The use of pre-trip mode information for non-daily trip decisions

Rebecca S. N. van der Horst

Urban and Regional Research Centre Utrecht (URU), Universiteit Utrecht

r.vanderhorst@geo.uu.nl

Samenvatting

Het gebruik van pre-trip verkeersinformatie in niet-dagelijkse beslissingen
Dit paper beschrijft de resultaten van een internet enquête over het gebruik van verkeersinformatie in niet dagelijkse vervoerwijze- en bestemmingskeuzen. De invloed van context factoren (ervaring, gewoonte gedrag, attitudes en sociaal demografische eigenschappen) op het informatiegebruik in deze keuzes staat centraal. Naast de descriptieve beschrijving van de resultaten worden logistische regressie modellen gepresenteerd voor het vervoerwijze keuze en bestemmingskeuze. De modellen laten zien dat informatiegebruik voor bestemmingskeuze complexer is dan voor vervoerwijze keuze. De uitkomsten van de analyses worden tot slot kort besproken in verband met Nederlands beleid op het gebied van reisinformatie.

Summary

The use of pre-trip mode information for non-daily trip decisions
This paper presents the results of an Internet survey into the information acquisition for non-daily mode and destination choices. The paper describes how the retrieval of mode-related information for destination and mode choice is influenced by context factors, such as socio-demographics, experience, attitudes and habitual mode use. First, each factor is analysed separately with descriptive statistics. Second, logistic regression models are estimated to investigate which factors influence the decision to use mode-related information for the mode and destination choice. Results show that the choice for destination is more complex than the choice for mode. The relevance for Dutch policy regarding travel information is discussed.

1. Introduction

The Internet offers a wide range of information acquisition possibilities for travellers. Ideally service providers offer different types of travel information, which should provide travellers with real time travel information, either pre-trip or en-route, enabling them to adjust their route, mode, departure time or destination such as to optimise their trip outcome in terms of travel time and departure time (e.g. Adler 2001; Jou *et al.* 1997). The Ministry of Transport recognises the importance of travel information; information facilitates a reliable travel time prediction and informs the traveller of this travel time (Nota Mobiliteit 2005). To understand the use and effects of travel information has therefore received several research attempts (e.g. AVV 2003; AVV 2004).

In recent years, most attention and research initiatives have emphasised commuter and business travel (e.g. Jou *et al.* 1997, AVV 2003). In spite of the fact that travellers are more prone to use travel information for non-daily trips (Khattak & Le Colletter 2001), and that the share of non-daily trips is rising. The goal of this paper is therefore to describe the factors that impact mode-related information acquisition for *recreational* mode and destination choice and to discuss its relevance for Dutch travel information policy. As non-daily trips we have selected theme park visits, since the characteristics of the theme parks are similar, thus facilitating the comparison of information use between destinations.

Since no data was available on the use of mode information for mode and destination choice to theme parks, an Internet survey was conducted in the Netherlands in the summer of 2004. In this survey respondents were asked to remember their last theme park visit and report on actual information use before that trip. Our respondents were all Internet users, which resulted in Internet being the main source for travel information. For the analysis we estimated several logistic regression models to determine the chance that certain mode information is acquired.

The structure of this paper is as follows; the next section contains a literature review on possible variables that may influence information use combined with formulated hypotheses. This is followed by a detailed description of the data collection and the sample characteristics in section three. Section four provides the results of the data collection, first the descriptive analyses followed by the logistic regression models. Finally, section five contains a discussion of the relevance of these findings on Dutch travel information policy.

2. Literature review and hypotheses

Pre-trip information can support recreational trip decisions in several ways. For travellers with alternatives information may support the comparison and selection of the best alternative. Travellers, who only consider one option, may use the information to confirm that their decision was best or to find additional information to make the trip more pleasurable (Vogt & Steward 1998).

We hypothesize that the use of mode information in both mode and destination decisions are affected by several variables, as shown in figure 1;

- Socio-demographic characteristics (e.g. age, gender, income, and car ownership);
- Experience;
- Attitudes (i.e. personality and mode preference); and
- Habitual mode use.

Each set of variables is now discussed separately emphasizing current literature and thus creating hypotheses.
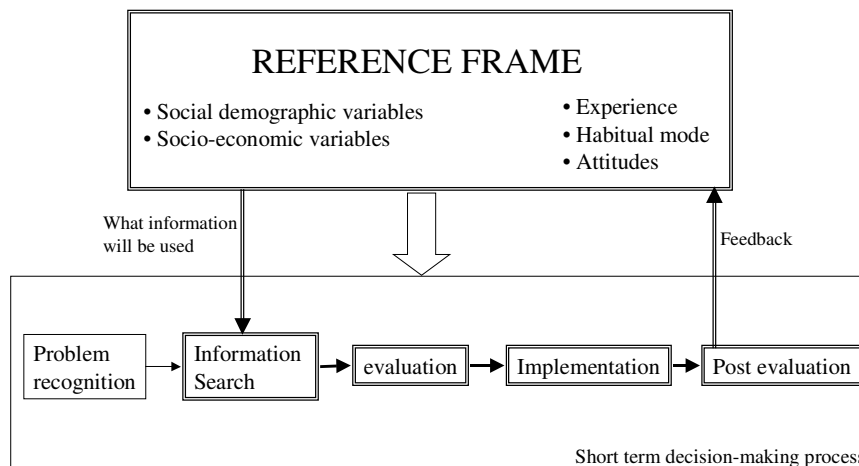
Figure 1: Theoretical model

First, for the socio-demographic variables, Srinivasan *et al.* (2002) found that information needs for women, especially related to mode information was higher than for men. Polak & Jones (1993) also found that men had a lower propensity to search for public transport information. On the basis of these studies we also expect that women will search for more information than men. In the same research Srinivasan *et al.* (2002) reported that age influenced mode information use positively, i.e. the older the traveller the more likely s/he is

to search for information. Furthermore, higher income increases the chance that car-related information is sought, while the lower incomes tend to search for information on public transport. We expect similar outcomes in this study.

Second, experiences will have a large effect on the information needed to make a decision. Bettman (1979) argues that experienced individuals need less information, first because they have internal information (evaluations of previous decisions) to draw on and second, they know where and how to find useful information quickly. Experiences may change rapidly, whereby negative experiences have a different impact than positive ones (Edwards 1996). Even though not included in this study, an updating mechanism would seem useful. In this research, we defined experience by familiarity of information sources, visiting the destination before and the frequency of the theme park visits in general. We hypothesize that the familiarity of information sources influences the amount of information sought. Not having access or not being familiar with e.g. the Internet would mean a huge amount of information being lost (Martens *et al.* 2004). Visiting the destination before and frequency of these visits will limit the search for information. However, since the mode information is dynamic in nature, not all search behaviour will be eliminated.

Third, the attitudinal factors describe the tendency to evaluate information or alternatives with some degree of favour or disfavour (Eagly & Chaiken 1993). Practically this means that the traveller already has some fixed ideas about travel alternatives and the value of travel information before searching for information. The difference between attitudes and experience is that the latter is updated frequently and thus changes often. The former remains stable for a longer period. Hato *et al.* (1999) reintroduced attitudinal factors in travel behaviour research when they reported that the tendency for drivers to access certain traffic information sources became stronger as their attitudes towards traffic information became more positive. In this paper we use two types of attitudinal factors, first the attitude towards certain modes and second their general lifestyle attitude. We hypothesize that a positive attitude towards a certain mode translates into more usage of the mode and to less information sought on competing modes. Although researches have used the lifestyle constructs (see e.g. Redmond 2000) it is unclear how the constructs will affect information acquisition and use. As a result we are hesitant in proposing hypotheses.

To finish, the habitual mode is the transport mode that gets selected more or less automatically. Aarts *et al.* (1997) and Verplanken *et al.* (1997) state that habit is an automated

action without a deliberate choice process. An important factor in the effect of travel information on mode choice is therefore the degree to which the choice process is deliberate. As part of this decision-making process, certain choices are habitual (Aarts *et al.* 1997) and do not require deliberate decision-making. These default or habitual behaviours do not necessarily dominate the decision-making process; rather, their effect is to increase the likelihood that, in any particular decision context, the default choice will be made (Lappin & Bottom 2001). Since recreational theme park visits are usually infrequent we assume no habitual behaviour is formed. The choice for mode however, could be automated for other trip purposes and is measured. We hypothesize that those with a habitual mode preference look for less information than those without a habitual mode. However, if they do search for information it will be on their own preferred mode.

3. Data Collection and sample description

3.1. Data collection procedure

To gain more insight into factors that influence the use of travel information and possible effects on recreational travel behaviour an Internet survey was conducted among Dutch theme park visitors. Data was collected from early June until the end of August 2004. Respondents were recruited by advertising the survey on several well-known Dutch sites, including travel information sites and theme park sites. Furthermore, respondents were approached via a newsletter in which the survey was described. Respondents willing to participate were routed to a website, where they filled out the survey online.

In the survey, data was collected on the information sought and used for theme park visits (type of information and timing) and various aspects of the reference frame as defined previously. In particular, respondents were asked to relive their last theme park visit and report which information they sought and used before going on the trip. The survey consisted of various parts. The first part addressed respondents' general use of information technology as this is supposed to impact their use of ICT to obtain travel information. In addition, respondents were questioned about their general recreational trip making behaviour and use of travel information in relation to this purpose. Then, specific questions concerning the last recreational trip and travel information used for that trip were asked. The survey concluded with some general questions regarding attitudes towards travel modes and uncertainty and socio-demographic characteristics.

In total, 1880 respondents filled out the survey. However, these entailed a share of young respondents (aged younger than 18). As these young respondents are not allowed to drive cars it is unlikely to they have mode choice alternatives. Consequently, we have deleted all respondents' aged younger than 18 years old, leaving 1794 useful surveys.

3.2. Sample description

This section presents key characteristics of the resulting sample concerning socio-demographics, Internet use and theme park visits. Nearly 77% of the respondents are female, implying that filling out surveys is, predominantly, done by women. However, we assume that their answers reflect the joint decision making process that has taken place on the household level. The mean age of the respondents is 32 years, with a standard deviation of 12 years. The percentage of elderly (> 51 years) is limited to 8,2%. The majority of the sample is married or cohabitate (57%), while 40% of the households has children to take care of. Third level education (college or university) was completed by 29% of the sample while 55% received a second level education (secondary school). Most respondents (49%) earn between €1000 and €2400 per month. Nearly 24% of the respondents earn less than €1000 per month. 50% of the sample is employed, while 25% is still a student. Car ownership resembles that of the Dutch population: 49% owns one car and 25% owns two cars while 26% does not own a car.

Our respondents are frequent Internet users, with 94% having an Internet connection available at home and 88% using the Internet more than once a week. Access to mobile phones (95%) and Internet at work (56%) is also high. Calling and sending text messages with a mobile phone is done more than once a week by respectively 61% and 44% of the respondents. Nearly the entire sample (99%) uses friends and family to gather information. Practically all travel information was collected via the Internet, the only exception being brochures (roughly 10%) that provided static information on the theme park.

The majority of the last theme park visits was in 2004 (60%) or in 2003 (25%). The winter (October to March) is the least favourite time to visit a theme park (12%) while the warmer months (April to September) are most popular (88%). The transport mode used most frequently was car (69%), followed by public transport (22%) and coach (5%). More than half the sample (55%) visits theme parks more than once a year, while 25% visits theme parks once a year. This resulted in a large familiarity of the park, 75% indicated that they had visited the chosen theme park previously.

4. Analyses

This section discusses the outcomes of the survey. To answer the general question of what factors influence the acquisition process for mode information for various recreational decisions, several aspects are discussed. First, we discuss the extent to which travellers retrieve and use information. This is discussed in terms of their behaviour in the context of their last theme park visit (section 4.1). The following section discusses the effects of the four variables described in section 2 on information retrieval and use. Next we discuss in greater detail how the reference frame impacts the retrieval of mode choice information (section 4.3).

4.1. Information use for last theme park visit

Information retrieval for destination choice and mode choice are depicted in table 1. Travel time information for the car is the most sought piece of mode information for both travel choices. This seems logical since most respondents indicated that they travel by car. The number of respondents searching for public transport information is also quite high when one considers that only 22% of all respondents used public transport. The differences between mode information use for destination and mode choice are small.

Looking closer at the sample, we found that 17% of the respondents who visited theme parks in the last two years indicated that they had seriously considered alternative travel modes and 14% had considered alternative destinations. At the same time 53% of all theme park visitors in the last two years searched for information on their last theme park visit. Table 1 also details the shares of information use of those who do and do not consider an alternative mode. These figures clearly show that considering an alternative increases information search, especially on public transport related information. The only exception is parking facilities for destination choice, where the travellers without an alternative search for significantly more information. This could mean that parking information is seen as preparation information rather than playing a large role in the choice for a destination.

4.2. Explanatory variables and information use

As noted in section three, the need to retrieve information depends on many factors such as socio-demographic and economic variables, experience, attitudes and travel habits. The impacts of these factors will be discussed subsequently.

4.2.1. Socio-demographic factors

The effects of socio-demographic factors are summarised in table 1. With respect to age, we find that young travellers (<25 years) retrieve more information on public transport information than older travellers, probably because they do not readily have access to a car yet. Furthermore, the use of public transport information for destination choice is slightly higher for younger travellers than the use for mode choice. This information is probably used to assess how accessible the alternative theme parks are by public transport, since many Dutch theme parks are located in sub-urbanised areas. . Older travellers search for more car-related information, which might be explained by a higher share of car-ownership. Only 55% of the population between 18 and 25 has a driver's licence, while over 80% has obtained their license in the age bracket 25 to 30 years (CBS 2005). Although Srinivasan *et al.* (2002) and Polak & Jones (1993) found that women search for more information than men, our study could not find such results. There were no significant differences in the information use of male and female travellers.

Household composition affects information use in various ways. First, single parent families and students more frequently search for public transport information. The former probably use public transport more because of budget limitations. Students are granted a free public transport pass for the Netherlands and use that frequently. Families with children are more interested parking facilities and travel time by car. The latter two items obviously stem from the private car being the logical transportation mode for families. Comparing mode choice and destination choice reveals that for mode choice the use of public transport information differs significantly between those with and those without children. However, for destination choice the car information used differs significantly. For families with children, the car is a logical choice and the information is used to make the overall trip smoother. We assume that acquiring parking information and travel time by car shows the accessibility of the theme park.

Car ownership has the expected effect: those not owning a car search more frequently for all kinds of public transport information. In addition, owning more cars also leads to even less information search on public transport. The results are similar for mode choice and destination choice. With respect to income we find that lower-income families (< 1700 €/month) are less likely to acquire car-related information. This supports earlier findings by

Srinivasan *et al.* (2002). Again, there is no significant difference between mode choice and destination choice.

4.2.2. *Experience with theme park visits*

As noted previously, it is likely that the experience that visitors have with theme parks affects their demand for information. On the one hand, increased familiarity may lead to a lower demand for information, as the information is already internalised. On the other hand, experience with theme park visits may lead to a better insight in relevant information items on which information needs to be collected. We tested to what extent respondents who had visited the theme park previously searched for mode information more or less often. The analyses (table 1) suggest that those who did not visit the theme park before looked more often for car related information both for destination choice as for mode choice. This confirms the hypothesis that familiarity leads to a lower need for information. However, even though the difference is not significant, visiting the theme park previously leads to more public transport information use. Maybe the experience has led to the understanding that more (detailed) information search is needed for a smooth trip. This is supported by the fact that visitors with prior experience searched for more 'other' information. Travellers indicated that they looked for more specific information.

The frequency theme parks are visited was also used as an indicator for experience. As expected, a higher visit frequency (once a month or more) leads to less information search, though the difference is only significant for travel time by car. The experience of the traveller has the same influence on the use of mode information for both destination and mode choice.

4.2.3. *Attitudinal factors*

Attitude toward mode use was based on four questions regarding car and public transport use. Using principal component analysis, two factors were identified explaining 70% of the variance in the original items. The two factors can be interpreted as public transport lovers and car haters respectively. Dividing the respondents into those who are and those who are not car haters/ public transport lovers and comparing their information use leads to expected results (table 3). Both car haters and public transport lovers search for less car-related information and for more public transport related information. There are no significant differences between the information use for destination and mode choice.

Personality type was based on a list of seventeen items (words or phrases) on which respondents indicated the extent to which the item applies to them on a 5-point-likert scale (16). Principal components analysis was applied to reduce the seventeen items to a smaller number of personality types. The five resulting factors explained 58.5% of the original variance, with factors loadings being 0.5 or higher. The first factor has an **organiser** dimension. It loads the strongest on the independence of the respondent. Next, the efficiency and ambitious variables and the variation seeking load strongly. Finally all loadings are positive. The second factor has a **thrill-seeking** dimension. This factor loads strongly and positively on risk taking, enjoying high speeds and being adventurous. This adventure seeking personality resembles the Type-T personality as described Farley (1986). The Type T personality has been described as a personality dimension referring to individual differences in stimulation seeking, excitement seeking, thrill seeking, arousal seeking, and risk taking. The third factor has an **impatient/bossy** dimension. Variables that load strongly are restlessness, aggressive and impatient. Furthermore, being in charge is also an important variable. The fourth factor has a **calm** dimension; it loads strongly on the routine, being on time and like to stay close to home. The last factor has **loner** dimension. Variables that load strongly are "like being alone" and spontaneous, where the last factor loading is negative.

After classifying the respondents to belong or not belong to a dimension and comparing the groups on information use, only the loner factor and the thrill-seeking factor made a significant difference in information search. Table 3 summarises the results. The loner searches for more car-related information, which fits the description of someone who prefers to be alone. He also searches for less public transport information, although the difference is not significant. The thrill-seekers uses more public transport information for both mode and destination choice. This is against expectations; we would associate the thrill-seeker with someone who makes decisions with a minimum of information. But maybe, the thrill-seeker finds the use of public transport an adventurous move anyhow.

4.2.4. Habitual mode

Finally, we describe the effect of visitors' habitual travel mode on information use. The habitual travel mode was measured by having respondents mention the first travel mode that came to their mind when mentioning a particular trip purpose/destination (Verplanken *et al.* 1997). Based on eight responses the dominant (most mentioned) mode is considered as the

habitual travel mode. The distribution across habitual travel modes is given in table 2. Table 1 displays the extent to which persons with different habitual modes search for particular parts of information. As one would expect, habitual car users most frequently seek information on parking facilities and travel time by car. Logically, habitual car users have the lowest frequency of acquiring information about public transport. Habitual mode does have a dissimilar effect on information use for mode choice than for destination choice. For the destination choice, habitual public transport users search for even less information on car-related information while looking for more public transport information. An explanation may be that the habitual mode only has a limited influence in the decision-making process. For the recreational mode choice, a more deliberate decision-making process may be used. However, for destination choice, we suspect the mode is treated as a given constant, leading to less information search on the competing mode.

4.3. Logistic regression model of mode information use

The preceding sections have indicated that many of the factors that affect the retrieval of mode information related to the choice of theme park destination and travel mode. Since many of these factors may be interrelated we have applied multivariate analysis, to test which factors have the largest impact on information retrieval. To this end logistic regression models were estimated, in which the dependent variable is the decision whether or not to acquire information on a particular topic. Thus, separate models were estimated for each type of mode information. Independent variables were the explanatory variables used in the preceding section. Before the logistic regression models were estimated, we verified if the correlation between explanatory variables was low enough. Indeed, we found that correlations were below |0,4| making it possible to include all explanatory variables. It is noted that some ordinal variables, such as car ownership and habitual mode were entered as complete constructs, allowing for significance of the overall variable instead of the respective response classes. Thus, even if not all the separate classes contribute significantly (as binary variables) the overall variable may be significant. The estimation results are summarised in Table 4.

First, looking at the Nagelkerke $\rho2$, we can conclude that the explanatory power of the models varies. Whereas information retrieval regarding public transport characteristics is explained quite well, this is much less the case for information regarding the car trip characteristics. The explanatory power for destination choice is slightly higher than for mode choice.

Not having visited the theme park previously increases the probability of acquiring information regarding car-related information for both mode and destination choice, which is in line with previous findings. The difference between the compared groups is larger for destination choice. This means that having visited the theme park before impacts the information acquisition used for destination choice stronger than for mode choice. Car-related information in connection with destination search is probably used to get a general picture of the theme park and therefore only needs to be sought once. However, the same information is used for planning the trip when it comes to mode choice, thus more travellers will search more frequently for it. The general frequency of visiting theme parks also impacts the acquisition of travel time by car for destination and mode choice. As expected, the results suggest that those visiting theme parks less frequently (less than once a month) retrieve information more frequently than frequent visitors.

In contrast to the previous findings, household composition does not appear to affect any information search for mode choice. Apparently, in the multivariate analysis, effects found previously for particular household types are now captured by corresponding variables, such as mode orientation and car ownership. However, household composition does influence the public transport information acquisition for destination choice. First, the respondents in the "other" category have a higher chance to search for public transport information than singles have. The "other" category is mainly made up of travellers who still live with their parents. Second for accessibility by public transport, those with children have a higher propensity to search for information compared to singles. We suspect that this because travelling with children is more complicated.

As found previously, car ownership has the expected effect on information retrieval. Visitors owning one or more cars are more likely to acquire information regarding parking facilities and travel time by car, and less likely to acquire information regarding aspects of the public transport trip. These findings are mirrored in the effect of public transport cardholders. Those holding a public transport card are logically more inclined to look for information on travel time and accessibility by public transport. This holds for both mode and destination choice.

Age, in contrast to earlier findings, only significantly contributes to the explanation of parking facilities retrieval for destination choice. Apparently, the effect of age coincides with

other more important variables such as experience with the theme park, car ownership and attitudes.

The habitual mode of travellers contributes to the explanation of information use in destination choice, while it only partially explains the use of travel time by public transport for mode choice. This is probably due to the different role habitual mode plays in these choices. Habitual mode in destination choice is seen as a given: a characteristic of the coming trip. However, mode is the centre of the mode choice, thus limiting the effect of the habitual behaviour. This seems especially true since habitual mode will mostly concentrate on daily trips, while theme park visits are infrequent non-daily trips. Considering public transport as the habitual mode increases the chance that public transport information is sought. All other habitual modes and not considering a habitual mode also increase the chance for information acquisition, but to a lesser degree. Again, this suggests that frequent public transport users know they need more specific information than 'inexperienced' public transport users.

The effect of attitude towards mode use is as expected. Car haters are less likely to acquire information regarding the car trip and more likely to search for information regarding aspects of the public transport trip. Public transport lovers do not contribute significantly to the use of car information, but increase the search for public transport information. The effect of public transport lovers on the use of public transport information is higher than of car haters. With respect to personality types, we find that 'thrill seekers' are more likely to search for information about accessibility by public transport. Furthermore, 'loners' are less likely to search for information regarding parking facilities and travel time by car. The personality types only partially explain the information retrieval for destination choice. These findings suggest that, while it is not easy to find straightforward interpretations of why certain personality types are more likely to acquire certain information, they indeed have an impact on how individuals plan their trip to a theme park and the amount to which they retrieve information. Therefore, including personality type into studies of travel information use seems relevant.

5.   The relevance for Dutch policy on travel information
This paper aimed to describe the factors that impact the mode-related information acquisition for mode and destination choice for theme park visits, based on an Internet survey conducted in the Netherlands in 2004. Beforehand, four factors (socio-demographic variables,

experience, attitudes and habitual mode use) were introduced as variables that could influence information use. Results show that the logistic regression models for public transport information are acceptable, meaning that the four factors do predict the actual behaviour fairly well.

We found that most recreational travellers (52%) use travel information before going on a trip. Thus, the promotion of travel information for all travel motives is an interesting policy instrument to deploy. Not that the provision of travel information will lead to a different model split: only a small percentage (15%) considers more than one mode. Additionally, most travellers use travel information to ensure that they have made the right decision; the information puts the travellers at ease and decreases the stress levels.

On a different level, traffic managers could use travel information as an instrument. Although recreational trips less frequently cause traffic jams, there are a number of situations that dynamic traffic management (DTM) could be deployed. Large events, hot summer days and popular theme park destinations can cause congestion. Through the provision of travel information, the traveller may be persuaded to change route, departure time or mode. The analyses indicated that recreational travellers do search for these types of information.

Although the analyses presented in this paper have not clearly shown it, the decisions of mode and destination are intertwined. From a policy perspective this means that the focus should be on the collection of sufficient underlying data and travel information services that allow travellers to support their entire activity pattern.

Information need is higher for public transport users than for mode users, particularly the more experienced traveller will nearly always use information while the experienced car traveller is not always interested in information. However, most research and initiatives for information focus on car-related information. We would argue to increase the research efforts and the establishments of public transport information services.

Considering an alternative increases the chance for using information to 68%. Most travellers consider car and public transport, and end up picking the car as the preferred mode of transport. However, this means that mode information is sought for both modes of transport. This could mean that either the level of service of public transport is too low or that the information provided is not of sufficient standard to choose for public transport. However, this does leave room for travel information to change the perception of travellers towards public transport, and ultimately changing modal split. Mode information is frequently used in

the destination choice, underlining the importance of the accessibility of a theme park as a decisive factor.

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TABLE 1 Use Of Information In The Sample And Various Segments

Type of Information	Total sample	Alternative		Household composition			Age			Visited before			Habitual mode		
		Yes	No	No children	With children	t-value	<25	>25	t-value	Yes	No	t-value	Car	Public transport	t-value
Mode choice															
Parking facilities	18,9%	27,2%	17,4%	17,5%	21,0%	-1,55	15,7%	20,6%	2,28	17,1%	25,0%	3,26	24,4%	13,9%	-2,00
Travel time car	27,8%	40,2%	25,6%	25,8%	29,2%	-1,33	23,9%	28,4%	0,77	25,1%	36,0%	3,94	35,8%	15,3%	-3,49
Travel time public transport	21,5%	50,2%	15,9%	24,1%	16,9%	3,12	26,1%	17,1%	-5,54	22,2%	19,8%	-0,94	10,6%	50,0%	8,97
Accessibility by public transport	21,1%	48,1%	15,8%	23,3%	16,4%	3,02	25,7%	16,8%	-5,46	21,3%	20,6%	-0,27	10,8%	50,0%	8,90
Destination choice															
Parking facilities	19,5%	32,9%	52,3%	16,7%	22,8%	-2,68	15,3%	21,8%	2,97	17,6%	25,3%	3,12	25,5%	11,1%	-2,70
Travel time car	27,2%	43,8%	17,6%	22,6%	31,0%	-3,33	24,3%	28,7%	1,80	23,4%	39,0%	5,67	34,8%	11,1%	-4,08
Travel time public transport	20,2%	32,9%	24,0%	20,7%	16,6%	1,87	28,7%	15,6%	-5,90	21,0%	17,7%	-1,30	8,8%	51,4%	10,18
Accessibility by public transport	21,5%	34,2%	17,4%	21,1%	19,0%	0,88	29,1%	17,4%	-5,14	22,0%	20,1%	-0,75	10,3%	51,4%	9,39

TABLE 2 Habitual mode distributions

Mode	%
Car	42,6%
Public Transport	5,1%
Bicycle	24,4%
Walking	4,7%
No habitual mode	23,2%

TABLE 3 Attitude variables and information use

	Loner			Thrill seeker			Public Transport lover			Car hater		
Mode choice	No	Yes	Chi2	No	Yes	Chi2	Yes	No	Chi2	Yes	No	Chi2
Parking facilities	21,4%	16,3%	5,89 *	19,4%	18,3%	0,26	20,3%	17,3%	2,13	21,6%	14,4%	11,71 *
Travel time car	31,3%	24,0%	9,35 *	27,3%	28,0%	0,08	30,0%	25,3%	4,07 *	30,4%	23,5%	8,16 *
Travel time public transport	20,1%	22,6%	1,26	19,6%	23,1%	2,56	13,8%	29,8%	53,75 *	17,7%	27,6%	19,96 *
Accessibility by public transport	19,4%	22,3%	1,78	17,6%	23,9%	8,31 *	13,0%	29,8%	60,22 *	17,0%	27,6%	23,12 *
Destination choice												
Parking facilities	22,4%	16,6%	7,52 *	19,6%	19,4%	0,00	20,7%	18,3%	1,32	21,9%	15,8%	7,87 *
Travel time car	29,2%	24,9%	3,26	27,4%	26,6%	0,12	30,0%	24,2%	6,05 *	29,6%	23,5%	6,47 *
Travel time public transport	19,1%	21,2%	0,92	18,1%	22,1%	3,49 *	13,4%	27,4%	43,62 *	15,9%	26,9%	25,24 *
Accessibility by public transport	19,4%	23,3%	3,16	19,3%	23,4%	3,47 *	14,6%	28,9%	43,01 *	16,6%	29,3%	32,03 *

* Significant at 0,05

TABLE 4 Logistic regression models for use of mode information in the destination and mode choice

	Destination choice								Mode choice							
	Parking facilities		Travel time car		Travel time public transport		Accessibility by public transport		Parking facilities		Travel time car		Travel time public transport		Accessibility by public transport	
	B	c2	B	c2	B	c2	B	c2	B	c2	B	c2	B	c2	B	c2
Visited previously (no)	-0,462	7,178	-0,615	15,391					-0,174	8,601	-0,411	6,750				
frequency theme park visists			0,918	8,673							0,780	6,965				
household composition						11,154		17,874								
single/ student (=ref)																
couple no kids					-0,038 "		-0,296 "									
couple with kids					0,382 "		0,524 **									
other					0,843		0,823									
Education level								10,775								
lower education (=ref)																
secondary education							0,527 "	1,764								
tertiary education							0,798 **	3,979								
other							1,407	8,947								
Car ownership		16,807		32,350		25,592		27,758		-14,87		16,605		28,448		49,441
no car (=ref)																
one car	0,905		1,091		-0,896		-0,900		0,857		0,763		-0,958		-1,101	
two cars or more	1,174		1,018		-1,413		-1,486		0,601 **		0,624		-1,159		-1,491	
PT card (no)					0,510	7,538	0,374 **	4,118					0,485	8,015	0,429	6,368
Age	-0,015 **	4,286														
Habit		11,350 **				12,911		10,466 **						11,702 **		
car (ref)																
Public transport	-0,171 "				1,270		1,023						1,143			
bicycle	-0,459 **				0,612		0,575 **						0,539 **			
walking	0,643 *				0,613 "		0,761 **						0,213 "			
Other	-0,342 "				0,583 **		0,574 **						0,306 "			
PT lovers					0,400	15,937	0,362	14,289					0,438	19,891	0,472	24,657
Car haters					0,233	7,301	0,198 **	5,482	-0,095	10,057	-0,215	7,146	0,169	3,944	0,227	7,304
Thrill seeking															0,188 **	5,268
Loner									-0,081 **	5,198	-0,148 **	4,322				
Constant	27,155 **	3,796	-2,217	36,711	-1,722	36,473	-2,116	23,692	-0,235	54,146	-1,979	32,137	-1,268	26,133	-0,823	24,654
Nagelkerke ρ2	0,087		0,083		0,241		0,236		0,073		0,069		0,228		0,206	

* significant at 0.10; ** significant at 0.05; otherwise significant at 0.01; " not significant