Holidays in alpine areas without a car - the last mile from the point of view of our guests

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Abstract:

The most popular means of transport in alpine tourism is still the car which has negative effects on environment. Therefore, the public transportation becomes more and more important. The last mile is the so-called "bottleneck" of public transport. If the offer is not geared to the travelers needs its use is usually dispensed with. With an empirical quantitative research requirements of the target group "Holiday guests arrive and depart by public means of transport" it finds out that Green tourist destinations and transportation service providers must adapt to the special needs of travelers to the Last Mile. For example, Green tourist destinations and transportation service providers have to take care that waiting time does not come over the maximum waiting time travelers prefer and total packages for the hole journey at an acceptable price must be adapted to the needs of the "green travelers".

Keywords: Last Mile, Sustainable Tourism, Public Transport

Track: Tourism Marketing

1 Introduction

In the Alpine region, tourism is the main engine of growth and employment (FPÖ, 2017). The Tourism strengthens the economy of a region and ensures the quality of life of the local population (Zöll, 2018). However, tourism is not only positive. Tourism accounts for around five percent of global emissions, with mobility accounting for 75%. (Jurik, 2018)

Motorised private transport has negative effects (e.g. noise, exhaust gases), which can lead to a deterioration of the habitat and thus to a reduction in the quality of life of the resident population (Zöll, 2018). Insufficient fulfillment of the need for convenience, comfort, quick planning and execution of the trip, as well as heavy luggage and frequent changeover, usually puts public transport in the background. The most popular means of transport is still the car in tourism. (Zech et al., 2013)

In addition, the phenomenon of the "first and last mile" is decisive for the choice of means of transport along the entire mobility chain. The first mile is the route to the holiday, which is covered from home to the train station or the bus stop. The last mile is the route from the train station to the hotel in the resort. If the offer is not geared to the needs of the traveler, or if planning for the traveler turns out to be too complicated and lengthy, its use is usually dispensed with. (Ibesich & Kurzweil, 2009). The study is part of a sustainable tourism project on the Last Mile carried out in the European Alpine region in 2018/2019. Figure 1 shows an overview about the project phases.
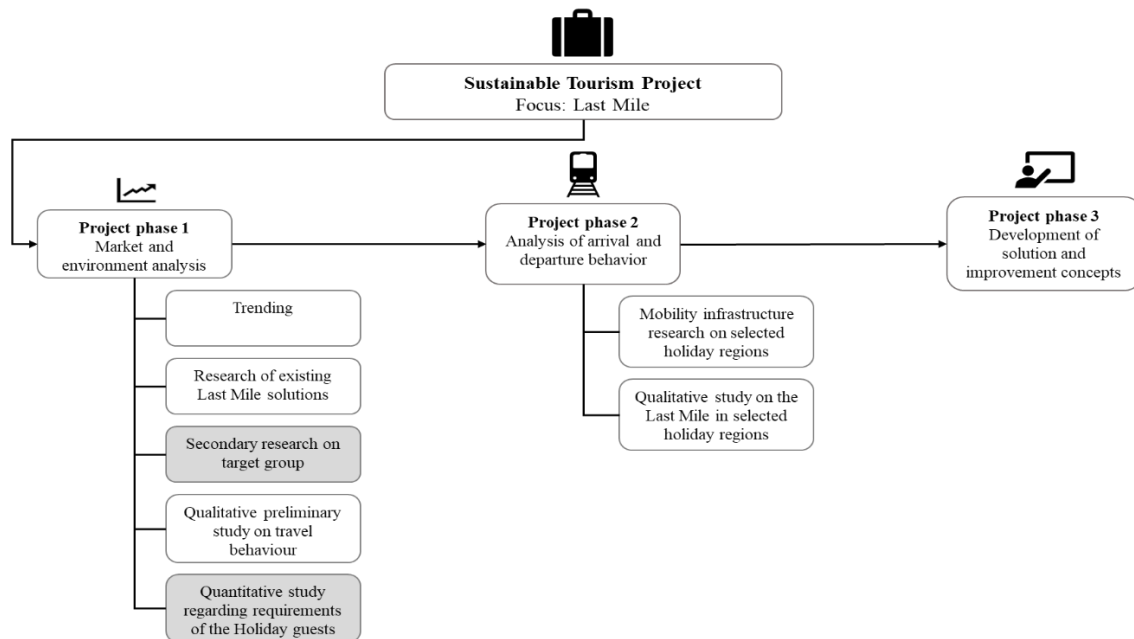

Figure 1: Overview about the project phases.

The aim of the project was therefore to develop improvement and solution concepts for the last mile. The gray colored fields in project phase 1 are covered in this paper. The study

therefore includes an analysis of the actual situation (market and environment analysis) and empirical quantitative research to collect the requirements of the target group *"Holiday guests arrive and depart by public means of transport"*.

2   Methodical approach

In the following chapter the methodological approach is explained in more detail. In order to be able to carry out the quantitative study in a targeted manner, the essential framework conditions, influences and external factors must be identified and analyzed. Figure 1 shows the methodological process of the selected study in this paper.
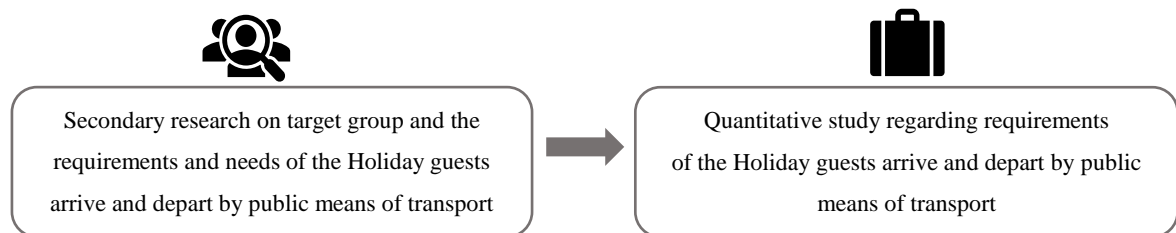

| Secondary research on target group and the requirements and needs of the Holiday guests arrive and depart by public means of transport | Quantitative study regarding requirements of the Holiday guests arrive and depart by public means of transport |

Figure 2: The methodical approach of the study.

At the Beginning a main basic step is to have a secondary search about the target group. The target group should be defined and the requirements and needs of the target group with regard to mobility on holiday are determined on the basis of existing literature.

2.1 Secondary research

In order to be able to design the quantitative survey in a targeted manner, the target group to which the survey is addressed must be precisely determined as a first step. In order to identify relevant specialist literature in scientific databases, the following keywords were used in German and English:

Sustainable Tourist, Green Tourist, Soft tourist, Ecotourist, Ecological Tourist

In the course of the systematic literature research, six main literature sources were identified, which show the most valuable information on the target group "green tourists" and subsequently also study-relevant information on public arriving and departing persons on holidays. According to the Bajada and Titheridge (2017) study, "green travelers" are those who are environmentally friendly to travel and looking for alternative ways to be mobile. Basically, the green tourists belong to a socially higher class, so they have a higher education and have a higher income. Furthermore, the green tourists are between 30 and 60 years old. (Bäker, 2016) Green tourists prefer transparent and high-quality products (Bajada & Titheridge, 2017). In doing so, they want authenticity in choosing their holiday destination (Dolnicar et al., 2013, p. 99). According to the literature research, green tourists expect an

intact nature on site from the chosen holiday destination. Furthermore, this target group demands a good mobility connection as well as a certain comfort factor. (Solér, Sonderegger & Arx, 2013, p. 9). A survey by the Austrian Travel Association also found that in general, the most frequent requests from green tourists for nature and hiking trips as well as for bicycle trips exist. (Austrian Travel Association, 2013, p. 37)

2.2 Quantitative empirics

The secondary analysis showed that the main target group is those who have already travelled to a rural holiday area in Europe at least once by public transport. People who have never travelled to a rural holiday area by public transport and can either imagine or cannot imagine it in the future are among the minor target groups. This paper discusses the main target group.

2.2.1   Sample

A sample size of 200 to 300 people was sought. Finally, 415 valid questionnaires were obtained. Of these, 296 are the main target group who traveled on public transport (train / long-distance bus) most of the route to a rural location in Europe (under 30,000 inhabitants) on holiday. The 296 people are divided into 152 people living in the city and 144 people living in the countryside (under 100,000 inhabitants).

2.2.2   Methodology

The questionnaire focused on the planning and selection of the holiday destination, the information behavior, the booking process, the arrival and departure by public transport and of course the last Mile. This paper focuses on the Last Mile. In addition, demographic data (gender, age, education, activity, income) of the target groups were queried. The survey was conducted face-to-face and online between 12 and 25 November 2018. The data preparation and evaluation of results was carried out by SPSS, using only completed questionnaires. Answers to open questions have been clustered. The individual answers, which correspond to a similar meaning, were marked with the same colors and assigned to a code number. After the evaluation, the results were displayed and graphically processed.

2.2.1   Online survey

For the online survey, the questionnaire was created with the software Qualtrics and released. The link to the questionnaire was forwarded by e-mail to 53 institutions, who were asked whether they would include the link to the questionnaire as a newsletter or website

component. In addition, a total of 56 Facebook or Instagram groups or people were requested, resulting in 28 publications. The online questionnaire has been viewed 638 times. Of these, 250 were completed and used for evaluation.

2.2.2   Face to Face Survey

In addition to the online survey, the questionnaires were distributed in person. For this purpose, contact was made with ÖBB in order to reach the target group on the trains. The questionnaires were distributed directly in the wagons and the tourist information points at the exit points. On 18 and 19 November 2018, the Bio Fair and Sustainability Conference took place in Wieselburg, which was also used as a recruiting location for the face-to-face survey.

A total of 141 hours was spent on ÖBB trains and 21 hours on trade fairs for the personal scattering of the questionnaires. In addition, eight hours were spent in tourism information points and four hours in hotels to reach the target group. In the end, 165 face-to-face questionnaires were generated.

2.2.3   Questionnaire

The questionnaire of the quantitative study in project phase 1 consists of 34 questions and the demographics. Figure 3 shows the different fields, respectively thematically areas of the questionnaire.
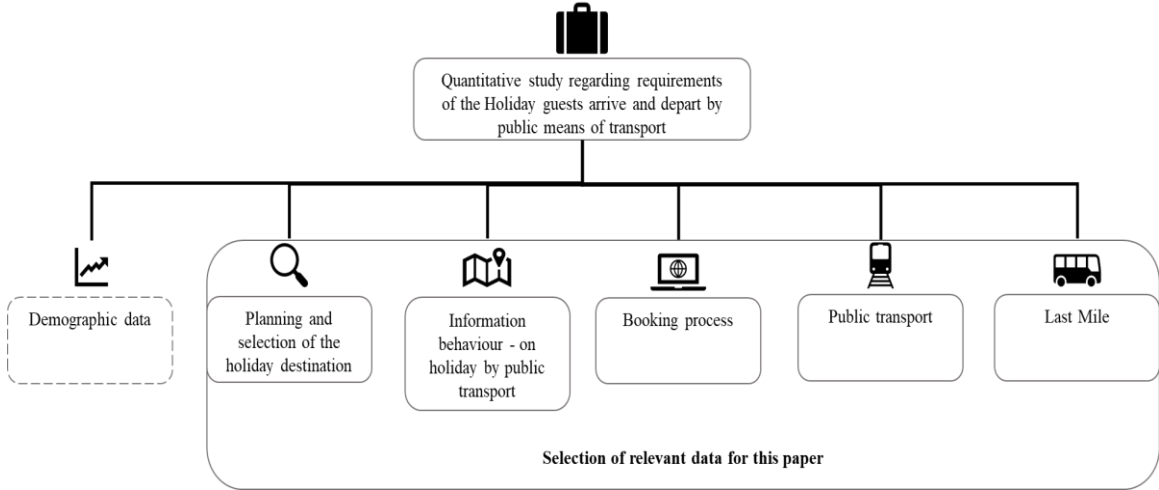

Figure 3: Overview about the different fields of the questionnaire.

3   Results

The following chapter gives you an overview about a selection of question and answers focusing on the Last Mile. In this paper, no cross-references have been made to demographic groups of age or of homes of the respondents. These can be presented at the conference of course. 80 % of the respondents inform themselves before the trip and 20 % inform

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themselves during the journey about the last mile from the train station or the bus stop to the accommodation.
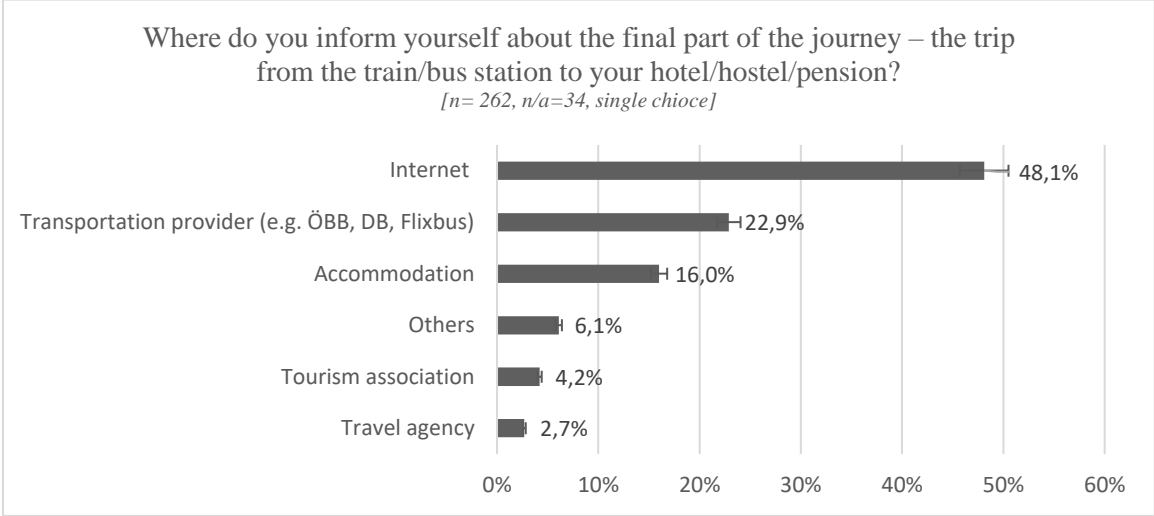

Figure 4: Information channel about the last mile.

Figure 3 shows that almost 50% of travelers inform about the last mile by Internet (details about the different Information channels can be presented at the conference). A nearly quarter informs themselves about their personal contact with the Transportation providers. The Tourism association or travel agency is not often consulted. Respondents who have chosen others, for example, inform themselves in the Train, in the shuttle bus or the taxi. Three mentions each relate to the gathering of information by locals and friends or family. The information by maps or city maps refer to two mentions.

It was also interesting to get to know what kind of option for the last mile people would prefer. The participants were presented with 6 mobility alternatives for the last mile and had to evaluate them on a scale of 1-5, where 1 means that they could very likely imagine this solution and 5 that they could even unlikely imagine.
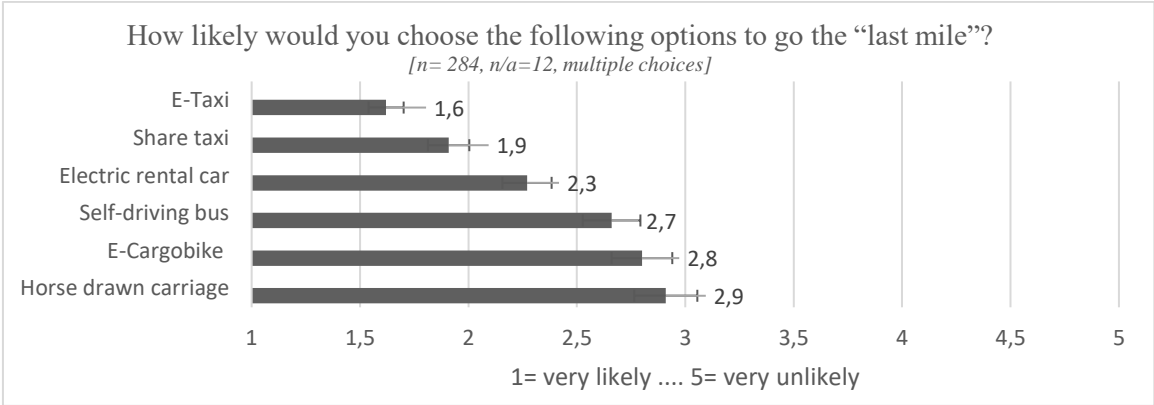

Figure 5: Likely or unlikely used options for the last mile.

Basically, all 6 solutions performed very well to well. The most attractive solution for the participants is the E-taxi with a score of 1.6. In second place is the share taxi with an average

score of 1.9. With a score of 2.3, the electric car for self-driving is in third place. The self-driving Bus scored 2.7, closely followed by the E-Cargobike and the horse-drawn carriage with.

However which vehicle people would choose, the median waiting time at the final bus station is 30 minutes (Table 1). If there is no possibility for using a vehicle the median distance traveler prefers to walk to the final destination is about 1.5 km.

Table 1: Maximum length to walk and waiting time for the means of transport to cope with the last Mile.

Question:	Answer:	
n= 296		
How far would you be willing to walk with your luggage from the final train/bus station to your accommodation?	Median [km]	1.5
	Maximum [km]	20
	Minimum [km]	0.1
You arrive at your final train/bus station. How long would you be willing to wait for a vehicle that takes you to your accommodation?	Median [min.]	30
	Maximum [min.]	120
	Minimum [min.]	1

In a further step, travelers were asked how they perceive the last Mile from the train station or the bus stop to the accommodation.

Figure 6:Evaluation of the organization of the last mile.
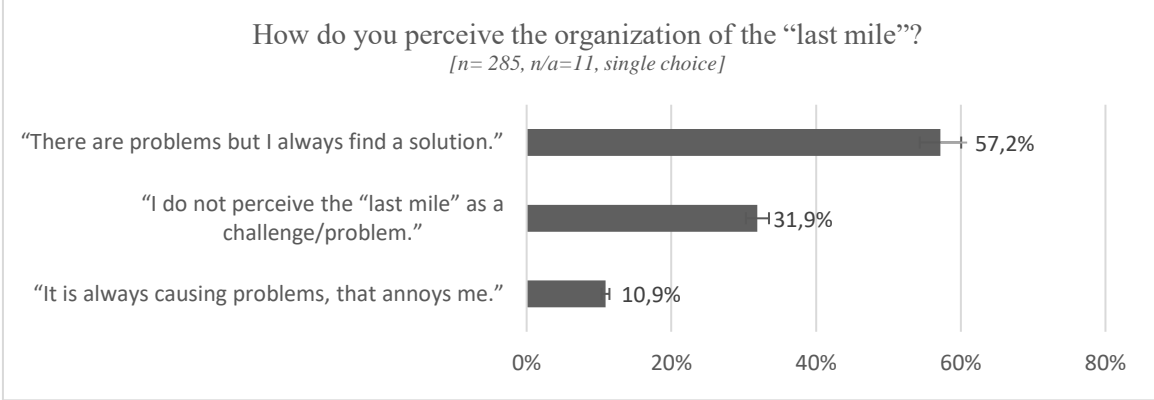
As can be seen in Figure 6 it could be found that almost 60 % of the subjects have problems on the last way, but they always find a solution to the problem. Only about 10 % have problems that annoys them.

Those subjects who already had problems or challenges in coping with the last mile were then asked what challenges or problems exist in coping with the last mile.
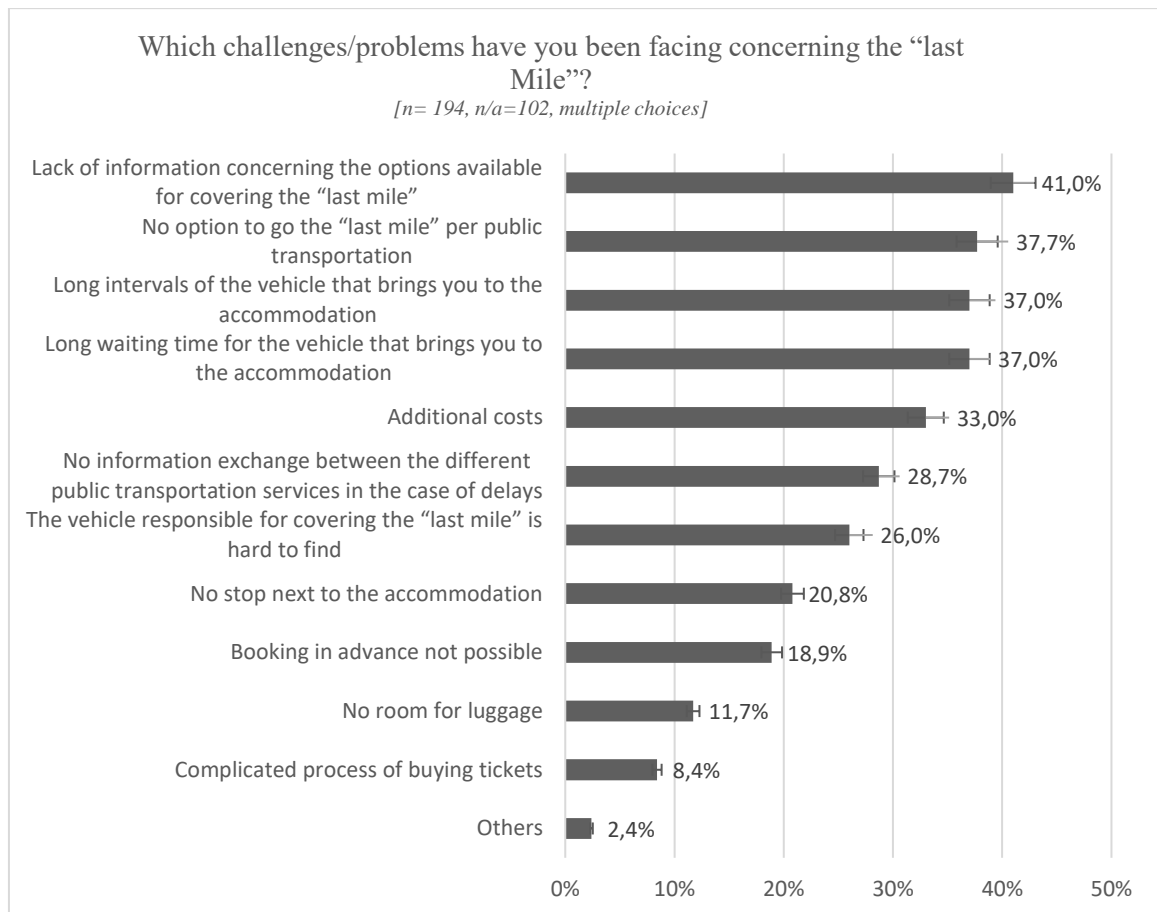
Which challenges/problems have you been facing concerning the "last Mile"?
[n= 194, n/a=102, multiple choices]

Challenge	%
Lack of information concerning the options available for covering the "last mile"	41,0%
No option to go the "last mile" per public transportation	37,7%
Long intervals of the vehicle that brings you to the accommodation	37,0%
Long waiting time for the vehicle that brings you to the accommodation	37,0%
Additional costs	33,0%
No information exchange between the different public transportation services in the case of delays	28,7%
The vehicle responsible for covering the "last mile" is hard to find	26,0%
No stop next to the accommodation	20,8%
Booking in advance not possible	18,9%
No room for luggage	11,7%
Complicated process of buying tickets	8,4%
Others	2,4%

Figure 7: Challenges and problems concerning the last mile.

Figure 7 shows that 41 % of respondents receive insufficient information on how to manage the last route and 37 % feel inadequate transport intervals, long waiting times are challenging, as well as no last Mile offers are available. After the challenges and problems of the Last Mile were mentioned by the subjects, the travelers were able to indicate their personal approaches to improving the Last Mile. A total of 235 mentions were made out of 202 people. The attractiveness-enhancing measures are shown in Table 2.

Table 2: Attractiveness-enhancing measures for the Last Mile.

Cluster Name: n=235	Number of nominations: [abs.]	[%]
Easy access: Better transport network (connections, times/intervals)	62	26,4 %
service (shuttle buses, collective taxi)	49	20,9 %
Better information (comprehensibility, delays, changes, full timetable, last mile)	22	9,4 %
Combination Tickets/Packages	16	6,8 %

| Cluster Name: | Number of nominations: | |
n=235	[abs.]	[%]
Cheaper prices	12	5,1 %
Car-Sharing, E-Auto, E-Bus	11	4,7 %

Other results at 10 nominations are not shown in this paper

26,4 % mentions refer to easy accessibility or a better transport network through better connections and time intervals. For 21 %, pick-up services such as shuttle buses or collective taxis are of interest. Better information on comprehensibility, delays, changes and complete timetables are an attractive measure for 22 people. 16 statements were given regarding combined tickets or packages and twelve regarding cheaper prices. Car-sharing, E-cars and E-buses indicated 4,7 % people were in favor of a better design of the Last Mile.

4 Conclusion

If the consumer or traveler is planning his holiday in alpine tourist areas and wants to find out more about the handling of the Last Mile, the Information by the Internet plays an essential role. But also, the information directly by the transport service providers, such as the railway or the bus company, is perceived as preferred. The study carried out that most of the respondents have no problems coping with the Last Mile, or that they are solvable if they occur. Passengers also accept short walking distances and a short wait for a transfer from the train station to the accommodation. Green tourist destinations and transportation service providers have to take care that waiting time does not come over the accepted waiting time of the travelers. Otherwise travelling by public transportation could be not preferred by travelers. The transfer should preferably be made by environmentally friendly E-taxis or share taxis. This is also confirming with the study of Bajada and Titheridge (2017) were "green travelers" are defined as those who like environmentally travel and are looking for alternative ways to be mobile. Travelers identify challenges and problems, in particular in the lack of information. But often the possibility to cope with the Last Mile is missing in the first place or the service is negatively evaluated because the waiting times or departure intervals are too long. The price is also perceived by many travelers as too high.

Green tourist destinations and transportation service providers must adapt to the needs of travelers to the Last Mile. Because it's the bottleneck. If there is no information about the Last Mile, there is a risk that the trip will not be started in the first place by public transportation. Total packages for the hole journey at an acceptable price must be adapted to the needs of the "green travelers".

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