SUSTAINABLE TRANSPORT CHOICES AND THE RETAIL SECTOR

Jo Baker
Mott MacDonald

0. ABSTRACT

The concerns of the business community about the impact of transport policy on the economic wellbeing of urban areas represent a major barrier to the implementation of more sustainable transport policies. Whilst the environmental sustainability of an urban area is accepted to be of considerable importance, the economic well-being of its inhabitants will also always be critical to decision-making. Transport policy can improve economic performance by reducing congestion, but the direct implications for local business, and specifically the retail sector, can be complex to quantify. To date there is limited objective data on how policies impact on the retail sector. As a consequence, rightly or wrongly, there may be resistance to the implementation of policies which are considered to be economically unsustainable, whether or not they are environmentally sustainable.

This paper reports on research undertaken for the Commission for Integrated Transport and the UK Department for Transport, to gather an evidence base on the travel and retail behaviour of households in a selection of urban areas. The research includes a detailed household diary survey, supplemented by a range of qualitative research with retailers and customers as well as key stakeholders.

The research addresses four fundamental questions, which are as follows:

- Do people who travel by car spend more than people who travel by bus?
- What is the difference between retail spend and mode of travel at the town centre compared to edge of centre and out of centre sites?
- What is the extent to which local transport policy (e.g. demand restraint and bus priority) affects consumer choice on where to shop? What other factors are important?
- What are the main transport priorities identified by shoppers and retailers in each area (by type of centre)?

These questions in turn raise a number of additional issues upon which the research will seek to throw light:

- Changes in the retail sector, and particularly behavioural changes relating to the internet as well as potential links between income and propensity to use the internet and home-delivery services.
- Factors influencing modal choice in car-owning households.
The paper will help to quantify the relationship between modal choice and retail expenditure, and thereby draw conclusions on the impact of transport policy on the choice between urban, edge of town and out of town shopping centres, and the views of the retail sector. In doing so it will examine one of the issues which poses a barrier to the implementation of more sustainable spatial policies in urban areas.
1. INTRODUCTION

This report sets out the results for a study of Sustainable Transport Choices and the Retail Sector which was commissioned by the Commission for Integrated Transport. The aims of the research, which are detailed in the project brief and proposal can be summarised as follows:

- To assess the nature of the relationship between mode of travel and retail spending in various retail sectors
- To compare patterns of expenditure and mode of travel between different retail sites at town centre, edge of centre and out of town sites
- To establish spending levels among those who travel by car compared to those who travel by bus, taking account of income levels
- To identify the effect of local transport policy on shopping locations
- To establish the main transport priorities of shoppers in various locations

2. METHODOLOGY

2.1 Identification of case studies

The selection of case studies needed to reflect a number of criteria. These were as follows:

- Geographic Spread: No more than 1 case study per government region
- Size: Large, Medium and Small Cities
- Type: Modern, Industrial and Historic Cities
- Policy: evidence of implementation of sustainable transport policies to include Park & Ride, LRT/Metro etc

Following considerable debate the selected sample was as follows:

Larger Metropolitan, Industrial Cities:
- Birmingham
- Leeds

Older Regional Centres:
- Nottingham
- Brighton and Hove
Historic Cities:
- Bath
- Cambridge

2.2 Qualitative Research

The qualitative research comprised a combination of Focus Group interviews with the public, and Stakeholder Interviews in each of the 6 cities.

Sample and Methodology used

In all, over 1600 households responded to the household questionnaire survey, reporting on some 14,645 individual shopping trips and 579 home purchases in the course of the surveyed week.

3. POLICY LESSONS

The research focuses on the five research objectives but in doing so has gathered a rich source of data which is of wider relevance to the subject. This report is intended, therefore, to open up to debate these issues which are of considerable concern to all stakeholders with a vested interest in the viability of the retail sectors and urban areas in general.

3.1 An assessment of the nature of the relationship between mode of travel and retail spending in various retail sectors

An assessment of average expenditure by sector has been undertaken. In general, as we would expect, private transport users spend more on food, drink and household goods, and a majority of other categories. Figure 1.1 shows the spend by mode for a selection of the most heavily consumed products. The figure shows the average spend for each retail sector by users of each mode in order to illustrate the influence of mode choice on expenditure.
3.2 A comparison of patterns of expenditure and mode of travel between different retail sites at town centre, edge of centre and out of town sites

In general, public transport users are slightly more likely to spend over £10 per visit than private transport users in the city centre, but unsurprisingly spend less at less convenient locations and in general are still less likely than private transport users to spend over £30. Those who walk and cycle are likely to spend less than car users in any location. In general, however, once again, the differences are modest and do not suggest that the contribution of public transport users to the local economy on an individual basis is of a different order of magnitude to that of private transport users.

The following Figures 1.2 show the spend per visit profile by mode at six key location types. The figures show the level of spending per trip for each mode.

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Figure Error! No text of specified style in document..2: Spend Level per Trip by Mode for Different Centre Types

<table>
<thead>
<tr>
<th>Trips to Nearest Town/City Centre</th>
<th>Trips to Local Convenience Store</th>
</tr>
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<tr>
<td><img src="image1" alt="Graph" /></td>
<td><img src="image2" alt="Graph" /></td>
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<table>
<thead>
<tr>
<th>Trips to Supermarket</th>
<th>Trips to Out of Town Retail</th>
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<td><img src="image4" alt="Graph" /></td>
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<tr>
<th>Trips to Local Centre</th>
<th>Trips to Edge of Town Retail</th>
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<td><img src="image5" alt="Graph" /></td>
<td><img src="image6" alt="Graph" /></td>
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There is a general trend towards higher spend levels amongst car users but this reflects a range of factors such as the relative convenience of conveying goods by car, and the likelihood that higher income households have a car. Car drivers are more likely to spend over £50 in the city centre, but the proportions of car and public transport users spending over £10 per visit are equal. Modal choice does have an impact on expenditure levels in most locations, and car drivers as a whole spend more than other visitors, but the differences are generally modest.

Figures 1.3 and 1.4 show that high income households have much higher levels of car ownership whilst there is a similar, but less striking or consistent, correlation between household income and average expenditure on a shopping trip.

**Figure** Error! No text of specified style in document..3: Relationship between Household Income and Car Ownership

![Relationship between Household Income and Car Ownership](image)

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An important finding is that public transport users are both more dependent on town centres and also more likely to spend more of their income there. Trips to supermarket are dominated by car usage, as seen above, because of the limited alternatives as much as by the need to have a car in order to convey shopping. Figure 1.5 shows that local convenience stores are most often used by people on foot or cycling, whilst both local centres and town/city centres depend on modes other than private transport for at least 50% of their visitors. Figure 1.6 shows that amongst households without a car, a higher proportion of expenditure takes place in city centres, whereas car-based purchases favour the supermarket, although the variations are not that significant. Overall, however, the average public transport user contributes more to the local economy in the shape of local convenience stores and town centre stores whereas private transport users are more likely to patronise supermarkets and out of town locations although the availability of public transport services to the former and free parking at the latter mean that this is not an unexpected outcome.
Nevertheless, the town centre remains of considerable significance for public transport users and there is an argument that it is important to ensure that public transport has some priority of access. Moreover, whilst the proportion of shopping trips overall is dominated by the car, the public transport users,
walkers and cyclists are most likely to patronise the locations where smaller local traders operate.

The following figure shows the comparison of spend in key sectors in shops and home shopping by spend level. Clearly the High Street dominates, but home shopping has grown to well over 10% in some areas, and is most competitive in the larger spend ranges. On the basis of this evidence, home shopping is becoming a significant element in the retail sector but is still responsible for no more than 10% of spending.

**Figure** Error! No text of specified style in document..7: **Comparison of Home and non-Home Shopping**

<table>
<thead>
<tr>
<th>Sector</th>
<th>Up to £9.99</th>
<th>£10.00-£29.99</th>
<th>£30.00-£49.99</th>
<th>Over £50.00</th>
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<tbody>
<tr>
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<td>Home Clothing and footwear</td>
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<tr>
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<td>Home Recreation and culture</td>
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<td>Shop Food and non alcoholic</td>
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<td>Home Food and non alcoholic</td>
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<td>Shop Household goods</td>
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<td>Home Household goods</td>
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3.3 A comparison of spending levels among those who travel by car against those who travel by bus, taking account of income levels

For the purposes of this research we have focused on a comparison of private and public transport users. Figure 1.8 compares spend per trip by mode for the 6 cities. In all cities, car users spend more per trip than public transport users, but the difference is on average no more than 20%.
Private transport users will generally spend more than public transport users on a single shopping trip, as shown in Figure 1.8. Public transport users do, however, make slightly more shopping trips, and are more likely to make their purchases in their local shops and city centres.

Figure 1.9 shows that the impact of modal choice on the level of expenditure is marginal suggesting that once income bias is eliminated, mode has limited impact on spending levels. The influence of mode on spend levels is due to the correlation between income, spending levels and car ownership (as seen in Figure 1.3), and not the influence of mode choice.
3.4 Identification of the effect of local transport policy on shopping locations

Parking is clearly the main policy issue of concern to the retail sector. The cost of parking in the city centre is considered to be a threat, yet the provision of Park & Ride is viewed positively although its implementation can be problematic. The one residual concern is that Park & Ride is less attractive for those with heavy goods. Clearly, home delivery services overcome some of these concerns, but availability is not universal.

“People are willing to drive further if they are getting cheaper or free car parking like to Portslade or Lewes. People will also have day-trips to Bluewater (a major out of town mall) because it has the same shops and is undercover.”

“I have lost customers because there’s not enough car parking outside the shop…customers can’t stay and look because their [parking] tickets will run out.”

Some retailers felt that the availability of car parking within the city centre was inadequate and this was contributing towards congestion as shoppers tried to locate a parking space.

Retailers felt that park & ride facilities should be increased as these provide a cheaper alternative to driving into the city centre.

“There are also four Park & Rides which pull people in. Park & Ride buses run every 10 minutes to get people into the city centre and it seems to be working.”

“The Park & Rides are fantastic and they do get customers in but buses get late and there can be long queues.”

Some larger retailers seemed more aware of the benefits that sustainable transport policies bring to both the city and the retail sector, for example, by putting in measures that reduce traffic and that are beneficial to the environment.

“[Bath is] less polluted now and there’s a happier environment.”

Congestion on the highway network is also a concern but appears to be considered as less of a determinant on choice of destination than the problems of parking.

“The road works and the pedestrianisation of certain areas stops people coming.”

Public transport was recognised as being beneficial, notably in Nottingham and Brighton where a step change in service quality has been recently achieved.

“[Nottingham is a] very centralised city and it is easy to get around…if they (shoppers) live on one side of the city they will travel in by tram, if they live on the other side they use the bus.”

Overall, the availability and cost of parking, and the quality of the shopping environment and retail offer were both recognised as important factors, and

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the high quality pedestrian environment which is achieved by controlling parking is clearly a counter-balance to the deterrent posed by parking control. Of course, if the shopping destination does not cater either for public transport or private transport access, this has a consequential impact upon the range of consumers visiting the centre which will in turn impact upon the retail offer. The relationship of transport and the retail sector is, therefore, one of interaction rather than one-way causality.

3.5 The main transport priorities of shoppers in various locations

Overall, parking was clearly seen to be the major constraint, and by far the most important issue to respondents, with concerns being raised with regards to cost and availability. Park & Ride was often cited as the preferred solution.

“If you want to go for like your retail shop I will go to Crawley…[there’s] much cheaper parking in Crawley…and you have got better shops.”

Local people identified the range of shopping and parking as the two main areas of concern. Some people want a range of “big names” whilst others would prefer to see smaller independent stores, but the range of retail available was clearly important. The ability to combine shopping with other activities, of a kind which can only be found in the city centre, is clearly important to people.

“Birmingham is vibrant with a lovely city centre with lots going on…it’s fantastic and I enjoy living here.”

‘Lots of my friends who walk around Bath…which I will be doing tomorrow morning…just like the buildings…this is what it is all about… this is so wonderful’

A little while ago I went to the museum and had a look around there in the morning…and went to the market in the afternoon, looking around…and then I love browsing in the book shops and they have got nice coffee shops’

On the other hand, shopping in out of town centres was said to be…

“…very convenient a there is free parking and all of the shops are close together under one roof…you can purchase bigger, bulkier items and fill the car boot.”

“I like George in Asda as it’s cheap, well made and I can buy something when I’m grocery shopping.”

The environment of the city is also important and pedestrianisation contributes to this.

“The pedestrianised areas make shopping here safer especially when you have children as it is one less thing you have to worry about.”

Home-shopping was responsible for only 10% of sales identified in the survey, but is clearly becoming more important and appears more significant for large purchases.

“I use the Shopbot website to research prices as it gives you the 10 cheapest prices for the same item in the UK.”
Some participants were comfortable with the idea of doing their food shopping online and although they were not happy about paying the delivery charges, this method of shopping was seen as being beneficial to the environment.

“There’s only one van going to 20 different homes instead of 20 different cars visiting one shop.”

The views of shoppers did not markedly differ from those of the business sector and other stakeholders. Parking is the key transport determinant but is offset by issues of environmental amenity and the retail offer.

4. POLICY RECOMMENDATIONS

Objective 1: To assess the nature of the relationship between mode of travel and retail spending in various retail sectors

Car users generally spend more than public transport users and walkers/cyclists. The differences vary, but are typically in the 10%-20% range. This should be recognised as being significant in behavioural terms but must be recognised as a reflection of the correlation between car ownership and income. As discussed below, once income factors are taken into consideration, it is not proven that existing shoppers, once encouraged to use public transport, will spend significantly less, other than on major (over £50) shopping trips for which the lack of a car becomes a barrier. Investment in improvements such as home deliveries may tackle this issue. Current transport policy, which encourages the use of more sustainable transport modes, may discourage car access to urban centres, and thus could result in a reduction in spending. The reduction, however is modest, and the policy challenge must be to ensure that any reduction in private vehicle access is compensated for by complementary measures to enhance the environment and alternative means of access.

Objective 2: To compare patterns of expenditure and mode of travel between different retail sites at town centre, edge of centre and out of town sites

The car is the dominant mode of transport for trips to shops, particularly for free-standing supermarkets and out of town sites. Car users do spend more than public transport users in the city centre, but the differences are much less marked. If the wider policy objective is to achieve environmental improvement by deterring car usage, then planning control on the development of retail outlets in out of town locations must be maintained as these are clearly car-focused.

Objective 3: To establish spending levels among those who travel by car compared to those who travel by bus, taking account of income levels

Once income is taken into consideration, the spending levels amongst car and public transport users are similar. Therefore, provided that high quality public transport is available, measures to encourage modal shift amongst a target population sector appear to have minimal impact on retail expenditure. Of course, demand management measures which lack complementary public transport investment may encourage car-based shoppers to redistribute to

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other, less sustainable, locations, rather than shifting mode, and therefore if the overall attractiveness of the city centre is not improved to compensate, such measures will not achieve a reduction in car usage.

Objective 4: To identify the effect of local transport policy on shopping locations

Parking is consistently identified by the retail sector and shoppers as the factor which influences choice of location for drivers. Public transport to out of town sites is limited and so non-car owners are often restricted in their choice of location. It is, however, clear that transport is felt only to be one of a number of factors, such as retail offer and the local environment, which influences shopping location choice. If access is restricted then this may deter shoppers, but if the space gained through access restrictions is used to create an enhanced shopping environment, this effect can be offset. Of course, some drivers with impaired mobility may be dependent on car access, and ensuring that parking is readily available for Blue Badge holders will remain a requirement. Conversely, pedestrian priority schemes, if well designed, improve amenity for disabled people, and measures such as Shopmobility can support access for all.

Objective 5: To establish the main transport priorities of shoppers in various locations

Parking appears to be far more of a concern than congestion, with strong views expressed in each city by shoppers, and the provision of Park & Ride facilities, rather than dealing with congestion is likely to help to resolve concerns. Congestion is, however, a concern, and radial congestion may deter city centre visits.

Whilst there is dissatisfaction expressed with availability and pricing of parking, shoppers appear to be able to park for free, even in attractive city centres. Shoppers may, of course, be deterred from accessing city centres if they cannot find cheap or low-cost parking, but the evidence does not reflect the suggested cost levels.

5. COMPARISON OF RESEARCH METHODS

The author undertook related previous research into “The Impact of Sustainable Transport Policies on the Travel Behaviour of Shoppers” which adopted a very different survey methodology. That research attempted to derive a time-series relationship between transport policy and the economic strength of 6 urban areas.

Two forms of economic data were used. The first were basic retail statistics, which were relatively easily gathered but which cannot be related to the fortunes of the individual retailer as they reflect changes such as globalisation of the retail sector. The second source of data was derived from a major high street retailer present in each study area whose retail offer was believed to be relatively constant over time. In reality, however, it was found that even a fairly
conventional retailer regularly changed store format and retail offer with new departments opening and closing, and significant changes in management.

The assessment of background economic data confirmed that the prosperity of the retail sector as a whole is relatively independent of transport sector provided that high-quality access to the urban area is maintained. For example, if car access it restricted, the reallocation of road space to high quality pedestrian areas helps to offset the impacts.

6. EUROPEAN RELEVANCE

This research was undertaken solely in the UK, but addresses an issue of interest across Europe. The evolution of the retail sector is taking place at different rates in different Member States, but an awareness of the relationships between economic activity and transport choices will be of relevance to all transport planners in seeking to ensure that European cities remain vibrant yet sustainable.

7. SUMMARY

Overall policy recommendations echo the previous DfT research into “The Impact of Sustainable Transport Policies on the Travel Behaviour of Shoppers”. Transport policies do influence shopper behaviour, and can be damaging to the retail sector when implemented in a manner which deters access yet fails to provide a viable alternative. On the other hand, transport is only one of a number of influencing factors which may be offset by issues such as the amenity of the town centre and the retail offer.

On average, car users spend more than public transport users, but once the impact of income is eliminated from the analysis, there does not seem to be a difference in retail spending between the two groups.

Sustainable transport policies which promote measures that enhance access, such as LRT solutions and Park & Ride, can help to ensure that the retail sector can flourish in the urban centre and benefit from the enhanced environment which results from such policies. Sustainable transport policies which restrict car access, and most specifically parking, without providing alternatives risk deterring visitors, leading to a decline in the retail offer. It is essential, therefore that transport policy is designed to improve the urban environment whilst maintaining overall accessibility in order to enable the retail sector to grow.

BIBLIOGRAPHY


ACKNOWLEDGEMENT

This paper is based on the findings of research commissioned by the UK Department of Transport on behalf of the Commission for Integrated Transport (CfIT). The views expressed, however, are those of the author.

Further information on the research commissioned by CfIT can be found at http://www.cfit.gov.uk/pn/060719/index.htm.

Jo Baker
Project Director
Mott MacDonald
Canterbury House
85 Newhall Street
Birmingham
B3 1LZ
Tel 0121 237 4033
Fax 0121 237 4003