What affects pre-trip public transport information use? Empirical results of a qualitative study

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ABSTRACT
With the rise of the Internet and mobile phone, various forms of public transport information services have emerged which can enable people to make better informed travel choices. Nevertheless, many people are unaware of these information services and indeed only a minority of the public uses them. Lack of awareness is only one of a series of barriers to travel information use. This paper studies the factors influencing the pre-trip use of public transport information services (via different media - Internet, phone, paper timetables, asking staff). A social-psychological perspective has been adopted which takes habit, attitudes, anticipated emotions, and perceived behavioural control into account. Twelve face-to-face in-depth interviews and six focus groups were conducted across the UK among car drivers and public transport users. The results show that social-psychological factors seem to be important determinants of travel information use. External factors such as trip context could affect these determinants. People do not tend to travel by public transport without consulting any public transport information, unless there are no time constraints, the service runs frequently, or the journey is local. Individuals also seem to have a 'default' source of travel information which they use for most trips. Except for most people older than sixty, the Internet dominates as the common default travel information source. Phoning an enquiries line is unpopular across all age groups, but for different reasons: older people prefer face-to-face contact by visiting their local station, whereas younger people prefer to look up the information for themselves online.

1   INTRODUCTION

If an individual is well informed about their travel options it is assumed that they will be able to make 'better' decisions about where, when and how to travel – decisions which are better for them and which may also be better for the transport system as a whole. The advent of the Internet, increasing transport system monitoring and increasing data processing power have given rise to a substantial increase in the availability and functionality of travel information services (both for car and public transport) in many countries across the world. It might be assumed that it would follow that these information services are the subject of widespread use as travellers look to improve their decision making (maximising the utility of decision outcomes). Is this the case in practice?

Consider the situation in the UK –where there has been substantial development of travel information since the 1998 UK government Transport White Paper. A survey carried out every three months since 2004 has assessed public awareness and use of some of the main travel information services available. Based on a representative sample of 2095 British adults interviewed face-to-face in March 2007 (*1*), Figure 1 shows that, at best, only a slender majority of the public are even aware of such services, let alone using them. Nearly half (45%) of the respondents had never used any of the travel information services listed in Figure 1. This percentage has been fairly constant over time. Slightly more than a quarter of the respondents (27%) had ever used a telephone based travel information service and 45% had ever used a web-based service (*1*). Over time, a decrease has occurred in the use of telephone services while the use of online information services has increased (*1*).
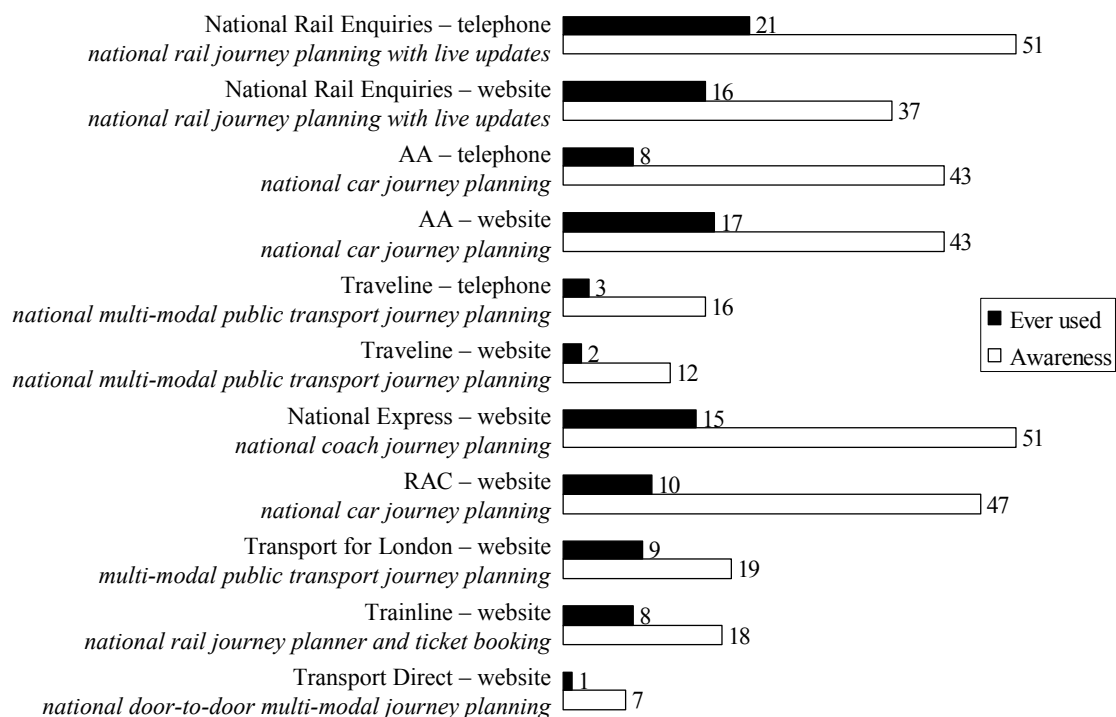

FIGURE 1   Awareness and use of travel information services in the UK (percent of respondents) (*1*)

Awareness is a precursor to use (notwithstanding questions over the meaning of awareness, especially amidst the 'Google generation') as Figure 1 suggests. It might be argued that with increased awareness, usage would also increase. It seems that younger age groups, professionals, people with Internet access, and public transport users are more likely to be aware of travel information than others (*1,2*). Consequently, their information use is higher compared to others (*1-5*). However, the means of, and motivations for, becoming aware are not well understood and furthermore what Figure 1 highlights is that for the vast majority of people, becoming aware does not lead to use. Can this lack of use be explained?

In part the lack of use may be attributable to the services in Figure 1 overlapping in terms of the information they can provide. In addition, some people seldom use given travel modes, thus affecting their (lack of) need for associated information - approximately half of the British population travels less than once a year by train or local bus, while the majority (84%) travels less than once a year by coach or express bus (*6*).

Other research has revealed that for the majority of trips, travel information (from a 'formal' source) is not sought (*7-9*). This relates to the fact that the majority of trips made by the public are familiar, local and not arrival time-sensitive (*10, 11*). It has been found (*3, 4, 12*) that people acquire travel information mostly for unfamiliar trips, arrival time-sensitive trips (such as business trips), longer distance trips, and leisure trips. The willingness to consult travel information increases the more uncertain the trip context is (e.g. expectation of bad weather or of volatility in travel times, congestion, travelling during peak hours) (*12, 13*). Such trip characteristics clearly offer some explanatory power in relation to our question over lack of travel information use.

However, this paper stems from a specific contention that we still know relatively little about what factors affect information use (and by implication non-use). Existing empirical studies are often descriptive rather than explanatory (e.g. *3, 4, 10*). In terms of factors relating to the *individual* rather than the trip, the majority of past studies have only taken sociodemographics into account. Yet these could be poor proxies for the underlying behavioural and attitudinal characteristics of individuals which may actually determine travel information use (*13, 14*). There has also been relatively little attention given to the social context for information (non-)use.

Allied to a need to better understand factors affecting travel information use in general, there has been little if any specific consideration of why people do not use *public transport journey planning information services* (as much as might be expected or desired by policymakers). This is especially important in a policy environment where travel behaviour change towards greater public transport use is seen as a key aspect of mitigating congestion.

In order to address the above, this paper aims to provide more insight into the social-psychological factors affecting the level of pre-trip public transport information use and the type of information sources used. Public transport information use is defined as seeking, finding, and consulting information about train, coach, bus, metro, or tram (or trying to consult in the case of inadequate information). Since travel information use could be closely related to mode choice (e.g., *15*), factors affecting the decision to travel by car or by public transport are studied as well. Twelve face-to-face in-depth interviews and six focus groups with members of the general public have been conducted in the UK.

Prior to introducing the research methodology, the next section of the paper provides a theoretical background. This is then used as a basis for examining the empirical findings. The final section of the paper draws conclusions and considers the implications of the research for developing further understandings of travel information use.

2   THEORETICAL EXPLANATIONS OF TRAVEL INFORMATION USE

A review of travel information research for the UK Department for Transport (*16*) covering literature from 2001 to 2007 (and building upon a previous review (*17*)) has revealed that decision theory from the behavioural sciences is now receiving (growing) attention in relation to travel information use and travel choice making. It appears that this provides new insights which can contribute to an improved understanding of barriers to (higher levels of) information use.

It is found that individuals apply a number of short-cut approaches to decision making. Bounded rationality considers how people can "make reasonable decisions given the constraints that they face such as limited time, limited information, and limited computational abilities" (*18*). Individuals trade off their current perceived level of knowledge relating to a decision with the effort of seeking information to improve that level of knowledge (*19*). Allied to this is the notion of satisficing behaviour (as distinct from utility maximisation within the travel decision domain) whereby travel options that are 'good enough' may be selected (*20*). Regret theory (*21*) suggests that an individual will postpone making a decision and seek more information if, when faced with uncertain alternatives, their anticipated minimum regret from the decision outcome exceeds a threshold for that individual (*19*). The concept of social learning or social imitation (*18*) where an individual short-circuits their own decision making by copying the decision making of others is also being examined in relation to travel information use (*22*).

There has been a growing recognition of the (apparent) prevalence of habit in travel choice making (*13, 15, 23, 24*). In effect, habit is the preclusion of any conscious consideration of choice. Habit may not prevent information use altogether since certain confirmatory information may be consulted (e.g. in relation to reliability and uncertainty). However, it can be particularly significant in terms of mode choice - limiting the chance that an alternative transport choice is considered (*15*).

One of the theories we suggest that might be of additional relevance to the understanding of travel information (non-)use is the Extended Model of Goal-directed Behaviour (EMGB), which assumes that behaviours are selected because of their usefulness in achieving a goal (*25*). It has been successfully applied to explain dieting, studying, and online and in-store shopping (*25, 26*). The EMGB has its roots in attitude theory, namely in the Theory of Planned Behaviour (*27*). This theory states that intention is a direct determinant of behaviour (in this case the behaviour being travel information use) and that intention in turn is determined by *attitudes* (the degree to which a person has a favourable or unfavourable evaluation of a particular behaviour), *subjective norms* (the perceived social pressure exerted by important others, such as family and friends, to perform or not to perform a behaviour), and *perceived behavioural control* (the perceived ease or difficulty of performing a particular behaviour in a particular situation) (*27*).

Goal desire refers to the strength of an action's end state or the personal value that is attached to a certain goal outcome. This could be, for example, to reach a certain destination successfully in order to perform activities there. It affects the *behavioural desire* to perform a certain behaviour, such as using pre-trip public transport information. Behavioural desire (which affects intention), is a crucial construct in the EMGB and is defined by Perugini and Conner (*25*, pp. 706) as: "…the motivational state of mind wherein appraisals and reasons to act are transformed into a motivation to do so." Travel information use is a distal form of goal-directed behaviour, which means that the relationship between goal desire and behavioural desire could be less clear. Nevertheless, other EMGB concepts could be relevant to explaining behavioural desire, and thus, the intention to use travel information. *Anticipated emotions* represent positive or negative emotions in respectively achieving or not-achieving a certain goal for which the behaviour is instrumental. They are goal-related variables, since they express how people would feel if they achieve their goal (e.g. reach a destination successfully) or fail to do so. *Past behaviour* refers to the amount of past experience of performing a particular behaviour. The more often it has been performed (implying a known degree of success in doing so), the more likely an individual is willing to execute the behaviour again.

Constraints or *external factors*, within which intentions and behaviour occur, could play an important part in an individual's choice process and affect the EMGB concepts discussed above. For example, people's travel behaviour (such as the amount one travels overall and the frequency of public transport use) could affect their experience (or 'past behaviour') with using public transport information. Similarly, the perceived availability of viable travel alternatives and the level of knowledge about those alternatives could influence attitudes towards information use. Also, the trip context (e.g. making an arrival time-sensitive trip) could influence the anticipated emotions. Another example is that more experience with using the Internet in general is likely to affect someone's perceived behavioural control in using online public transport information in particular. Finally, frequent car use might lead important others (e.g. family or friends) to discourage the use of other transport modes, and ultimately, also public transport information use.

3   METHODOLOGY

Since the aim was to identify why certain travel information sources are (not) used and in which situations, a 'triangulation' of in-depth interviews and focus groups was felt to be appropriate for understanding the underlying reasons and specific circumstances for travel information (non-)use. Twelve face-to-face in-depth interviews (average duration 90 minutes) and six focus groups (average duration 90 minutes) were conducted with members of the general public. Individual interviewees did not participate in the focus groups. At the start of each interview and focus group a broad scope was adopted with the aim of identifying the varying contexts of travel information use for both public transport and car travel, pre-trip as well as en-route. Discussion then moved to consider pre-trip public transport information use and use via the Internet in particular.

The research was carried out in the South West of the UK (Bristol) and the North West (Stockport and Manchester) in February and March 2007. In total, 62 people participated. Stockport (population 281,600 in 2005) (*28*) is a town located south east of Manchester (population 441,200 in 2005) (*28*) which is easy accessible by train (frequent services run between Stockport and Manchester Piccadilly rail station). Compared to Bristol (population 398,300 in 2005) (*28*), Stockport and Manchester have a more extensive public transport system where bus use is cheaper (shuttle buses with three different routes operating in the city centre of Manchester are even free to use). Also, there is a tram service available in Manchester, as well as a light rail system.

Participants for the research in Bristol were recruited via university email lists of students and staff, while an external agency did the recruitment on-street for the research in Stockport and Manchester, in compliance with standards specified by the UK Market Research Society. In both cases, people received an incentive to participate and were excluded from the research if they had never used the Internet, if they did not have a driving licence, or if they did have a driving licence, but no car available in their household. Hence, the (non-)use of public transport information could be studied of persons who have a choice between car and public transport. Participants were also selected based on their level of public transport information use ("How often do you consult information about public transport, such as a timetable, website, telephone, or asking staff?"). Thus, a mixture was ensured of frequent (at least once a month) and infrequent (less than once a month) users of travel information to benefit the discussion in the focus groups. The interviews were held with infrequent users of public transport information, to better understand the non-use of travel information.

As Table 1 shows, different age groups have been researched in both the interviews and focus groups to capture the differences in life stages which are reflected in people's travel behaviour and ultimately in their travel information use. Most focus groups had a balanced mixture of gender; an equal number of males and females have been interviewed. The interviews were conducted prior to the focus groups in order to inform the moderator guide for the latter. The main part of the focus group consisted of an exercise in which participants were presented with two travel scenarios (a 1 hour trip by car or train and a longer 2 hour trip) and 'strategy' cards depicting various travel information sources (the Internet, telephone, paper timetable, asking staff at a train/coach/bus station, asking someone you know) on which they could indicate if they would obtain public transport information and why (not). The purpose of this task was to stimulate discussion about the reasons for (non-)use of various travel information sources and to gain more insight into the circumstances under which people might consider using public transport information. All interviews and focus groups were tape recorded and transcribed.

TABLE 1   Sample Description and Locations of Interviews and Focus Groups

	Location	Gender	Age	Total number of participants in focus group
Interviews	Bristol	2 males	27, 41	-
	Bristol	2 females	24, 52	-
	Stockport	4 males	22, 29, 42, 68	-
	Stockport	3 females	32, 40, 66	-
	Manchester	1 female	24	-
Focus groups	Bristol	5 males, 4 females	19-23	9
	Bristol	5 males, 5 females	19-41	10
	Stockport	4 males, 2 females	41-57	6
	Stockport	4 males, 4 females	60-72	8
	Manchester	5 males, 4 females	18-25	9
	Manchester	4 males, 4 females	27-38	8

4   RESULTS
4.1   Level of Pre-Trip Public Transport Information Use

The level of pre-trip planning did not seem to vary much among the respondents studied. Most indicated that if they would use public transport, they *would* consult public transport information, either for journey planning or for confirmatory information (e.g. checking departure times). It seems people only 'turn up and go' if there are no time constraints, if the services run frequently, or if the trip is local. This finding might appear to contradict the earlier reported low levels of use of travel information services. However, overall levels of use being relatively low may well reflect in part the widespread use of the car rather than public transport in the UK. The apparent contradiction may also be attributed to there being a much greater number of travel information services in the UK overall than shown in Figure 1 - respondents indicated they consulted the information website of the train company they were travelling with (e.g., Virgin Trains), instead of one of the travel information websites in Figure 1.

Information needs vary for bus, coach, and train. Bus journeys tend to be local and less complicated (many respondents indicated that they just turn up at the bus stop), whereas coach and train travel are relatively more often planned in advance, probably because they represent unfamiliar and/or long distance travel. The type of information that is being sought typically includes journey times and prices for public transport. Return times are less often checked compared to departure times, depending on the flexibility people have - some respondents indicated that they do not mind waiting at the station if they know it is a nice environment where they can do some shopping.

In all focus groups, the majority of respondents stated they would need to seek public transport information, both for the short trip and long distance trip scenario. In the younger age groups, a greater majority of respondents said so compared to the older age groups. There was no clear relationship between trip distance and the need for information: in some focus groups the stated need for pre-trip public transport information was lower for the long distance trip scenario, whereas in other focus groups it was higher. In those cases where travel information need was low regarding long distance trips, respondents said they would probably drive and, therefore, would not need any public transport information. In those instances where the intended travel information use was higher for long distance trips, it was mainly because of the unfamiliarity of the trip.

Anticipated emotions (positive or negative emotions in respectively achieving or not-achieving a certain goal, such as arriving at a certain destination) repeatedly emerged across different age groups as an important underlying reason for respondents to plan their journey and to make sure they would arrive on time (corresponding also to regret theory (*19*):

> "The most frustrating thing in the world is getting to the station and seeing your train pull out, that is just awful. It's so frustrating waiting around when there's so much more that you could be doing." (female, 24)

Respondents also often indicated they used travel information to make sure there were no cancellations or delays, which confirms the results of earlier studies (*12, 13*) that the willingness to consult travel information increases the more uncertain the trip context is.

Asked about what it would take them to use public transport information services more often, many respondents replied that they would have to use public transport more often. Some respondents indicated that a better performance of the public transport system was needed, especially referring to the reliability of bus services in Bristol. No notable differences were found in the (non-)use of public transport information between respondents living in Bristol, Stockport, and Manchester. In most focus groups and in some interviews, respondents expressed the wish for an integrated multimodal door-to-door travel information source, unaware that such an information source already exists online - www.transportdirect.info.

4.2   Mode Choice And Travel Information Use

While discussing the focus group scenarios about making a long and short distance trip, respondents showed different starting points in their cognitive process of mode choice; they would:

1. only consider travelling by car (and, therefore, would not consult any public transport information);
2. only consider travelling by public transport (and, therefore, would consider public transport information, either with the objective of itinerary planning or confirmation of journey times);
3. have a slight preference for either car or public transport (leading them to look up travel information in order to decide on mode); or
4. have no clear preference for a particular mode of transport (which, again, would lead them to look up travel information in order to decide on mode).

The last of these starting points was uncommon: most respondents had either a strong or a slight preference for a certain mode of transport prior to any information search. Younger persons indicated more often than older persons a preference for travelling by public transport. Travel by coach was only occasionally mentioned as a travel option, mostly to save money.

Confirming the results of other studies (e.g. *15, 23*), habit was found to be important for mode choice, and subsequently, for travel information (non-)use. In the focus group short distance scenario, a respondent indicated:

> "I would drive, I'd just automatically drive. I've done the journey a few times to Cardiff and never even thought about using public transport to be honest. (…) I generally drive everyday or use taxis. The number of times I would be looking for public transport information is very limited." (male, 22)

Similar comments were made by other respondents. Sometimes, respondents indicated a habitual use of public transport, saying it would not occur to them to go by any other mode of transport.

Some evidence was found for the use of short-cut mechanisms and social learning regarding mode choice, although this was less apparent in the data. Respondents sometimes indicated they would use the train for a particular journey, because they knew other people who made that journey:

> "I think my first instinct would be to go for the train. My boyfriend works at Cardiff University so I'd do that because he used to make the journeys, so he knows where the best stops would be." (female, 20)

Also, attitudes towards, and false perceptions of, public transport could affect its information use. One of the scenarios given to respondents dealt with going from Manchester to Nottingham, which has a direct train connection without any changeovers. However, a respondent indicated he would not use any public transport information for this trip, because of the number of changeovers:

> "I'd probably go there by car, only because I think by train you'd have to change about two or three times, and I don't think there's a direct train to Nottingham." (male, 42)

This illustrates how the perceived availability of viable travel alternatives and the level of knowledge about those alternatives could influence attitudes towards travel information use.

People can have different goals when travelling (goal desire), varying from reaching the destination as quickly or cheaply as possible, to having a comfortable journey or a good time with other people while travelling. These goals affect mode choice and the intention to use public transport information. Some respondents (especially younger persons) indicated that when their employer pays for work-related travel, train would be their preferred mode option, whereas if they were going on a leisure trip they would check which mode would be the cheapest. Other respondents said they would try to get a balance between cheap, quick, and comfortable. Different travel goals could lead to the same mode choice and the same level of travel information use. However, the same goal (e.g. to have a good time with friends) could lead to different mode choices and the associated information (non-)use. For example, some respondents preferred to drive to a social event such as a concert, whereas others preferred to travel by train.

Trip context could affect social-psychological determinants of travel information use, such as goal desire. The following issues related to trip context clearly appeared to play a role in mode choice and travel information (non-)use: the availability and cost of parking (the more expensive and difficult, the more likely people seem to be to travel by public transport); the length of stay (the longer the stay, the more likely respondents were to go by car, because of the ease of getting around); the availability of transport at the other end (often mentioned as a reason to go by car); alcohol consumption (a reason to go by public transport); and the amount of luggage (car would be the preferred option). Additionally, trip purpose (business or private), the arrival time-sensitivity of the trip, group travel, and weekday and time of day, also seem to affect mode choice, and, therefore, pre-trip public transport information use. Regarding the familiarity of the destination, some respondents indicated they would prefer to find their own way by car, whereas others disliked driving in an unfamiliar area and would prefer to go by public transport. Most of these findings match the results of other studies (*3, 4, 12*).

4.3   Use of Various Public Transport Information Sources

Compared to the level of public transport information use, there was more variation among respondents concerning the *sources* of public transport information they used. However, between the short and long distance scenarios there was hardly any difference at the level of the individual in the type of information sources respondents said they would (not) use. It seems that individuals have a fairly fixed set of travel information sources that they tend to use across different types of journeys. Apparently, they have a 'default' information source and a second option in case their first choice is not sufficient (*15*). Using a combination of various travel information sources does not seem to occur often. Only one respondent indicated that she would first look online to obtain basic information and to identify gaps that needed clarification. Then, she would use the online information to inform her telephone conversations. No one appeared to use a travel information text message service on their mobile phones.

Internet
From both the interviews and focus groups it clearly emerged that the Internet was the most often used information source to obtain travel information in general and pre-trip public transport information in particular. This is not surprising in an age where information is readily available online and the Internet has become a common default starting point of any search for information. The most common reasons mentioned by respondents for using the Internet were: easily accessible from work or home; free; quick; up to date; reliable; possible to book tickets; and easy to print the information. This reflects a high level of perceived behavioural control and a positive attitude towards online travel information use. Other reasons mentioned were having all the information in one place, the possibility to consult the information together with another person and to discuss the various options, and being able to search discreetly for

information when at work. Only a few respondents indicated that they sometimes accessed the Internet via their mobile phone, mostly when they were travelling.

The actual search on the Internet for travel information varies. Only a few respondents have bookmarked travel websites in a 'favourites' folder. Those who do, tend to stick with websites they have successfully used before. A respondent stated as a reason for her use of a particular travel information website that this was the first one she got to know, so she had kept using it. Similar experiences were often expressed by other respondents, which illustrate the relevance of past behaviour:

"You tend to go back to the ones you are familiar with." (male, 41)

"These are reliable websites which I have used in the past." (female, 27)

Often a search engine such as Google (as distinct from the new Google Transit experimental service) is used to obtain travel information (e.g. by typing in the origin, destination, and mode of transport), because of the difficulty to remember web addresses. Usually, use of only one website will be needed, unless tickets need to be booked through a further website. Some respondents indicated they had difficulties finding useful travel information online, showing a low level of perceived behavioural control:

"I think Google sometimes just gives you absolutely everything and you can't pinpoint anything." (female, 22)

Other disadvantages of seeking travel information online that were mentioned included waiting for adverts to load up (causing a waiting time before the information appears) and having to register before accessing the information (causing difficulties with remembering passwords). Older respondents often indicated they would prefer to speak to someone rather than seek information online, which illustrates the importance of attitudes towards travel information sources:

"It's person first, then the net." (male, 68)

Some older individuals expressed a positive attitude towards the Internet, but still preferred to use other travel information sources because of their lack of experience and confidence in using the Internet to find travel information. Other respondents thought the Internet would be easy to use, but said they distrusted the information given online. Also, the difficulty in changing habits of travel information use was mentioned (e.g., from using a timetable to using online information).

Telephone Enquiries
Many respondents expressed strong negative views about phoning enquiry lines to obtain travel information. Reasons that were often mentioned included that it is expensive, time consuming, and irritating because of the automated options. They also indicated that it would be awkward to have to write everything down if they made a telephone enquiry about a relatively complex journey. Additionally, when using a phone there is not much else one can do, so respondents feel they are giving up their time, whereas if they would obtain travel information online they could also, for example, check their email. Many respondents said they did not know which number to call, which is a lack of perceived behavioural control:

"I don't think I'd know the number to phone without going online to look it up, so I'd just do it [search for travel information] online." (male, 29)

Most respondents indicated they would only use a phone if they did not have Internet access, if they were on the move, or if they wanted to double check the information. Only a few respondents expressed a positive attitude towards phoning an enquiries line:

> "You can get the information all in one go. It's like a one stop shop. You can ask them for discounts, engineering works, best way, price, if you can get through." (male, 35)

Older respondents said they would use a phone because they find a human voice reassuring. Also, in the case of complex journeys (e.g. a train journey with interchanges) older people preferred the phone over the Internet because of the personal advice and a fear that they might not get the right information if they looked online for themselves. Younger people, however, only tend to use the phone as a last resort or for inquiries that are easy to remember (e.g. bus departure times).

Timetables
Many respondents indicated that they do not possess copies of timetables and would not know how to obtain one. Furthermore, timetables are seen as being quickly outdated and, therefore, not trustworthy. Older people said more often than younger people that they would pick up a timetable or that they would already possess one. The interviews showed that timetables are typically consulted for frequent, local (bus) journeys.

Asking Staff at a Station
In the oldest age (60-72) focus group, participants often indicated they would not use a telephone or timetable, but would prefer face-to-face contact by asking staff at a station. They would not mind going to the station and would usually combine it with something else, such as shopping. Sometimes, younger respondents peferred to ask staff, because they believed they were better able to find them a cheaper ticket than if they would search online.

Asking Someone You Know
The use of informal sources (such as family, friends, colleagues) varied, depending on how trustworthy (and thus useful) the information obtained was perceived to be. Informal information sources were typically consulted if participants knew people living in or frequently visiting the scenario destinations. Respondents were less likely to consult informal sources in the long distance trip scenario, probably, because they do not believe they know anyone who is familiar with the journey.

In the interviews, respondents were asked whether someone they knew had ever recommended a public transport information source to them, or discouraged them from using one (e.g., by sharing negative experiences). Several respondents indicated they had heard about travel information services via their parents, friends, and colleagues. In those instances, subjective norms (as well as social learning) could have played a role in travel information use. However, most respondents said that they had not been recommended any travel information services by others and that it was not a common topic of discussion:

> "To be honest, I don't know that many people who use public transport."
> (female, 32)

Only one respondent said that she had recommended the website of National Rail Enquiries to other people, because of the 'live departures and arrivals board' feature. No one mentioned ever having been discouraged to use certain public transport information services.

4.4   Discussion

> "I don't use public transport a lot, so I don't really know how good the services
> are, but if someone made it easy for me to find out how good the services were,
> then I would be more inclined to use them." (female, 20)

The above quotation illustrates the important role that public transport information services could play in increasing public transport use. Many of the social-psychological factors discussed earlier that influence travel information use interact simultaneously in practice. The pre-trip use of public transport information seems to centre upon the following three key factors: the ease of obtaining the information; the ease of use (or understanding); and the perceived reliability of the information (trust). The first two factors are indicators of perceived behavioural control, while the latter is an indicator of attitudes and, possibly, past behaviour. For any individual, the use of travel information sources can either be:
1. easy to obtain and easy to use (e.g., online information for a younger person);
2. easy to obtain, but difficult to use (e.g., online information for an older person);
3. difficult to obtain, but easy to use (e.g., phoning an enquries line); or
4. difficult to obtain and difficult to use (e.g., a paper timetable for a younger person).

The amount of trust can then be specified for each travel information source. For example, travel information from friends might be easily obtained and easy to use, but could be perceived as less reliable than information obtained from more formal travel information sources.

5   CONCLUSIONS

This paper reports the empirical findings of a qualitative study about social-psychological factors affecting pre-trip public transport information use. In-depth interviews and focus groups have been held across the UK to gain more insight into which public transport information sources are used and which not, why, and whether this differs per age group.

The level of pre-trip public transport information use is affected by anticipated emotions, which matches the results of a study in the field of regret theory (*19*). People do not tend to travel by public transport without consulting any public transport information, unless there are no time constraints, the service runs frequently, or the journey is local. Mode choice emerged as the first step that most respondents undertake in their journey planning and is, therefore, also an important determinant of the intention to use pre-trip public transport information. The choice of transport mode is influenced by trip context, but also by social-psychological factors such as goal desire, habit, attitudes, and social learning.

Furthermore, the results show that the Internet dominates as the common default travel information source, although older people tend to use timetables and phone enquiry lines more often than younger people. Also, respondents seem to have a 'default' source of travel information which they use for most trips. Using the phone is unpopular across all age groups, but for different reasons: older people prefer face-to-face contact and would go to the local station to obtain public transport information, whereas younger people prefer to look up the information online. The (non-)use of various public transport information sources seems to be mainly influenced by perceived behavioural control, attitudes, and past behaviour.

So far, the results indicate that social-psychological factors could be important determinants of travel information use. Furthermore, they might clarify how external factors such as trip context affect travel information (non-)use. This could be via different ways, such as through anticipated emotions, or perceived behavioural control, or via any combination of social-psychological factors. We are proceeding to gather empirical quantitative data in order to assess the relative importance of social-psychological factors for travel information use compared to external factors such as trip context, as well as the relative importance among social-psychological factors.

People could hold false beliefs about public transport, which are hard to correct if they form a barrier to travel information use. This provides a policy challenge in how to reach people to correctly inform them about public transport services. Marketing could be useful, as people seem to stick with those travel information sources that have helped them succesfully in the past and that they are confident in using.

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