

DEMAND FOR CAR POOLING IN THE UK

Robert Sheldon
Chris Heywood
Accent Marketing & Research Ltd

1. INTRODUCTION

1.1 Definition of Car Pooling

This paper describes the findings of a research study being undertaken by Accent into the potential for car pooling schemes in the UK. The study has been commissioned by the Department of Transport under its Seedcorn Research programme.

'Car pooling' is the concept whereby vehicles are available within a community or locality for individuals to hire on a 'club' basis. Such a concept is known as 'car sharing' on the Continent. It is also referred to in the literature as the City Car Club concept.

In this paper, we refer to 'car pooling' and not to 'car sharing' (which in the UK typically refers to the sharing of cars for specific trips).

Car pooling was developed in Switzerland, Germany and the Netherlands in the early 1990s. The schemes there are typically run by private organisations (often car hire companies). Typically, members have access to a local pool of cars which they can reserve by telephone. The car can be delivered or is ready to be picked up from the car pool (sited very near the member's home address). Members pay a joining fee and then are charged on use only (defined by mileage and/or time).

Car pooling is designed to reduce overall car use, reduce pressure on residential parking space and increase use of public transport/bike/walk for trips.

1.2 Study Objectives

This study was designed to assess whether such a scheme can be introduced to the UK. The objectives were thus to:

- define the nature of such car pooling scheme(s)
- determine the likely geographical areas where such schemes might successfully operate
- estimate the potential take up of such schemes and the characteristics of likely users
- define the role the DoT would need to take as enabler/promoter etc.

2. METHODOLOGY

2.1 Introduction

There were two main stages to the research programme: first, to develop the car pooling concept and second, to test its attractiveness. The method for each of these stages is described below.

2.2 Develop The Car Pooling Concept

There were two aspects to this stage. First, there was a need to learn about existing car pooling schemes. This involved a literature search and review of relevant reports and papers and interviews with Continental car pooling scheme operators and government officials.

The second aspect was a series of depth interviews with organisations in the UK who were likely to be interested in the research either because they were potential operators or because they had an enabling or legislative role.

Interviews were conducted with UK car hire companies, organisations such as the AA and RAC and representatives from local and national government departments in the UK.

A bibliography of literature reviewed during this stage is attached to this paper.

2.3 Test The Attractiveness Of The Car Pooling Concept

The potential demand for car pooling was/is being tested through market research with potential users through both qualitative and stated preference research.

The qualitative research, undertaken through group discussions, was designed to check whether there were any attitudinal, psychological or other types of 'blocks' to adoption and, if so, how these could be surmounted. It was also used to help define the nature of the scheme and assist in the design of the stated preference survey.

Four groups were undertaken with those potential early adopters that had been determined during the previous stage as including:

- car owners who don't commute by car
- young drivers without cars
- older drivers who use car infrequently
- car drivers expressing a commitment to adopting car reducing methods.

Two groups were conducted in Camden, London and two in Doncaster. Doncaster was chosen because it represented a typical metropolitan town and was a member of 'Car Free Cities'. Camden was chosen since it has very limited parking space for residents and

Camden Council are actively examining measures to restrict car parking in the Borough which includes building accommodation for which there is no parking provision.

The stated preference quantitative survey is currently underway and is designed both to test interest in car pooling and to determine the likely demand for different formulations of the initiative.

This survey is being undertaken with 400 potential early adopters face-to-face in four locations – two areas in London and two towns. The questionnaire is being administered using a CAPI (Computer Assisted Personalised Interview) approach.

3. DEPTH INTERVIEWS

3.1 The Continental Experience

One of the major benefits identified for car pooling is that it is seen to satisfy a number of policy objectives without taking prescriptive action against either car ownership or use. The most obvious objective is the one of traffic demand management (notably in response to parking problems in major conurbations), but other effects include increasing mobility in city and rural areas amongst non-car owning households.

The Dutch, who have been involved in developing schemes since 1990, recognise five types of car pooling scheme:

- car rental: not strictly a scheme, but illustrative of the similarities that exist with other non-owning arrangements
- voucher: with a system of club membership, where members pre-purchase blocks of time (often in whole or half days); vouchers are redeemed at the time of hire
- subscription: members contract for a period of time or an aggregate distance usage; a fixed amount is paid per month, with a refund given if the contract has not been fully used within the year
- neighbourhood: club members have access to locally located cars which are booked via a central reservation system. Payment is on the basis of time and distance
- private: it is believed that numerous private sharing agreements exist and a draft contract has been made available to facilitate such arrangements.

Combinatory schemes are also known to exist.

There are recognised to be practical, behavioural and legislative impediments to car pooling schemes, including the:

- Dutch policy of reducing the fixed costs of car ownership (and increasing variable costs)
- very low cost of second hand cars
- requirement of schemes to pay VAT on car purchases
- problems of insurance (including no-claims bonuses, especially for private arrangements)
- parking problems (there is no legislative category to allow the parking of car-pool vehicles on-street).

Again, in Holland, it is estimated that there are about 70,000 members of car pooling schemes, although the majority of these (50,000) are in private schemes. For the other 20,000 members, there are 50 operators, nationwide.

The largest operator is thought to be the ANWB which has 3,000 car pooling members in total. Initial interest in their scheme (started in 1994) was much higher, but of the 140,000 people who expressed interest, only 5,000 took up membership. There has been a general decline in membership since. The 3,000 members are serviced through 220 outlets nationwide, and these are typically car rental and car dealing companies.

Average use of the ANWB scheme (which is on a subscription basis) is 44 days per year, typically for the major household holiday and occasional weekends away. The profile of users is concentrated in the 30-50 age group (68%) and only 9% are aged under 30. Users are 'typically' university educated, with high incomes and in average-sized families.

There is some slight evidence for decreased car ownership from the scheme; 2% of members had 'got rid of' their car during the time of their membership and a further 3% were intending to do so. Most (53%) have a car already available to their household.

3.2 The Current Position in the UK

In contrast to the position on the Continent until recently (with the recent advent of the scheme in Edinburgh) there was no known scheme operating in the UK. Awareness is, however, high and many organisations are keeping a watching brief with a view to seeing whether such schemes could satisfy commercial or policy objectives.

Turning to the Edinburgh scheme for a moment, the initial impetus for it came from interest in the development of car-free housing schemes but it has since become a free-standing idea. Market research was undertaken which revealed that the greatest potential came from 'environmentally committed' residents, particularly those who are 'educated', on high incomes and living in densely populated areas.

A pilot scheme is now underway, with funding from the Department of Transport, Scottish Office and Lothian Enterprise Council. The Marchmont area has been identified for the trial. Lothian & Edinburgh Environmental Partnership (LEEP) will operate the scheme, at least for the first year. A fleet of 10 vehicles is planned initially, with a

provision for 20 or more. The scheme provides one vehicle for each eight participating households. Local professional businesses will also be targeted.

At the time of talking to LEEP in connection with this research a number of operational issues were still to be resolved, including the choice of a booking and administration system. However a change to the Traffic Regulation Order, permitting the vehicles to be parked on-street in Marchmont, was being progressed.

Car pooling is being examined from a number of different perspectives and could satisfy a range of commercial and policy objectives. For the potential operator it would represent an extension of their existing market, a fresh source of income. For local government it could be a means of easing existing problems such as over-demand for car parking in residential areas or for helping to achieve other policies such as car-free housing. The discussions suggest that schemes would not presently be wholly commercially viable but would require a partnership approach with (for example) local authority assistance of some form.

It would appear that, by and large, car pooling is being viewed in the UK as a means of replacing existing owned-car trips or as an opportunity for people to save the financial outlay associated with owning a car. It is not being seen as a means by which non car-owning people can extend their travel repertoire or move away from a dependence on public transport.

Many of the discussions revealed an awareness that car pooling is not the only means for foregoing owned-car trips. People are already seen to have access to hire cars, often at cheap weekend rates, for longer journeys; taxis are seen to be appropriate for shorter urban journeys. To some extent the availability of these existing options has induced a degree of scepticism about the car pooling concept or suggests that circumstances have not yet reached the point where alternatives to car ownership need to be examined. If people already have access to means of foregoing or supplementing ownership, then why is more use of them not being made?

The motoring organisations, for example, have calculated that certain groups in the population (notably the elderly who drive very little) could now achieve lower annual travel costs from selling their car and using a combination of hire cars and taxis.

The constraints to schemes such as car pooling are recognised to be significant. Ownership of a car is recognised to be an emotional issue as well as a rational one. The rational benefits include those of freedom to travel where and when one wishes, flexibility to change the timing or duration of the trip and security (especially for females). However, all those interviewed were aware of the emotional issues; that ownership conveys status, that the owned vehicle is an extension of private space, for example. Car ownership costs, also, are recognised to be essentially ignored in the estimation of travel costs.

These issues are seen to be factors not only in creating resistance to moving away from ownership but also to moving towards use of car pooling. There is a widely held view that schemes might not be attractive because of the perceived state that vehicles would be left in by other people; with litter, dirt, the smell of cigarette smoke, repair problems or even in an unsafe condition. Clearly, these are powerful emotive issues.

If respondents could imagine the perceived problems, they could also see that circumstances may not yet have reached the point where individuals might want (or be forced) to reappraise the question of ownership. The factor most likely at present to do this would be the problem of car parking in city residential areas. The better-off areas of some London Boroughs are recognised to have a problem already and these types of area were seen to be the ones where a car pooling scheme might soon meet with a successful take-up. Cities such as London, Glasgow, Edinburgh, Birmingham and Manchester were all mentioned as having such areas and, with increasing car ownership over time, more city areas might fall into such a category. On the other hand, residential areas in towns are not seen to have a problem, nor are likely to in the future.

Another factor may be that of emissions standards. There is some belief that harsher standards will 'force' older vehicles 'off the roads'. It is these older cars that have traditionally comprised the majority of second vehicles; the extra costs of purchasing newer cars which meet the emissions standards may cause the re-appraisal of ownership that could favour the success of car pooling.

Despite the general belief that car pooling is a concept whose time has not (quite yet) come, there are seen to be a number of markets which might buy into it. In addition to the ones already discussed (elderly low-mileage drivers, people resident in restricted-parking city areas), car pooling is seen to be an idea that could be considered by:

- businesses, to replace pool cars or the *ad hoc* hiring of vehicles
- people whose car use is regular and pre-planned (although not for travel to/from work)
- people who live with others in concentration (such as nurses or students).

As may be seen, the general view is that demand would come from niche markets; that car pooling is unlikely to be of mass market appeal.

A number of organisation types were put forward as being potential operators for car pooling schemes. The most obvious of these was the car hire company, since car pooling tends to be seen as a form of car hire and at least one UK car hire company is actively involved in setting up at least one scheme. Other potential operators are those with existing transport operations who have an understanding of travel needs and the booking systems that are required, such as:

- public transport operators
- taxi firms
- community transport operators.

One of the motoring organisations also sees that car pooling might be an extension of its own existing membership facilities.

Others have a part to play in facilitating schemes or in raising public awareness. Bodies such as local and national government departments and the motoring organisations are thought to be important in raising awareness and in 'selling' the potential benefits through general interest media articles or public interest advertising.

There are, however, recognised limits to what 'government' could achieve, at least within the existing legal or fiduciary framework. A number of respondents discussed the constraints on local government to provide land for the 'base' from which a scheme could operate (and where cars would be parked when not in use). Whilst to some extent local authorities could theoretically provide free or reduced-rate parking space on-street for car pool vehicles, there was a concern that the concomitant reduction in car parking revenue might be difficult to justify.

Nevertheless, local authorities were seen to have the powers to create favourable conditions for car pooling schemes, through the creation of controlled parking zones, through the setting of harsh parking standards for new residential or business development, or through the definition of restrictions on access which might favour car pool vehicles. Other local authority initiatives, such as Green Travel Plans or car-free housing schemes might contribute towards the creation of circumstances favourable to car pooling.

More direct financial inducement, such as though direct subsidy or lower business rates, was seen to be outside of local authority influence.

As the circumstances for car pooling schemes are not generally seen to be very positive, the schemes under consideration are seen to be ones where the risks are low. Beyond the Edinburgh scheme, the most likely, therefore, are those operated by car-hire companies where people would pre-purchase hire in the form of vouchers, redeemable at the time of booking. These pre-purchased vouchers would offer a discount (of around 15-35%) compared with normal car-hire rates. Such schemes would operate from existing car-hire offices and would use existing booking systems and vehicles. The more technologically complex systems, which use electronic keys to access remotely-located safes where vehicle keys are kept, can be seen to be associated with high volumes of demand; they would be considered for the future, but not now.

The use of car-hire companies as facilitators of schemes is favoured also by the fact that they have in place the mechanisms for dealing with insurance, offences and maintenance. A number of respondents discussed the problems that these issues could pose for other potential operators. Motoring insurance in the UK is person-related, unlike on the Continent where anyone is covered to drive an insured vehicle. The implication of this is that insurance rates for car pool vehicles will be high in the UK in order to cover the

variety of people (risks) who might be driving them. It may be that specialist cover will be devised for car pooling clubs and at least one of the motoring organisations might see this as a natural extension of their business.

The issue as far as offences are concerned is that a full record needs to be kept of bookings so that offences can be traced to the relevant driver; registered owners are otherwise responsible. Likewise, the registered owner is responsible for maintaining the vehicle in a roadworthy condition. These issues do tend to suggest that informal schemes would not work in the UK.

3.3 Conclusions from Depth Interviews

Despite the degree of interest being expressed by many organisations and authorities in Britain, it would appear from the Dutch experience that there will be an uphill struggle if there is to be any more than marginal interest in any schemes that eventually operate. With five years experience in the Netherlands (and a population of 15.3 million), as few as 20,000 people are members of commercial schemes, despite there having been extensive advertising for some schemes.

The extent of the problem is illustrated by the lack of any evidence that the schemes operate on a fully commercial basis.

Our conclusion for this phase of the work was that there would appear to be some potential for car pooling but it is unlikely to be a major way in which objectives for the reduction of car ownership and use can be achieved. However, there has been success at a small-scale or local level (even on a voluntary basis). The role of car pooling, therefore, in achieving these objectives would appear to be as one of a number of complementary measures.

In order to achieve this, car pooling schemes in the UK may require the creation of a more favourable legal or fiduciary framework. Many of the restraints observable on the Continent (such as VAT on second-hand cars, legality of parking, insuring the under-25s) are recognised as being equally important in the UK context. There may also be a need to create circumstances which would nurture schemes to the point of financial stability. Initial funding (as in Edinburgh), local authority car-use (as in Rotterdam) and residential parking guidelines are examples of this. But the greatest benefit may come from creating an entrepreneurial framework to encourage companies to act within the marketplace.

4. QUALITATIVE RESEARCH

4.1 Introduction

Attention in this phase turned to the potential end user. The respondents in the groups were first asked about their existing attitudes towards car ownership and cars and the

environment. Then the concept of the car pool was introduced and respondents were invited to discuss the different elements of the schemes.

4.2 Car Ownership

"I don't love my car, it's a means of transport...but people are out there polishing it every Sunday saying 'it's mine'"

The car owners in the research were not overtly proud of their cars. Several did not enjoy driving at all, either because of congestion levels or because of their own inability to drive confidently.

Many owned a car for its convenience or for other members of the family. Some boasted that they could do without the car, although later in the discussion they were reluctant to say they would not buy cars. A few in London had got rid of their cars because they could not use them effectively in London.

The view about car ownership in Doncaster was that, ironically, car ownership was almost a substitute for home ownership. Several lived in council houses. One recited an instance of how much money had been spent on the car over the years by her parents when time and time again they had refused to buy their council house. In London, in the younger group, most rented accommodation and had a less strong need to own.

4.3 Attitudes to the Concept of Car Pooling

Many respondents, especially in London, were more philosophically in tune with the idea of car reduction measures. Several agreed with the concept of pricing cars out of towns. A few younger respondents were very anti-car.

Since very few people could imagine others giving up their cars for the car pooling scheme they felt that the scheme would *generate* car trips.

People who could afford cars were felt to be a target market. A few respondents who did not have cars yet and had green views felt they might eventually come to rely on car pooling and that it would put them off buying a car. Those who did not have cars and had no environmental concerns said they would use the scheme but still felt that they would buy a car when they could afford it.

Younger respondents imagined hiring a "flashy" car pool car at the weekend for a pose with friends and felt that this could be a very good selling point for the scheme. Non car owners liked the idea of going off in a group with friends for the weekend or for an evening. They imagined they could split the costs with their friends.

People were concerned that others would know they were on the scheme and they would be labelled a “cheap-skate”. Pride was quite important and many asked for the cars not to have any branding or labelling to indicate that it was a car pool car.

4.4 Perceived Operational Problems with the Car Pool Schemes

Several respondents had difficulty in understanding what the car pooling scheme offered over and above current car hire firms. This difficulty related to the speed with which one could order a hire car nowadays ie within the hour. A few respondents regularly hired cars at weekends (London, young without car) and asserted that the firms were in such competition that prices had come down significantly and they could get a car for around £50 for the weekend.

Many respondents felt that car pooling did not suit the UK culture of car ownership. Many felt that the scheme was trying to be community minded and that this would be difficult in certain areas, especially London.

Some were concerned that they would need to share cars with people they knew. This led to an interesting debate. On the one hand some respondents said they felt that they did not want to come across other people who belonged to such a scheme as this appeared to be too intimate a proposition. On the other hand, some said that there would be value in the car pooling scheme being like a club insofar as it vetted members thus minimising the potential that there would be abuse to the system.

They also imagined people leaving cigarettes in the ashtray which led to requests for non-smoking and smoking cars. Many felt it would be “a pain” not to be able to have your own tapes in the car.

Respondents imagined that there would be fewer cars available than for car hire firms, partly because they imagined each scheme to be quite local and partly because they felt the aims of the car pooling scheme would be to not have too many cars. Respondents very strongly mistrusted the ability of the car pool operator always to have cars immediately available on their books.

Mistrust of the delivery and pick-up systems was also rife. People wanted the car to be delivered directly to their door, if they currently owned a car. Those who did not own a car were concerned that the pick up point would need to be near public transport – there was some mistrust that the car pool *would* be within 5 minutes walk of all members’ homes.

The existing difficulty in parking was seen as a deterrent to using car pool cars unless parking provision was dedicated for car pool cars.

Many respondents thought the car pooling scheme would use “clapped out” cars which the scheme would then “run into the ground” for environmental reasons.

Many felt the scheme would never be convenient enough to replace the benefits of owning a car. Those without cars currently liked the idea of minimal administration ie having an account number. They imagined being able to e-mail the company with requirements (London) or ordering by telephone as one does for credit card bookings. "Guaranteed" was a key word for respondents: there would always need to be a car available.

Older women and some novice drivers were concerned about constantly swapping cars and never getting used to one type of car (where the indicators were on the same side for example). Most others wanted to be able to have car specifications attached to their account so that the scheme would have a profile of what type of car they liked.

Female respondents imagined the dedicated car pooling bays would attract car thieves and encourage joy riders and they would be loathe to go to the car pooling bays without an attendant being available or strict security measures such as CCTV, lights etc.

4.5 Desired Specifications for Car Pooling Schemes

It was very important that car pools *were* within 5 minutes walk from their house. Some respondents stated that it was important that there were lots of schemes so that there was good coverage. Many wanted car pool cars to have dedicated parking areas in town centres etc and this led people to imagine that the schemes would have to be operated in conjunction with the government to allow space for car bays etc.

A choice of cars was important to most people – some wanting a prestige car and some (who were currently anti-new cars) wanting distinctive vintage or older cars "with character". If this variety could be achieved, respondents were more positive about the scheme because it gave them more choice. Also a choice between non smoking cars and cars in which one could smoke was seen as important.

4.6 Cost of Car Pooling

When an annual subscription cost of £120 was introduced (based upon the levels expected in the Edinburgh pilot scheme) it was felt to be very attractive particularly when considering tax disc payments. Many assumed that the fee would include some kind of aggregated cost for insurance. Many respondents questioned the ability of the car pooling organisation to get insurance deals especially when they were perceived to be likely (at least in the early stages) to attract younger high risk drivers. In general, however, insurance was not seen to be a big issue with the scheme and people expected the cost of insurance to be included in the overall cost of the scheme.

Typical car running costs were dismissed as not being particularly important especially by those who could afford cars or who had fully paid for a car. A few were in the middle of their hire purchase agreements and compared car pooling costs with their monthly

payments. The younger non-car owners, especially in Doncaster, felt that they would be attracted by the yearly subscription cost and that it would allow them to drive a car earlier in their lives than otherwise, although they would still eventually buy a car because they aspired to it. The younger respondents in London were less likely to aspire to car ownership *per se*, although they felt that a time would come when they would move out of London to the country and then they would definitely want to own a car.

The cost of purchasing a car did not seem to affect the perceived cost of the car pooling scheme. Price was more likely to be equated with car hire firm charges or minicab fares.

Whereas the annual subscription fee for car pooling was readily accepted, the charge for usage was much more problematic to respondents. Many said they would like to be able to choose between a cost per mile charge and a cost per hour charge depending on what they were doing.

Many thought £2.50 an hour (a cost again based upon the expected levels in the Edinburgh pilot scheme, although this figure also came up spontaneously) to be a reasonable charge for short trips but also felt that this would have to be reduced for longer periods of usage to make it cost-effective against car hire firms. The 24 hour charge of £60 (£2.50 * 24 hours) was perceived to be the same as a car hire firm and, therefore, too high. They proposed a 24 hour charge of at least 50% to 75% less.

In Doncaster the ability to pay was much less. Respondents suggested £15 a day (not 24 hours) for a middle grade car and less for a Metro or Micra as being reasonable. Some might “splash out on a flashy car” for certain occasions.

4.7 Potential Car Pool Operators

There was much discussion as to who would run the scheme – to many it was thought most appropriate for it to be government run or operated by a charity (because they imagined there would need to be a strong political/green message to promote car pooling and to give up car ownership).

4.8 Conclusions from the Focus Groups

On balance, the groups identified as early adopters were felt to be appropriate, except for the elderly. Older people are not used to bureau style transactions and regarded the schemes as too disorienting or confusing.

As current attitudes towards car hire firms is very high, some have great difficulty in seeing the advantages of car pooling schemes over car hire companies.

Car pooling is perceived as likely to be Government subsidised and, therefore, not as efficient or glamorous. Use of car pooling was seen as something you would not admit to.

Apart from the older respondents, people were seriously concerned about gridlock and future solutions to increasing traffic congestion. As a result, it was felt that car pooling could be sold as a “greater good” scheme, though it is currently seen to be for an extremely niche market or a bit “cranky”.

People who have given up their cars are important because they did so due to congestion and lack of use. It was quite a radical step for them. Others might be considering this step and the car pool scheme could be the trigger.

In summary, a very efficient, all inclusive scheme is required which:

- is low cost
- is near users’ homes
- is convenient
- offers a choice of car (including, say, luxury cars)
- ensures cars are well maintained and clean
- is marketed as being for the “greater good” and “green”
- is not branded
- is less hassle than owning.

Cost is key, but this can be balanced out by the green dimension. There is some scope for the operator to take an ethical stance, but care is required as some view the scheme as increasing car trips. Insurance was surprisingly low on the agenda.

Other people using the car pool cars is a concern. Respondents seem to want to be completely shielded from signs that other people have used the car pool cars and, therefore, cleanliness and servicing is vital.

5. STATED PREFERENCE

5.1 Introduction

The stated preference research programme is designed to quantify the potential demand for such an initiative, under different formulations.

This work is currently underway.

The output of the stated preference experiments will be coefficients expressing the degree of relative importance (which can also be expressed in monetary terms) of the different components of the car pooling schemes being tested. An indication of the size of the market for different car pooling scenarios will also be output and related to national demographic statistics to appraise the overall national potential.

Findings from the stated preference phase will be available for the conference.

The variables defining the car pooling options are:

- frequency of cleaning
- choice of car – for instance one type of car, say a Ford Escort, or three or four types of cars from different manufacturers
- whether smoking allowable in pool cars
- whether cars always available when wanted
- whether you have to walk to collect/drop off car or it is dropped off/picked up from your home
- who operates the scheme – for instance, a local authority, a car hire firm, a motoring organisation or Virgin or Transport 2000
- annual subscription cost
- usage costs.

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