TØI report 394/1998
Authors: Jan Usterud Hanssen, Olav Fosli
Oslo 1998, 74 pages Norwegian language

Summary:

Shopping malls – location and use

A study of Ski and Vinterbro shopping malls focusing on the users and their transport

Description of the project and the study area

The Follo region south of Oslo consists of 7 municipalities with a total population of about 100,000. During a period of 6 months (1995/96), two new shopping centres (malls) opened resulting in a significant increase of retail floorspace. The first, Ski Storsenter, is located centrally in the municipality of Ski, which historically had functioned as the regional centre. About 10,000 persons live within the urban area of Ski. The mall is also located next to the bus terminal and the railroad station which is much used by commuters to Oslo.

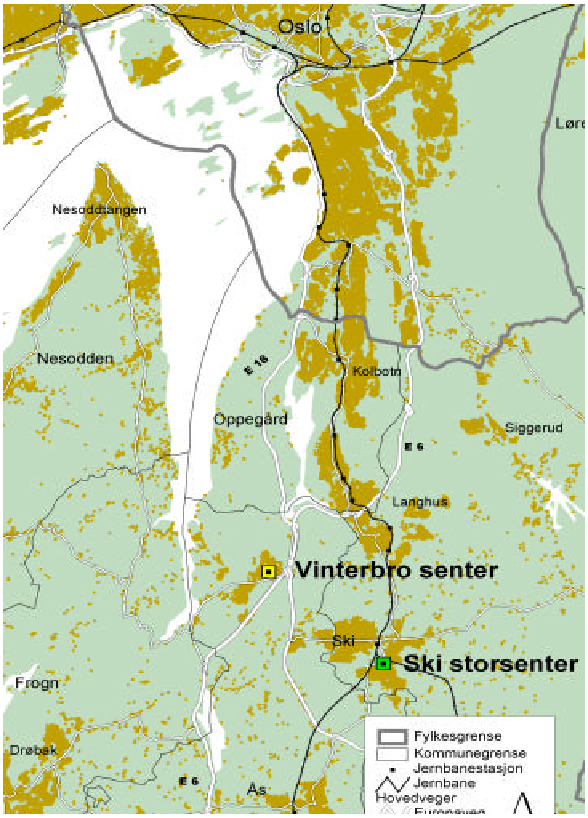

Figure I The map show the location of the studied shopping malls Ski Storsenter and Vinterbro Senter in the region of Oslo.

The other shopping mall, Vinterbro Senter, is located on a previous industrial site in the municipality of Ås which borders Ski. There are relatively few residents in the area. Being located close to the main highways leading south and east from Oslo (E6 and E18), this shopping mall should be characterised as a typical car-based, out-of-town shopping mall.

The distance between the two competitors is about 7 kilometres. Both malls have a floorspace of 25,000-28,000 m^2, about 85 shops and 1400 to 1700 parking spaces.

In order to achieve better knowledge about the impact of such malls, TØI initiated a study in three stages. The first stage which may be seen as a before-study was undertaken early in the summer of 1994 in the existing town centre of Ski. About 1200 people were interviewed on the streets in the course of one week before the

The report can be ordered from:
Institute of Transport Economics, PO Box 6110 Etterstad, N-0602 Oslo, Norway
Telephone: +47 22 57 38 00 Telefax: +47 22 57 02 90

construction work started. In the second stage (1996) visitors to Ski and Ski Storsenter were interviewed. Finally, in the third stage (1997), Vinterbro Senter had also been opened and visitors to this mall were included. In all three stages traffic was counted on the access roads during the interview periods.

The interviews were fairly detailed with a number of personal questions: age, marital status, education, employment, income, car ownership, place of residence, etc. We also asked about mode of transport to the place where the interview took place, where the person came from and where he/she was going afterwards, parking, what shops or services which had caused the person to choose to shop there, the frequency of visits, etc. The interview contained a couple of hypothetical questions. One asked what the car users would have done if they had not had access to a car. The other was where the current shopping would have been done if the shopping mall had not existed.

The report focuses on the description of the process, the content of the data collected and presentation of some results. A number of further possibilities for analyses and supplementing studies are also described.

The two malls attract different categories of customers

Based on the personal data, we have presented a profile of the users of the two shopping malls and conclude that the two malls serve different consumer groups. However, people interviewed in Ski town centre have generally the same profile as people using the mall, Ski Storsenter. This was to be anticipated, as there is extensive interchange between the two alternatives for shopping in Ski.

Age-structure, marital status and household size indicate that Vinterbro Senter is used by a more limited segment of the population. We have defined it as a place which, to a larger extent than Ski, is used by families. Only 26 percent visiting this centre were single, while almost one half of those interviewed in Ski were included in this status. Many of those visiting Ski are younger persons undergoing education or the more elderly (pensioners, etc.). Both these groups have little access to a car and would have difficulty in visiting Vinterbro Senter.

At Vinterbro Senter we generally find more customers with higher education, higher household income and a high level of car ownership. Only a half of those in Ski were actively employed while at Vinterbro almost 70 percent were in this category.

The use of Ski town centre and the two shopping malls

The most significant differences exist between the two malls. A larger proportion of customers visits Vinterbro Senter on Saturdays and on weekday afternoons and evenings than is the case at Ski Storsenter. Ski Storsenter had 86,000 visitors per week while Vinterbro Senter had about 48,000.

On both weekdays and Saturdays the proportion of visitors who were on a shopping journey (the journey commences and finishes at home with no other stops) was far larger in Ski than at Vinterbro. This may be interpreted as a confirmation of the fact that the local population also uses the mall for their “daily” purchases. Both in Ski town centre and in the mall, there are twice as many as at Vinterbro who state that they are shopping there because it is near their residence or workplace. They also had a significant higher frequency of visiting the mall.

In 1997 between 40 and 50 per cent of the customers, both in Ski and in the two malls, said that purchases of groceries form the most important reason for the visit. This represents a significant increase in Ski town centre from 1994 when the share was 16 per cent. This may be the result of both marketing and that the larger supermarkets in the malls have a wider selection of goods and more special offers.

The majority interviewed was undertaking several tasks. The replies registered can thus also be an expression for the fact that the possibility presents itself to undertake several errands at one location other than that which was the basic reason for the visit, and that it is rational to make the grocery purchases at the same time.

Ski Storsenter and Ski town centre may enjoy the mutual benefit of each other and thereby strengthen the function of a regional shopping and service centre. There is nevertheless much to suggest that activity has been attracted away from the town centre shops and into the mall, and that the competition between the town centre and the mall is greater than that between Ski Storsenter and Vinterbro Senter.

Only 14 per cent of the customers at Ski Storsenter said that they would have travelled to Vinterbro if Ski Storsenter had not existed. As much as 56 per cent would have done their shopping in Ski town centre. Those shopping at Vinterbro would have essentially chosen Ski town centre (19 per cent) or Ski Storsenter (54 per cent) if Vinterbro Senter had not existed. The other alternatives were largely stated to be Oslo or other alternatives in the vicinity of their residence.

Outside the mall at Vinterbro there are larger retail outlets for furniture, electrical articles, etc. The interviews suggest that the location of these shops next to the mall have no significant effect. Only 6 per cent of the customers stated that they had intended to visit, or had visited, one of these outlets.

The two malls attract customers from different areas

Figure II shows that Ski Storsenter attracts more customers from nearby areas than Vinterbro Senter. While over a half of the customers in Ski also reside in the commune (municipality), only 20 per cent of the customers at Vinterbro reside in the local municipality, Ås. In fact, just as many Vinterbro customers reside in Oslo.

People being residents of Oslo seem to be less attracted to Ski Storsenter than to Vinterbro Senter. Geographical factors such as access by national highway and county roads appear to have an influence on the customer pattern in the two malls.

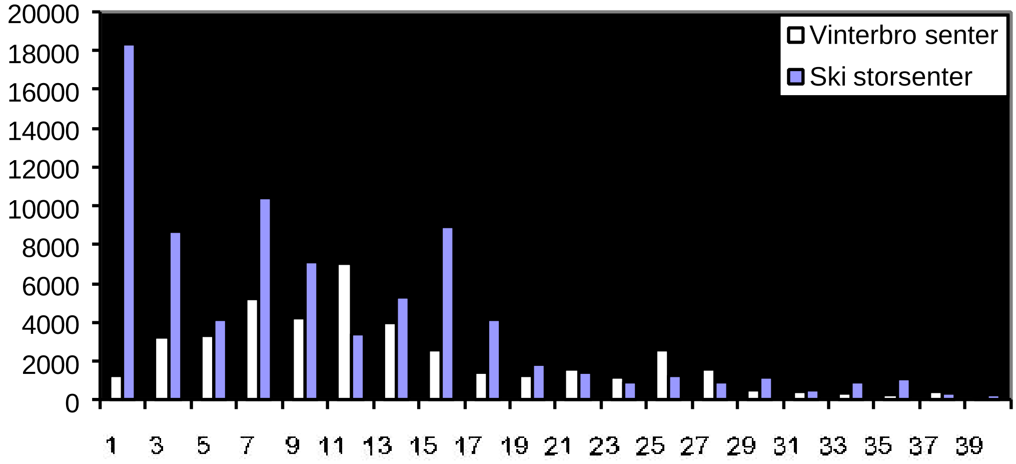

Figure II Distance between customers' residence and shopping mall. Estimated number of customers per week.

Choice of transport mode

Many factors are involved in the question of mode choice for shopping journeys. The location of the mall in relation to residential areas, other activities and the transport network are of particular importance.

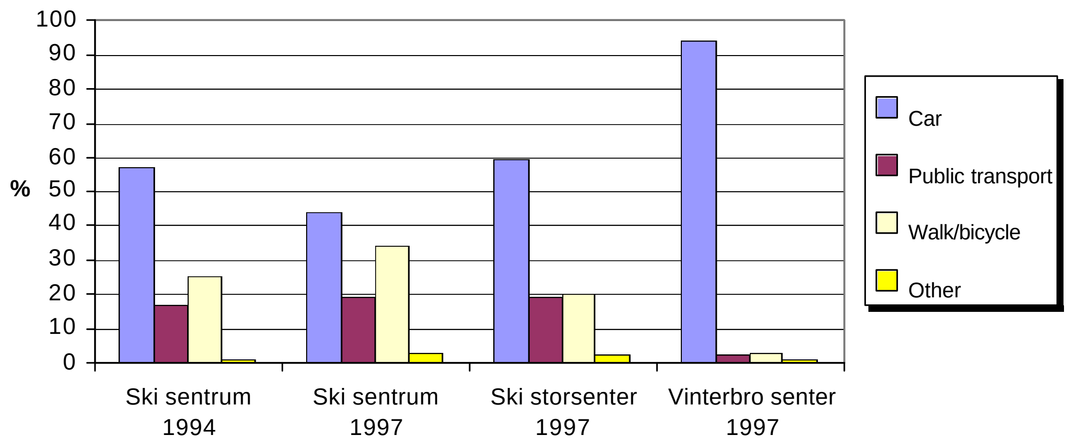

Figure III Customers' main mode of transport, 1994 and 1997. Per cent.

The survey revealed a clear difference between the two malls with respect to transport. Virtually all persons visiting Vinterbro Senter use a car. At Ski Storsenter 60 per cent of the customers used a car and 20 percent used bicycle or walked. About 20 per cent used public transport to Ski Storsenter and many travelled by train. This is partly explained by the fact that these connected the journey from work with shopping. However, there are many who use public transport for the purpose of shopping only. This is possible because there is a good public transport system covering a densely populated "corridor". In other words many of the residents in the region are not dependent upon a car in order to shop in Ski.

There has been an increasing number of cars on many of the roads used as access to the shopping malls. This applies particularly to the highways approaching Vinterbro Senter. Here, traffic on a Saturday increased by almost 100 per cent during the course of one year. The increase in traffic around Ski town centre was less than expected seen in relation to the large number of customers at the shopping mall. This can be explained by the fact that many customers at the mall had used a car also previously when shopping in Ski town centre. The local roads may have been used also to reach other places for shopping.

We cannot conclude unambiguously as to whether the malls have generated more car traffic. One of the main questions relates to where and how the shopping alternatively would have taken place. We have made some broad calculations of transport (car-kilometres) for the customers at the two shopping malls. As there are many more visitors at Ski Storsenter than at Vinterbro Senter, this will more than counteract the lower proportion of cars when total kilometres generated by each mall are considered. On the other hand, the transport-kilometres are 30 per cent higher per customer at Vinterbro Senter when we consider the week as a whole.

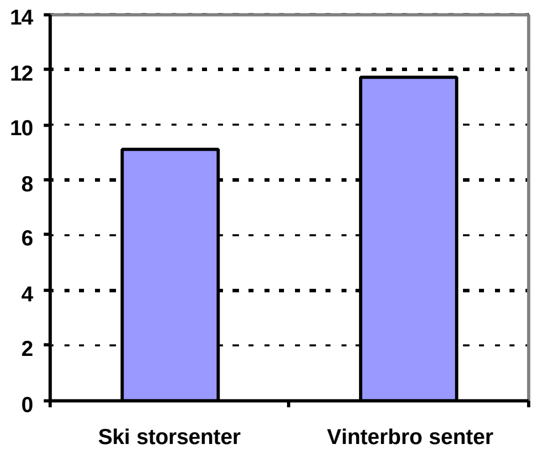

Figure IV Estimated total car-kilometres per customer on shopping journey to Ski Storsenter and Vinterbro Senter.

The overall shopping facilities in the region are better, but…

When the politicians voted to approve Ski Storsenter there was some trepidation that Ski centre would lose out to a possible new centre at Vinterbro. The politicians in Ås (where Vinterbro Senter was located) assumedly desired to “capture” some of the trade which was being lost to Oslo and Ski. Such objectives seem to have been reached by both municipalities.

It is clear that trading facilities in the two municipalities and in the region as a whole have received an injection and that there has been an increase in the number of stores in the region and that turnover has increased considerably. In 1997, turnover in Ski Storsenter amounted to NOK 900 million and NOK 700 million in Vinterbro Senter.

There has undoubtedly been an larger increase in traffic on the highways involved than would have otherwise occurred, but we are uncertain as to the extent to which this is newly generated traffic, or traffic which has been “diverted” from other places. The increased traffic has had the most noticeable local environmental consequences in Ski town centre.

When planning or studying the effects of newly established shopping malls, it is important to distinguish between grocery shopping and shopping of other goods. It appears that normal grocery purchases increasingly take place in the shopping malls in spite of the fact that these are also available in local stores. This is an important issue to be considered in the future.

In 1997 nearly 140,000 customers visited the two shopping malls every week. Not all of these were “pure” customers. In certain instances families came together and we received confirmation that the mall was also a social centre where one went to meet friends or just to look around. Similar “activities” also occurred in Ski town centre before the arrival of the shopping mall. The survey of activities, planned or otherwise, shows that there are many services in Ski town centre which were not “taken over” by the shopping malls. These are often concerned with services that are not available on a Saturday but which must also be taken into consideration when the combined service and shopping facilities for a community are planned.

It is also of significance that a number of services which people require irrespectively are located within the shopping malls. Examples of this are the State Wine Store at Ski and the Post Office at Vinterbro. In this respect the shopping malls can have contributed to enabling many errands being carried out at one place and where the car may also be parked centrally.

More studies in the same region. For example, an analysis of turnover statistics and changes in the structure of stores in the region will provide further knowledge. The comprehensive database compiled in connection with this project also provides a basis for more detailed analyses of many aspects of consumer behaviour, access and transport.