.

The shopkeepers were interviewed between February 25<sup>th</sup> and March 16<sup>th</sup>. The decision to not do the entirety of the data collection in the same time period was founded on a desire to have the option to adapt the shopkeeper questionnaire, based on the findings from the customer questionnaire. Data collection took place during most shops' opening hours, approximately between 10 AM to 7 PM. In total 150 questionnaire interviews with customers were carried out in Markveien. 25 of these

interviews were of a more qualitative and semi-structured character and recorded with the iPad or my private phone. Interviews were later transcribed under fictional names and analysed, without the use of any computer-assisted qualitative data analysis software. 28 questionnaires were conducted with the shopkeepers. Many of these provided qualitative material, which was written down during and after the interviews.

### *Interviews with customers*

Before the data collection took place I conducted a pilot of the questionnaire to validate the effectiveness of the research instrument. Some adjustments were made based on these experiences, such as a reduction in the number of questions, as the original questionnaire was too long. I asked any person who exited a shop or café/restaurant in the chosen section of Markveien to participate in the anonymous questionnaire. Requirements for their participation was that they had used one or more services in the street, and that they were 15 years or older.

I asked 185 customers in Markveien to do the questionnaire and 150 completed it. This gives an 81% response rate, which is quite high. The go-along method worked out well to recruit respondents and I was impressed to find that the cold winter weather never seemed to be an issue. The majority of the people who said no were rushing somewhere else, which was expected at the outset of the data collection. Very few said no due to a lack of interest. The offer to walk along the informants was in many cases a critical factor for respondents' willingness to take part in the questionnaire. I would follow the respondent until the questionnaire was completed, even if this meant moving beyond Markveien. Questionnaire interviews lasted about 6 minutes, but this varied considerably. Many respondents showed a keen interest in the topic of the questionnaire, and many respondents took time to thoroughly consider and reason before they gave their answers.

One of the greatest challenges in planning and conducting the data collection was finding a good strategy to get a balanced sample according to the shops and services in the street. While testing the questionnaire I decided to abandon the original plan to recruit 2-3 respondents coming from the various shops and cafés/eateries/other services in Markveien. Firstly, it would not have provided a representative sample as some of the shops have considerably more costumers compared to others, secondly, it would have taken too long. I did not have time to wait outside shops that rarely had

customers. The data collection method therefore resulted in me traveling up and down the street interviewing more randomly, and doing my best to recruit a fairly balanced distribution from the different shops and cafés/eateries in Markveien.

Characteristics of the questionnaire sample is presented here, with an exception of the respondent's place of residence as this will be presented in the first results chapter and compared to shopkeeper estimations:

**Table 3.1:** Sample composition

		Sample (N=150)
Gender	Male	23 %
	Female	77 %
Age	15-29	34 %
	30-44	43 %
	45-59	16 %
	>60	7 %
Education	Higher	81 %
	High school	18 %
	Elementary school	1 %
Work status	Full time	62 %
	Part time	5 %
	Freelancing	7 %
	Student	13 %
	Retired	3 %
	Parental leave	10 %

The majority of the respondents were women (77%). A reason for this might be that the selection of shops in Markveien in general is more appealing to women. There is only one clothing store specifically targeting men, while there are several female-oriented clothing stores. In general, the sample median age was quite young with most respondents aged 30-44 years (43%) and 15-29 years (33%). A majority had completed higher education (81%), holding a bachelor's, master's or higher degree, and most respondents were working full time (62%). 13% were students, and one out of every tenth person was on parental leave. Overall, the sample can be characterised as young and well educated, which is also the typical characteristics of Grünerløkka residents (Thorsnæs 2010). Given the high response rate, there is less concern for sample bias.

The qualitative interviews took place in between all the regular questionnaire interviews. The aim was to spread out the qualitative interviews over different days of

the week and times of the day. After testing the questionnaire a few times, I found that conducting face-to-face questionnaires often turned into an interesting conversation. Due to this discovery, I decided to keep the questionnaire as an interview guide and approach all customers by asking if they were willing to do a questionnaire. I did not approach customers by asking if they were willing to do an in-depth interview, as this did not appear to be a selling strategy while they were on the move. If the respondent I approached did not seem to be in a rush I would sometimes ask to record the questionnaire interview from the start. Then, additional questions were asked from the sections in the questionnaire about the urban environment and alternative design solutions. Other times I would start a questionnaire without recording and if the respondent appeared to relax in the interview setting I could ask to start recording from the more opinion- and experience-related part of the questionnaire. The questionnaire functioned well as an interview guide, where mainly section 4 and 5 was emphasised and recorded. Customers recruited for qualitative interviews were for example asked to elaborate on what constitutes the atmosphere of Markveien. The duration of interviews ranged from 8 to 25 minutes.

### *Interviews with shopkeepers*

A short time before I was to conduct the shopkeeper questionnaire I was informed that the Agency for Urban Environments (BYM) in the municipality had already sent out a short questionnaire to the shopkeepers, enquiring to get opinions and design suggestions on a proposed solution for temporary use of the street, until a future reregulation will take place no earlier than 2018. This investigation followed a study by BYM where they assessed possible design solutions for a temporary use of the street. I had earlier been in touch with BYM to ask for permission to apply illustrations of the alternative design solutions in my questionnaires. When conducting the questionnaire, the shopkeepers were already familiar with the potential future changes and the illustration of the recommended solution. This development turned out to be of benefit to this study's questionnaire because some of the shopkeepers had already thought about their opinions with regard to this specific topic.

I confined the shopkeeper questionnaire to shops, cafés and restaurants that I had recruited customers from, leaving out pubs and places offering services such as the hairdressers, the dry-cleaning and the post office. My plan for how to recruit

respondents was to show up in person and ask the different shopkeepers to take part in the anonymous questionnaire right away or to schedule another meeting whenever they had the time. In the beginning I called ahead, mostly to find out when the daily managers would be available in the store/café/restaurant, but when already strolling in Markveien, I dropped by the different places and met many of them in person without giving any notice ahead. This was never a problem. They were all friendly and most shopkeepers I met in person were willing to participate. Only a few said they were not interested or unable to participate. Some asked to be contacted by mail as they were generally busy, but I decided to only conduct the interviews that could be implemented in person. The number of respondents would not be too high. I contacted 41 shopkeepers and ended up with 28 completed, or partially completed, questionnaires. This gives a 68% response rate. Comparing the number of completed surveys with the total number of shops and cafés/eateries, which is about 50, 28 is a quite high number. Interviews lasted between 15 to 40 minutes.

If the questionnaire was only partially filled out, this was either due to time issues or because they did not manage, or wish, to respond to certain questions. To be able to compare data from the two sample groups, customers and shopkeepers, I asked the shopkeepers to estimate percentages rather than to respond to what they believed were the most probable reality with regard to different topics. I was impressed by their efforts to estimate their customers' travel and shopping patterns, even though this undoubtedly was a challenging task. Another challenge for the shopkeepers was to consider all days of the week as a whole. Many shopkeepers said that the difference in customer composition between weekday and weekend was extremely significant. They would have found it easier to estimate travel behaviour and spending patterns for either weekdays or weekend, separately. Nevertheless, no respondents were upset over the questions. Additionally, I received much positive feedback for the research topic and several shopkeepers expressed a wish to be sent the final results of the project. During data collection I found that the questionnaire ended up taking too much time. This was not necessarily because it was long in itself, but because the questions were difficult to respond to and required concentrated thought and estimation. This issue resulted in removing some of the questions underway while sticking to the most important ones. In the analysis I found that I had collected more data than strictly necessary to effectively answer the research question. It is important to emphasise that

the choices made concerning the information presented in the following result chapters were made in an effort to provide an unbiased illustration. I took notes from the shopkeeper interviews both in SurveyMonkey and in hand writing after the interviews were conducted. This was done to ensure a more complete and fair-minded portrayal of their views, than to simply present the numbers and graphs of their responses.

### **3.4 Ethical reflections: The role of the researcher**

The presence of the interviewer can be a powerful means of collecting good data, but it also introduces limitations (Dunn 2010). “Interviewer/respondent interaction can produce ‘interviewer effects’ that shape the responses offered. Respondents may filter their responses through a sense of social expectation, especially when they are interviewed face-to-face” (Lee 2000, cited in McGuirk & O’Neill 2010, p. 210). There is always the risk that respondents may avoid revealing socially criticised behaviour or beliefs. At the outset of data collection, I did not perceive the chosen topic and any of the questions to be of a sensitive kind or especially difficult to answer. Nevertheless, considering that inner city parking in Oslo was a contested political topic at the time of the interviews, respondents might have given answers according to what they felt was the socially expected and ‘correct’ answer, for example with regard to whether cars affect shoppers’ experiences and the sincere interest in a new street layout. There is always the possibility that respondents reply in a different manner than if they were to fill out a questionnaire in private. Yet, I believe this did not apply to a substantial part of the respondents, based on a general impression that respondents seemed to relax and to tell me in a straight-out manner what they thought. I believe the relaxed interview setting, where the respondents decided the route and the pace, was beneficial in this regard. In addition, the embodied experience provided by the mobile method appeared to stimulate their awareness of factors that they might not have been aware of if filling out a questionnaire from a different location. Practices are usually routinized and people are not necessarily able to speak of them, but the situated experience provided by the interview technique, helped the respondents to make sense of their own practices. The use of predetermined, but still open-ended, questions allowed me to be in control of the interview, but it was important to allow the informants to bring up additional topics. I strived to ensure respondents felt safe and

empowered, and I made sure that the respondents knew they would not be identified in the research in any way and that they could quit the interview at any time.

Interviews with both samples were a positive experience to me as a researcher. No person in either of the samples was provoked, offended, or seemingly too shy to share their opinions. There was however, a small group of car-driving respondents who appeared slightly self-conscious to be asked about their travel mode, because they normally travel differently. I explained that there were no right and wrong answers, and tried to make them feel comfortable, and not 'arrested'.

Bradshaw and Stratford (2010) argue that taking the researcher role seriously is a predicament for achieving trustworthy work. This includes documenting the research process in a critical reflexive manner and achieving transparency. When studying a subject of personal interest, it is also important to be aware not to let pre-understandings affect the research process and findings. I wrote analytical and self-reflective memos throughout the research process and have aspired to achieve trustworthy and rigorous work.

### **3.5 Data processing and analysis**

#### *Quantitative material*

The biggest challenges I met during the research process was mainly related to time issues in collecting, processing and analysing all the data sets. The quantitative material was exported from SurveyMonkey to Statistical Package for the Social Sciences (SPSS) for analytical operations. Before this study I had little knowledge on how to statistically analyse, and to visualise, quantitative data, and this resulted in time spent learning how to operate SPSS and Excel.

In analysing the quantitative material from the customer questionnaire I mainly applied descriptive statistics. These are methods used to summarize or describe the sample. I also used methods to make estimates that go beyond what has been observed, with the potential to generalize from the sample to the whole group being investigated, also called the population. This type of statistics is called inferential statistics (Rowntree 1981). However, in the Markveien study the goal was not to make statistical generalizations, but to reveal indications.

The questionnaire data was mainly categorical, which is relatively simple to code and analyse for patterns and relationships between the variables (McGuirk & O'Neill 2010, p. 213). I mainly applied cross-tables to investigate relations between different variables (Johannessen 2009), such as travel mode and money spending. A few chi-square tests were also conducted. A chi-square test uncovers whether the relationship between the variables shown in a cross-table are statistically significant. The test finds whether the difference between samples is big enough to signify a real difference between the populations (Rowntree 1981), such as between pedestrians and car-drivers. I also run a binary logistic regression analysis to explore potential causal links between money spending and other factors, such as travel mode, age, place of residence and gender. No statistical analysis was conducted on data from the shopkeeper questionnaire. Shopkeepers were often asked about estimating percentages and the numbers were registered manually. After data collection the average percentages for the group as a whole was calculated. Excel was used to compare and visualise the results.

### *Qualitative material*

After data collection was finished, all recorded interviews were transcribed and the informants were given fictional names. Thereafter began the process of analysing the qualitative material. This process of analysis did not follow a strict plan or method. I applied an abductive reasoning approach to the analysis. Qualitative research is often characterised as inductive, a reasoning based on a supposition that theoretical perspectives can be developed based on accumulating empirical material. The counterpart of induction is deduction, where theory is tested against collected data (Thagaard 2009).

Quantitative methods are normally deductive. In this study, one aspect of the motivation underlying the quantitative questionnaire was to test findings from earlier literature that suggest on-street parking is not an important factor in attracting customers. The abductive approach lies somewhere between induction and deduction and refers to the dialectic relationship between theory and data (Thagaard 2009). Theory and existing research shaped the research design and how I perceived the collected data, but the collected data also revealed relationships that led me to investigate new theoretical literature.

In the process of analysing the material the first thing I did was to structure all responses around themes and the questions asked. I read through this material several times and started the process of analysing it by hand. The purpose of the process to identify and organize themes in qualitative data is partly to reduce the amount of data, in addition to the process of analysis and theory-building. I conducted a non-structured content analysis for identifying terms, phrases or actions that appeared (Cope 2010). In a content analysis the researcher constructs themes, relations between variables, and patterns in the data (Dunn 2010). An example is to look for manifest content, meaning descriptions or adjectives that are often repeated, and that might be important for understanding the samples' general opinions. Searching interview data for this type of content often involves looking for corresponding words or phrases.

After this process of analysis, I triangulated the data by comparing the qualitative findings with the questionnaire results. In the last phase of analysis, the shopkeeper and customers' results were compared, analysed and structured into four result chapters. I endeavoured to present the results in a simple and structured way. Therefore, the empirical findings are integrated in a comparative design structured around the different themes, rather than first presenting the results from one group and then the other.

The quotes that will be presented have been translated by me. There is of course always a risk that the meaning of the response has been changed in this process, but I have aspired to preserve respondents' original meaning in the best way.

### **3.6 Validity, reliability and transferability**

It can be challenging to conduct a case study properly and the approach has been criticised for not being rigorous enough. There are different criteria for judging the quality of research designs. Construct validity refers to identifying the correct operational measures for the concepts that are being studied. A tactic to achieve this is to triangulate multiple sources of data, which has been done in this study. Reliability refers to the ideal of demonstrating that the chosen data collection procedures can be repeated with the same results. Documenting the process is important for achieving this. The general way of approaching the reliability problem is to make as many steps as operational as possible (Yin 2014).

A common apprehension concerning case studies is that they are unable to produce generalizable findings. Yin (2014) however, argues that case studies are generalizable to theoretical propositions and not to populations. The generalizability of qualitative studies is contingent upon different standards than quantitative studies. In quantitative research, the important factor is the element of external validity or representativeness beyond the case (Baxter, 2010). The number of completed questionnaires in Markveien is not very high, but at the outset of data collection it was believed to be sufficient within the limitations of a master project. In consequence, the findings from the questionnaires cannot be generalised to the whole population of Markveien shoppers, and shopkeepers. Nevertheless, the findings are interesting because they indicate patterns of movement and money spending, potential discrepancies between shopkeepers and customer assumptions and practices, and the impact of material and immaterial elements and aspects on urban life in Markveien.

In qualitative interviews the researcher cannot operate with a representative selection. Still, there are other aspects that can be generalized. A possible venture for qualitative case studies is an analytical generalization or ‘transferability’ (Baxter 2010). The goal is to expand and generalise theories. To achieve this goal, applying theory in case studies is advised. Theoretical propositions play a critical role, both With regard to designing the case study, but also to generalize the findings (Yin 2014). Theoretical propositions that went into the initial design of the case study have formed the foundation for an analytic generalisation.

The findings of this thesis are context-dependent and not necessarily transferable to other shopping streets or other cities. Still, the dynamics revealed are believed to broaden an understanding for the assemblage of factors that impact on shopping related travel, which are also relevant in similar settings.

## 4 CASE STUDY AREA: MARKVEIEN

In this chapter the case of the study, Markveien, is introduced. Markveien has been chosen for in-depth study out of three reasons. First of all, it is one of the popular shopping streets in Oslo with parking alongside the kerbstone. Secondly, the street is debated and there is an expressed need to change the layout of the street. Thirdly, there are plans to redesign the street, but there is not a definite plan for a permanent solution.

The purpose of this chapter is to contextualise the findings of the study by presenting the location of, and characteristics of Markveien with regard to retail, spatial configuration and parking situation. This presentation will give a backdrop for the analysis, and an understanding of how the spatial design of the street is causing conflicts between the different transport modes. The chapter also present the current planning situation in Markveien to understand what the potential outlooks for Markveien are. The planning situation is especially relevant for the last result chapter where future street designs will be assessed by both customers and shopkeepers in Markveien. This chapter will first shortly present Grünerløkka, the area where Markveien is located, before turning to Markveien and the relevant characteristics for this case study.

### 4.1 Location: Grünerløkka

Grünerløkka is an administrative borough in the inner eastern parts of Oslo. In 2016 the population was 56 283 (Oslo kommune 2016a). Grünerløkka usually refers to the area west of the Aker River, where it developed under the industrialization. The previously working class neighbourhood is characterised by a dense structure of buildings that was constructed in the late 1800s. Grünerløkka's older settlement was rehabilitated in a comprehensive urban revitalising project in the 1970s and 1980s. Associated to these developments, Grünerløkka became one of Oslo's most attractive residential areas (Thorsnæs 2010). The area is known for having gone through a class transformation since the 1980s (Hill 2012), also known as gentrification. Gentrification refers to a change in the socioeconomic composition of an area's residents. The term was coined by Ruth Glass (1964) when referring to the alterations

she observed in certain parts of inner London, where the middle class invaded working class neighbourhoods and transformed the residences and the social structure. The gentrification process changes the social character of a district by typically displacing the earlier residents. Following the deindustrialisation of the 1970s, the old industrial buildings in Grünerløkka were similarly converted for other purposes, such as housing and cultural venues. Today Grünerløkka is predominantly a middle class neighbourhood (Hill 2012). The borough is the second densest in Oslo, after Sagene, and the second most populous borough after Frogner. Still, it is characterised by several parks, such as Olaf Ryes plass and Birkelunden. The populations' average age is low compared to Oslo as a whole and the area has become popular among the highly educated (Thorsnæs 2010).

Grünerløkka offers a diverse mix of cultural life, shopping and nightlife. Most of trade and service provision is located in Markveien and the neighbouring Thorvald Meyers gate. Grünerløkka is situated close to the city centre and is well connected to the rest of the city with public transportation services, such as trams and buses. The main cycle network runs through Toftes gate, located east of Thorvald Meyers gate, and through the southern blocks of Markveien. Grünerløkka is also characterised by private cars, and despite of some exceptions, there are street parking on every block (Oslo kommune 2015b). Parking is mainly free.

The municipality is planning a range of projects for the next years, including a concept evaluation for how to best use streets and urban spaces in the area. An upgrading of Markveien, between Søndre gate and Sofienberggata, are part of these plans (Oslo kommune 2015b). The same stretch is also where most of shopping activity and urban life takes place, and therefore this study is confined to the same section of Markveien (See figure 4.1).

Markveien in total is about one kilometre long, from Sannergata in the north, to Søndre gate in the south. The architecture is predominantly from the late 1800s, except a modern building close to Olaf Ryes plass where a shopping centre is located. The street provides a mix of second hand shops, niche shops, chains, eateries, cafes, pubs and services such as hairdressers, dry-cleaning, post office and dentist.

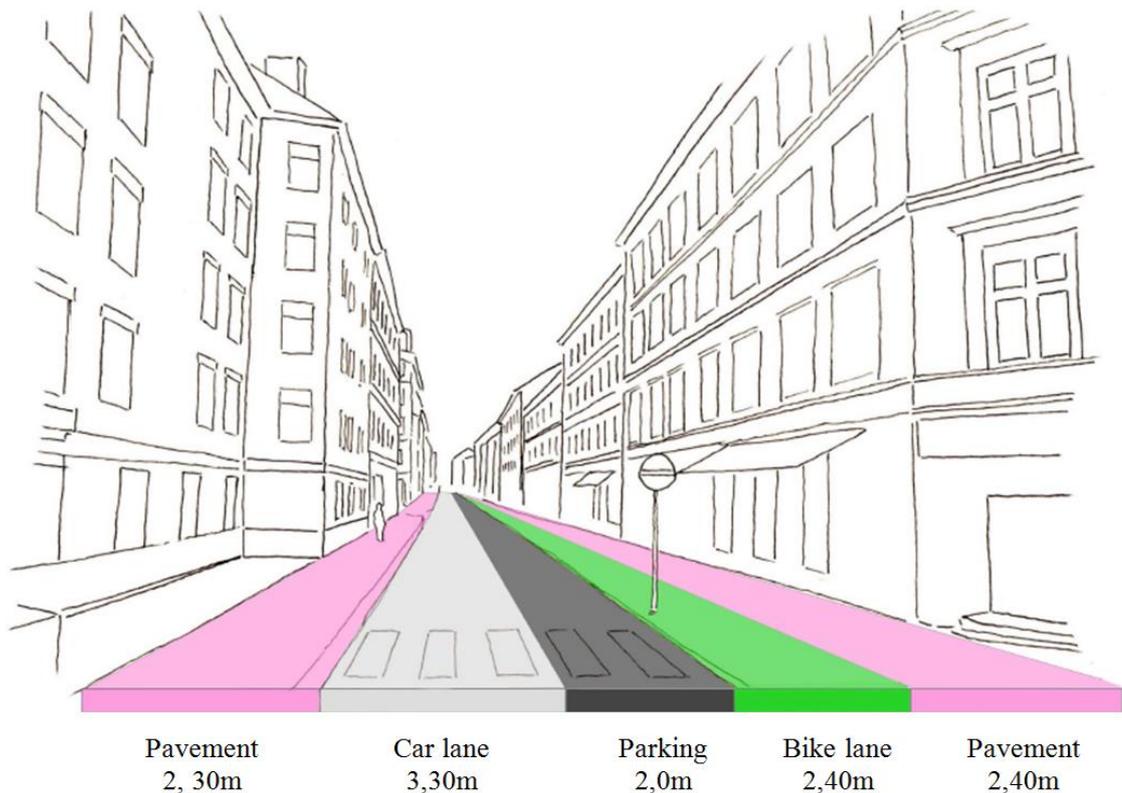
*Location of Markveien and the investigated section of the street*



**Illustration 4.1:** Section of Markveien under study outlined in red. (Sources: main map from Oslo kommune 2015b and inset map from Esri and Statens Kartverk)

## 4.2 Street layout

Markveien, from Olaf Ryes plass to Søndre gate, is about 530 meters long, and about 12,5 meters wide (Oslo kommune 2011). The street layout consists of narrow pavements, a two-way bicycle lane and a one-way trafficked car lane. This together creates an unclear traffic picture.



**Illustration 4.2:** Spatial disposition of the street (Source: Oslo kommune 2015b)

In a study from June 2011 BYM found that the expected average numbers of motorised vehicles per weekday are around 1500, while it is around 440 in the weekends. The speed limit in Markveien is 30 km/h. Markveien is a popular cycle route with about 115 cyclists passing per hour between Sofienberggata and Nordre gate, during summer. There is a problematic situation in Markveien, where pedestrians on busier days are pushed out in the bicycle lane and cyclists similarly are pushed out in the car lane. Bicycle counts showed that every fourth cyclist preferred to cycle in

the car lane instead of the crowded bicycle lane. When comparing numbers of cyclist on a Saturday and a Tuesday, BYM found that 11% of the cyclists cycled in the car lane on a Tuesday whereas the number was 97% on a Saturday. This indicates that at Markveien's busiest times, cyclists choose the car lane instead (Oslo kommune 2011).

There have been 28 reported accidents in Markveien in the last 20 years. In 12 of these pedestrians were involved, and in 11/12 the conflict was with bicycles. This constitutes 82% of all registered accidents in Markveien (Oslo kommune 2011).



**Illustration 4.3:** Those pushing prams are often in the bicycle lane (Photo by: Ingvild Mørk)

Results from inspections and registrations in 2011 conclude that there is bad accessibility for all mode users in Markveien. The street is also characterised by a worn and patchy surface, which must be challenging for wheelchair users and pram pushers (Oslo kommune 2011).



**Illustration 4.4:** Cyclists often use the car lane (Photo by: Ingvild Mørk)

### 4.3 Parking disposition and impact of a parking removal

There are 39 parking spaces in Markveien. This includes two parking spaces for disabled visitors and ten spaces that are used for deliveries in daytime while it functions as regular parking in the evenings and on Sundays (Oslo kommune 2015b). In 2015 two parking spaces were reallocated to bicycle parking, as part of a pilot project (FETT OM 2015). These two parking racks are the only ones in Markveien.



**Illustration 4.5:** Pilot project: parking replaced by bicycle parking (Photo by: Ingvild Mørk)

In the case of a reallocation of the 39 parking spaces to other modes, the parking availability within 300 meters of Markveien, which constitutes about 3 minutes of walking, will be reduced by 4,9%. Within 500 meters the reduction is only about 2%. BYM have suggestions for alternatives to create new delivery zones and parking for disabled visitors in cross streets, if necessary (Oslo kommune 2015b).

There are other changes taking place in nearby streets that have an impact on the parking accessibility in the area. A permanent solution for residence parking will be implemented in several boroughs in Oslo, during 2017 and 2018. This is a scheme aimed to prioritise accessibility of public parking for residents within a specific zone. Visitors will have to pay to use the on-street parking, which today is mainly free. Grünerløkka will apply the scheme and the implementation is scheduled for spring 2018 (Oslo kommune 2016b). The residence parking force visitors to pay for parking and this might impact on their willingness to visit Markveien. In addition to this parking scheme, on-street parking has already been removed in Korsgata for developing the bicycle network (Oslo kommune 2015d). Korsgata is one of Markveien's cross streets. There are also plans to remove ten parking spaces in Thorvald Meyers gate (Oslo kommune 2015e).

Parking spaces are however not only removed in the area. In 2015 BYM opened a parking house next to Vulkan, which is only 500 meters west of Markveien (Oslo kommune 2015b).

### *The use of on-street parking in Markveien*

In December 2015 NPRA (Gjellebæk & Olimstad 2015b) published a report that presented results from two studies of on-street parking in Markveien. In the light of the political decision from 2010 to reconstruct the street, the report explored who will be affected if the parking offer is reduced. The report investigated how the parking spaces were used and the visit purpose for those parking in the street, during summertime. Gjellebæk and Olimstad interviewed 102 car drivers (of which 69% were men) who parked in the lower blocks of Markveien, and found that only 48% were there for shopping purposes. 79% of the car drivers who parked in Markveien for shopping purposes, normally parks there once a month or less frequent. There is normally not a problem to find parking, and users were anyway willing to spend more time to look for parking, if necessary. Gjellebæk and Olimstad also found that an

average of four parking spaces were free at all times in Markveien (2015b, p. 3). These findings indicate that the parking accessibility for cars in Markveien generally are good, that car drivers generally are willing to spend more time to look for a parking in other streets, and that a potential parking reallocation might not be severe for business vitality in Markveien.

#### **4.4 Current planning situation**

In August 2010 the city council decided to redesign Markveien into a pedestrianized shopping street. In the same project Thorvald Meyers gate will become a pedestrian- and public transportation street (Oslo kommune 2011). Today the street looks the same as in 2010, but the political wish change the street are still present (Oslo kommune 2015b). The previous Department of Environment and Transport (MOS) asked BYM to assess future solutions for Markveien. Because of this, BYM in 2015 started working with a concept evaluation for Grünerløkka in which includes an assessment of a further planning- and construction process of Markveien. Nevertheless, construction cannot take place before 2018, and therefore MOS also asked BYM and the Agency for Bicycling to prepare suggestions for temporary and beautifying measures that potentially can be implemented quickly. There is a goal to enhance conditions for soft mode users before a reconstruction. BYM wants to test different solutions in the time before a reregulation to get experiences in the assessment of a permanent solution. The goal is to find a temporary solution that enhances road safety for the users, and a solution that is technically and practically feasible. Another important goal is to include all affected parts in the process and support local engagement. BYM express that stakeholders will be able to influence, participate in and contribute to the new design of Markveien. This may support a local ownership to the future changes (Oslo kommune 2015b).

The demands set for a temporary solution is with regard to functionality, attractiveness for shopping and use of the public spaces, good accessibility for pedestrians (walkability), safe and attractive conditions for bicycling (cycleability), good conditions for deliveries, road safety, feasibility and cost-efficiency (Oslo kommune 2015b). The study concludes by recommending a pedestrian- and bicycle prioritised street as a temporary measure. This solution includes a road space reallocation from parking to a bicycle lane, and the cyclists are moved out into today's

car lane. The solution suggests that cyclists will be in mixed traffic with the driving direction while they cycle against traffic in a separate bicycle lane in the other direction. Today's bicycle lane will be replaced by a widening of the pavement on the eastern side of the street. If necessary, deliveries can be solved by establishing new delivery zones in the side streets. The solution can be implemented quickly, if there is given exemption from the prevailing regulation plan (Oslo kommune 2015b).

This chapter has aimed to provide a backdrop for the following presentation of the results in chapter 5, 6, 7 and 8. First results chapter investigates and analyses travel and spending patterns.

# 5 PRACTICES OF SHOPPING AND SHOPPING RELATED TRAVEL

In this first results chapter, the relationships between on-street parking and accessibility, and between accessibility and practices of shopping and the related travel, is investigated (see figure 2.2). The chapter presents questionnaire results and responds to research questions 1) “From where, and how, do Markveien’s customers travel, and what are shopkeepers’ assumptions on this?” and 2) “Which transport mode user(s) have the greatest impact on turnover in Markveien, and what are shopkeepers’ assumptions on this?” These research questions are explored by presenting and comparing shopkeeper assumptions and estimates of where customers travel from, how they travel, which mode users that are believed to have the greatest impact on turnover in Markveien, and the customers’ actual practices.

## 5.1 Customer travel patterns and travel mode choice

### *Travel patterns*

To be able to map out the spatial pattern of shopping-related travel practices, customers in Markveien were asked about their place of residence, where they had travelled from, where they were heading next and how much time they spent travelling to Markveien. Place of residence were divided into six different categories to estimate the approximate distance to Markveien. Table 5.1 shows that shopping activity in Markveien is mostly local.

**Table 5.1:** Customer travel patterns

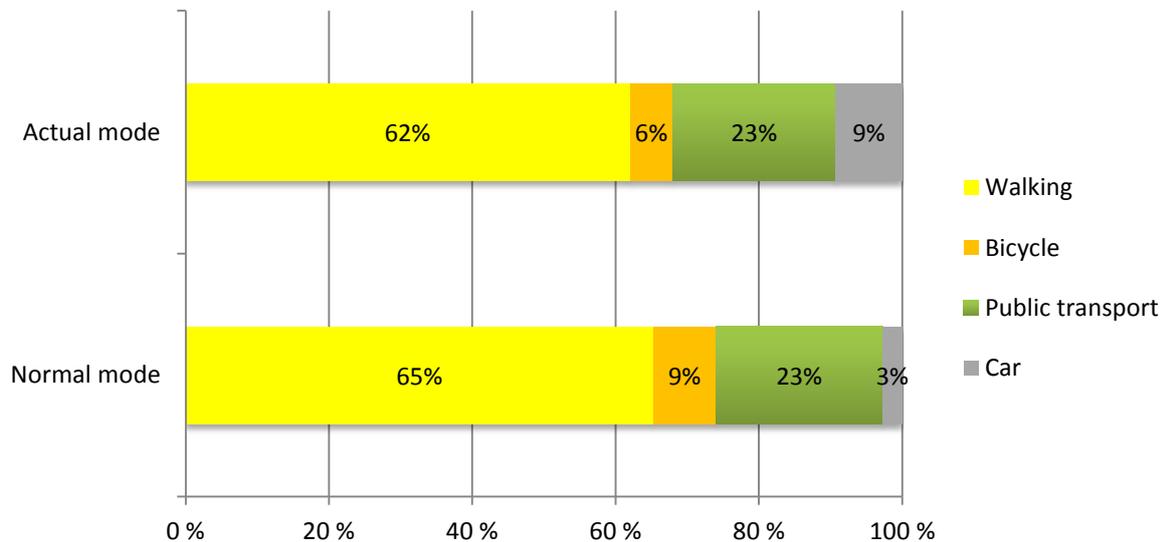
		N=150
Place of residence	Grünerløkka	35 %
	Walking distance	29 %
	Other places within Ring 3	16 %
	Oslo outside Ring 3	13 %
	Akershus	4 %
	Other places	3 %
Travelled from	Home	53 %
	Work/university/school	23 %
	Shopping somewhere else	11 %
	Other place	13 %
Going to	Home	53 %
	Work/university/school	5 %
	Shopping somewhere else	19 %
	Other place	22 %
Travel time	0-5 min	42 %
	6-15 min	37 %
	16-30 min	13 %
	31-60 min	7 %
	> 1 hour	1 %

A total of 64% live either in Grünerløkka or in walking distance. Most customers (53%) were at home before travelling to Markveien. The same percentage (53%) was heading home after shopping. 25% both came from home and went back home after shopping. Another big group of customers were the ones visiting Markveien after work or studies and who went home after shopping (13%). 79% of the respondents travelled no longer than fifteen minutes and almost half of the respondents travelled less than six minutes. These results verify theories saying that distance is an important factor with regard to where people conduct their activities (Newman 2006).

Adding the lens of practice theory, this data indicates that the movement of people is a consequence of the on-going enactment of different practices. Shove & Walker (2010, p. 473) uses the term ‘mobility burden’ for explaining the combination of the spatial and temporal characteristics of societal participation, which includes visiting friends or relatives, being at work, going to the university or kindergarten. The actual doing of a practice is itself tied into the temporal ordering of the day and often associated and coordinated with a range of other practices.

### *Travel mode choice*

Customers were asked how they travelled to Markveien the day of the questionnaire, and how they normally travel throughout the year. Twenty-five customers, including 10 out of a total of 14 car drivers, normally travel differently to Markveien.



**Figure 5.1:** Customers' actual and most used travel mode to Markveien (N=150)

More than every sixth person walked all the way to Markveien for shopping or shopping related activities on the day of the questionnaire. Customers arriving by public transportation (23%) constitute the second biggest customer group. Public transport users normally walked from the closest tram stops; Schous plass, Olaf Ryes plass or Birkelunden.

The biggest differences between actual and normal travel mode is seen in the share of car drivers. None of the customers who informed that they normally travel differently, used to travel by car to Markveien. Out of the 133 respondents who travelled with different modes than a car, 93% never use a car to Markveien for shopping purposes. In addition, 10 out of the 14 car drivers normally travel differently. Their reasons to use the car on the day of the questionnaire, was explained by the coordination of different practices in time and space, such as combining Christmas shopping with picking up children from kindergarten. Some actually appeared shameful or embarrassed and wished that they were interviewed on a different day because their identities and values were not associated with being a 'car-user'. These

findings illustrate a stigma related to the quite negative contemporary representation in our society of cars and car users as ‘cigarettes’ and ‘smokers’ (NRK 2016), even though this representation might differ between contexts.

The results show that 84% of the customers living in Grünerløkka or other places within walking distance, either walk or cycle, whilst most of the car users live further away, outside Oslo (36%). The relationship between travel mode and place of residence is further explored - and confirmed - in a chi-square test. To investigate this, two groups are compared: those living inside Grünerløkka and other areas within walking distance, as opposed to those living in other Oslo areas or outside Oslo. The test investigates how both groups score on two outcomes: those travelling by foot or bicycle, versus those travelling by car or public transport. With a 0.10 significance level, it appears that residents within walking range are significantly more likely to travel by foot or bicycle than those from areas further away. It is however important to understand that this, and other statistical test results in this study, can only be seen as an indication of a pattern rather than generalizable to the whole population of Markveien shoppers. The results from the chi-square test show that people are more likely to use active modes of transport on short distances. This may give support for theories on how dense and mixed-use urban environments functions as mechanisms to support sustainable mobility (Cervero & Kockelman 1997, Tennøy 2012).

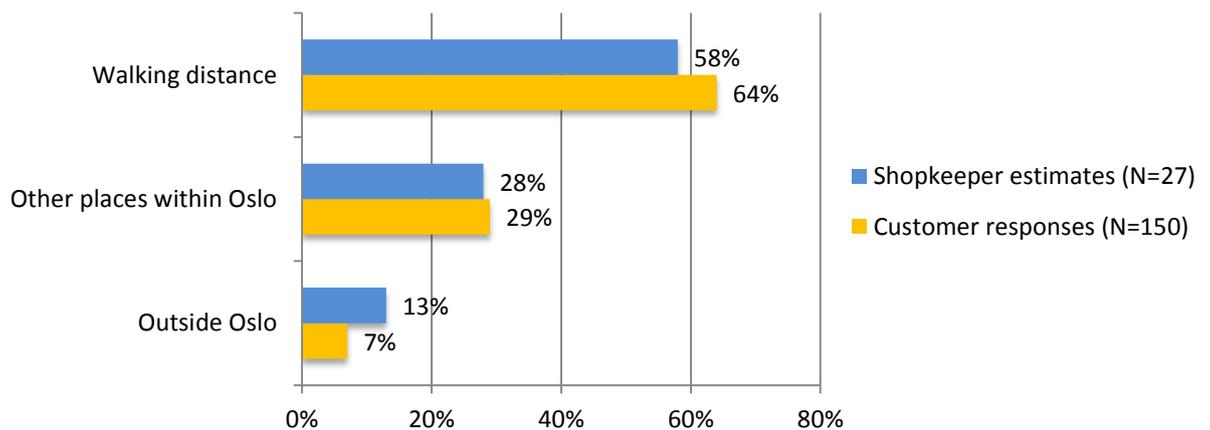
80% of the customers who shop in Markveien 1-7 days a week either walk or cycle. A similar chi-square is conducted on the visit frequency and travel mode. Again, two groups are compared: customers who shop in Markveien every day or 1-3 times per week as opposed to those who shop monthly or less frequent. Similarly to the previous chi-square the test investigates how the two groups score on pedestrians/cyclists versus public transport/car, and finds that customers who shop 1-7 days per week are more likely to travel by active modes. It should however be noted that this finding may be related to place of residence.

### *Shopkeeper estimates on travel practices*

It was expected that the shopkeepers would have a hard time estimating the percentages of customers' place of residence, and modal split. In an effort to make it as easy as possible, response categories were merged. Respondents were challenged to estimate percentages in three or maximum four categories, which was still a hard task. It is therefore fair to characterise their responses as estimates, rather than assumptions.

#### **Estimations of customers' place of residence**

Most shopkeepers seemed sure that a majority of their customers live locally. Some very few suggested a balanced split between the three categories: walking distance, other places within Oslo and outside Oslo, whereas others were sure they do not have many or any customers from outside Oslo. Table 5.2 shows all responses together.

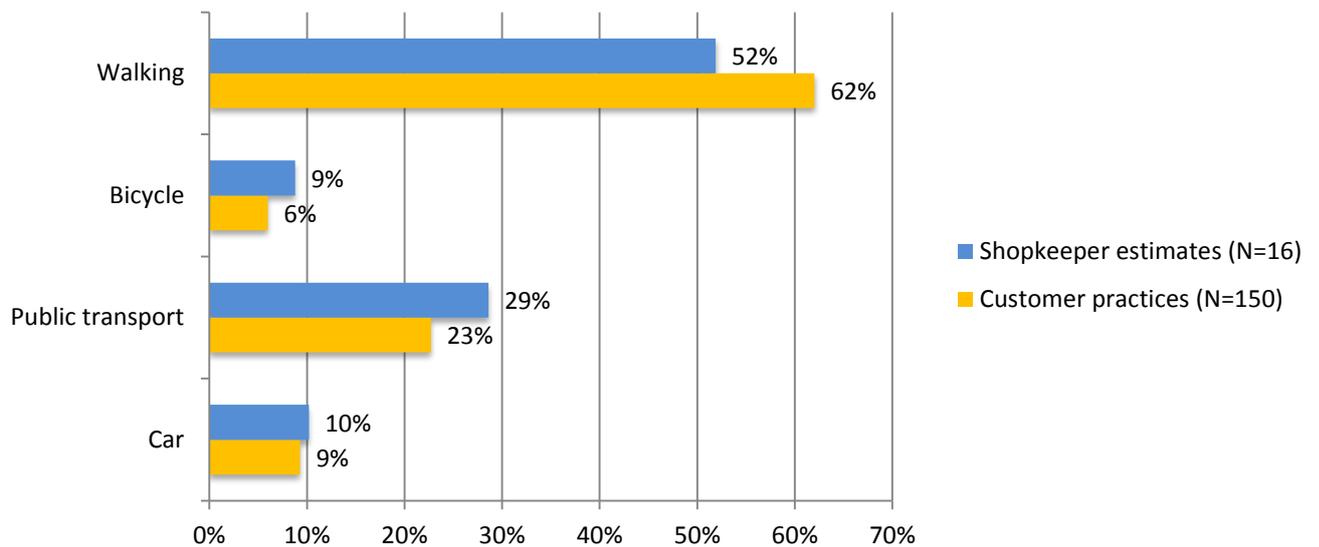


**Figure 5.2:** Shopkeeper estimates of customers' place of residence, and actual results

The results show that shopkeepers on average know their customer base well. In line with findings in Bristol (Sustrans 2006) shopkeepers similarly overestimate the share of customers travelling from further away, and underestimate the local customer base, but the differences are very small.

### Estimation of modal split

When shopkeepers were asked to estimate how their customers travel, some would instantly say it was an impossibly task. Still, many did their best effort to calculate up to approximately hundred percent in total. What became the main challenge was to separate between those customers who walked all the way and those who used public transport, because they all appeared as pedestrians to the shopkeepers. In consequence, many divided into three categories only, where pedestrians and public transport users were seen as one group. Below are the results from the 16 respondents who estimated percentages in all four categories. Although this number is low, it is still sizeable compared to the total number of shops and cafés/eateries.

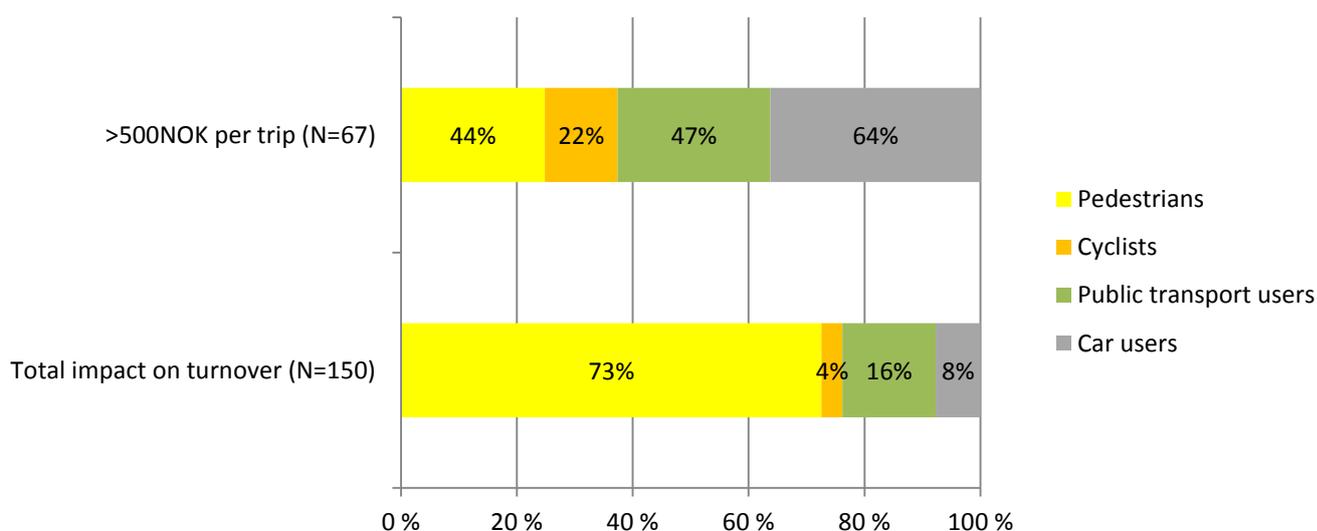


**Figure 5.3:** Shopkeeper estimates of the modal split, and actual results

Similar to the previous comparison, it turns out that the shopkeepers in Markveien generally know their customers well. The biggest difference is observed in pedestrian estimations, where there is a 10% difference between estimations and practice. This aligns with the findings in Graz, Bristol, Dublin and Halifax (Sustrans 2003, 2006, O'Connor et al. 2011, de Jong 2012) where retailers similarly underestimated the share of customers who walked all the way.

## 5.2 Shopping practices: Money spending

Customers were asked how much money they already had, or thought they would spend in total, in Markveien, on the day of the questionnaire. It is important to bear in mind that interviews were conducted during the season for Christmas shopping. With regard to this, 33% of the respondents reported amounts that were higher compared to normal spending. Most customers, nonetheless, performed their practices as normal. Figure 5.4 shows the share of customers who spent more than 500NOK on the day of the questionnaire, divided by travel mode, and the mode groups' total spending on the same day. Total impact on turnover has been calculated by adding the middle amounts within the category customers were placed. If customers responded to use between 251-500NOK this has been registered as 375NOK in the calculation of total spending. Those who spent more than 2000NOK are registered with 3000NOK in spending<sup>3</sup>.



**Figure 5.4:** Share of respondents who spent more than 500NOK on a trip, divided by travel mode, and different travel modes total impact on turnover

Car driving customers on average spend more money than other mode users per trip, which aligns with earlier studies (e.g. TNS Gallup 2005). The findings can however not be generalised, seeing the low number of respondents in this category. It might not

<sup>3</sup> This is not the ideal way of calculating the total impact on turnover. I could have registered all the different monetary awards, but this proved to be challenging since customers provided rough estimations and were sometimes guessing how much they would spend.

come as a surprise that pedestrians are the largest contributor to the total turnover in Markveien (73%) since they constitute the biggest group of customers. Public transportation users are the next largest group and count for 16% of money spent.

It is also worth looking at visit frequency for the different transport modes to better understand spending impact in a temporal aspect.

**Table 5.2:** Visiting frequency divided by travel mode (N=150)

	Pedestrians	Cyclists	Public transit	Car users	Total
Weekly	68%	56%	38%	29%	57%
Monthly	21%	33%	50%	43%	31%
Yearly	11%	11%	12%	29%	13%

The results from table 5.2 strengthens the image of pedestrians great impact on turnover in Markveien, even though they do not spend the most on each trip. We also see that cyclists, who are not found to spend much on each trip or in total, include the second most frequent shoppers. Considering that 10/14 of the recruited car driving customers normally travel differently, the actual impact on turnover is probably even smaller, whereas it is probably a bit higher for the cyclists.

A similarity between car drivers and cyclists are that they to a greater extent than the other two groups are ‘drive-through’ shoppers (Sustrans 2006), especially the cyclists. This means that they only stop to visit one shop before leaving again. Public transportation users however behave more like pedestrians, and similarly visit more shops per trip. Only pedestrians and public transportation users visited more than five places in Markveien.

### *Regression analysis on money spending*

To further investigate the relationship between travel mode and money spending, a logistic regression analysis is conducted, where the dependent variable is money spending over 500 NOK. The independent variables; travel modes, place of residence, gender, age and visiting frequency, represent factors that may affect money spending over 500NOK.

**Table 5.3:** Logistic regression of customers spending more than 500 NOK:  
0 = <500 NOK, 1 = >500 NOK. (N = 150)

Independent variables		B	Sig.
Travel mode: Reference value = Car	Walking	.253	.718
	Bicycle	-1.478	.158
	Public transportation	-.354	.621
Residence: Reference value = Outside Oslo	Walking distance	-1.236	.159
	Other places within Oslo	-1.356	.105
Gender: Reference value = Women	Male	-1.202**	.015
Age: Reference value = >45	15-29	-1.582**	.003
	30-44	.185	.690
Frequency: Reference value = yearly	Weekly	-.072	.912
	Monthly	.591	.352
	Constant	1.504	.125

\*\*95%

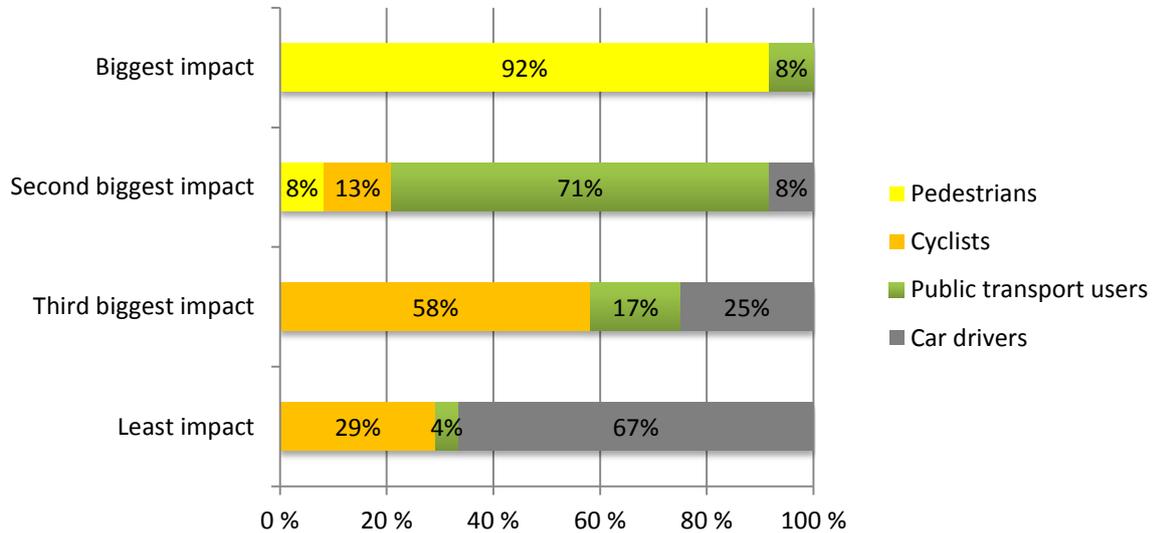
An omnibus coefficients test was used to examine whether the model with this final set of independent variables is an improvement over a baseline model without any independent variables. It does so based on a chi2 difference of log likelihoods of both models. With a chi2 of 27.38 and a p-value of 0.002 the test indicates that the final model presented here is a highly significant improvement over the baseline model with 99% confidence. The model summary also showed that Nagelkerke r2 is 0,227, which indicates that the set of independent variables explains 22.7% of the variance in the dependent variable.

Always keeping in mind the low number of car drivers that might affect the results, the regression analysis shows no significant relationship between money spending and travel mode. However, it shows other interesting relationships, such as between gender and money spending. Female shoppers spend significantly bigger amounts than the male customers. The analysis also shows that customers aged 45 years or older spend significantly larger amounts than customers aged 15-29 years.

### *Shopkeeper assumptions on spending practices*

Instead of asking the shopkeepers to estimate how many percent of customers they believed to spend most, second most, third most, and least money in total, they were asked to rank the mode user groups in accordance with who they thought were contributing the most and least to the total turnover in Markveien. Even though many

assumed that car drivers spent the most per trip, which the results also show are true, when looking at the total retail sales for the shopping street as a whole, this is what they responded.



**Figure 5.5:** Shopkeeper estimates on money spending in relation to travel mode (N=24)

In figure 5.5, we see that shopkeepers’ overall assumptions are in line with actual shopping practices in who has the largest, and next largest impact on total retail sales in Markveien. Pedestrians spend the most, before public transport users who are also a very important customer group. Shopkeepers generally assume that cyclists are the third most important customer group. Comparing the result with the actual finding, we see that car drivers on the other hand spend slightly more than cyclists in total. However, considering the low number of customers using a car on a regular basis, and the potential higher number of cyclists during other seasons, as well as their more frequent shopping patterns, shopkeepers’ assumptions might actually mirror the typical shopping practices in Markveien.

### 5.3 Summary

This chapter has investigated shopping practices and the shopping related travel, and compared this to shopkeepers assumptions. The main findings are that pedestrians constitute the largest customer group in Markveien (62%). The second largest group

are public transport users (23%). Car drivers constitute the third largest group (9%), but when comparing these findings to customers' normal travel practices throughout the year, cyclists (9%) constitute a greater share than car drivers (3%). Furthermore, shopping practices in Markveien are largely local. A total of 64% live within walking distance to Markveien, and locals often choose to walk or cycle. Results find statistical relationships between travel mode and place of residence, as well as between travel mode and visiting frequency. Based on these associations the need for on-street parking appears to be minimal. Shopkeepers' perceptions and estimates on these issues are in line with the actual findings. They slightly overestimate the share of customers travelling from outside Oslo, and underestimate the share of customers who live in walking distance to Markveien. Shopkeepers also underestimate the amount of customers who walk all the way to Markveien. Results concerning money spending shows that car drivers spend most money on a trip to Markveien compared to other travel modes. Nevertheless, when the size of transport mode groups and their respective shopping frequencies are accounted for, pedestrians by far have the greatest impact on the total turnover and public transport users have the second greatest impact. However, no significant relationship between money spending and travel mode is found. Shopkeepers assumptions on who contributes the most and second most to the total turnover are in line with the customer practices.

# 6 SHOPPING STREET DESIGN AND ITS SUITABILITY FOR DIFFERENT TRANSPORT MODES

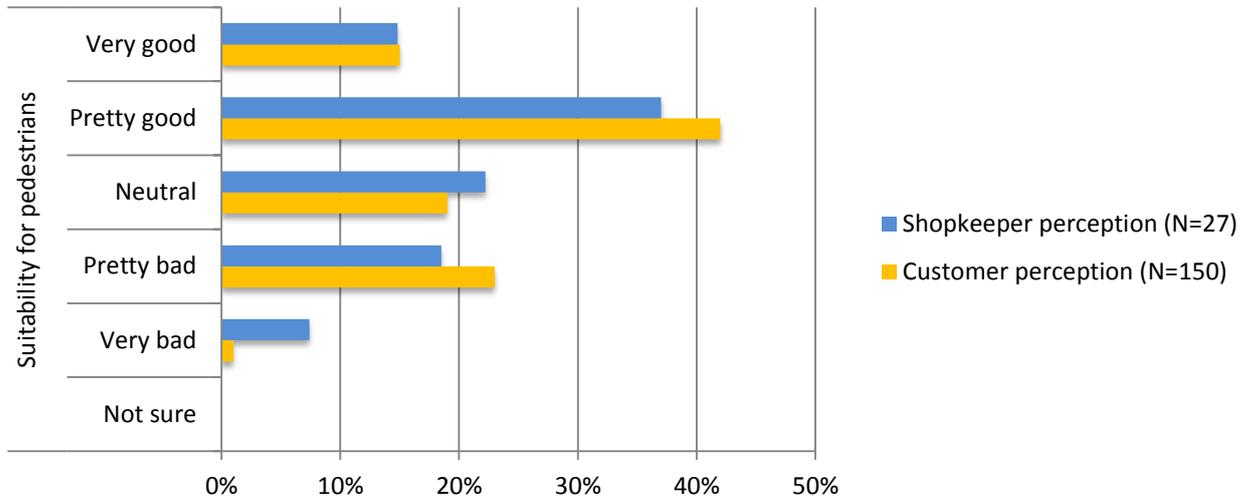
The purpose of this chapter is to explore how the shopping street design affects customers' experiences of shopping. The chapter will first respond to research question 3) "How do customers and shopkeepers perceive suitability for different mode users in Markveien?", and then to research question 4) "How do customers and shopkeepers perceive the need for on-street parking in Markveien, and how does the presence of the cars affect customers' experiences of shopping?" Both shopkeeper and customer responses from the questionnaires will be presented together and compared, followed by further elaborations of the qualitative material from customer interviews.

## 6.1 Suitability for different road users

In this first section the focus will be on the spatial configuration of Markveien. The key concept is suitability, which relates to the degree of how well adapted the space is for different mode users. Both customers and shopkeepers were asked how good or badly adapted they think Markveien is for the different road user groups. Customers especially had some strong opinions on these matters, and their responses reveal aspects of their experiences of shopping being affected by the spatial configuration of the street. The interview setting, the walking along in the street, is believed to be of high importance for the rich data that was collected on this topic.

Suitability for the different transport modes will be presented one by one, and named *walkability*, *cycleability*, and *driveability*. First in each section, the questionnaire results from both groups of respondents will be presented and compared, before customers' perceptions are emphasised further.

## Walkability



**Figure 6.1:** Customer and shopkeeper perceptions on suitability for pedestrians

Figure 6.1 shows quite similar responses given by customers and shopkeepers on suitability for pedestrians. The biggest difference is seen in the categories ‘pretty good’, ‘pretty bad’ and ‘very bad’. A higher number of shopkeepers, compared to customers, think walkability is bad. The first shopkeeper interviewed said there is a big potential for improvement, and suggested to increase walkability by redesigning Markveien into a pedestrian street. In general, customers find the suitability for pedestrians to be a bit better than what shopkeepers responded.

Looking at these results it is important to be aware of how the numbers do not show respondents doubts, especially the customers’ uncertainty. Responding to these questions, many discussed with themselves while looking around and experiencing the environment in a more conscious way. Some ended up changing their instant responses. Many respondents thought suitability for pedestrians appear to be pretty good, but many expressed that it did not really work out in real-life. One of the male respondents, Fredrik, thinks the adaptation for pedestrians is just ok, because of the lack of space: “There are narrow pavements on each side (...). It’s okay. There are worse pavements.” Most of the customers who were interviewed were nonetheless more negative because the lack of space causes conflicts between the different transport mode users. A female respondent, Maren, explained this conflicting situation:

In Markveien I think it's pretty bad. There is little space. Especially with the bicycle lane, it's just chaotic. People are just angry with each other all the time either because they walk or cycle in the wrong place.

Kaia shared this view, and her response indicates how the street design gives other instructions for the expected behaviour compared to the actual practices taking place in the street, as if the prescribed norms for behaviour end up in constant negotiation, because of the lack of space (Murdoch 1998):

[A]ctually very bad. Or like, with regard to how many shops there are here and how much it's [it appears] planned for (...) walking, it doesn't work out, because the pavements are as narrow as they are (...). And it's confusing because the shops use so much of the pavement for signs and stuff like that, and then you have the bicycle lane that you are pushed into, and then you in a way become, naturally, bothering for the cyclists. You're kind of always squeezed out. So there is way too little space for pedestrians.

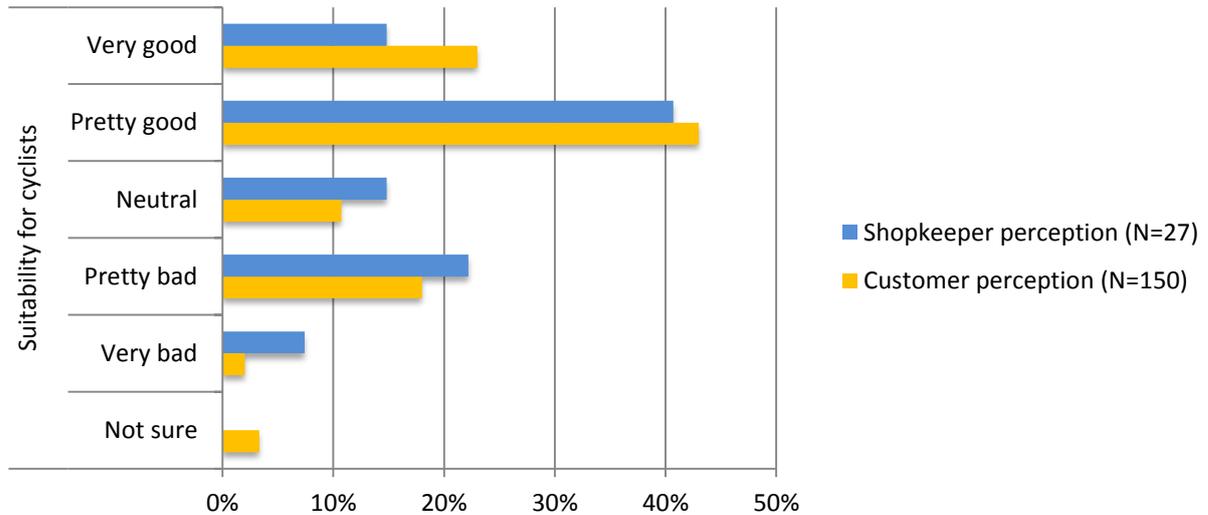
A related, but still different perspective was provided by a Markveien resident, Anita, who is more worried about the conflict between cars and other road user groups:

Well, what am I going to say...(?) You see the cars driving here... (...) Many times I have thought that a collision can easily take place in the lane here, where the cars drive. It's a one-way street, but still, it's a bit narrow how it is now.

Two of the respondents, Anne and her friend Turid, met up in Markveien during daytime. Turid travelled by public transportation while Anne arrived by car. Similar to many others, Turid expressed that Markveien in general is too cramped, but that it depends on the time of day. She also said that it is more challenging for certain groups to navigate the street: "It is a bit narrow, especially when you walk with a pram. Now it's fine, but when there are more people... It gets cramped." Anne agreed and added: "If it had been a pedestrian street that would have been nice..." Turid cut her off by saying: "I believe we talk about that every time we're here"

During this section of the interview, many respondents informed that they rather prefer Markveien to be car-free, even if they arrived by car themselves, such as Anne. There was only one exception to this. Morten, driving from Asker, thinks Markveien is very well adapted for pedestrians: "Very good. Can't be better than... Next thing is that it's car-free."

## Cycleability



**Figure 6.2:** Customer and shopkeeper perceptions on suitability for cyclists

Similar to the results on walkability, shopkeepers and customers appear to generally agree on the degree of cycleability in Markveien. The results from figure 6.2 shows that shopkeepers think suitability for cyclists is a bit worse compared to customer responses. Many respondents in both groups assume that Markveien is well adapted for cyclists since there is a physical proof of priority, they have got their own bicycle lane, but it did not seem like any of these commentators cycled themselves. Morten was one of them: “It’s also good, very good. You see they’ve got their own space.”

Quite a few respondents eventually would modify their response both with regard to walkability and cycleability when they became aware of the conflict between these two groups. First they responded in line with what they saw, which was dedicated space for both groups, but it was interesting observing how some respondents took some time to think or reason before giving a new answer. One questionnaire respondent described what she saw quite brutally as: “[T]he war between pedestrians and cyclists.” Naturally, many responses to this question were linked to how they perceive the degree of walkability. Kasper was one of them: “Generally this street is a bit too narrow compared to how many people that are here normally, especially if you’re here on a Saturday.” Kaia shared this view, but in her case this view relates to her experience of cycling in Markveien, which was

challenging and rather unpleasant. The following quote captures the spatial complexity of Markveien in a good way:

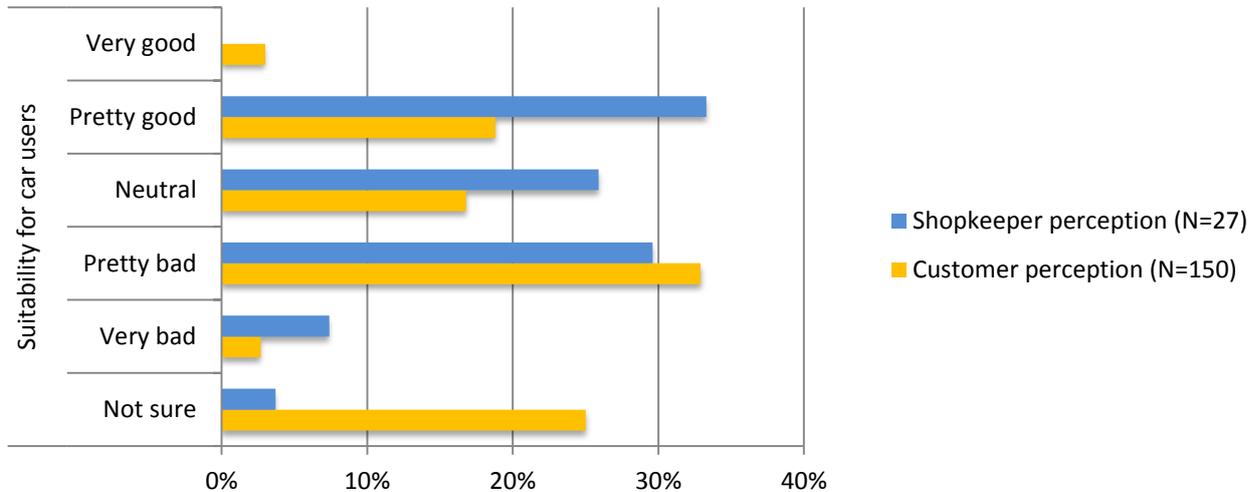
Yeah, it's a bit the same, right. I've bicycled a lot. When I lived in Olaf Ryes I always went through Markveien because Thorvald Meyers gate is kind of unpleasant with the tram tracks (...). And in Markveien it's...at least you kind of think that it's legitimate to cycle there, but you end up ringing and ringing and ringing, and you have to kind of cycle carefully because people go out in the bicycle lane all the time. It's not very easy to understand that it's a bicycle lane, because the pavement is so narrow, so in a way you may not understand that you're not supposed to be there.

At first glance, the way Markveien is designed gives the idea that cyclists are welcome and that the prescribed behaviour in the bicycle line is to cycle only. However, cyclists end up negotiating their practice all the way because many people either do not understand that it is a bicycle lane or because walking in the bicycle lane has become an established practice after being reproduced, routinized and maintained for a long time (Shove & Walker 2010). Accordingly, for many people the norms might have changed through observing others and by the 'doing' of this practice themselves. The majority of the interviewed customers mentioned the conflict between pedestrians and cyclists. Customers who never use a bicycle in Markveien themselves appear more bothered by the presence of cyclists than the presence of cars. Maren partly blamed the cyclists for the contested atmosphere on the busier days, such as during the weekends, but she mainly blamed the general lack of space:

They have a big space to cycle on, but when people walk... At least on the weekends, when like a hundred persons walk in the bicycle lane, then it becomes chaotic, -bad vibe. (...) People are just crazy on bicycles. They go so fast, right, so yeah... You get yelled at (...) and with prams and things like that down here...it's just too little space. It should have been a pedestrian zone. It is actually enacted to become a pedestrian zone, I think. (...) I've lived here for several years. (...) I absolutely think it should become a pedestrian zone soon.

Many customers admit that they walk in the bicycle lane themselves. Mie thinks adaptation for cyclists are good, but while responding she realised that the cyclists have to share their space with pedestrians, like herself: "They got their own bicycle lane here. Even though I usually walk... I believe lots of people walk there."

## Driveability



**Figure 6.3:** Customer and shopkeeper perceptions on suitability for car users

Looking at figure 6.3, there are larger differences between shopkeeper and customer responses on suitability for car users, compared to views on walkability and cycleability. There appears to be a substantial difference in agreement on whether suitability for car drivers are ‘pretty good’, and neither good nor bad (‘neutral’). Compared to the views on walkability and cycleability, shopkeepers in general find Markveien better suited for car drivers than customers do. However, shopkeepers’ responses varied, ranging from those seeing it as terrible via those who found it to be quite okay, to those who thought it was too good. One shopkeeper said suitability was good because they were lucky to have that space. Another said it appears to have been purposely designed to be bad, something he personally did not mind.

Customers in general find suitability to be worst for car drivers. This does however not mean that the customers in general support the idea of maintaining or increasing the driveability in Markveien. Many customers, who never drove to Markveien themselves, described driving conditions as challenging. This was just because it appeared challenging to them, and not because they had experienced driving there themselves. The high share of customers who never drive to Markveien might explain the high numbers who did not want to respond to this question (25%), because they never experienced driving in Markveien before. Eva informed that she never drives in the city because she lives centrally. Her response was quick and short: “I think they can stay away.”

The car users that were interviewed were all pretty happy with the driveability in Markveien. Morten was not ecstatic, but he found conditions for cars to be pretty good, partly because customers can drive from door to door:

Well, it's not completely hopeless, because you can drive all the way to the store. The only thing is to make sure not coming when (...) it's rush hour for this area, but that's the only thing I can say about that.

Fredrik was also quite pleased with driving conditions considering that Markveien is located in the city centre. His approach is nonetheless different, indicating that he is not supportive of prioritising cars in urban environments:

Yes. It's the city centre. You can get through [the street]. I don't think it should be better adapted for us car drivers, so no, I think it's just fine. You can drive through if you manage to start in the right end.

Mona did not identify herself as a car driver, even though she drove to Markveien on the day of the interview. This might explain why she talks about car drivers as a group she is not a part of. Mona parked further away on purpose, and mentioned the same aspect as Fredrik: "I think that (...) we're in the city centre (...). They can't expect anything more. That's how it is here. You have to be smart and don't drive here."

Customers who did not drive themselves often expressed a negative attitude towards the car lane. Anders said: "Very good for car drivers, too good... I don't get it... There are so many ways to get up and down that it could have been car-free, no doubt." Thea, who regularly cycle to Markveien, argued that suitability is too good because the cheap on-street parking gives an incentive to take the car:

Very good, I think. They've got parking all the way. (...) it's easy to find parking, and it's mainly free, I think (?) (...) No, two hours, but it's like 20NOK per hour, or something. (...) So it's almost as cheap to drive a car as to take the tram (...). If you own a car it's easy using it.

Thea's response fits well with the policy strategy to regulate parking for reducing car use. Lastly, Kaia found that the intention for mobility in Markveien does not match the actual use of the street:

[I]t's not possible to get all three elements within one street, and then, in my view, it's very logical what should be removed, and that is the cars, because this is such a short street concentrated with shops, so it's completely unnecessary to drive here. It's intended for crisscrossing.

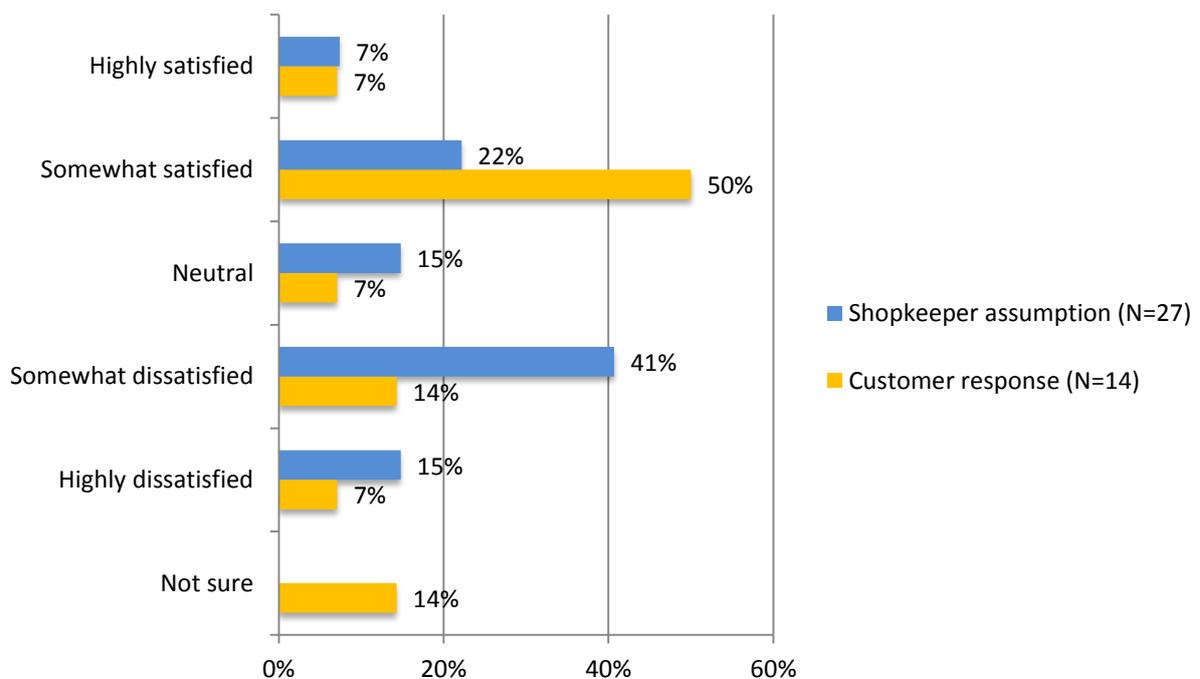
All in all, the qualitative material indicates that cars are not an appreciated part of the urban life. It appears that cars often affect shoppers' experience negatively. What is interesting is how this attitude also applies to most of the car driving customers.

## 6.2 The parking spaces and the associated traffic

In this section the relative value of on-street parking in a shopping street environment will be addressed by investigating how customers and shopkeepers perceive the need for on-street parking in Markveien. Thereafter this section explores how the traffic in the street affects customers' experience of shopping.

### *Degree of satisfaction with parking accessibility in the area*

Customers who drove to Markveien on the day of the questionnaire were asked how satisfied or dissatisfied they were with parking accessibility in the area. Shopkeepers were similarly asked about their assumption on this matter. The following results should be dealt with carefully, seeing the low number of customer respondents.

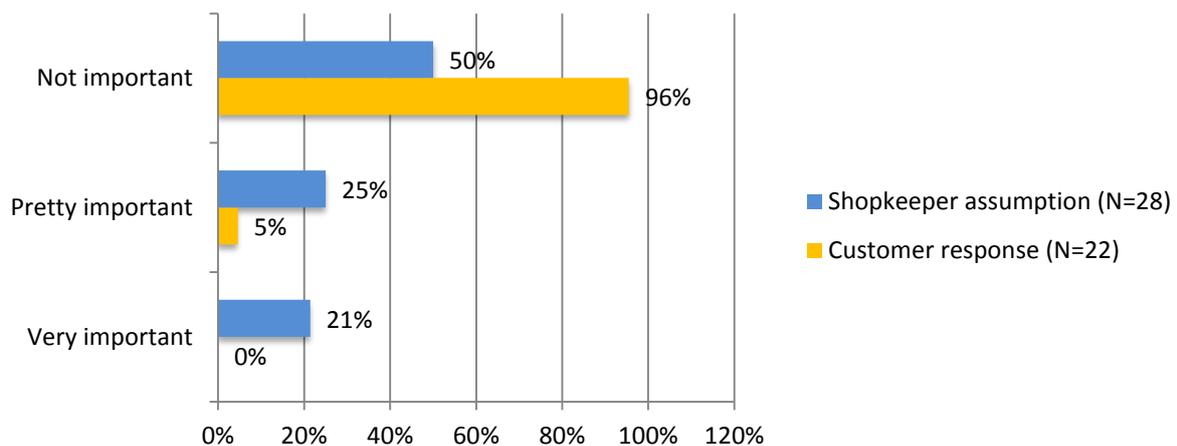


**Figure 6.4:** Shopkeeper assumptions on customers' satisfaction with parking accessibility in the area and customer responses

Shopkeeper responses were varied, but most respondents appeared to be sure that Markveien’s customers must be dissatisfied with parking accessibility in the area. It was however noted by several that they believed the share of driving customers to be very low. Figure 6.4 shows how customers who drive to Markveien are much more satisfied regarding parking accessibility compared to shopkeeper assumptions. Almost twice as many car drivers were satisfied with the parking accessibility (50%) compared to what was assumed by the shopkeepers (22%). The findings cannot be generalized because of the low number of respondents, but it provides an indication that on-street parking in Markveien is not crucial for driving customers’ shopping practices.

### *The possibility to park in Markveien*

When accounting for customers who reported to drive to Markveien during a month or a year, there are a total of twenty-two customers. These 22 shoppers were asked whether the possibility to park alongside the kerbstone in Markveien is important for their shopping practice. Shopkeepers were similarly asked about their thoughts on this



**Figure 6.5:** Shopkeeper assumptions on the importance of parking in Markveien and customer responses

50% of the shopkeepers believe that the parking offer in Markveien is not important for the shopping practice of the car-driving customers. Still, 46% thought parking is either pretty or very important. When looking at customers’ responses nobody reports

that parking in Markveien is of very high importance. 96% of the driving customers do not perceive on-street parking in Markveien as important for their shopping practice.

Based on the respondents I recruited, shopkeepers in general overestimate how important the parking spaces in Markveien are for driving customers. Some of the shopkeepers knew, or believed, that their car share was of a substantial size. One of the daily managers assume that they have a car share of around 30%, and he was sure that the parking spaces in Markveien were of crucial importance for their customers' shopping practices. However, this was not necessarily because of the parking location in Markveien specifically. He was though afraid that the potential removal of parking, in combination with the residence parking scheme (Oslo commune 2016b), will lead to challenging conditions for their customers. Due to these future changes, the parking spaces in Markveien are highly valued. Shopkeepers were asked how important the parking spaces are for the vitality of their business. 45% of the shopkeepers found it to be of some or high importance whereas 52% did not see parking as important. Within this group, 30% preferred to have the parking removed. One of the shopkeepers explained that car drivers know about the limited parking situation in Grünerløkka, thus the parking in Markveien was not assumed to be important for their car driving customers.

### *Car driving customers' perception on parking*

Morten drove forty minutes from Asker in Akershus. He really enjoys Grünerløkka and visits by car every second week. It only took him one minute to find a parking space and he parked in Markveien. Morten said he was lucky to find a parking space in the street. When asked how far he was willing to walk from a parked car he replied:

“Since I think Markveien is very good... Let's say 15 minutes. (...) [O]ften I come to Grünerløkka because it's here I'm going, right. Therefore; [I] don't have to, but [I] want to.”

He was however not satisfied with parking accessibility in the area: “I'm dissatisfied, because it's lousy. (...) It depends on luck. You can write lousy, because they [planners] should build an underground parking house here.” Despite of this argument, when asked if it was generally difficult for him finding a parking space, he informed

that he rarely struggles and normally finds a spot. This might be a part of the reason why he would not consider a different travel mode if parking is removed.

Mona and her daughter, Julie, would normally use public transportation, but missed the underground train (t-bane): “I usually do that, take the t-bane. The trip is pleasant.” They only spent 2-3 minutes to find a parking space, but purposely parked further away somewhere they were sure to find a space. Mona would not mind walking longer than 10 minutes from the parking to Markveien, explaining: “We’re determined, so when we’re going to this street (...) we will get there.” She is quite happy when it comes to parking accessibility, and this relates to her green values:

No, I’m not dissatisfied, but that is because I think a bit more ‘green’ and think that why in the world shall I be able to park everywhere here [?]. It is bittersweet thinking about that I can stand [parked] here [in Markveien]. It’s a bit like a pedestrian street atmosphere here. (...) [I] think a part of the concept of shopping here is exactly that it is...that you walk around.

Even though there was nothing said to make Mona feel bad for driving to Markveien, both she and her daughter Julie seemed to defend themselves from being seen as car users. Mona was very eager to explain that they parked where they parked on purpose. This shows how car drivers, particularly in Oslo and seen from a critical cultural perspective, have got a bad reputation because the cultural representation and narrative of car driving has changed, and car users now feel stigmatised (NRK 2016). Julie repeated that they were supposed to travel by public transportation. Mona suggested that customers interested in visiting the typical small shops in Markveien, instead of shopping at shopping centres, accept the given premises regarding parking provision.

Anne, who was out shopping with her friend, Turid, drove from Nittedal. She parked in Seilduksgata, which is about two minutes away Markveien, and did not have any trouble finding a spot. She was somewhat dissatisfied regarding parking accessibility, but that was a general notion for the area as a whole explained by the recent removal of free parking in nearby streets, such as Korsgata (Oslo kommune 2015d). Parking options in Markveien itself was not of importance. Turid similarly travelled from further away, but by public transport. She would not consider driving on a regular basis if it had been easier to find parking. Anne supported her friend’s choice and commented: “In that case it’s good that there aren’t many [parking] spaces because then you use public transport and then you save the environment.” Turid

drives now and then, but like Anne she does not care about parking in Markveien. Anne said it was a bit silly to have street parking in Markveien, and they both agreed that it should have been a pedestrian street.

Based on the questionnaire and the overall impression from the qualitative interviews, it seems like the car-driving customers will continue to visit independently of a parking offer in Markveien. They do not have to shop specifically in Markveien, but because they want to they will accept and solve possible challenges in getting there.

### *The impact of cars on the experience of shopping*

Customers were asked whether the cars in Markveien affect their shopping experience, and if yes, in what way. On beforehand it was expected that many would not be much aware of the traffic, something that the results confirm. 60% of customers are unaffected by the cars in Markveien. Tiril did not think the traffic is of a bothering volume: “No, not really. It could have been car-free, if it was up to me, but there is little traffic so it’s fine somehow”. Similarly, Cathrine’s shopping experience was not affected by the presence of the cars, but she expressed that cyclists however were impacting her shopping experience negatively. Morten do not mind the cars, but this is because he perceives them as a natural element in a city. Eva’s response shows a similar attitude, even though she admitted that a green element would have been nicer:

They don’t affect me, but it would’ve been more pleasant if there were flowers along [the street], and trees or something instead of cars, but the cars must be allowed to get through too. It’s not a problem.

Nevertheless, a substantial part of the customers find it to be an expressed negative element affecting their shopping experience (39%). Kamilla’s response touches upon the spatial conflict between different mode user that creates bad energy between the groups, and safety issues with regard to being in the ‘wrong’ place:

Negatively. I think... There are often very busy car drivers too. Because you’re going somewhere and then the navigability is bad, so you get a bit scared. And then people go out in the car lane to avoid walking on the narrow pavement and then they have to hurry over the road, and then the car drivers get angry (...).

Kamilla's description shows how the spatial configuration of Markveien leads to behaviour where people appear, and experience to be, out-of-place (Cresswell 1996). Kristin also mentioned the problem of crossing the street: "Yes, it does [affect me], somewhat you don't get to cross the street anywhere. You either have to go further up or down to get over." Kaia also focused on this problem while at the same time highlighting that the conflict between pedestrians and cyclists create similar situations:

Yes, it does, in a way. Because I would much rather want this to be the type of street where I (...) could walk freely, and like be able to, yes, cross the street when I wanted to, and not have cars in the way, well, okay admittedly if there are cyclists [there], then you have to look, but like... (...) No, [I think it would absolutely a better experience if you had left out the cars.

Markveien does apparently not allow people to move completely freely and to cross the street whenever and wherever they want to. Murdoch's (1998) concepts of spaces of prescription and spaces of negotiation are relevant in this regard. The behaviour of the different road users is supported or restricted by the spatial design of Markveien. A set of norms and values in different sections of the street, either as expected in terms of social practices or obliged based on formal rules. Such formal spaces have been developed over time, but certain situations may impact the customers' experiences and therefore also on the practices they are performing. As have been mentioned before, the routinized practice of walking in the bicycle lane has become socially acceptable for many, and this acceptance reproduce- and might increase the number of persons who conduct this practice. The practice of walking in the car lane is, however, further from the norm of how to move. Cycling in the car lane is an accepted practice since it is legal, but walking is something different and the 'script' says it is the formal rule not to. Even though this space is negotiated every time a pedestrian move out in this lane, often for crossing the street, this activity has not become a practice entity. Pedestrians in the car lane create unexpected interactions that may cause chaotic situations. In a few seconds people can go from acting according to the 'script', and being in-place, to negotiating space and appear out-of-place (Cresswell 1996).

Iris had not reflected on whether or how the cars in Markveien affected her experience of shopping before, but when asked about this her answer revealed how she apparently is affected sometimes:

Nothing else than that I sometimes experience to get a bit frightened by the cars here in a way, because it's... It's kind of a pedestrian street-atmosphere, and then suddenly you cross the road and then you just like 'oh! There are cars here'. That I have experienced. But oh my god, it's not much traffic here either.

Iris' response adds to previous indications that Markveien, how it is designed today, prescribes a different behaviour than the seemingly planned intention. For customers like Iris, the street is subconsciously experienced as a pedestrian zone and she ends up behaving based on prescriptions for a different type of environment. Some customers commented that it does not make sense to have car traffic in Markveien because the street does not give the impression that cars should be driving in Markveien. Still, these issues are not prevailing among most the customers. People seem to accept having to navigate around each other, because Markveien has *always* been this way.

### **6.3 Summary**

This chapter has explored how the shopping street design affects customers' experiences of shopping. The first section presented results on shopkeeper and customer perceptions on suitability for different travel mode users. Comparing shopkeeper and customer responses, results reveal similarities in responses on the degree of walkability and cycleability, which is perceived as rather good. Perceptions on driveability varied more. Shopkeepers generally find suitability for cars to be better, compared to customer responses. Seeing all results together, Markveien is best suited for cyclists. Nevertheless, the cyclists themselves are not overly excited since they negotiate with pedestrians who walk in the bicycle lane rather than on the cramped sidewalk. Interestingly, those who described the suitability for cyclists in Markveien as good had rarely or never used a bicycle in Markveien themselves.

Customer responses often revealed a dissonance between the instant impression of suitability, and their subsequent elaborations on their experiences with regard to the functioning of the street. Despite of objective measures of what constitutes proper conditions for good walkability, cycleability and driveability, the findings show how perspectives may differ between mode user groups, and from person to person. The overall impression regarding suitability is that Markveien does

not work out properly either for pedestrians, cyclists or car users. All groups have got dedicated space and thus Markveien might work in theory, but not in practice, as mentioned by several of the respondents.

The second section of this chapter has investigated how customers and shopkeepers perceive the need for on-street parking in Markveien and how the presence of the cars affects customers' experience of shopping. Shopkeepers generally underestimate the car-driving customers' level of satisfaction with parking accessibility and similarly overestimate how important it is for customers to be able to park their cars in Markveien. Furthermore, there are considerable variations in shopkeeper responses and many want the parking spaces removed. Conversely, the opinions of the customers are less varied, seeing that 96% of the driving customers do not perceive the parking spaces in Markveien to be of any importance for their shopping practices. It is however important to note that this analysis was limited by the small number of respondents (22). Even though more than half of the total customer sample reported that the traffic in Markveien did not affect their shopping experience, a substantial proportion experienced it as a negative factor. This was often with regard to the unclear structure of the street and the conflicts between the mode users. An often-mentioned aspect of this association was the reported problem of crossing the street. For some customers, Markveien provides a pedestrian street atmosphere where people in principle can move freely. However, the spatial design of Markveien restricts this form of behaviour.

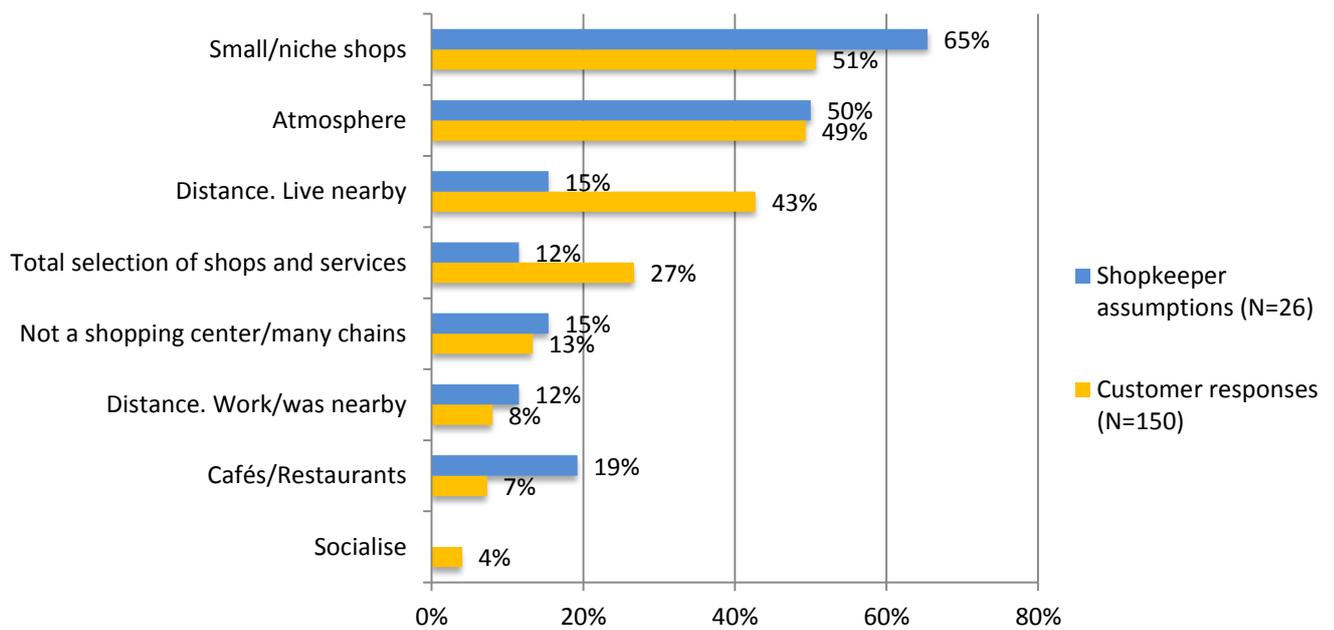
## **7 ATTRACTIVENESS OF MARKVEIEN**

The purpose of this and the next chapter is to highlight the relation between experiences and practices of shopping. This chapter will respond to research question 5) “Which factors are involved in customers’ evaluation of Markveien’s attractiveness, and what are shopkeepers’ assumptions on this?” Seeking to develop an understanding for why people visit an urban shopping environment and how they experience the place, this chapter identifies elements that alone, or in integration, makes Markveien an attractive destination for shopping. The notion of atmosphere will be emphasised to explore the different factors that affect experiences of shopping, in Markveien. Knowledge on these aspects of shopping practices is a precondition to assess how a parking reallocation might impact on shopping street vitality.

### **7.1 Why is Markveien an attractive destination?**

Ninety percent of Markveien’s customers find the street somewhat or highly attractive for shopping, whereas only two percent find it a bit unattractive. Customers were asked why they chose Markveien as their destination. It was an open-ended question where I took notes of their responses. After the first rounds of interviews the list in figure 6.1 were developed based on these notes. When I later conducted the questionnaire with shopkeepers the intention was to do the same, but shopkeepers usually mentioned the same factors as the customers, just in a slightly different pattern.

It is important to keep in mind that the following results show respondents instant responses and that both customers and shopkeepers might have answered differently if they saw a list of suggested factors.



**Figure 7.1:** Shopkeeper assumptions of customers’ motivation for visiting, and customer results

The materiality of the small shops and independent niche stores (51%) is the most reported reason for shopping in Markveien. Looking at the comparison between shopkeeper assumptions and customer responses figure 7.1 shows that 65% of the shopkeepers assumed this to be an important factor, in which they were right. Customers’ second most reported reason is the atmosphere (49%), which similarly 50% of the shopkeepers mentioned. Many responses were similar to Catherine’s: “(...) it’s because it’s cosy. It’s because there are loads of vintage stores here.” Some customers would also explicitly mention that they like Markveien because it is not a shopping mall or because there are not many chains (13%). Conversely, 27% of the customers reported that the overall selection of shops and services, including chains, more unique small shops, cafés/eateries and maybe also services like the post office, hair dresser and dentist, were the main reason for choosing this specific street.

Shopkeepers’ responses differ most with regard to how often distance was reported as an important factor affecting customers’ location choice. 43% of shoppers mentioned this, while only 15% of shopkeepers did the same. There are also differences between the groups according the total selection of shops, and services and cafés/restaurants. Nevertheless, the shopkeepers correctly assume that small/niche shops and the atmosphere are the most important factors, and that to not be a shopping centre, or in an area dominated by chains, is an often-mentioned factor as well.

A substantial part of the activities taking place in Markveien are what Jan Gehl (1980, p. 7) terms ‘necessary activities’, related to grocery shopping, or services like the post office or the doctor. These activities are typically habituated space-time routines in a particular location (Seamon 1980, cited in Cresswell 2015, p. 64), where distance to the closest store or service provider is assumed to be a main reason for location choice. In Markveien a big share of the pedestrian customers conducted necessary activities that appeared to be tied into the temporal ordering of everyday life. Since these activities are necessary and occur all year around and under most conditions, they are minimally affected by the physical conditions, such as the weather. ‘Distance to home’ as a reason for shopping in Markveien can be seen in relation to the concept of necessary activities. This is the third most reported reason for visiting Markveien (43%). Distance, was Iris’ instant response and the main reason for her shopping practice in Markveien. Still, Iris quickly added other factors that she did not seem to be aware of before: “It is close to where I live. And I actually think that it’s pretty nice here! It’s the shops that I need. (...) And it’s nice to walk in the street and not in a shopping mall.” Anita lives in Markveien and naturally conducts her necessary errands there. In addition to distance she mentioned the totality of shops and services as the most attractive characteristic. These factors are both associated with the material elements constituting a practice (Shove, Pantzar & Watson 2012)

(...) I’ve always liked it here. I’ve lived here for 23 years and really thrive here. I’ve got everything around me, it is the doctor, pharmacy and all the shops and... So I really enjoy myself.

Markveien is also an attractive destination for so-called ‘optional activities’ (Gehl 1980, p. 9) that are more of a recreational character, such as strolling or going to a café. These activities only occur when people want them to, and when external terms are good enough. Kaia who lives in walking distance, had several errands and found everything she needed in Markveien. In her case the location choice was a result of both necessary, as well as mostly optional activities:

Well, it’s because it’s a concentrated street with many shops. (...) Like today, when I’m both shopping Christmas presents and doing practical things, and meeting somebody at a café, then you kind of have everything in one...[place] It’s that combination, that kind of... It’s probably like that in Oslo City as well, but that’s something a bit different. Here there are other types of shops, -a bit of distinctiveness.

Kaia were asked whether the relatively short distance to home were of importance in addition to the factors she already mentioned. In her response, Kaia touched upon accessibility to Markveien and the experience of mobility (Banister 2008, Cresswell 2006): “Yes, absolutely. It’s like a pleasant road to walk as well. It’s kind of easy getting here.” Lisa, on the other hand, gave the impression that she would have come independently of distance, even though she lived nearby. When asked if distance were one of the main reasons for her choice of location she replied: “No actually not. Because I like...It’s a bit like a small town in a big city. A pleasant environment, I think.” This approach was shared by several. Mona, and her teenage daughter Julie, travelled from Bærum, in Akershus. This was not their first time in Markveien, but it was the first time they went by car. Normally they would use public transportation and this was regarded as a pleasant part of the trip rather than as only a movement from A to B (Cresswell 2006, Banister 2008). Julie found the street cosy and often went by herself. Mona mentioned several reasons why she enjoys shopping in Markveien. The reasons were generally with regard to experiencing something different than other typical shopping places:

The mix of shops, that it’s not shopping mall-chain stores, even though there might be some. (...) The niche stores...and the environment. -That it’s a bit different than what you normally find in Bogstadveien or the shops in the city centre, and Aker Brygge, and Tjuvholmen.

Her daughter mentioned a new element, “It’s relaxing here. Not as [many] stressed people here [in Markveien].” Mona agreed and described this pace of life as similar to a small borough. She also commented on another atmospheric element to describe what she experienced as a lively and exotic vibe, associated to the unique shops and the people frequenting the area:

Yes, it’s calmer. It’s like a small borough in the borough (...). We could almost be in Amsterdam somewhere or we could have been in, well... I often call it Amsterdam, with a bit of niche [stores]... A bit cosy... A bit young! (...) [I]n this area there live many students and academics... And then you don’t get that Frogner-vibe. So this is a bit exotic for us (...). It almost feels like we’re on a small trip (...) like a funny part of Copenhagen. I’ve just been in Copenhagen and there you have boroughs that are a bit like ‘Wow, this was exotic’. That type of mood I can find here. (...) It is simply a bit lively here.

This response reflects what Gehl (1980, p. 10) terms a third type of outdoors activities: ‘social activities’ in which includes all activities where a prerequisite is the presence of other people in public spaces. This also includes non-verbal interactions like seeing and hearing other people. Mona appreciated the type of people frequenting Markveien in general, as a material factor that creates liveliness, as well as the specifically characteristics of what she perceived as the typical people dominating the street, students and academics. She explicitly stated how she is more interested in the atmosphere she experiences in Markveien rather than the atmosphere she experiences in Frogner, an affluent area in the western parts of Oslo. Mona seemed to identify herself with the social characteristics of Grünerløkka, and experiences some kind of insideness (Relph 1976) in this environment.

The only non-Norwegian customer interviewed was Lily, who lived in walking distance. Similar to Mona, Lily emphasised the lively street life, made up by the people and small shops, as important factors in her decision to travel to Markveien for her shopping practice:

Usually what it is about...it’s about the liveliness, it’s about the people, it’s about the alternatives of places [shops], there’re not that many chains. Although I bought from a chain today... Still you get to see more things.

Lily’s response says something about her experience of the atmosphere in Markveien, as shaped by the mobility of people, doing their practices. Similarly, Kasper, who travelled by train from Ås, in Akershus, visits to experience a specific atmosphere that attracts him, as well as for some special shops. And like Lily, Kasper was critical of chains that dominate shopping streets and he was conscious about supporting the independent niche stores:

It is this feeling of enthusiasts running these stores (...) and people who’s got an idea, their concept that they care about. They care, in a different way, than the chains. (...) now there might be an Espresso House here, I don’t know, but they have like taped wallpaper with books on the walls. I think that’s a bit like... Medium.

He continued to describe his experience of the atmosphere that attracts him, which is clearly related to previous experiences of Markveien. This meaning-related aspect continues to shape his shopping practices in Markveien:

[Markveien is] not like a super attractive pedestrian street, but it is more that type of feeling, in a way. [Markveien] really feels like Løkka, what you consider Løkka, at least how it was when I was younger. (...) It's an atmosphere even though it's not necessarily the physical atmosphere in the street.

Kasper's experience of Markveien touches upon the concept of suitability that was explored in the previous chapter. The street design apparently gives him signals that Markveien is more of a pedestrian street. And the experience of this environment is partially what constitutes the atmosphere for him, in addition to the selection of unique shops. Kasper's positive relationship to Markveien seems to be an important reason why he still visits. The meanings attached to the present day experiences are related to past experiences through an emotional connection.

Some of the other respondents visited because they used to live in Markveien or in neighbouring streets. Aud, who now lives in Rodeløkka (walking distance) expressed a sense of belonging and attachment to Markveien: "First of all, it's my home. (...) And I think it is much nicer with these small shops than the big [shopping] centres. I stay far away from that." Fredrik, who now lives with his family on Skullerud in Oslo, still take the car to shop in Markveien now and then, even though he could find what he needed somewhere closer to home. Similarly to Aud, it appears as if Fredrik's shopping practice is shaped by his subjective and emotional attachment to Markveien, related to the concept of sense of place (Agnew 1987, cited in Cresswell 2015), and of competence (Shove, Pantzar & Watson 2012) through know-how, from previous experiences:

I like it here. I'm familiar with shopping here because we used to live in the area. And it's a cosy place for shopping. I know there are big [shopping] centres where you find the same store I visited now, but yeah, I like coming here. (...) I think it is the nicest street I know of.

The atmosphere of Markveien was a repeated focus, even though customers commented on it differently, and not necessarily explicitly. Mie was struggling to explain why she chose Markveien as her destination. Not because she chose it randomly, but because it was difficult for her to explain the essence of it. Her response ended up being the only one capturing how the elements of being outdoors, including the experience of others that positively affected her experience of shopping in Markveien:

I believe, I believe... (...) I don't feel as trapped here. You go out, you know... (...) It is about that its air, -and outdoor air. If the weather is nice and the sun shines, people are enjoying themselves in the sun. People are not in a hurry. What is the reason for this (?) I can't say, it's an outdoor feeling.

Many costumers said they prefer shopping in Markveien rather than in a shopping centre, but they would rarely mention outdoor elements the way Mie did, except for the liveliness of the street. The outdoor experience that includes the presence of others, to see and hear other people, is regarded as an attractive factor. The activity provided by human beings attracts other people (Jacobs 1961, Gehl 1980).

The following section will further investigate customers' perceptions of the atmosphere, which adds to this section of attractive factors with regard to location choice.

### *The atmosphere of Markveien*

How are atmospheres formed and shaped? What constitutes the atmosphere that customers experience in Markveien? 96% of Markveien's customers experience the atmosphere as either pretty or very good while the rest is neutral with regard to this. In the qualitative interviews respondents were asked to elaborate on how they experienced the atmosphere. Many respondents explained the atmosphere as calmer, as if compared to other shopping streets or sites. Nora was one of them: "Calm and romantic maybe. (...) I mean, not as stressful. Even though it's Christmas shopping, it's kind of a more comfortable atmosphere." Tiril explained the atmosphere similarly: "[I] kind of sense that people have got more time, and that those working in the shops have got more time, so the atmosphere is a bit more pleasant".

Others, such as Lily, emphasised the liveliness of the street as typical for the atmosphere in Markveien. My impression was that her idea of liveliness is not necessarily a street packed with people. She explained: "Today it was a little bit busier because it's Sunday and the shops are still open, because of the Christmas market, but generally speaking.. Yeah it's [a] vibrant atmosphere, cheerful..." Her idea of liveliness was associated to a cheerful vibe that the people in the street contributed to.

Pål, on paternity leave, lives in Markveien with his wife and two kids, and got no plans of moving. He thought the atmosphere is very good and mentioned the diversity in Grünerløkka as constituting the atmosphere: "Both in daytime strolling,

there are different things to look at and do, and in the evening there is a diversity of places to go out.”

Many customers mentioned the unique selection of independent shops as an important factor with regard to atmosphere. Aud explained: “There are many different small shops and stores that you won’t find other places.” These shops were seen to shape the atmosphere by adding something special.

The female customers in the questionnaire sample were generally more excited and conscious about atmosphere compared to the male customers. Fredrik explained that he visits Markveien mostly because he knows the street, rather than because of the atmosphere. His response however revealed elements that seemed to affect his situated experience of shopping in Markveien in which might impact on his location choice:

The atmosphere is kind of not more than the people that walks here, I think.  
But ok, there are some nice shops and things like that which contribute. (...)  
At times there are a lot of people out, and then I think it’s a good mood...  
Comfortable being here... To be around people that is here.

Fredrik’s response supports the idea of human beings presence as attractive for a street environment (Jacobs 1961, Gehl 1980). This was also apparent in Gro’s response where she explained that the most prominent road user groups in Markveien, pedestrians and cyclists, are the most important elements that shape the atmosphere: “Very pleasant (...) many who walks, right. Many who cycles. It’s a busy street, but at the same time not car-busy”. Gro did not appreciate cars that dominate a shopping street. Pedestrians and cyclists were, on the other hand, appreciated for creating a pleasant atmosphere.

It is important to reflect on the concept of being inside or outside (Relph 1976) with regard to the joy of experiencing other people. Even though many customers seem to appreciate the general presence of others, this does not mean that most people would enjoy shopping in Markveien as much. People might select themselves to this specific street to be among a certain type of people that they feel some kind of insideness together with. The experience of feeling inside can be related to a conscious or unconscious desire to practice values or to confirm social status. Other people could probably experience some kind of outsideness in Markveien if the place do not match their values and social status.

Physical design is one of many factors that are believed to affect outdoors activity (Gehl 1980), but physical structures, such as the buildings in Markveien do not necessarily attract customers. When customers were asked to describe the atmosphere of Markveien, almost nobody mentioned the architecture. If I asked specifically about whether the architecture was a constituent factor some would say that the old buildings made the street cosy. Old towns in city centres have always been popular (Gehl 1980) and the old architecture might for many people be one of the constitutive elements of the atmosphere, but if this is the case few are aware of it.

One of the respondents on maternity leave, who knew the street well, provided an interesting description of Markveien's aesthetics. When asked why she chose Markveien for her shopping practice her instant response was that Markveien is a very cosy street. However, when she turned around to observe the street better her nose wrinkled and she admitted that when looking down the street she did not find it at all pretty. It was not clear whether she meant the architecture or the street space, but her response was interesting because she thrived in the street and the reason for this she was not really aware of.

## **7.2 Summary**

This chapter has investigated which factors that are involved in customers' evaluation of Markveien's attractiveness, and the shopkeepers' assumptions on this. The most frequently reported motivations for visiting Markveien is the offer of small/niche shops and the atmosphere, which most shopkeepers similarly assume. Customers explain the notion of atmosphere in various ways, but repeated elements include the selection of unique shops, the peaceful- or the lively mood, the small-city feeling in a big city, and the presence of other people. The interviews revealed additional aspects of belonging, being familiar with the place, and identity-related factors, that are all believed to influence on customers' probability to return. The third most reported motivation for customers' location choice was distance from home. Distance was the element that differ the most when comparing shopkeeper assumptions and customer responses in the sense that shopkeepers tend to underestimate the importance of this factor. Another motivation to shop in Markveien that was regularly reported, which shopkeepers' similarly assume, is that Markveien is attractive because it is not a

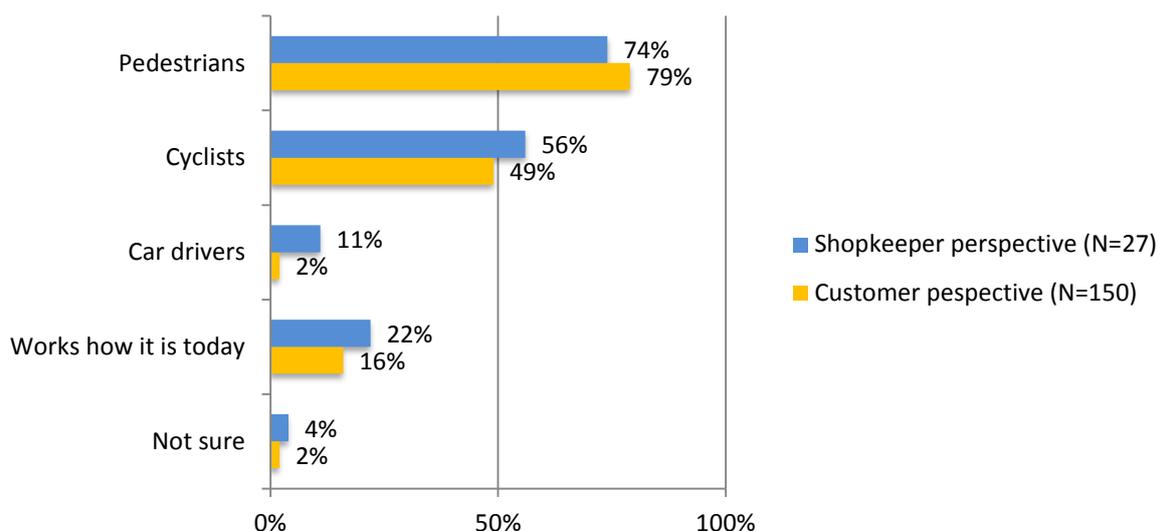
shopping centre, or due to the small proportion of chain stores. Nevertheless, a substantial share of the customers chose Markveien out of a diverse offer of shops and services, including the chain stores. Access to parking was never mentioned as a decisive factor in customers' decision-making, either by customers, or more surprisingly, by shopkeepers.

## **8            PREFERRED DESIGN AND POTENTIAL EFFECTS ON SHOPPING**

In this chapter, potential redesigns for Markveien will be assessed through both customers' and shopkeepers' perspective. This final results chapter will respond to research question 6) "If customers and shopkeepers want a new design for Markveien, which solution would they choose and what are the potential effects on shopping activity?" Both groups were asked which mode users they would give space in a potential redesign of the street, how they believe a parking reallocation might affect the business sector in Markveien, and which design solution they would prefer in the future. It is interesting to find out what street designs the shopkeepers would prefer themselves, rather than to be focusing on what they believe their customers want. If the results reveal a huge disparity between shopkeepers' preferences and those of their customers, it may lead them to negotiate and lobby for transport planning decisions that are not in their best interest. It is therefore important to provide the empirical evidence needed to inform decision-making.

### **8.1    Who should be given priority in a potential redesign?**

In the last section of the questionnaire customers and shopkeepers were asked which road user group(s) they would give priority in the case of a redesign. Respondents could list as many mode users as they wanted. In comparison to some of the other questions in this section, where respondents spent much time thinking and reasoning their way towards a reply, most shoppers responded quickly and assured to this question



**Figure 8.1:** Shopkeepers’ and customers’ perspective on which mode users that should be given priority in a potential redesign

The results show that customers and shopkeepers in general share the same views on this issue. Interestingly the shopkeepers to a higher extent than customers want to give dedicated space to cyclists (56%). On the other hand, a higher share of shopkeepers (11%), compared to customers (2%), want to give space to cars. A higher number of shopkeepers also prefer today’s solution, but the difference between the groups is not very big. One of the daily managers said there is a big potential for increasing conditions for pedestrians. He mentioned Torggata as an example of a successful street design, and argued that such a design will benefit all road user groups, also the car drivers, but he did also say that it would not be a big disadvantage if Markveien was closed for cars, except for deliveries. Another shopkeeper, who similarly did not think Markveien works today, wanted a clearer separation between the pedestrians and the cyclists. A third manager was, on the other hand, happy with the street how it is today, and she believed a majority of customers thought the same, emphasising how everybody is included in today’s solution.

One of the customers, Lisa, explained her response out of logical thinking: “Those who walk because that’s what most people do”. Kaia shared Lisa’s view:

Pedestrians because it’s first and foremost a shopping street. (...) I’m very conscious that cyclists are frequenting here too, but Markveien is first and foremost a pedestrian street, in my eyes (...).

Almost half of the sample also added cyclists (49%), either right away in combination with pedestrians, or after being informed they could list several mode users. Anders was very confident in his response, and he proposes a car-free solution: “Well, those walking, and cyclists of course. -If cyclists got the car’s space, and pedestrians got the cyclist’s space (...).” Iris’ constant response was not directed at the road users she would give space in a potential redesign, but on the transport mode she least wants in Markveien: “Then I would have downgraded the cars.” Aud gave a similar response: “In that case I think I would have tried to get rid of the cars. And that is out of pure egoism”. Thea appeared quite confident in how a parking removal would upgrade Markveien, but she was not completely sure whether cars should be able to drive through or not:

I would have removed the car parking and made pavement and bicycle lane wider, and possibly still have the option of driving through, because that is also (...) a life-creating element... A bit in the evening... That there is some traffic then, because now there are very many who walks here, but in the evenings maybe... When the shops close it could become very dead, so I’m not just negative to keeping one [car] lane, but I think that when the sectioning is this narrow, then you can remove car parking and rather give it [the space] to pedestrians and cyclists.

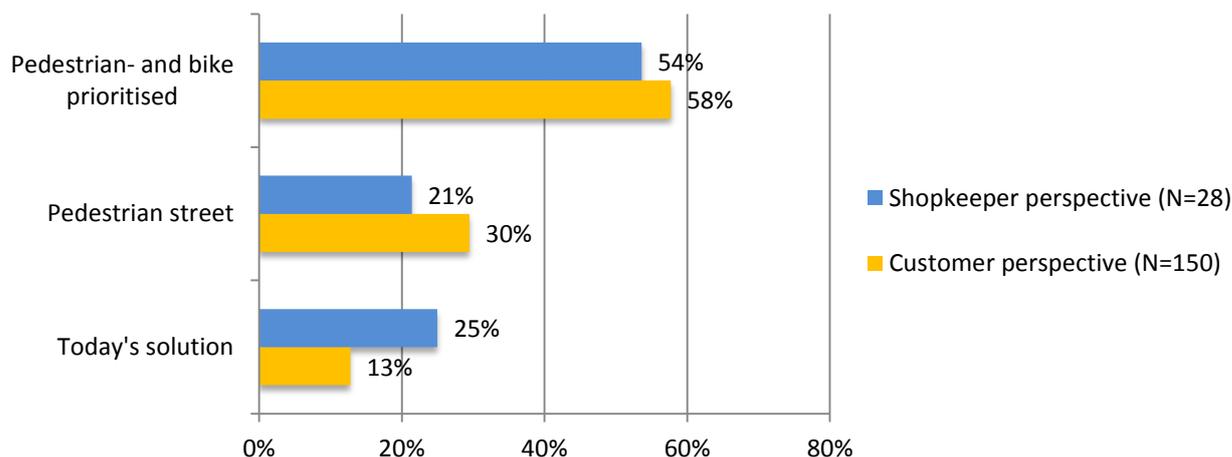
Thea’s concern regarding how a car-free street might become dead in the evenings is in some ways related to Jacob’s (1961) ideas of keeping streets lively at most times of the day, even though Jacobs did focus on other life-creating elements than car traffic.

Fredrik drove to Markveien, but he does not mind sacrificing the space for cars if it benefits pedestrians and cyclists: “First and foremost pedestrians and cyclists, in that priority order. (...) If priority for pedestrians were at the expense of cars, I think it had been fine.”

Morten is on the other hand among the 16% respondents prefers today’s design: “No, not really. No, not changing [it]. Never change a winning horse. No, because I think that cars have come to stay, in a way (...) it’s silly to change that.” Morten would experience Markveien as less attractive if on-street parking were removed. He explained how this viewpoint is also out of concern for others: “I’m not a [typical] super motorist at all, but I understand that it might be smart for someone, right, so in that case it’s stupid commercially to remove them [parking spaces].”

## 8.2 The most attractive design for Markveien

In the end of the questionnaire, customers and shopkeepers were showed three sketches of possible scenarios for Markveien, on the iPad used for collecting responses. One of the sketches was of today's design and the others showed two alternative solutions. These were borrowed from a study conducted by BYM (Oslo kommune 2016b) (See Appendix B). Respondents were asked which solution that would have made Markveien most attractive in their eyes. On beforehand shopkeepers were asked whether they thought most of Markveien's customers want a change of the design. 72% of shopkeepers thought most customers wanted a different design. It turned out they were right, seeing that 88% of Markveien's customers want a change of the street design.



**Figure 8.2:** Shopkeepers' and customers' preferred street design, out of three illustrations

Again, the comparison of the questionnaire data shows how shopkeepers and customer responses are distributed in similar patterns. A majority of both Markveien's customers and shopkeepers want a change of the street design and would prefer alternative 2: A pedestrian- and bicycle prioritised street. This solution is also what the Municipality of Oslo recommends as a temporary solution for Markveien (Oslo kommune 2015b). Customers are generally more interested in a pedestrian solution compared to shopkeepers, and shopkeepers are generally more interested in keeping today's design. The pedestrian street alternative is less popular among shopkeepers. This appeared to be related to a concern regarding deliveries.

One of the shopkeepers described today's situation as a messy street. She believed that most customers will find Markveien more attractive without the parking spaces because the car traffic is experienced as stressful for the other road users. However, she was a bit worried concerning deliveries and therefore unsure whether to choose today's solution or an alternative design. She was also worried about losing customers to the other side of the street if there will be a widening of the pavement there, but ended up choosing the pedestrian street, emphasising that there must be parking solutions for disabled. Another store manager did not even believe that the proposed pedestrian street alternative would be adapted for deliveries, so this design was anyway not an option in her eyes.

The high numbers of respondents who prefer a pedestrian- and bicycle prioritised street do not show that many customers prefer this solution to be car-free. I took notes from an early stage during data collection and found a total of 64% within the group who chose this alternative either preferred-, or required it, to be free of cars. Several of the store managers similarly preferred a car free version of the bicycle- and pedestrian alternative. One of the shopkeepers would prefer a bicycle lane, but since he was not interested in having cars in the street he chose the pedestrian street alternative. He said that today's solution is not at all forward thinking, and was sure that a parking reallocation would increase the general attractiveness of the street.

Kasper is one of the customers who prefer a car-free version of this design alternative: “[T]he one with a green bicycle lane. It's something like that I envisioned, except that it's no car lane, just bicycle [lane]”. Kamilla wants the same: “Yes, preferably the cars completely out. I think there should be some space for cyclists in a pedestrian street as well, but you don't need space for those racer cyclists.” Lily clearly expressed that she did not want any of the proposed solutions. “No, neither. I want to keep the pavement and the cyclists.” She wanted the cars completely out. My interview with Lily was one of the later ones and I already found that many customers wanted the same solution as her. I told Lily this, and she replied confidently: “Yes, what else is the point.”

Mona obviously did not right away know her answer, but while responding she reasons her way towards a conclusion:

I believe in Denmark they would have had that green stripe through, in Copenhagen... (...) I think it's reasonable that you can drive through, not for parking, but just drive through. And then you can also wonder why they shall drive through just here, can't they stay away (?). So then I keep a button on that one [pedestrian street]. And if this one [pedestrian- and bicycle prioritised] had been pink with green [car-free], than I would have chosen it. (...) I think strategically that if cyclists finally have got a [bicycle lane]. Why take it away from them? Then you have to plan a parallel street next to this, or something, -so they are allowed to come back. Because I believe the bicycle people are growing, and they are a strong group, and they demand to be heard after all these years.

Maren also want a car-free Markveien and she similarly chose the pedestrian street. She asked whether there will be a bicycle lane, because she does not want to exclude cyclists. When explained that cyclists will not be given a dedicated bicycle lane, but that they are still welcome, Maren said:

I think that is better really. So the cyclists take more [consideration]... I cycle a lot myself - I am one of them - but that they maybe take more care considering there are people in this street, and not just pushing through, and drive down those who move over in the lane [bicycle lane].

### *Will a parking reallocation change the attractiveness of Markveien?*

Many shoppers who earlier responded that the cars in Markveien did not affect their shopping experience later replied that if parking is removed and the space is used for pedestrians and cyclists, Markveien will become more attractive as a shopping destination. The intention underlying this question was to be able to get a picture of how many who would visit more, or less, often in the case of a redesign. During data collection I realised that some respondents answered this question as if asked whether they would enjoy the street more or less than today, independently of visit frequency. Using the verb attractive might have been too diffuse for collect the intended data, but I still got interesting data that indicates how a parking reallocation might affect shopping practices and shopping frequency.

A total of 62 % thinks that Markveien would have been more appealing if parking were replaced by widened pavement and/or bicycle lane. Only two persons (1%) would find this solution less attractive for shopping activity. Seeing this, many shopkeepers tend to overestimate the attractiveness of today's design. Still, 35%

would continue to use the street as normal. In most cases this would be because they live in the street or nearby, and their necessary shopping activities will probably not change. Eva is one of them, but she would appreciate the change: “No, I would’ve used it in the same way, but it would’ve been nicer to frequent here”. Nora’s response might indicate that she similarly would visit just as often, because the street how it is today appeals to her, but in the case of a redesign Markveien would become even more attractive to frequent: “Yeah, a little. Well, I like it here independently too, but it would have been even better if it was car-free”.

Most interviewed respondents would consider visiting more often if the suggested redesign were realised. Several of the respondents explained how it could be more of a pedestrian street, which was regarded as an attractive solution for many. Lisa was one of them: “More [attractive]. It had been more like Karl Johan.” In visualising a pedestrian street, Kasper still wanted a separate bicycle lane:

Yeah, maybe it would generally be a bit nicer here. If they had removed cars here, then it could become more of a pedestrian street. (...) Imagine... If you only didn’t have cars here, you could have had a bicycle lane in the middle, and then something green on each side of the bicycle lane. (...) Or, not necessarily something green, but a clear separation (...) so people understand they’re not supposed to walk there.

Mona also envisioned design possibilities for what Markveien can become without the parking spaces:

Cobblestone down here. That pedestrian street atmosphere. A bit more plants. Maybe some outdoor serving in the summer, and a bit more lively (...). Yes, I maybe think that... [it would be more attractive for shopping] I had associated the place with more like...Green, friendly.

Mona’s response illustrates how important urban design elements can be for the outdoor activity in a street. Pål was similarly very positive to the proposed redesign:

[I]f the parking spaces in Markveien were gone, no that would just have made it [the street] much more pleasant, because then you could... You have market days where it’s car-free, and then the shops come out, and that’s very nice. I wouldn’t want it to be like that all the time (...), but it’s nice to have a bit of it, and it would have made the experience even better.

Lily added a new approach with regard to possibilities that arise with a new street design. She emphasised the importance of walkability for all ages:

Yeah, it would be more attractive. I would bring more tourists, friends who visit here, because parents, - older people you know, old people can easier walk, so yeah. It would be easier to come over.

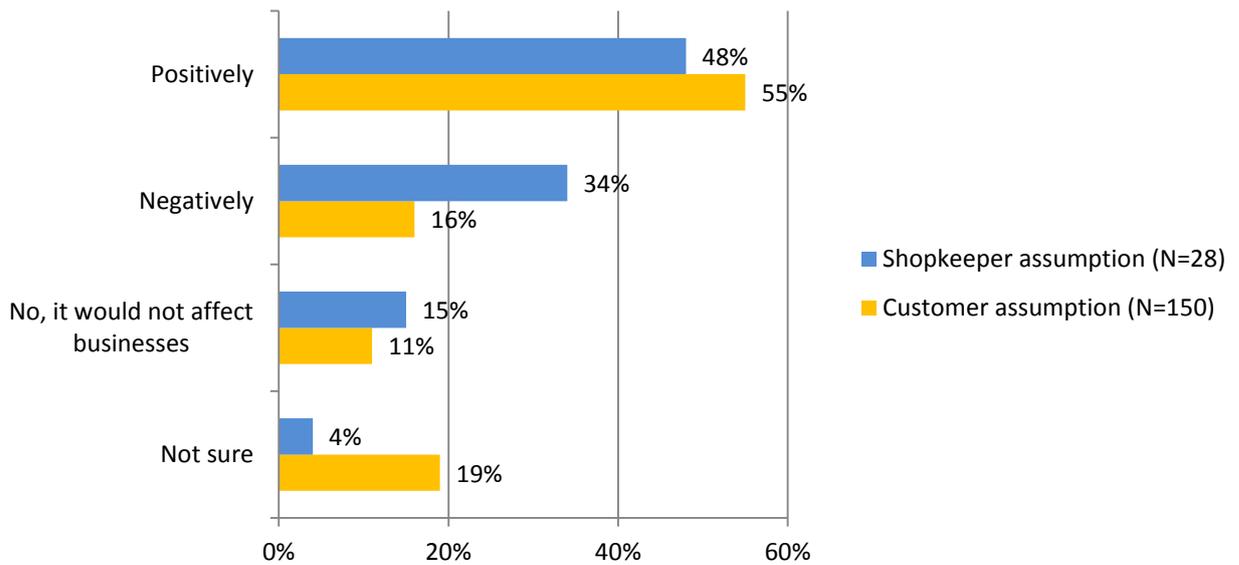
For Mie, Markveien would become much more attractive if parking were removed, but she was afraid to be categorized as against cars, and zoomed out to a more general perspective on the issue, including walkability and safety:

Yes, I believe it would be nicer. Now I sound really like anti-car, but I haven't... -Right here [parking] it's not needed. They [cars] don't have to be here. (...) It could maybe have been parking somewhere else, not too far away so people can park and rather walk. -And probably safer too, for people with kids. Small kids could have got more free space to walk around for themselves without their mothers needing to watch out for them all the time, for example.

Mie is not the only one who responded more generally rather than for herself and her own shopping practices. When I asked Anders, he talked about how a change in the spatial configuration might affect how people in general are using the street, and how this again might affect retail sales in the street: "Yes. Then you see more into the windows instead of watching out for the cars (...). [It will become] [a]n even more attractive place for those who run businesses."

### **8.3 Impact on experiences and practices of shopping, and business vitality**

By the end of the questionnaire shoppers and shopkeepers were asked whether a reallocation from parking to pedestrians and cyclists were believed to affect the business vitality in Markveien. If they responded yes, they were asked to elaborate on the believed effects, whether it was in a positive or a negative direction. The following results show shopkeepers' and customers forecasts, compared.



**Figure 8.3:** How shopkeepers and customers believe a parking reallocation might affect the business sector in Markveien

The results show how a substantial share in both groups believes a road space reallocation from parking to cyclists and pedestrians will influence positively on business vitality. 15% of the shopkeepers do not believe it will make a difference, but a substantial share (34%) on the other hand believes it will affect them negatively. One of the shopkeepers said that the effects of an implementation might be negative because people do not like changes. Another manager who thought their car share were more than 20%, were sure that a parking reallocation will affect the street very negatively, assuming that most car-driving customers will find the street less attractive. She was, on the other hand, sure that the cyclists would love such a change, but this did not matter to her. Cycleability was already too good, and in her view more pavement space will not necessarily lead to more people visiting the street. A contrasting perspective came from an optimistic shopkeeper who emphasised how a parking-free Markveien is a better place to notice the shops, and for being able to enjoy the strolling activity more. He believed that the urban environment and the atmosphere would become more attractive and recruit more customers. Visitor's increased ability to move freely in a street, were emphasised by a few others as well. One of the shopkeepers, who preferred a completely car-free street, explained that since people have everything they need in Markveien, a parking reallocation will probably attract more people to the street, and affect businesses positively. She

believed most customers would find the street more attractive, and she described how a car-free environment might be used for events that attract more people. To increase walkability was believed to enhance the feeling of the street, and transforming Markveien into a more family-friendly space. She talked about pleasant atmosphere of pedestrianised areas, where cars do not make people feel squeezed. She said that there are ways to do it better without the cars. Amongst several shopkeepers, she did not worry about losing customers in the case of an implementation, believing that car-driving customers will be willing to find parking somewhere else. She said that the whole feeling of a street changes if a street becomes pedestrianized.

Another store manager was concerned with regard to the changing seasons. He supported a car free solution during summertime, when people are hanging out more, but in the winter season he was afraid that a car-free street might become too calm. He explained how taking cars completely out might take away the pulse of the street, but he was not especially interested in keeping the parking either. Accordingly, a parking removal was not perceived as a great loss, and especially not if the street became nicer, cleaner and with greener. In that case the effects were believed to be positive.

An interesting approach found among a few of the shopkeepers, were scepticism with regard to whether increased walkability will actually result in higher numbers of Markveien strollers, or more importantly people who choose to shop in the street. One shopkeeper believed there would be a decrease in customer numbers if parking were removed because she did not see that Markveien will attract new customers beyond today's local customer base. She argued that attracting new customers were more dependent on a diverse selection of shops rather than parking, and was quite happy with today's solution since everybody got their dedicated space.

One of the shopkeepers who were sure they had a high share of car-driving customers wanted a parking house nearby in the case of a reallocation of parking. She was quite happy with today's design, even though she would prefer wider pavements. The importance of replacing the loss of parking was shared by a few, but it differed whether it should be just in the area or on the city fringes. A big supportive of car-free urban environments, who were the one suggesting commuter parking in the outskirts, was surprised that Markveien had still not become a pedestrian street, and seemed a bit disappointed mentioning that it was supposed to become a pedestrian street a few years ago. He used examples from other European cities where pedestrian streets have

been implemented, and described how these were always very lively and full of people. If the municipality removes the car traffic from Markveien he would support this, based on his own experiences from other cities.

Some shopkeepers said that something has to change, because rent prices are coming up. One manager said she wants to support a change that might increase the number of customers, because this is crucial for their ability to survive in the street. She believed a parking reallocation will be very positive for the business vitality, but were also concerned with regard to the construction work related to this, since shops do not get compensated during these processes. I found that these concerns were prevailing among several shopkeepers. I asked some of the shopkeepers who did not initially mention these issues whether they were worried about possible future negative effects. One shopkeeper was worried about increased rent prices in the future, also for renting of the pavement space. Similar to a few others, she mentioned how she did not necessarily believe that more people in the street resulted in more shoppers.

Another shopkeeper I asked, who chose the bicycle- and pedestrian prioritised alternative, was not worried about future consequences in terms of gentrification, but he was more worried about the construction process, and how long it would take. Therefore he would rather leave Markveien as it is, because he assumed the process would take too long. This view is shared by several of the managers. They are not necessarily opponents of the proposed temporary solution, but they worry about the construction process. A few managers would mention Torggata as an example where several shops did not make it during the construction process. It seems like they expect a long process, even though the recommended temporary solution can be implemented overnight.

A few of the shopkeepers were concerned that a parking reallocation through a regeneration project might change the character of Markveien too much, and that rents will rise to a level they cannot afford. One manager feared Markveien would become more like Bogstadveien in the light of increasing rent prices, which is a street he was not too fond of. All in all many store managers think Markveien works pretty well how it is today, and they would not risk to lose what they have. However a few shopkeepers would still prefer a parking reallocation because they are confident that this change will increase the shopping activity greatly. Maybe a more fancy-looking street will increase rents a lot, but as long as it brings more people they remain

positive because how it is today will anyway not work in the long run. One of the store managers said that it is better to pay a bit more and having a lot of customers than to pay what they do today without enough customers.

Looking at customer results, many would not respond to this question because they really did not know what to believe, and would not want to be guessing (19%). A majority however believes a parking reallocation will affect retail sales positively (55%), but a substantial share also believes the opposite (16%). 11% believes it will not make a difference to shopping vitality in the street. Iris did not think it would affect businesses because she believed that most customers are locals and because locals mainly walk there. Similarly Fredrik, after some reasoning, ended up saying how it probably would have made Markveien cosier, but at the same time a tad less accessible for some. Gro did not feel to certain, and imagined it could go both ways:

(...) I can imagine it can go both ways, because it gets better to shop for us who are in the area, while it of course gets worse to get here for those who's got a car.

Most interviewed respondents on the other hand, believed that a parking reallocation would affect business turnover positively. Jon was one of them: He was going a bit back and forth before he ended up saying: "I think it would've been... I actually think it would've been better. I actually think more people had just... (...) [M]ore people hanging out, more people visiting, more shopping." Maren, who lives in Markveien, similarly believes a parking reallocation will make Markveien more pleasant, which in turn would benefit business vitality because more people would choose to walk there, rather than in the parallel street, Thorvald Meyers gate. Turid added a related point: "Yes, because then more people would walk here and they actually stop more than those who drive. They who walk, more easily enter [shops] than those who drive past". Kaia argued that liberating space to non-motorised mode users is an important factor for increasing shopping activity, and therefore she sees a parking reallocation as a good solution.

I believe that it will be room for more customers, because there are probably many who do like me, -avoids Markveien on a Saturday because it's too cramped. (...) It's located so centrally (...), I can't understand that somebody actually drives here to shop (...). I think it would've been much better. I believe more people would visit the street because there would be more space.

Kasper also believe a parking removal could benefit businesses, but he emphasised the importance of parallel measures:

I think that if (...) you only remove the parking spaces, -that's not the effect. What they would have to achieve is that it should be a better experience to be here when there are loads of people. (...) [I]f you had made it even better as a street, then you get that Olaf Ryes Plass feeling continued down this whole street, and that could've had a positive effect, and that includes to remove parking spaces.

Similarly Eva believes a parking removal will affect businesses positively only if there will be more trees, outdoor cafés and/or other urban design elements. Pål thinks Markveien could benefit economically by becoming more of a *thing*: “Yes, I believe it would've been even more attractive to come here, because (...) then it becomes a thing, right. At least for a period of time it would've been a thing.” Similarly, Mona, said that developing Markveien and the area around into a more unique concept, could benefit businesses. Mona was not completely sure how a parking removal would affect retail sales, but she proposed ideas for how Markveien could become more unique. She talked about how Markveien could offer something else than Karl Johan. Through developing the area into a green stretch she believed Markveien could become more distinct. When asked whether she believed businesses might be affected in a positive way. Mona confirmed:

Yes, maybe not super positively, but a little. (...) Then they would have something to unite around (...). Then Markveien represents a greener vein, with relaxation for people. It's not cars that shop, -it's people who shop. And humans must thrive. And humans can thrive with some cars, but when it's anyway so hard to park, you get a lot back of walking a few meters, right.

Lily, on the other hand, did not have to think and assess possible outcomes for long. She seemed quite sure that a redesign including parking removal will benefit the businesses, because she knew how this has been the case in other cities:

No, no, no, no, my experience from other countries is that they [shops] usually are benefitted. (...) it's difficult as a driver, because they are like: 'they're closing a street again. Where are we gonna park? It's not convenient'. (...) In the beginning there might be some discussions, but it is always beneficial for the shops, [at least] from my experience, from Mediterranean countries.

## 8.4 Summary

This chapter has investigated whether customers and shopkeepers in Markveien would prefer a different layout of the street, and the assumed impact on business vitality. It is found that 88% of the customers and 74% of the shopkeepers would prefer a different design. Both groups would give priority to pedestrians and cyclists. More than half of shopkeeper and customer samples prefer a pedestrian- and bicycle prioritised street design that includes a parking removal. However, most customers and many of the shopkeepers would prefer this design to be completely car free, as long as logistics, related to deliveries, will be solved. Furthermore, more than half of the customer sample will consider visiting Markveien more often if parking spaces are reallocated to soft mode users. Even though 48% of the shopkeepers and 55% of the customers believe a parking reallocation will affect businesses in Markveien positively, the qualitative material reveals that many of the shopkeepers are worried about the consequences. Some are worried that a parking removal will cause a decrease in customer numbers, while others are however more worried about the construction process following an infrastructural upgrading. This is sometimes the reason why they prefer to keep today's street design. The disadvantage of this process is perceived as greater than the gain of a nicer-looking street. Some are also worried that Markveien, through a physical upgrading, over time will change *too* much. By this they mean undesirable outcomes, such as increasing rent prices that might force shops to shut down or to move. Because of this, some shopkeepers would rather keep Markveien how it is today. However, others are supporting a physical upgrading that benefits soft mode users because shopkeepers hope that increased attractiveness will affect revenues positively. This is perceived as crucial for paying their rent, which is anyway expected to continue rising.

## 9 CONCLUSIONS AND DISCUSSION

This case study has investigated the richness and complexity of mobility by exploring how the presence or absence of on-street parking affects customers' experiences and practices of shopping in Markveien, Oslo. With the current goals to reduce GHG emissions from car traffic as a backdrop, the intention has been to add insight into the significance of on-street parking for shopping street vitality. The study has also explored shopkeepers' perceptions on parking-related issues, which may form local obstacles and opportunities for planning initiatives that restricts car use.

The main objective of this study was to investigate how (1) present configurations, and future scenarios, of on-street parking in shopping street design affect *practices* and *experiences* of shopping and shopping related travel, and (2) to compare this to shopkeepers' assumptions thereof. Primary focus has been on the present day situation. The research objective was investigating through answering research questions targeting (1) customers' travel patterns and (2) customers' money spending by mode, and shopkeepers' assumptions on these patterns; (3) shopkeeper and customer perceptions on suitability for different transport mode users, and (4) perceptions on the need for on-street parking, as well as the impact of the cars' presence on customers' shopping experience; (5) factors involved in customers' evaluation of Markveien's attractiveness and shopkeepers' assumptions on this relationship; and (6) customers' and shopkeepers' preferred street design, and the potential impact on shopping street vitality in Markveien.

The research questions were analysed through a relational approach and by applying analytical concepts from mainly social practice- and place theories. Qualitative interviews, supplemented by quantitative questionnaires were the chosen methods in a mixed methods approach. Both methods were conducted as ethnographic 'go-along' interviews.

The collected data were presented and analysed thematically, connected to the research questions, in four result chapters. In the following, the main results will be presented to address the research objective. Then, this last chapter will discuss the study's contributions, before assessing the societal relevance of the findings. The thesis ends with elaborating on the research limitations and recommendations for future research.

## 9.1 Main findings

In Chapter 5, *Practices of shopping and shopping related travel*, travel patterns and shopping practices was explored. The main findings show that a majority of the customers in Markveien arrive as pedestrians (62%), whilst the second largest group are public transport users (23%). Car drivers constitute the third largest group (9%), but when comparing these findings to customers' normal travel practices throughout the year, cyclists constitute a greater share than car drivers. Furthermore, shopping practices in Markveien are largely local. Most customers live in walking distance and locals will often choose to walk or cycle. There are in this study found statistical relationships between travel mode and place of residence, as well as between travel mode and visiting frequency. These associations suggest that the need for on-street parking is minimal. Shopkeepers' perceptions and estimates on these issues are in line with the actual findings. They slightly overestimated the share of customers travelling from outside Oslo, and underestimated the share of customers who live in walking distance to Markveien. Shopkeepers also underestimated the amount of customers who walk all the way to Markveien, as similarly found in earlier studies (e.g. Sustrans 2006). Results concerning money spending confirm findings from previous empirical research (e.g. TNS Gallup 2005), considering that car drivers spend most money on a trip to Markveien. Nevertheless, when the size of transport mode groups and their respective shopping frequencies are accounted for, pedestrians by far have the greatest impact on the total turnover. Public transport users have the second greatest impact. However, no significant relationship between money spending and travel mode was found. Shopkeepers were right in their assumptions on who contributes the most and second most to total turnover in Markveien.

In Chapter 6, *Shopping street design and its suitability for different transport modes*, shopkeepers and customers were asked how they perceive suitability for different travel mode users. Results on walkability and cycleability show similar patterns between the groups, and are supposedly good. Driveability was perceived as less good, especially by the customers even if they did not drive themselves. Customer responses often revealed a dissonance between the instant impression of suitability, and their subsequent elaborations on their experiences with regard to the functioning of the street. The quantitative results revealed that Markveien is best suited for cyclists. Nevertheless, the cyclists themselves are not overly excited since they

negotiate with pedestrians who walk in the bicycle lane rather than on the cramped sidewalk. Interestingly, those who described the suitability for cyclists in Markveien as good had rarely or never used a bicycle in Markveien themselves. A discrepancy exists between perceived and experienced suitability, in which is related to the prescribed intention for behaviour and actual negotiation of practices in the street (Murdoch 1998). The customers in Markveien repeatedly characterised the street layout to work out in theory, but not in practice. The results demonstrate how suitability is a local, situational and subjective notion that is dependent on one's own perspective, and the familiarity with using different transport modes.

The second section of Chapter 6 investigated how customers and shopkeepers perceive the need for on-street parking in Markveien and how the presence of the cars affects customers' experience of shopping. Shopkeepers generally underestimate the car-driving customers' level of satisfaction with parking accessibility in the area around Markveien. Moreover, the shopkeepers overestimate how important it is for customers to be able to park their cars in Markveien. Furthermore, there are considerable variations in shopkeeper responses and many want the parking spaces removed. Conversely, the opinions of the customers were generally more homogenous, seeing that 96% of the driving customers do not perceive the parking spaces in Markveien to be of any importance for their shopping practices, which empirical studies similarly have found (Vamberg et al. 2015, Teller & Reutterer 2008). It is however important to note that this analysis was limited by the small number of respondents (22). Even though more than half of the total customer sample reported that the traffic in Markveien did not affect their shopping experience, a substantial proportion experienced it as a negative factor. This was often with regard to the unclear structure of the street and the conflicts between the mode users. An often-mentioned aspect of this association was the reported problem of crossing the street. For some customers, Markveien provides a pedestrian street atmosphere where people in principle can move freely. However, the spatial design of Markveien restricts this form of behaviour, and this mismatch can sometimes lead to unintended chaotic situations. Not only does the general lack of space in Markveien create conflicts between soft mode users and car drivers. The current street layout more importantly creates constant negotiations between pedestrians and cyclists, which can sometimes entail dangerous situations.

Chapter 7, *Attractiveness of Markveien*, explored customers' motivations to visit Markveien for shopping purposes, as well as their experiences of Markveien's atmosphere. The most frequently reported motivations for visiting Markveien is the offer of small/niche shops and the atmosphere, which most shopkeepers similarly assume. The third most reported motivation for customers' location choice was distance from home. Distance, whether perceived as the only reason for choosing Markveien, or as one of several reasons, suggests that shopping practices are always coordinated with a range of other practices, such as work and family obligations (Watson 2012). In this way, shopping destination choices are affected by the 'mobility burden' of everyday life (Shove & Walker 2010). Distance was the element that differs the most when comparing shopkeeper assumptions and customer responses in the sense that shopkeepers tend to underestimate the importance of this factor. Another motivation to shop in Markveien that was regularly reported, which shopkeepers' similarly assume, is that Markveien is attractive because it is not a shopping centre, or due to the small proportion of chain stores. Nevertheless, a substantial share of the customers chose Markveien out of a diverse offer of shops and services, including the chain stores. This has previously been found in empirical studies (Teller 2008, Teller & Reutterer 2008) and supports urban policies aiming to develop well-assorted retail environments to attract a diverse range of customers, and to strengthen the competitive position of a city, vis-à-vis outlying shopping centres. Access to parking is never mentioned as a decisive factor in customers' decision-making, either by customers, or more surprisingly, by shopkeepers.

Customers' location choices are related to different elements in regard to the material, competence and meanings (shove, Pantzar & Watson 2012). Distance and the shops and services in Markveien relates to the material elements of a practice. The independent and unique shops were repeated as a highly attractive characteristic of Markveien. Many respondents informed that they could have travelled several places to shop, but that Markveien got something special. A related factor mentioned by many customers was the ability to stroll around in a pleasant environment instead of in a shopping centre, or other places where the chains dominate.

When asked to elaborate on the constitutive elements of the atmosphere, the special shops were mentioned as important. It also became apparent how the material element of the human bodies frequenting the street, is also important for the attractive

atmosphere even though people might not be aware of this. The sense of place or place-ballet (Cresswell 2015) created by people who are doing their practices, as well as the calm and vibrant vibe appears to be of high importance for customers' shopping practices. Additional factors of attractiveness relates to the knowing of Markveien from previous visits or from living there before, and/or a sense of insiderness (Relph 1976, Seamon 1980, cited in Cresswell 2015) or of belonging.

In the last results chapter, *Preferred design and potential effects on shopping*, it was found that customers and shopkeepers in general agree that a change in the street design is wanted, or even needed, and that pedestrians and cyclists should be given priority on the expense of cars. A total of 75% of shopkeepers and 88% of customers would prefer a different layout of the street. More than half of shopkeeper and customer samples prefer a pedestrian- and bicycle prioritised street design that includes a parking removal. However, most customers and many of the shopkeepers would prefer this design to be completely car free, as long as logistics, related to deliveries, will be solved. Furthermore, more than half of the customer sample will consider visiting Markveien more often if parking spaces are reallocated to soft mode users. The qualitative material shows that especially the customers want increased walkability. Research has similarly found that pedestrianised public spaces attract people (Gehl 1980, Gehl & Gemzøe 1996, DOT 2013). Many customers preferred a pedestrian street alternative.

While the literature and the empirical findings presented in this study suggests that a spatial retrofitting of the urban environment, that includes a parking reallocation to other transport modes, will increase shopping street vitality, a higher share of shopkeepers (34%), compared to customers (16%), believe it would have a negative impact. Shopkeepers may oppose planning initiatives restricting car use and it is therefore important to map out actual shopping and spending patterns, and shopkeeper assumptions to inform different stakeholders. While 34% of the shopkeepers are worried that a parking removal will cause a decrease in customer numbers, others are however more worried about the construction process following an infrastructural upgrading. Some are also worried that Markveien, through a physical upgrading, over time will change *too* much. By this they mean undesirable outcomes, such as increasing rent prices that might force shops to shut down or to move. Because of this, some shopkeepers would rather keep Markveien how it is today.

These findings together address the research objective. Present configurations of parking in Markveien are of little value for shopping practices and shopping related travel today. With regard to experiences of shopping, the parking however has a negative impact for a substantial share of customers. Research evidence from this study suggests that a future scenario without on-street parking will affect both experiences and practices of shopping positively. Such implementations will not alone contribute to massive reductions in GHG emissions from car traffic, but vibrant shopping environments can attract customers to the city centre that would normally drive to shopping locations further away.

It turns out that the shopkeepers in Markveien generally know their customers quite well. Comparing the two groups of respondents throughout the analysis it also became apparent that they share many of the same ideas about, and desires for, Markveien. A reason for the similarities in responses between the two groups might be explained by shopkeepers' relatedness to the area with regard to lifestyle factors and/or because they live in the area themselves. The research evidence indicates that it would be advantageous for shopkeepers to support measures aimed at attracting pedestrians and cyclists. Subsequently, the results also show that most shopkeepers do support such measures. It is however important to be aware that different businesses each have their own parking demands, and that those selling furniture might be in greater need of available parking compared to a coffee shop. Also, shops that are more reliant on a regional customer base might be more vulnerable for dramatic infrastructural changes. Losing shops that typically have been in Markveien for many years and contributing to the atmosphere of the street would be unfortunate. However, based on the few customer interviews with car drivers, this group are willing to walk a few minutes from a parking location, if needed, to reach their destination. There is also the potential of recruiting new customers to all shops, if Markveien becomes more of an attraction.

Possible negative outcomes are connected to the process of gentrification. A physical upgrading of the street layout might lead to increased property values and subsequently, increased rents for residents and shops. Frequent visitors might also experience outsidersness (Relph 1976) if a street, over time, attracts a new clientele and a different mood than today. However, a parking reallocation that first of all benefits people of all ages and potentially increases the outdoor activities and social street life

is in itself regarded as a positive measure that is supported by the findings of this study. At the same time this thesis acknowledges that an apparently inviting shopping street in a popular middle-class neighbourhood might not appear inviting to all citizens. Time will tell whether an alternative design comes into place, and how a potential parking reallocation will affect experiences, and practices, of shopping, and the shopping related travel.

Zooming out on a bigger scale, a relevant question to ask is whether a parking reallocation will cause increased car traffic in neighbouring streets, and a pressure on the remaining parking spaces in Grünerløkka. Seeing the low number of car-driving customers, and that shopping practices are mostly local, this is not an expected effect. Even though the regional car-users themselves prefer to clear Markveien of parking, and expressed a wish to continue visiting, they constitute such a small group of the total customer base. At least that is what this research found, acknowledging that the sample is limited and may not be representational of the population.

There have been suggestions, by a few customers and shopkeepers, to replace parking so that driving customers gets an alternative and is not completely excluded. Parking nearby was perceived as more important than in Markveien specifically. For accommodating customers who need to travel by car, a new parking house nearby, or commuter parking at the outskirts may be a solution. Still this depends on the attitude related to a customers' practice, and if he or she is willing to combine transport modes, or to walk a few minutes to a shopping destination.

## **9.2 Theoretical, methodological and empirical contributions**

The contributions of this case study are fivefold. First of all, this study has verified and expanded the existing knowledge base on the relation between on-street parking and shopping practices. Earlier findings from shopping streets in Oslo finds that shopping is mostly local and that pedestrians and public transport users constitute the largest share of customers, and therefore also contributes the most to total turnover (Opinion 2014, TNS Gallup 2005, Vamberg et al. 2014). These findings are supported by this study. By investigating these issues in a new context, and by comparing shopkeepers' estimates and assumptions to customer practices, the empirical findings has expanded the knowledge base on these issues.

Second, the aspect of experiences in association with shopping practices and shopping related travel has been added to the knowledge base. Tennøy et al. (2015) have called for studies that examine how parking affect experiences of shopping, a call this study responds to. Findings include that practices of shopping are always situated and affected by the places in which they are performed.

Third, this study has methodological contributions to the study of shopping practices by the application of mixed methods implemented through ethnographic go-along interviews. This interview technique has proven to be successful for capturing the embedded experience of mobility and to understand how individual's relationships with places affect their practices. Qualitative interviews were the main method applied, and the data was supported and triangulated by quantitative questionnaire data. An example of this is the mapping of what type of street design both shopkeepers and customers prefer. The qualitative elaborations on this topic would not have been as strong with regard to policy relevance without the quantitative data drawing the broader pattern of this finding across a larger sample. The mixed methods approach, and the triangulation of methods and data, has increased the validity of the findings.

Fourth contribution relates to the investigation of both shoppers and shopkeepers within the same study. I believe this comparative design has not been implemented in a Norwegian context before. Findings from other contexts are similarly scarce (De Jong 2012, O'Connor et al. 2011, Sustrans 2003, Sustrans 2006). This approach increases the empirical relevance of the findings by being able to inform the debate to make sure that it is based on empirical evidence rather than supposition. This study did however not uncover any huge discrepancies between shopkeepers' assumptions and customers' practices. The biggest discrepancies were related to an overestimation of how important the parking spaces are believed to be for the few car-driving customers' shopping practices. The shared understandings and general support to replace on-street parking with increased walkability and cycleability, suggests a potential for a change to take place in Markveien. There are however other stakeholders that has a say on this matter.

Lastly, this study contributes to the field of study by both assessing the present-day impact of on-street parking in shopping street design on practices and experiences of shopping, as well as future scenarios, by asking customers and shopkeepers what

design alternative that may enhance the attractiveness of Markveien and how this is believed to affect business vitality.

The findings of this case study suggest that customers' decision-making with regard to shopping destination is not always rational and based on costs and time-issues. Admittedly, seeing that shopping practices in Markveien is mostly local, and that distance is an often-mentioned factor for location choice, customers do often relate to travel distances when planning where to shop. The research evidence in many ways supports the established transport theories suggesting strategies for density, diversity and design (Cervero & Kockelman 1997, Tennøy 2012). The built environment largely affects shopping practices and the related travel, but it cannot fully explain customers' motivation in location choices. This study has provided research evidence of how immaterial aspects of practical knowledge (competence), and associated values and meanings, similarly impact on shopping practices.

This thesis has also found that shopping destination choices are also bound up in past experiences and immaterial relations with regard to sense of place and experiencing of some kind of insideness. Location choices are a result of unique place qualities, routinized practices and customer attitudes. It is important to note that customers may select themselves into a specific shopping place because of immaterial- rather than material elements, even though these are closely related. The variety of factors affecting how shoppers undertake shopping related travel needs qualitative and interpretative research approaches rather than rationalist models of travel behaviour.

### **9.3 Societal relevance of the findings**

How do these findings relate to the rest of Oslo and the vitality of the inner city when parking spaces may be removed? Whether a parking reallocation will create the intended effects depend above all on how people collectively respond to it. How people respond to it, is influenced by a range of factors that include people's relation to the specific place and cultural factors. The effects of such measures will depend on individuals existing routines, by the location, by actual and potential mobility and by related practices (Shove & Walker 2010). People's practices can never be fully predicted and plans are often transformed by the stubborn repetition of practice (Cresswell 2015). No places are the same and therefore to copy a concept from one place to another without taking contextual considerations, might not work out. Even

though customers emphasised similar factors of attractiveness compared to earlier studies, such as atmosphere and a well-assorted retail supply (e.g. Teller 2008), this does not mean that a replica of Markveien would provide the same customer activity and in a different location. What people perceive as an attractive public space, or shopping area, differs from person to person and between social groups. For a parking reallocation to succeed in a dense neighbourhood, such as the inner city of Oslo, it is believed that (1) the selection of shops and services should accommodate the needs and wishes of the local customer base; (2) that there exists an already established, or a potential for, cultures of walking or biking; and (3) that established customers already experience a positive sense of place through their practices that keeps them returning. If these factors are prevalent, shopping related travel practices may be prone to adjust to the changed structural constraints. Findings from Oslo (Vamberg et al. 2014) provide indications that parking reallocations to soft modes, in the more dense and diverse streets, should increase the vitality of the area. Today, people do not miss how cars dominated Strøget in Copenhagen or Torggata and Karl Johan in Oslo. The suggested projections are also related to supportive cultural tendencies both nationally and internationally. Examples are how cities worldwide apply strategies to develop people-friendly and walkable neighbourhoods to boost attractiveness and associated economic activity. Related to this, several Norwegian newspapers have given increased attention to urban cycling and car-free environments. There are also the political ambitions for Oslo and other cities to become more walkable and cycleable. With regard to these trends, the timing might be right to successfully realise car-free environments at a greater scale in the Norwegian capital. However, for public spaces to be experienced as inclusive for all people, changes should be made in a context-sensitive way and include residents, visitors, property owners and shopkeepers in the processes and practices of planning.

## **9.4 Research limitations and recommendations for future research**

Within the scope of a master thesis it is difficult to address all relevant aspects connected to the chosen topic. There are some methodological and theoretical shortcomings to this research, as well as associated issues that deserve further

investigations. In this final section these issues will be addressed and future research will be recommended.

First and foremost, the shopkeepers role has been limited in this study and should be explored further in future research. Furthermore, important aspect of city centre development with regard to the competitive role of cities in attracting citizens, shoppers and businesses to the centre, has been left out in this study, as well as possible social implications of development projects in the inner city, both locally and regionally. Other limitations relate to the unexplored, but connected and intersecting practices, such as commuting practices. Future studies could add structured observational data, including counts of people passing through the street and of the actual shoppers. Longitudinal studies are recommended to assess the actual impact of parking reallocations, or other infrastructural changes, on urban life and shopping activity. It would be relevant to include the perspective of the residents in the neighbourhood and property owners. It would also be interesting to do a comparative study of customers in a shopping street/area in a city centre and in a shopping centre, located at the outskirts of the city, and to investigate their motivations for location choice and experience of the shopping environment. This could be very relevant in light of the current situation of growth in shopping centre's shares of sales in a city or a region. Lastly, mixed-method studies are recommended to explore and compare experiences and practices of shopping in various cultural contexts as well as in different geographical contexts, and especially in less dense locations.

Methodological insights from this study suggest the application of mobile methods to investigate travel in relation to other social practices, such as commuting. Examples of this can be to conduct ride-along interviews by bicycle or by car.

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All sources used in this thesis have been provided.

## Appendix A: List of informants

<b>Fictional name</b>	<b>Travel mode</b>	<b>Date of interview</b>
Anders	Walking	09.12.2015
Kamilla	Bicycle	10.12.2015
Cathrine	Public transportation	10.12.2015
Lisa	Walking	10.12.2015
Morten	Car	10.12.2015
Anita	Walking	10.12.2015
Mona (and Julie)	Car	12.12.2015
Jon	Walking	12.12.2015
Lily	Walking	13.12.2015
Kasper	Public transportation	14.12.2015
Fredrik	Car	14.12.2015
Maren	Walking	14.12.2015
Kaia	Walking	15.12.2015
Eva	Walking	15.12.2015
Kristin	Walking	15.12.2015
Pål	Walking	15.12.2015
Gro	Walking	15.12.2015
Anne	Car	16.12.2015
Turid	Public transportation	16.12.2015
Iris	Walking	16.12.2015
Mie	Walking	16.12.2015
Tiril	Walking	16.12.2015
Thea	Bicycle	16.12.2015
Aud	Walking	18.12.2015
Nora	Walking	20.12.2015

# Appendix B: Customer questionnaire/interview guide

## Spørreundersøkelse med kunder i Markveien

### Reisevaner

#### 1. Hvor var du før du kom til Markveien i dag?

- Hjemme
- Jobb/skole/universitet o.l.
- Handlet annet sted
- Annet sted

Annet

#### 2. Hvor lang tid brukte du til Markveien i dag?

- 0-5 minutter
- 6-10 minutter
- 11-15 minutter
- 16-20 minutter
- 21-30 minutter
- 31-45 minutter
- 46-60 minutter
- 1-2 timer
- Mer enn to timer

#### 3. Hvor skal du etter du er ferdig i Markveien?

- Hjem
- Jobb/skole/universitet o.l.
- Handle annet sted
- Annet sted

Annet

#### 4. Hvordan reiste du hit til Markveien i dag?

- Kjørt bil
- Offentlig transport
- Sykklet
- Spaserte

**5. Reiser du vanligvis på denne måten hvis du skal til Markveien?**

- Ja
- Nei
- Første gang i Markveien

Hvis nei..

**6. Hvordan reiser du vanligvis når du skal til Markveien?**

- Bil
- Offentlig transport
- Sykkel
- Går

Transportmiddel: Bil

**7. Kjørte du selv, eller var du passasjer?**

- Sjåfør
- Passasjer

**8. Hvor mange minutter brukte du på å finne parkeringsplass?**

- 0-2 min
- 3-5 min
- 6-10 min
- Lenger enn 10 min

**9. Omtrent hvor mange minutter unna her står bilen parkert?**

- Bilen står parkert i Markveien
- 0-2 min
- 3-5 min
- 6-10 min
- Mer enn 10 min

**10. Omtrent hvor mange minutter er du villig til å gå fra bilen og dit du skal handle?**

- 0-2 min
- 3-5 min
- 6-10 min
- Mer enn 10 min
- Det kommer an på hva jeg skal handle

**11. Hvor fornøyd eller misfornøyd er du med parkeringstilgjengeligheten for bil i nærområdet?**

- Veldig fornøyd
- Ganske fornøyd
- Verken fornøyd eller misfornøyd
- Ganske misfornøyd
- Veldig misfornøyd
- Usikker

## Bilbruk

**12. Bruker du noen gang bil når du skal benytte tjenester i Markveien?**

- Ja, hver uke
- Ja, hver måned
- Ja, i løpet av et år
- Nei, aldri
- Nei, det er første gang jeg handler her
- Usikker

Hvis svaret er nei, gå til neste side

**13. Omtrent hvor mange minutter er du villig til å gå fra bilen og til der du skal handle?**

- 0-2 min
- 3-5 min
- 6-10 min
- Mer enn 10 min

**14. Er muligheten for å parkere bilen i selve Markveien for å benytte tjenester her viktig for din handlepraksis? Hvis ja, hvor viktig?**

- Ja, veldig viktig
- Ja, ganske viktig
- Nei, det er ikke viktig
- Usikker

### Aktiviteter og pengebruk

**15. Hvor ofte benytter du tjenestetilbudet i Markveien?**

- Hver dag
- 1-3 ganger i uken
- 1-3 ganger i måneden
- 1-3 ganger i året
- Aldri. Dette er første gang.

**16. Hvilken eller hvilke aktiviteter gjør at du er i Markveien i dag?**

- Planlagt handel
- Spontan handel
- Kafé eller restaurant
- Andre tjenester
- Møte bekjente

Annet

**17. Hvor mange butikker eller serveringssteder har du eller kommer du til å besøke totalt i dag?**

- 1
- 2-3
- 4-5
- Mer enn fem
- Usikker

**18. Omtrent hvor mye har du, eller kommer du til å handle for i Markveien i dag, i kronebeløp?**

- 1-250 kr
- 251-500 kr
- 501-1000 kr
- 1001-2000 kr
- Mer enn 2000 kr
- Usikker

### Gatemiljø

**19. Hva er det ved Markveien som gjorde at du valgte å komme hit?**

- Avstand. Bor i nærheten.
- Avstand. Var i nærheten
- Det sammensatte utvalget av butikker og tjenester
- Spisesteder/kaféer
- At det ikke er et kjøpesenter/ ikke er kjedebutikker
- Treffe bekjente
- Atmosfæren
- Nisjebutikker

Annet

**20. Hvor attraktiv eller lite attraktiv vil du si at Markveien er for handel?**

- Veldig attraktiv
- Ganske attraktiv
- Verken attraktiv eller uattraktiv
- Lite attraktiv
- Ikke attraktiv i det hele tatt
- Usikker

**21. Hvordan opplever du atmosfæren i Markveien?**

- Veldig god
- Ganske god
- Verken god eller dårlig
- Ganske dårlig
- Veldig dårlig
- Usikker

**22. Hvor godt eller dårlig tilrettelagt synes du Markveien er for..**

	Veldig godt	Ganske godt	Hverken godt eller dårlig	Ganske dårlig	Veldig dårlig	Usikker
Fotgjengere	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Syklister	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bilister	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**23. Påvirker bilene i Markveien handleopplevelsen din? Hvis ja; på en positiv eller negativ måte?**

- Ja, veldig positivt
- Ja, litt positivt
- Ja, litt negativt
- Ja, veldig negativt
- Nei, de påvirker ikke handleopplevelsen
- Usikker

**Eventuell fjerning av gateparkering for bil**

**24. Dersom gaterommet i Markveien får ny bruk, hvilke trafikanter ville du prioritert?**

- Gående
- Syklister
- Bilister
- Alle. Fungerer bra sånn det er i dag.
- Usikker

Annet

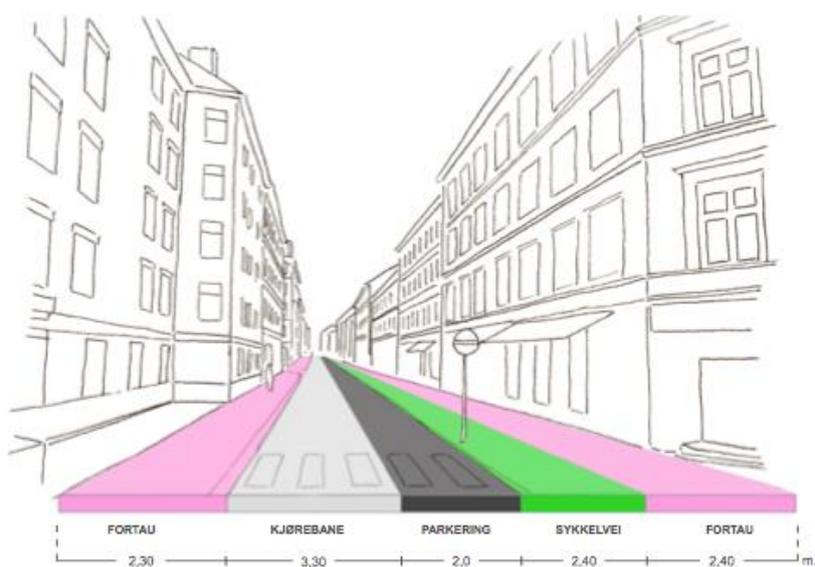
**25. Dersom parkeringsplassene her i Markveien ble fjernet, og myke trafikanter fikk den frigjorte plassen, ville det gjort Markveien mer eller mindre attraktiv som handlegate for deg?**

- Mye mer attraktiv
- Litt mer attraktiv
- Hverken mer eller mindre attraktiv
- Litt mindre attraktiv
- Mye mindre attraktiv
- Usikker

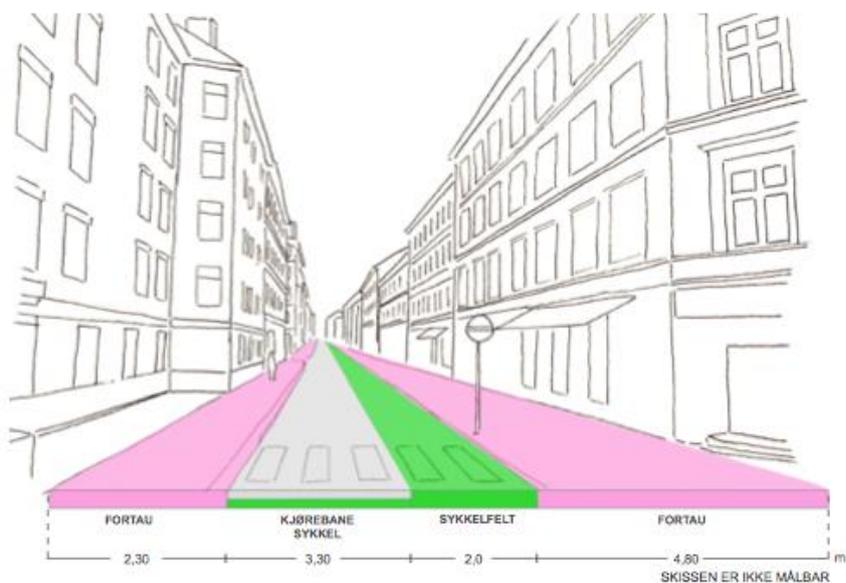
26. Tror du en eventuell fjerning av parkeringsplassene ville påvirket næringslivet? Hvis ja, på positivt eller negativt vis?

- Ja, veldig positivt
- Ja, litt positivt
- Ja, litt negativt
- Ja, veldig negativt
- Nei
- Usikker

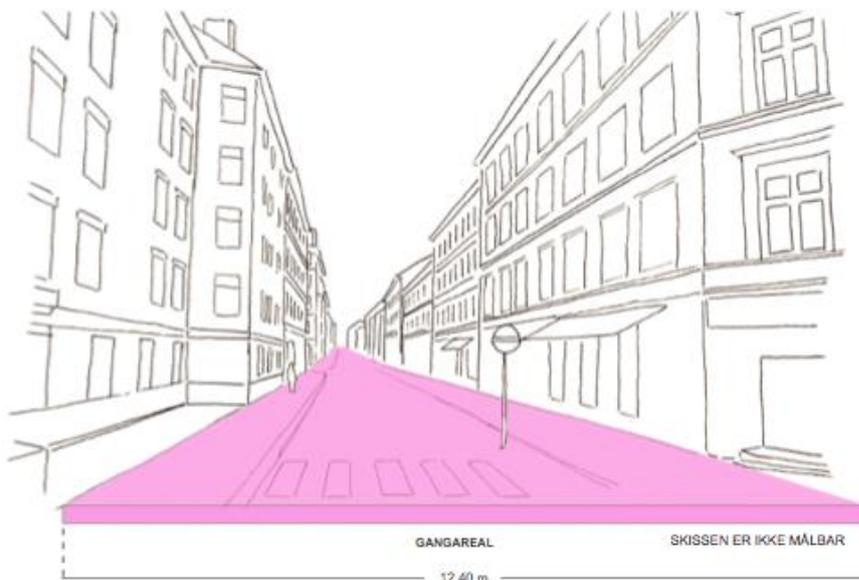
### Alternativ 1 - Dagens situasjon



### Alternativ 2 - Gang- og sykkelprioritert gate



### Alternativ 3 - Gågate



27. Hvilken bruk av gaterommet ville gjort Markveien mest attraktiv for deg som kunde?

- Dagens løsning
- Gang- og sykkelprioritert gate
- Gågate

Annet (vennligst spesifiser)

### Bakgrunnsinformasjon

28. Kjønn

- Mann
- Kvinne

29. Alder

- 15-29
- 30-44
- 45-59
- 60 eller eldre

### 30. Høyeste fullførte utdanning

- Grunnskolen
- Videregående skole
- Høyere utdanning
- Har ikke fullført noen skolegang

### 31. Yrkesstatus

- Fulltidsansatt
- Deltidsansatt
- Frilanser
- Arbeidsledig
- Studerer
- Pensjonert
- Hjemmeværende forelder

Annet

### 32. Bosted

- Grünerløkka (som område, ikke som bydel)
- Nærliggende områder i gangavstand
- Ellers i Oslo innenfor Ring 3
- Oslo utenfor Ring 3
- Akershus
- Andre steder

# Appendix C: Shopkeeper questionnaire/interview guide

## Kundenes reisevaner

Med Markveien menes handlegaten fra Sofienberggata og ned til Ankerbrua. Ved spørsmål der svarene vil avhenge av årstid vennligst svar for vinterstid.

Skriv inn tall eller kommentarer i svarboksene.

### 1. Omtrent hvor store prosentandeler av kundene deres tror du kommer fra..

Grünerløkka og andre steder i gangavstand	<input type="text"/>
Ellers i Oslo	<input type="text"/>
Utenfor Oslo	<input type="text"/>

### 2. Omtrent hvor store prosentandeler av kundene deres tror du ankommer..

Til fots	<input type="text"/>
Med sykkel	<input type="text"/>
Med offentlig transport	<input type="text"/>
Med bil	<input type="text"/>

### 3. Hvor fornøyd eller misfornøyd tror du de bilkjørende kundene er med parkeringstilgjengeligheten i området?

- Veldig fornøyd
- Ganske fornøyd
- Verken fornøyd eller misfornøyd
- Ganske misfornøyd
- Veldig misfornøyd
- Usikker

## Bilbruk og parkering

4. Hvor mange minutter tror du bilkundene i snitt bruker på å finne parkering?

5. Hvor mange minutter unna Markveien tror du i snitt kundenes biler står parkert?

6. Hvor mange minutter tror du bilførerne i snitt er villig til å gå fra parkeringen og der de skal handle i Markveien (før de velger å handle et annet sted)?

7. Tror du muligheten til å parkere bilen i selve Markveien er viktig for bilkjørende kunders handlepraksis? Hvis ja, hvor viktig?

- Ja, veldig viktig
- Ja, ganske viktig
- Nei, det er ikke viktig
- Usikker

Other (please specify)

8. Hvor viktig er kundenes mulighet til å parkere i selve Markveien for din bedrift?

- Helt avgjørende for at det skal gå rundt
- Veldig viktig
- Litt viktig
- Ikke spesielt viktig
- Uviktig. Vil helst ikke ha gateparkering i Markveien

## Handleaktivitet og pengebruk

9. Omtrent hvor stor prosentandel av alle kunder til Markveien tror du handler..

Hver uke

Hver måned

I løpet av et år

**10. Ranger trafikantgruppene etter hvem du tror legger igjen mest penger per tur til din bedrift**

⋮	<input type="text" value="Gående"/>
⋮	<input type="text" value="Syklister"/>
⋮	<input type="text" value="De som reiser kollektivt"/>
⋮	<input type="text" value="Billister"/>

**11. Ranger trafikantgruppene etter hvem du tror i størst grad bidrar til den totale omsetningen for Markveien**

⋮	<input type="text" value="Gående"/>
⋮	<input type="text" value="Syklister"/>
⋮	<input type="text" value="De som reiser med offentlig transport"/>
⋮	<input type="text" value="Billister"/>

**Gatemiljø**

**12. Hvilke faktorer tror du er viktige i kundenes valg om å komme til Markveien? Velg gjerne flere faktorer og kommenter ytterligere i feltet under.**

- Avstand. At de bor i nærheten
- Avstand. At de jobber eller tilfeldig var i nærheten
- Det totale tilbudet av butikker og andre tjenester
- Spisesteder/kafeer
- At det ikke er kjøpesenter/ ikke for mye kjedebutikker
- Treffe bekjente
- Atmosfæren
- Nisjebutikker/småbutikker

Other (please specify)

**13. Hvor godt eller dårlig tilrettelagt synes du som næringsdrivende Markveien er for..**

	Veldig dårlig	Ganske dårlig	Hverken godt eller dårlig	Ganske godt	Veldig godt	Vet ikke
Fotgjengere	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify)	<input type="text"/>					
Syklister	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify)	<input type="text"/>					
Bilister	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify)	<input type="text"/>					

**14. Hvor stor prosentandel av Markveiens kunder tror du opplever parkerte og kjørende biler i gata enten som..**

Positivt for deres handleopplevelse

Negativt for deres handleopplevelse

De påvirker ikke handleopplevelsen

**Alternative løsninger for Markveien**

**15. Dersom gaterommet i Markveien får ny bruk, hvilke trafikantgrupper ville du prioritert? Klikk gjerne av flere bokser.**

- Gående
- Syklende
- Bilister
- Alle. Fungerer bra sånn det er i dag
- Usikker

Other (please specify)

**16. Tror du et flertall av kundene ønsker en ny bruk av gata, eller tror du de fleste er fornøyd med dagens løsning?**

- De fleste ønsker ny bruk
- De fleste er fornøyd med dagens løsning

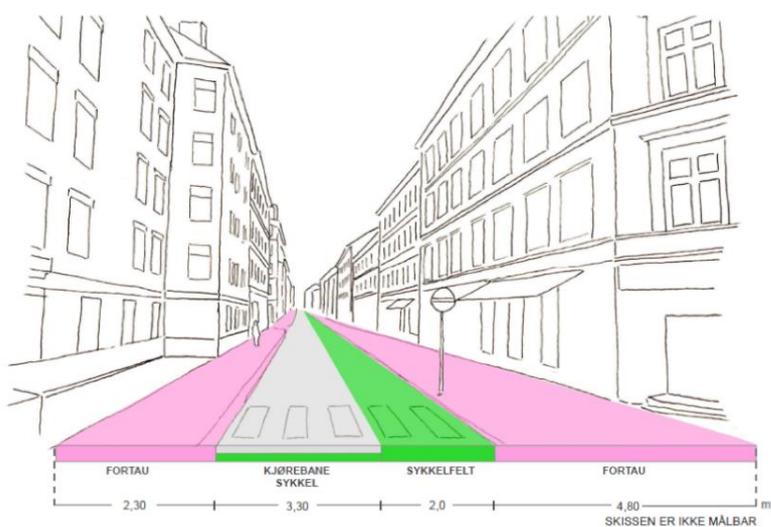
17. Tror du en eventuell omdisponering av areal fra parkering til mye trafikanter ville påvirker næringslivet i Markveien? Hvis ja, på positivt eller negativt vis?

- Ja, veldig positivt
- Ja, litt positivt
- Ja, litt negativt
- Ja, veldig negativt
- Nei, det ville ikke påvirket næringslivet
- Usikker

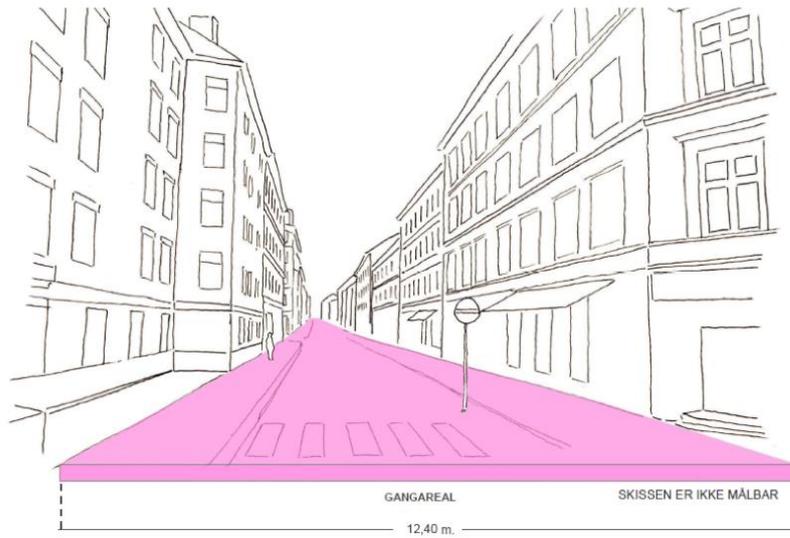
Alternativ 1 - Dagens situasjon



Alternativ 2 - Gang- og sykkelprioritert gate



Alternativ 3 - Gågate



**18. Hvor stor prosentandel av Markveiens kunder tror du ville foretrukket..**

Dagens løsning	<input type="text"/>
Gang- og sykkelprioritert gate	<input type="text"/>
Gågate	<input type="text"/>

**19. Hvilken bruk av gaterommet ville gjort Markveien mest attraktiv i dine øyne, som næringsdrivende**

- Dagens løsning
- Gang- og sykkelprioritert gate
- Gågate

Other (please specify)

**Kunder og demografi**

**20. Omtrent hvor mange prosent av Markveiens kunder tror du er kvinner og hvor mange er menn?**

Kvinner	<input type="text"/>
Menn	<input type="text"/>

**21. Omtrent hvor mange prosent av Markveiens kunder tror du er i aldersgruppen..**

15-29 år	<input type="text"/>
30-44 år	<input type="text"/>
45 år eller eldre	<input type="text"/>