Leisure Time Mobility of Young Adults in Urban Areas at Night – Increasing Public Transportation Use for Nightclub Outings – MoDis

Sandra Rode
University Essen
Germany

1 Introduction

Despite the decreasing numbers of severe accidents in all age groups, young people are still exposed to an especially high risk of being involved in an accident. These circumstances are related to the number of inhabitants in the area as well as to vehicle mileage. Even though the 18- to 24-year-old age group accounts for only 14% of all vehicle mileage\(^1\) and only 8% of the general population, they represent 23% of deaths.

Most frequently, serious accidents occur at weekends and during the night-time hours. According to the findings of Schulze, injuries are mostly associated with going out to nightclubs, termed here nightclub accidents.

Typical nightclub accidents are primarily caused by young men losing control of their vehicle\(^2\). This group shows a ready willingness to take risks and this increased risk is accompanied by little driving experience. Consumption of alcohol and drugs in conjunction with nightclub outings increases the risk of accident occurrence.

Additionally, compared with drivers in other age groups, on average, young people drive older cars\(^1\) that are not up to current technical safety standards.

A particular characteristic of accidents occurring during the night is high vehicle occupancy. This trait not only leads to high numbers of people being injured in the case of an accident, which includes underage passengers as well, but also increases the actual risk of being involved in an accident. Young adults are not able to adjust their driving behavior to compensate for the additional communicative demands arising from having extra passengers\(^3\).

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Increasing the use of public transportation is one option to improve traffic safety. A comparison of modes of transportation shows that a trip on a bus involves much less risk than a trip in an automobile. In 1999, the risk of being involved in a deadly accident while taking a trip using individual motorized transportation was found to be 26 times higher than that for taking the bus, per person-kilometre.\footnote{Statistisches Bundesamt: Fachserie - Verkehrsunfälle, 1999 issue: Deaths by type of transportation taken, page 77; Traffic accidents by mode of transportation, page 358.}

![Figure 2: Safety comparison for various modes of transportation.](image)

For this reason, a nightclub bus program has been set up in a number of cities and communities. In these cases, some of the demands put forward by the young nightclub clientele were indeed instigated. For financial reasons, some suggestions were also denied\footnote{Rode, S. (2001). Erfahrungen mit flexiblen Bedienweisen im ÖPNV während der Nachtstunden, Forschungsbericht aus dem Fachbereich Bauwesen, No. 88, University of Essen.}.

Against this backdrop, the interdisciplinary research team MODIS is engaged with determining the requirement profile of young nightclub patrons. Of prime interest is how a new competitive service is to be conceived, one which will not be shunned by users and will amass operational advantages.

In order gain an introduction to the wishes and demands of young people for an improved public transportation service, polls were undertaken at all levels of schools in the western Ruhrgebiet and the Lower Rhine area. Approximately 3000 students aged between 15 and 20 years were polled.

Aside from the polling done at source (schools/residences), a second poll was undertaken at the target (nightclubs). This second survey was circulated in 20 nightclubs, allowing around 2000 further patrons to be polled.

## 2 Behaviour of young adults regarding mobility

Investigations into night-time mobility on nightclub routes revealed that young adults take many trips per evening.

Close to 30% of those polled took four or more trips on the evening of their last nightclub visit and in total more than 55% did not travel to or from the nightclub using a direct route.

An analysis of responses additionally revealed a great willingness to travel long distances. Up to 100 km were travelled on one-way trips.
Figure 3: Area of influence of a large nightclub.

Approximately 75% of patrons going to a large nightclub get there by car and more than two thirds of these are passengers. On the other hand, the use of public transportation en route to and from nightclubs still plays a subordinate role.

Figure 4: Type of transportation en route to a large nightclub.

Because nightclub accidents are frequently associated with alcohol and drugs, young people were polled about their consumption of these substances.
Sixty-eight percent of those polled stated that on their last outing to a nightclub they consumed alcohol. Sex-specific differences were most prominent among the drivers: 12% of female drivers consumed alcohol on the occasion in question compared to 39% of the male drivers. Discrepancies among the passenger and public transportation categories were considerably less.

Additionally, 15% of those polled admitted to having used other drugs.

In order to develop an improved service, satisfaction with the existing service needs to be analysed. The following graph provides an overview of the most important aspects regarding the arrival at and the leaving of the nightclub:

It was revealed that a reliable, flexible economical public transportation services having vehicle-oriented qualities is what is wished.

The results, separated according to sex, support the thesis that women display a heightened need for safety. It is precisely women who are the ones who would like to have protection from harassment and other criminal acts, aside from their wish to minimise the risk of being involved in an accident. Around two thirds of all women are fearful of dark places when they are on their way in public areas. For this reason, waiting at poorly lighted public transportation stops and walking to the stop is seen as dangerous. Parent’s reservations about the use of public transportation further limits young people in their choice of transportation. It is chiefly women, therefore, who look for other transportation opportunities or even refrain altogether from certain activities.

Security personnel in vehicles and door-to-door transportation can meet women’s security demands. New public transportation services would certainly be less directed at young men looking for adventure on the way home from the nightclub and those who see their vehicle as a status symbol.

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Figure 5: Alcohol and drug consumption according to type of transportation taken.

Figure 6: Requirement profile for arriving at and leaving the nightclub according to sex.

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The requirement profile determined can provide the foundation for thoughts about providing alternative public transportation services.

3 Measures for increasing the use of public transportation for nightclub outings

In developing measures for increasing the use of public transportation for nightclub outings, an approach based on pedagogies and transportation schedules was taken.

Young people are oriented towards the qualities provided by automobiles and desire a more flexible service, such that a rapid and economical trip home is guaranteed. In the past it emerged that the high costs and, at the same time, low revenue was the weakness of flexible services\(^7\). Despite low fares, acceptance of these services is often low. In view of their stretched financial resources, transportation service providers pull away as far as possible from the idea of providing more services. Therefore, in working out a concept for the provision of new services, profitability should always be strived for.

Because night busses in German urbanized areas run, as a rule, once hourly and routes are significantly reduced, considerable temporal and spatial gaps are created in comparison to the normal provision of services. These gaps could be filled by a supplementary flexible transportation service.

The KOMET program was developed using this premise. What is so innovative about the KOMET solution is the combination of multiple passenger taxis and the existing public transportation services. Multiple passenger taxis, which is a system already in use primarily in southern European countries, are employed for the trip to and from public transportation points such that, overall, door-to-door service is provided. Walks to and from public transportation stops are eliminated, reducing travel time.

![Figure 7: Graphic representation of the combined approach.](image)

During the course of the study it could be shown that the initial conditions available for implementing a flexible service are more favourable in urban areas than in the countryside. Around 20% of nightclub patrons leave the locale at the same time. In so doing, a significantly higher grouping potential is available compared with rural areas. A further advantage is the opportunity of integrating the existing public transportation services provided, preventing longer distance trips from being proportionally more expensive.

When use of public transportation is not available, with regards to a variety of factors related to travel time and the number of transfers, the trip can be accomplished by the exclusive use of multiple passenger taxis. In this way young people are given guaranteed mobility and the demand for reliability is met. The results of sample calculations show that as far as economy goes, the service

\(^7\) Mehlert, Chr. (2001). Die Einführung des AnrufBus im ÖPNV, Bielefeld.
can be operated profitably, in that it draws on existing services and contributes to the improved utilization of these services.

The research also illustrated that improvement of the service alone will not exhaust the potential increase in customer numbers. Suitable marketing strategies emphasizing the use of public transportation are necessary.

Nightclub owners need to be involved in the marketing activities at nightclubs. It seems reasonable, for example, to install electronic timetable devices such that travel plans can be quickly evaluated.

Intensive exposure to the subject is possible in schools. With the title “safety training”, young people should learn how to protect themselves from the dangers of traffic-laden areas, such as road accidents, but harassment is an issue too. Involving the media and conducting discussions are also possible. For this reason a prevention program categorized as “positive role models and recommended courses of action” has been developed. The use of public transportation for nightclub outings is propagated by a film.

It has been demonstrated that showing a film in the classroom can make young people aware of public transportation services. The usefulness of the film is primarily to incite discussion following its presentation. At this point the advantages of the public transportation service along with the disadvantages of automobiles are addressed. Also, the important conflict-causing topic “alcohol and drug use while on the road” is covered by the film and can be touched upon in the discussion. Social skills including consideration, helpfulness and responsible behaviour should be conveyed.

Additionally those transportation companies who are willing to provide information material need to take the initiative. Only when public transportation services are comfortably accessible and are well known will young people come to see them as an alternative to the automobile and only then will they choose, what is in their eyes, a convenient service.

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