

Commerce and Bicycles



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By Mobility Consultant Thomas Krag

www.thomaskrag.com

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Commerce and Bicycles

Introduction

There is often a conflict of interest between shoppers' wishes regarding parking and the actual plans to calm traffic in the city, i.e. the efforts to promote bicycle traffic. In addition many retailers are of the opinion, that cyclists are not good customers. There are a good number of studies available regarding shopping and traffic behaviour, and attitudes towards the two, that can help bring some perspective into this discussion.

This paper will deal with:

- general trends in shop and retail development
- current knowledge of relation between transport and shopping patterns
- views and facts regarding types of customers and access to car parking
- perspectives in planning

This field of research has undergone monumental changes over the years, and this needs to be clarified first of all.

General tendencies in retail

During the past 50 years there has been a great increase in income as well as in consumption in the Western World. Within this growth, the sector which has seen the largest expansion in expenditures is industrial manufactured goods, in other words: the non-food sector. As a result of this we now have so much money available, that we increasingly spend our money on more or less luxurious and not strictly necessary items such as designer furniture and clothes, flat screens and hi-fi equipment, sports gear, bikes for recreational use etc.

There has been a drastic change both in the type of shop and the accessibility, and our shopping behaviour has also undergone great changes. As a result of this, the number of grocery stores has declined by 60% over a 30 year period. Instead we now have fewer and larger shops, supermarkets and department stores. In addition we have seen the introduction of the shopping mall with a great deal of specialized retail shops both within the city and in the suburbs. You can drink your coffee, eat your dinner and go to the movies - the mall has become an attraction in itself.

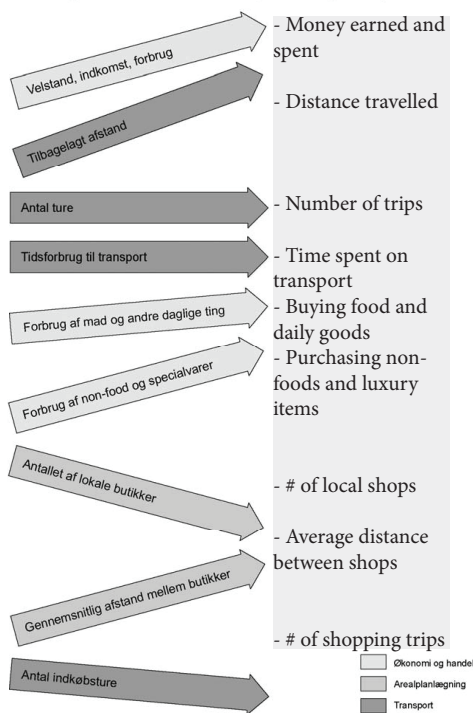
Correlation between means of transport and shopping behaviour

The decreased number of shops and their relatively scarce availability has meant that the shopping trip/time spent shopping has increased. Obviously you will have to travel farther to do your shopping when there are fewer shops available in your local area. This development is closely linked with an increased use of the car for grocery shopping.

Especially the shopping malls on the outskirts of town are built around the idea that people come in their cars to shop.

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Development tendencies for economy, shopping & transport



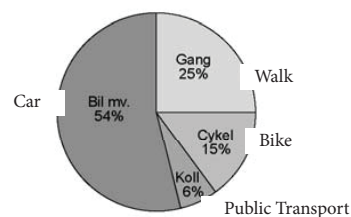
In line with this, there is a tendency that many people buy larger amounts of daily goods in the supermarkets and shopping centres, and that they limit their shopping trips to one to two times a week.

These tendencies in development are shown at left.

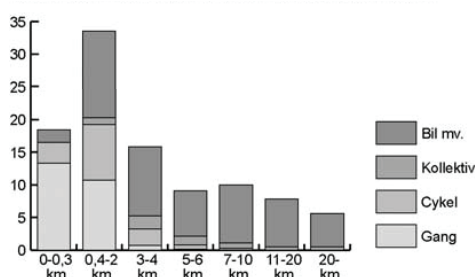
Many people consider the car the only realistic vehicle for shopping. With regards to the non-food market, a great deal of goods are too large to fit into a private car, whereas the small size of other items make the car superfluous. However, the distance between the private residence and the shopping often advocates the use of a car.

According to Danmarks Statistik, cars are used in a little more than 50 % of shopping trips. Second place, a little surprisingly, goes to walking to and from the shop. Bikes are also used, whereas public transportation only plays a minor role. Not surprisingly riding the bicycle and walking plays a significant part in the shopping trips done in the local area. However, already at distances of more than two kilometres cars take first place in the statistics. (1)

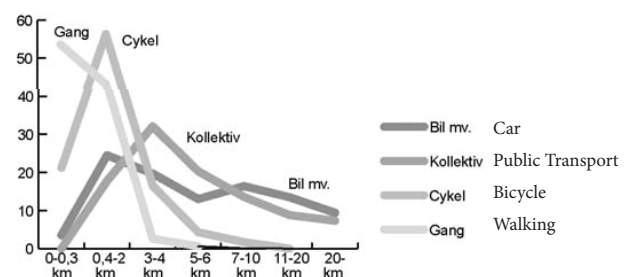
Transport forms and trip lengths for shopping trips



% of all shopping trips contra length of trip



% of each transport form contra length of trip



Kilde: TU, Danmarks Statistik (TU), 2000

Surveys show that the opening of a new shopping center or mall affects the total car traffic. What plays a role here, however, is whether the centre/mall is built outside or within the city perimeter, and whether it is the first of its kind within a certain radius or it simply replaces a similar centre/mall placed further away from the area in the survey. In the last instance what is observed is a decline in kilometres travelled by car. If a new shopping venue is well-connected to the public transportation system, a certain share of shoppers will use this opportunity when they come from farther away. (2)

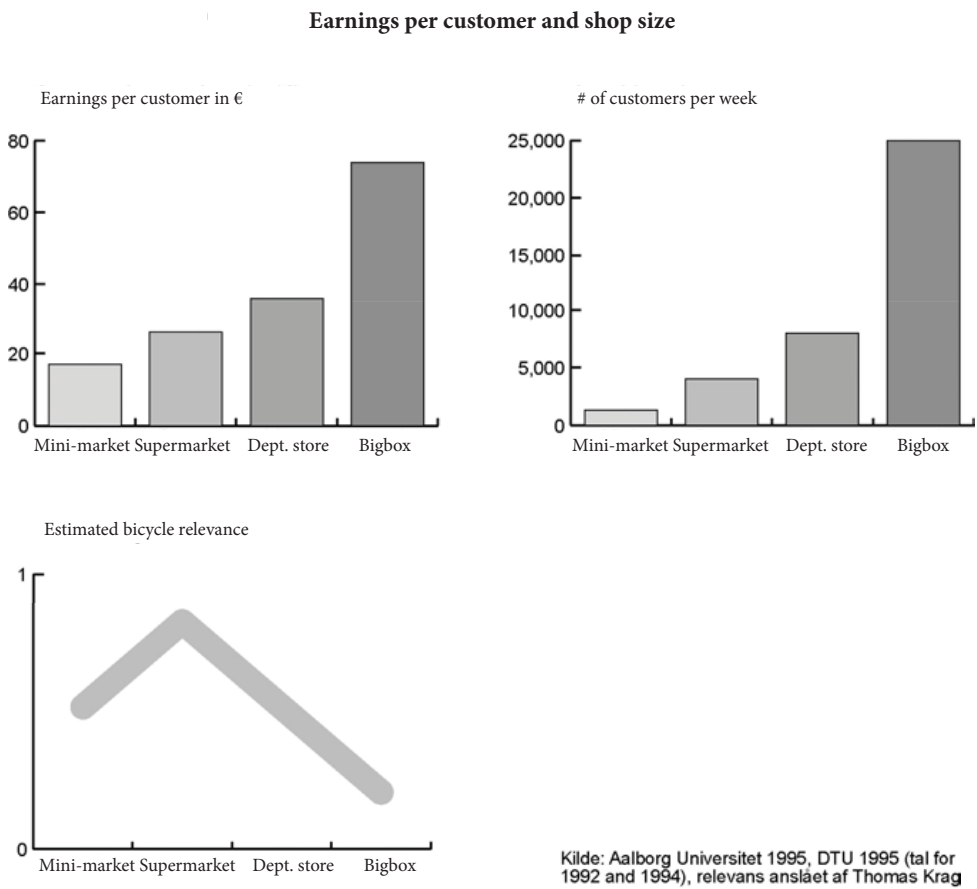
Other surveys show a clear connection between the size of the shopping venue and the distance and money shoppers are willing to spend per shopping trip. On the other hand shoppers tend to visit this type of shopping venue on a more rare basis.

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Several theoretical studies have been carried out to show the potential effects of Internet trade on logistics. Private retail over the Internet, however, is still marginal. *(Ed. This is a 2002 paper. Trends have changed drastically in Denmark and internet trade has increased)*

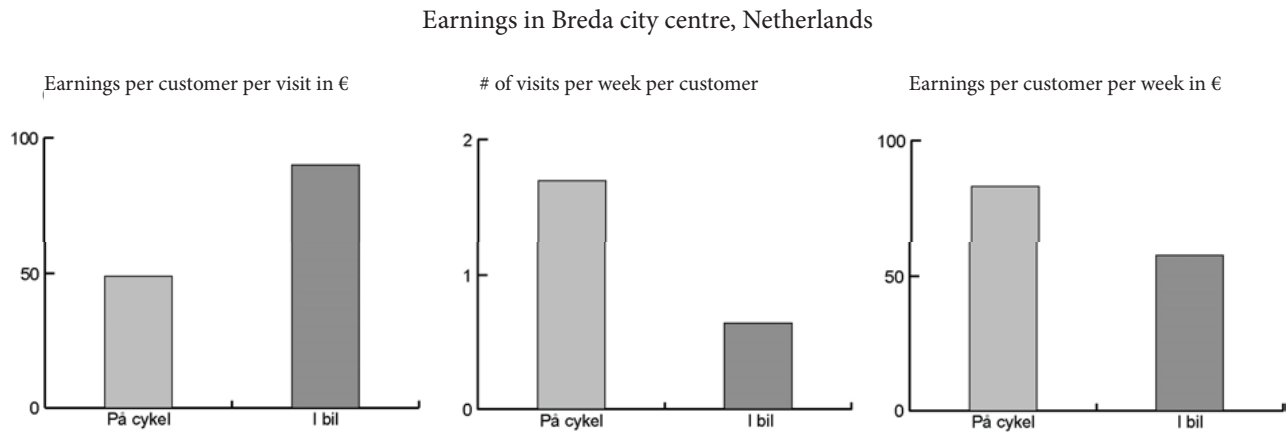
When discussing the role of the bicycle it is important to distinguish between the different types business – grocery og retail – and their location. Even if grocery stores and supermarkets have increased in size, there are still many scattered all over the city landscape. It is fair to ask how the bicycle fits into this.

If we focus on cities, the bicycle has an important part to play where the catchment area even for medium-sized supermarkets is limited. A customer base of 2000-5000, (where the same person can be counted on to shop for groceries several times a week), must be seen in relation to a population density of 5000 people/km2. As a matter of fact, customers by bicycle are not a targeted segment in areas where the shoppers may well walk to the shops.



Gross expenditures by cycling shoppers

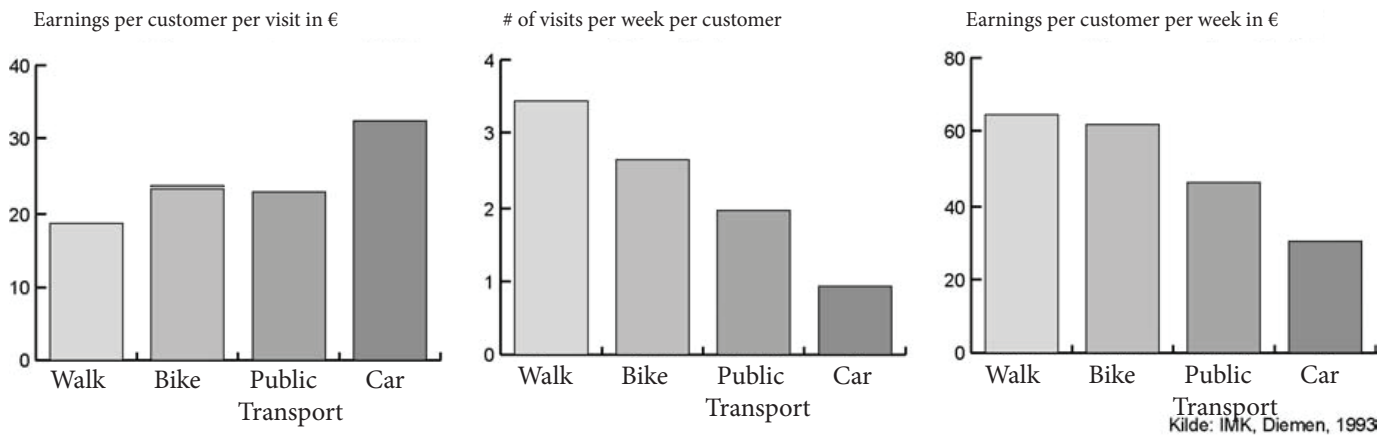
A number of studies have undertaken to document how much money each of the groups of shoppers actually spend in the shops. Most research point towards cyclists to spend less than the average customer.



Kilde: Bart Christiaens, SOAB og NHTV, ved Velomondial 2000

A more recent study shows, however, that whereas the cyclist spends less money than car driver when he goes shopping, he in fact shops so much more frequently, that the cyclist still spends more money on a weekly basis than the car driver. (3) These findings are corroborated by a different study that focuses on city centres in The Netherlands. (4)

Earnings in Utrecht, Netherlands



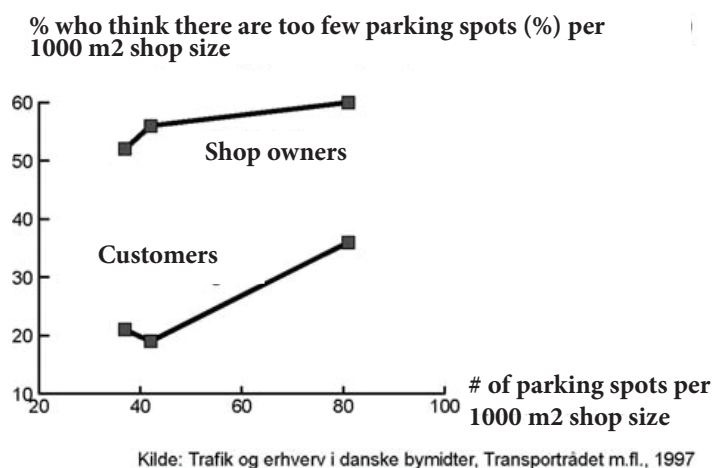
As a result, one can not claim that bicyclists are unattractive customers. On the contrary, those who primarily use the bicycle for transportation seem more loyal towards their local grocer since on a weekly basis, they spend more money there than the customer arriving by car.

An exception from this is the specialised shops that have a greater catchment area than most grocery shops.

Perception of customers and parking

Shoppers who arrive by car are typically considered to be a better customer by the shop owners than pedestrians, cyclists or people using public transportation. As a result of this perception, access to parking spaces is considered a key factor in the gross turnover. A Danish survey paradoxically shows that the need for ample parking is considered to be of greatest importance by the store that already has the highest parking space/customer ratio. This tendency is supported by the customers who are less dissatisfied than the shop owners, however.(5)

Perceptions about car parking in 3 Danish cities

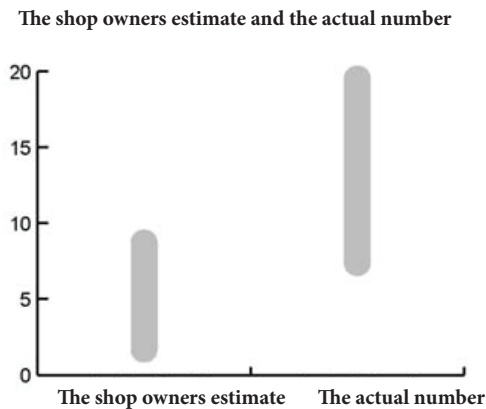


A number of surveys document that shop owners generally underestimate the value of other means of transportation, i.e. walk, bicycle and public transportation. This both goes for that part of their customers who use these means of transportation and for their contribution to the overall turnover.

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Specifically, a study in Germany clearly shows that the contribution of cyclists to the overall turnover of the shop is underestimated. (6)

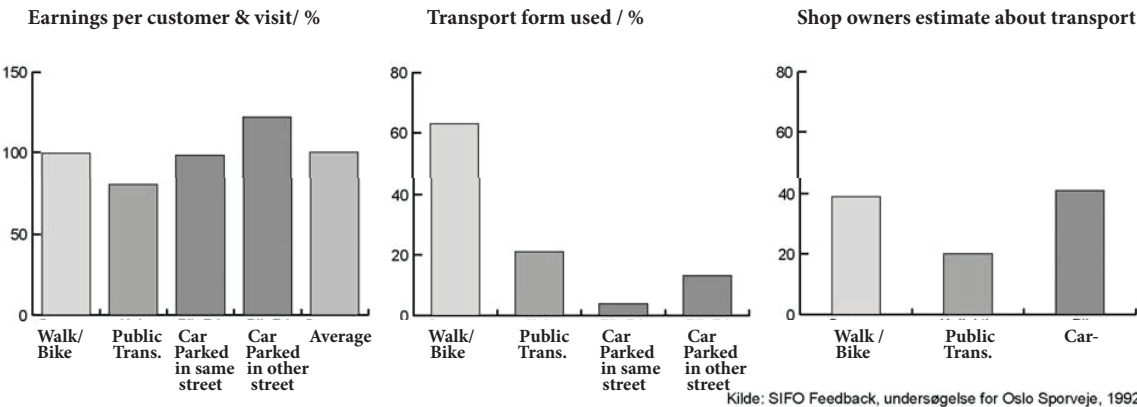
Estimated % of customers on bicycle in Cologne, Germany



Kilde: Wolfgang Kienle, ved Velo-city Basel, 1995

Along the same lines, a Norwegian survey shows that the contribution of customers who come by foot or by bicycle is underestimated by 1/3, whereas the shop owners estimate the number of customers arriving by car to be twice as high than is actually the case. What this study also shows is that the variations in expenditures by each customers are almost insignificant, and that pedestrians and cyclists do not spend below average. Apparently it is an advantage for the business that customers don't park in close vicinity to the shop.(7) This could reflect that people don't mind a bit of difficulty in order to do their shopping in a certain place.

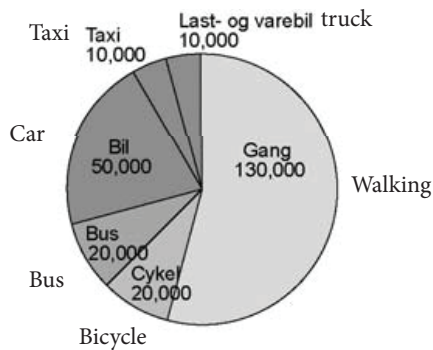
Trade in centrally located streets in Oslo



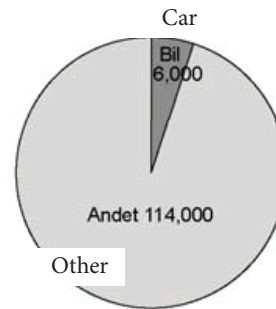
In the city centre, there is always a shortage of parking spaces in comparison with the shopping malls placed outside the city perimeter. This limits the usability of the car in the sense that the car can not be used for parking right next to the desired shop. As an example, a study of shopping patterns in the centre of Copenhagen shows that only 5% of all shopping is done by car. (8) Despite the limitations in access and parking for car drivers, most metropolitan areas are bustling, commercial centres. There is even evidence to prove that traffic calming projects, including improved bicycle infrastructure, can improve the turnover in a given area. (9)

Accessibility in Copenhagen's city centre

Transport form for 240,000 visitors



Transport form for 120,000 customers



Kilde: Københavns Kommune: "Bilen ud af byen", 1987

Perspectives in planning

Transport and urban planning is a highly politicized matter.

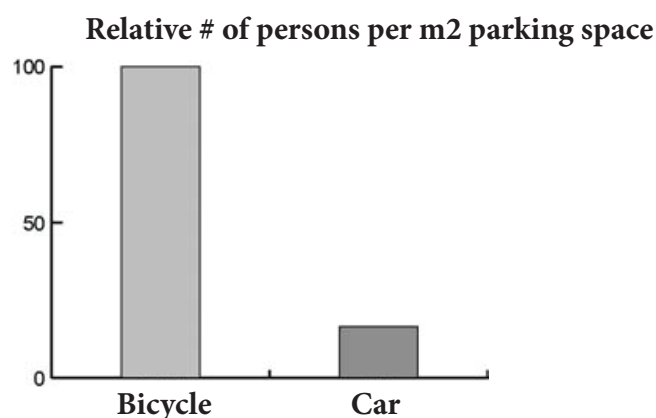
Most citizens have wishes and agendas that are impossible to fulfil for society as a whole. Most people will prioritize the use of the car for all purposes, whereas a lot fewer wish to wait in line on the road.

Despite concerted efforts no one has succeeded in demonstrating the qualities that lie in the combination of a densely populated city centre and unlimited access for cars. Therefore, it is necessary to weigh the pros and cons of different perspectives against each other, and over the years there has been an increased understanding of the need to limit the use of cars in the city centre in order to maintain the attraction of the city for the greater part of the public.

A lot of factors speak for public transportation is the obvious alternative to the private car not least because it will be the most efficient way to use the space available. This is a quite costly affair, however, that – unless it is paired with strict limitations of car use – will only have limited effect on the extent of car traffic.

As an alternative to the public transportation, the bicycle has considerable potential for space-saving. This is shown, for instance, in a comparison between the space needed for car and bicycle parking respectively. In addition, the bicycle has a number of the same advantages as the car both when considering that cyclists are not dependent on public transportation time tables and the time spent on going from A to B in an area with heavy traffic.

Exploitation of Parking Space



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Some shop owners have pointed to the fact that they depend on customers who come from far away by car. This is true of specialized stores (not particularly for grocery stores), who compete for the customers with the shopping malls placed outside the city perimeter and who have ample means of parking.

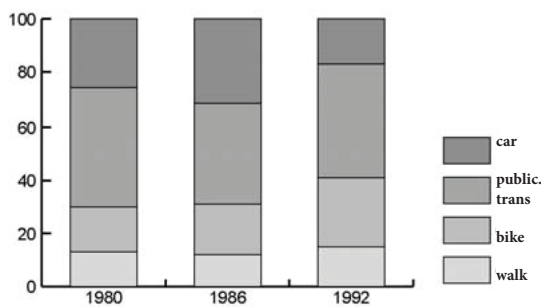
This criticism can be countered by creating conditions that make it if not attractive then at least possible for shoppers to enter the city centre by car. The parking fees in Copenhagen are an example of this. Whereas the relatively high price prevents commuters from parking the car all day, it will not deter regular shoppers from taking the car to the city centre, where the parking fee will only amount to a fraction of the overall costs of the shopping done.

A balanced approach to the subject is required, though. If entering the city by car is made too easy, you will risk both traffic congestion and the loss of the city's quality as a desirable place to be and hence as a venue for shopping.

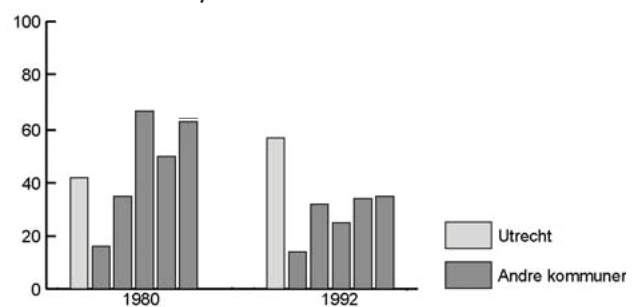
In Utrecht in the Netherlands the city has specifically targeted the wishes and needs of bicyclists and users of public transportation in order to make the city even more attractive for these segments.

Development in Utrecht city centre, Netherlands

% of shopping trips, transport form & year



% of customers shopping in Utrecht city centre & place of residence & year



Kilde: E.E. van Kesteren et al, Verkeerskunde 9, 1995

In the course of a relatively short period of time, changes primarily in the planning of the infrastructure have led to a reduction of car usage amongst shoppers. During this transition the share of public transportation stayed the same, whereas the use of the bicycle and to a lesser degree pedestrians have overtaken the use of the car. That Utrecht has become less accessible by car reflects that the share of customers coming from within the city perimeter has risen, while fewer people come from the surrounding municipalities.

This example illustrates that you can not have everything. In Utrecht they have obtained the goal of a bicycle and pedestrian friendly city. However, this had consequences for the customer mix since it has deterred shoppers from the suburban areas from venturing into the city.

Conclusion

Customers arriving by bicycle are far better than their reputation. At first they are more loyal than those who use the car for shopping, and they spend more money. In addition their share in the customer mix far exceeds the shop owners expectations.

Traffic calming and promoting the use of bicycles will have its advantages in several areas, especially in relation to the shop owners. On the other hand, the downtown shops will always compete with the suburban shopping mall for the attention of the shoppers. In other words, the two will have to settle on a certain division of labor. Downtown shops can not account for all shopping.

This division might be an disadvantage for those without access to a car as well as it will result in an increased use of car and Co2/carbon emissions. On the other hand the advocacy of bicycles and pedestrians is not synonymous with the decline of all economic activities in the city centre. The activities will merely change in their character, which in turn will result in new and different shopping experience that the malls outside of the city cannot convey.

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9. Trafiksaneringen af Strandvejen i Hellerup nord for København i starten af 1980'erne medførte en mangedobling af butikkernes goodwill, blev det oplyst på cyklistkonferencen holdt i Folketinget 27.4.1987.