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**Destination Platform (App) for Profiling and Personalized Guest Communication: Factors that Drive Acceptance as the Key for Success—A Field Study from Swiss Alpine Destinations**

Today, global digital platforms challenge the business models of local touristic service providers, as the creation of economic value is increasingly moving away from local providers. To redress this situation, local touristic actors and destinations need to create a superior tourist experience. This can be achieved by cooperating and accompanying the guest not only physically, but also digitally and according to his needs. This paper presents the results of a technology-acceptance study on a destination app with this purpose. Perceived ease of use, usefulness, and entertainment emerge as influencing factors for the intention to use the app in a destination.

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Key words: destination platform, technology acceptance, entertainment

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## **Introduction**

In the last decades, new technologies have accelerated tourism growth, brought supply and demand closer, facilitated travel and booking, as well as transformed marketing operations and business models. Metasearch engines, online travel agencies (OTAs), social media applications, and a host of new players have significantly transformed the tourism business and influenced demand behavior. The corresponding intense proliferation of destination-related information has had a deep impact on both, tourists and local tourist service providers in the destinations. Tourists find themselves in a “jungle of information”: while a large variety of sources (e.g., destinations, hotels, OTAs, fellow travelers) make this information easily accessible, quality and trustworthiness are not always evident, and the sheer amount may lead tourists to feeling overwhelmed and confused (Tan & Kuo, 2019). On the providers’ side, tourism destinations are faced with competition from destinations worldwide, since tourism has become a truly global activity. Information that influences portfolio decisions of tourists is moving more and more beyond the control of providers. Platforms that profit from global networks (e.g., OTAs, such as Booking Holding or Expedia) oligopolize the worldwide distribution of small-scale core tourism services in particular (Schegg, 2018) and have a lot of tourist-centered data at their disposal. Hence, the economic value added is increasingly moving away from tourism areas.

For destination management organizations (DMOs) and local service providers at the destination, tourist-centered data is nonetheless also a key resource. Local actors provide the physical services once the portfolio decision and booking have been made. This offers, together with tourist-centered data, the opportunity to create a tailored customer value proposition, provide relevant trustworthy information, simplify the guest journey, and ensure a unique personal vacation experience—to ideally establish long-term and sustainable customer relationships.

Currently, tourist-centered data is very de-centralized within destinations. The project that underlies the present “late-breaking results” was designed as a means to break away from silos and gather relevant guest information collectively. The aim was to create an intelligent mobile accompaniment of guests in Alpine destinations based on a platform, thanks to the digital integration of service providers as well as profiling and personalization. The platform shall also ensure proximity between the local touristic stakeholders and intensify collaboration. To create its envisaged value, the destination platform needs to be accepted by tourists. Hence, the present study examined which factors promote or inhibit the intended use of the developed platform-based native destination app. In the study period, the app provided destination-specific content to the users such as information on the weather, open mountain railways, restaurants, or events. The profiling algorithm was not integrated in the platform.

## **Methodology**

### *Participants*

During the winter season 2018/2019, an online survey was conducted. Participants were incentivized through a prize draw. Ninety-one participants completed the survey ( $M_{age} = 44.47$  years,  $SD_{age} = 16.03$ ; 46.2% female, 53.8% male). Second answers were excluded. Most of the participants indicated to live in Switzerland (63.7%) and Germany (13.2%).

### *Materials and Measures*

The survey software *Unipark* (QuestBack, 2018) was used to collect the data. The variables of interest were captured using items from technology-acceptance literature, adjusted to the context of the destination app. As the main endogenous variable, “intention to use the app in a destination” was captured (items derived from Venkatesh & Davis, 2000; Venkatesh, Morris, Davis, & Davis, 2003). An example item is “Assuming [*name of the app*] is available for the destination, I predict that I would use [*the app*] during a touristic stay.” Further, the

following variables were integrated in the questionnaire: perceived ease of use (Davis, 1989), example item “*I find [the app] easy to use.*”; perceived usefulness (Davis, 1989; Venkatesh et al., 2003), example item “*Using [the app] during a touristic stay in a destination would make it easier for me to arrange my stay.*”; perceived entertainment (Nysveen, 2005; Tsang, Ho, & Liang, 2004; Wozniak, 2013), example item “*Using [the app] is entertaining.*”; trust in platform (McKnight, Choudhury, & Kacmar, 2002), example item “*I feel assured that legal standards (e.g., GDPR) and technological structures adequately protect me from problems using [the app].*”; and social influence (Pedersen, 2001; Venkatesh & Davis, 2000; see also Bader, Baldauf, Leinert, Fleck, & Liebrich, 2012), example item “*Some of my friends recommended that I should try out [the app].*” All the items were collected using 7-point Likert scales (1 = “I strongly disagree”; 7 = “I strongly agree”).

### *Procedure*

Directly after downloading the app, the downloaders were asked to participate in one or two questionnaires. They were informed that the first questionnaire aims to capture users’ first impressions of the app, while the second users’ experiences after using the app in a destination. The links to the questionnaires could be found in the app on the bulletin board. In addition, the link for the questionnaire on first impressions was also sent by e-mail to those interested. In the last month of the approximately five months of data collection, this was changed to displaying the first questionnaire directly after the downloaders agreed to take part in the study. Moreover, the links for both questionnaires were posted at regular intervals on the bulletin boards of all users. Before starting a questionnaire, individuals had to give their informed consent.

### **Results**

The results relate to the questionnaire on the first impression of the app, which was filled out by enough participants.

### *Confirmatory Factor Analysis*

A confirmatory factor analysis (CFA) with a maximum-likelihood estimation was performed for testing the measurement variables. The results of the CFA combining all the measurements items showed a satisfactory fit ( $\chi^2 = 409.032$ ,  $df = 237$ ,  $p < 0.001$ , RMSEA = 0.090, CFI = 0.921, NFI = 0.834, TLI = 0.908). In particular, almost all the estimated indices were above the threshold of 0.7 for Cronbach's alpha (Nunnally & Bernstein, 1994), and all the correlations were maximally at a 0.6 range except for the relation between perceived ease of use and perceived entertainment,  $r = 0.709$  (Bagozzi & Yi, 1988).

### *Structural Equation Modeling*

The proposed structural model identified four variables (perceived ease of use, perceived entertainment, trust, and social influence) as the exogenous variables and perceived usefulness and intention to use the app during a touristic stay in a destination as the endogenous variables. The model hypothesized an indirect effect of perceived ease of use over perceived usefulness on intention, i.e., a mediating effect of perceived usefulness.

The hypothesized structural model generated a good fit ( $\chi^2 = 429.047$ ,  $df = 240$ ,  $\chi^2/df = 1.788$ , RMSEA = 0.094, CFI = 0.914, TLI = 0.901, NFI = 0.826). Furthermore, the results of the multivariate analysis explained 49% of the variance of intention. The direct relationships of perceived usefulness on the intention to use the app during a touristic stay in a destination ( $B = 0.391$ ,  $p < 0.001$ ), perceived ease of use on perceived usefulness ( $B = 0.437$ ,  $p < 0.05$ ), and perceived entertainment on intention ( $B = 0.305$ ,  $p < 0.05$ ) were revealed to be significant. However, there was no significant effect of trust on intention ( $B = -0.137$ , not significant), nor of social influence on intention ( $B = 0.094$ , not significant).

To test the hypothesized mediating effect of perceived usefulness, the approach of Baron and Kenny (Baron & Kenny, 1986) was followed. Findings indicate that, once considered as a mediator, perceived usefulness completely mediates the effect of perceived ease of use on

intention ( $B = 0.178, p < 0.05$ ); also, there is no significant direct relationship between perceived ease of use and intention ( $B = -0.057$ , not significant). The mediating effect was assessed using the bootstrapping method (Preacher & Hayes, 2008) with bias-corrected, 95% confidence intervals.

## **Discussion**

Similar to other technology-acceptance studies (see Pourfakhimi, Duncan, & Coetzee, 2018; Venkatesh et al., 2003), the present study confirms the importance of perceived usefulness and perceived ease of use, which can be looked at as hygiene factors for the intention to use a technological system. In addition, while trust in the platform and social influence are indicated to play subsidiary roles, perceived entertainment is revealed to influence the intention to use the app in a destination. The contribution of the present study lies in its application to a destination app in the Swiss Alpine context.

Our results indicate that a dynamic and entertaining content is a central factor to facilitate extended, ongoing, or repeated app usage. As a limitation, it should be noted that perceived entertainment and perceived ease of use are correlated at  $r = 0.709$ , which makes the interpretation of the results somewhat ambiguous. However, the results are in line with the trend of Alpine tourist destination apps to include entertaining and dynamic content, such as gamification elements—with the app of Laax as a prominent example.

In contrast to perceived entertainment, the present study does not suggest that trust and social influence have an effect on the intention to use the app. Regarding trust, an explanation could be that the users were not forced to create a profile on the app. Conceivably, trust concerns only arise when users share a certain amount of personal data. Regarding social influence, the dissemination of the app may change the effect of social influence on the intention to use the app.

To further validate the path some Alpine destinations are already taking by considering the entertainment factor of mobile information systems, future studies should also consider the tourists' feedback after using destination apps in a destination. Understanding what makes tourists accept and continuously use a destination platform is essential for such a platform to fulfil its intended purpose: to create the best possible local tourist experience. This can be achieved by having the ecosystem of local tourist stakeholders digitally accompany the guest according to his needs from the time of booking onwards. Future research should also explore how to enable destinations to effectively use the newly-gained aggregated data resources. So far, the project underlying the present study has added value by creating an actual platform, thus driving the data agenda and highlighting the crucial importance of digital integration across tourist service providers in the Swiss Alpine context.

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