ONLINE BOOKING ACCOMMODATION IN RURAL TOURISM: AN UTAUT PERSPECTIVE

Vladimir Kraguljac¹, Marijana Seočanac², Vladimir Senić³, Darko Dimitrovski⁴
*Corresponding author E-mail: vladimir.kraguljac@kg.ac.rs

ARTICLE INFO

Original Article
Received: 21 June 2022
Accepted: 22 August 2022
doi:10.5937/ekopolj2204061K
UDC 338.48-44(1-22):004.77

ABSTRACT

The paper investigates the most important factors that cause tourists to intend or to already use a website for booking accommodation in rural areas of the Republic of Serbia. On a sample of 212 respondents who had previously used websites to book accommodation in rural tourism, using a modified model of acceptance and use of technology (UTAUT), the impact of four predictor variables (expected impact, expected effort, social impact and facilitation conditions) on the intention of tourists to use, and two independent variables (facilitating conditions and intentions of tourists) on the use of websites for booking accommodation in rural households in Serbia was examined. The SPSS software package was used for data analysis, using descriptive statistics and standard multiple regression. The conducted research indicates that the expected effect and facilitating conditions have a positive influence on the intention of tourists to use websites for booking accommodation, as well as that facilitating conditions and intentions of tourists have a positive impact on the use of websites when booking accommodation.

Keywords:
rural tourism, rural tourism households, website for booking accommodation, UTAUT

JEL: M31, Z32

1 Vladimir Kraguljac, Teaching Assistant, University of Kragujevac, Faculty of Hotel Management and Tourism in Vrnjačka Banja, Vojvodanska 5A, 36210 Vrnjačka Banja, Serbia, Phone: +381365150024, E-mail: vladimir.kraguljac@kg.ac.rs, ORCID ID (https://orcid.org/0000-0003-0947-3253)
2 Marijana Seočanac, Research Assistant, University of Kragujevac, Faculty of Hotel Management and Tourism in Vrnjačka Banja, Vojvodanska 5A, 36210 Vrnjačka Banja, Serbia, Phone: +381365150024, E-mail: marijana.seocanac@kg.ac.rs, ORCID ID (https://orcid.org/0000-0001-7232-3624)
3 Vladimir Senić, Full Professor, University of Kragujevac, Faculty of Hotel Management and Tourism in Vrnjačka Banja, Vojvodanska 5A, 36210 Vrnjačka Banja, Serbia, Phone: +381365150024, E-mail: vsenic@yahoo.com, ORCID ID (https://orcid.org/0000-0003-3543-0249)
4 Darko Dimitrovski, Associate Professor, University of Kragujevac, Faculty of Hotel Management and Tourism in Vrnjačka Banja, Vojvodanska 5A, 36210 Vrnjačka Banja, Serbia, Phone: +381365150024, E-mail: darko.dimitrovski@kg.ac.rs, ORCID ID (https://orcid.org/0000-0002-7930-1716)

http://ea.bg.ac.rs

1061
Introduction

The accelerated pace of life, stress, noise, and pollution present in urban areas have created a demand for clean air, peace and quiet, and natural food, namely rural areas where all these elements are present in the residents’ daily lives (Ertuna & Kırbaş, 2012). Although many rural areas have experienced a decline in traditional agricultural activities, numerous rural areas have experienced socio-economic development thanks to tourism, and tourism has begun to be seen as an important tool for rural regeneration (Iorio & Corsal, 2010; Košić et al., 2015; Chivu et al., 2020; Luković et al., 2021). It is particularly interesting that growth in rural tourism was recorded during the COVID-19 pandemic in certain countries (such as France and the Czech Republic), which showed that crisis situations can create opportunities for its further development (Seraphin & Dosquet, 2020; Vaishar & Šťastná, 2020).

Rural tourism is not easy to define. Various definitions can be found in the literature, from those that are completely simple and describe rural tourism as “any tourism activity that takes place in rural areas” (Commission of the European Communities, 1986), to more complex ones, such as the definition of the World Tourism Organization. The World Tourism Organization (2019) defines rural tourism as a “type of tourism activity in which the visitor’s experience is related to a wide range of products generally linked to nature-based activities, agriculture, rural lifestyle/culture, angling and sightseeing” (p. 34). It was also emphasized that these activities within rural tourism take place in non-urban (rural) areas characterized by low population density, agriculture and forestry, and a traditional way of life. In order to organize tourism in a rural area, it is necessary, in addition to these conditions, for agricultural farms with facilities for tourist accommodation to exist. According to the Law on Hospitality of the Republic of Serbia (“Official Gazette of the Republic of Serbia” No. 17/2019, Paragraph 2), “accommodation is organized in rural tourism households, which means a facility or a group of facilities that provide housing, food and beverage services, located in a rural environment with elements of local landmarks and heritage”. These can be facilities that are registered as rural tourism households, as well as rooms for accommodation in villages.

Within the Master Plan for Sustainable Development of Rural Tourism in Serbia (2011), it was pointed out that, according to data for 2010, overnight stays in rural tourism account for 27% of the total number of tourist nights, while with a revenue of 10.4 billion dinars, rural tourism accounts for 16% of GDP from travel and tourism. By researching the opinions and perceptions of existing rural services’ users in different municipalities in Serbia, national and foreign tourist agencies and tour operators, it was found that the places most visited in rural tourism are: villages of eastern Serbia, Šumadija, Zlatibor (mountain), Mokra Gora, and western regions. According to Vuković et al. (2016), after 2010 there is an increase in investment in rural tourism, which is developing in almost all parts of the Republic of Serbia.

The advance in information and communication technologies (ICT), especially invention of the Internet, has enabled various tourism companies to increase efficiency and gain a competitive advantage with low distribution costs (Kim et al., 2008; Kim et al., 2009). Also, there have been changes in the habits of tourists. Approximately 43% of Italian tourists
consult websites during preparation for a holiday, while 34% consider the recommendations of important people such as friends, colleagues, or relatives. Personal experience is the base for planning for a quarter of the respondents (Statista, 2016c). In Austria, recommendations of friends, colleagues, or relatives are primary in holiday planning for 60% of respondents. Over half of respondents browsed websites, while 40% chose to base their vacation plans on personal experience (Statista, 2016a). For about 57% of French tourists, the primary way to organize their vacation is the recommendations of friends, colleagues, or relatives. Almost half of the respondents used websites, while 37% planned based on personal experience (Statista, 2016b). This data indicates that the Internet takes precedence over other media.

Vuković et al. (2016) believe that the Internet benefits rural tourism destinations in numerous ways. Firstly, it makes them visible outside the local area. Secondly, the Internet allows small rural tourist households to achieve a competitive advantage in the tourist market. Finally, it makes the process of purchasing services easier. Although so far there has been a growing interest among scholars in examining the role of ICT in tourism, according to San Martín and Herrero (2012), there is a lack of research aimed at the identification of the connection between tourists’ attitudes towards information technology and their future intentions in rural tourism.

The importance of tourism in rural areas is mainly evident in its role in reducing depopulation and unemployment, but also in rural renewal, protection of the environment, conservation of traditional architecture, and preservation of natural and cultural heritage. It has proven to be an excellent backup strategy for rural areas’ development and a chance to generate additional income besides the profit made from the agricultural activities of the local population (Violeta & Gheorghe, 2009; Rokvić Knežić et al., 2020).

The primary goal of this paper is to identify the factors that cause tourists to intend to use and use the website for booking accommodation in rural tourism in the Republic of Serbia. For this purpose, the UTAUT model will be used as a proven tool for measuring the degree of acceptance of ICT by users. In this way, the study will contribute to new knowledge in the field of rural tourism. Identifying the factors influencing the intention of tourists to book accommodation in rural tourism can help all stakeholders to create an adequate strategy for further development of rural tourism. In that way, the study will have concrete practical implications as well.

**Theoretical basis and hypothesis development**

Over the years, a number of theories and models have been developed that have studied the degree of technology acceptance and user satisfaction with these technologies. They are all, more or less, interconnected, regardless of the point of view they represent or the constructions or determinants on which they are based. According to Momani and Jamous (2017), the most famous of these are: the Theory of Reasoned Action (TRA) (Ajzen & Fishbein, 1980), which has been extended to the Theory of Planned Behavior (TPB) (Ajzen, 1985), which was then extended to the Decomposed Theory of Planned Behavior (DTPB) (Taylor & Todd, 1995b). Probably the most commonly used of all, and the first to focus on
information systems, is the Technology Acceptance Model (TAM) (Davis, 1986), which is based on TRA and was later extended into TAM2 (Venkatesh & Davis, 2000). This was followed by the creation of a combination of TAM and TPB (C-TAM-TPB) (Taylor & Todd, 1995a). In addition to the aforementioned, Model of PC Utilization (MPCU) (Triandis, 1979), Innovation Diffusion Theory (IDT) (Rogers, 1983), Motivational Model (MM) (Deci & Ryan, 1985), and Social Cognitive Theory (SCT) (Bandura, 1986) have been developed in several different fields and are also frequently used. As a result of the analysis of a number of models that serve to assess IT acceptance (Blair et al., 1988; Davis, 1989; Taylor & Todd, 1995b; Thompson, 1991; Vallerand, 1997; Bandura, 1986), with the aim of developing models that will be more comprehensive, the UTAUT model (Venkatesh et al., 2003) was developed. According to the UTAUT model authors, this model can explain 70% of the variance in user intentions making him one of the most efficient models for technology acceptance analysis. The base of this model is four variables - Performance expectancy, Effort expectancy, Social influence, and Facilitating conditions. Behavioral Intention, as well as Use behavior, are derived from them.

**Performance expectancy (PE)**

Venkatesh et al. (2003) define PE as “the degree to which an individual believes that using the system will help him or her to attain gains in job performance” (p. 447). Oh et al. (2009) concluded that the intentions of tourists to use mobile devices while travelling primarily depend on PE and that this variable is considered to be the strongest predictor of intent to use. The results of research conducted by San Martín and Herrero (2012) show that PE has the dominant impact on the intention to book accommodation online in rural tourism among the UTAUT variables.

Chi et al. (2020) compare the impact of PE that tourists have of artificial intelligence in the provision of airline services, compared to PE in catering services. The expected performance mainly measures the use and functional value in the process of providing services, and higher values of this variable indicate that tourists attach more importance to advantages such as accuracy and consistency of services. It is therefore not surprising that the authors have reached results that confirm that the use of artificial intelligence in the provision of airline services can increase these use and functional advantages. Also, the assessment of tourists on PE in catering services is lower. The reason could be that tourists want more hedonistic services in catering, and they believe that artificial intelligence cannot serve them as well as employees who provide warmer interpersonal interaction. In conclusion, it is stated that tourists believe that devices with artificial intelligence are more suitable for providing functional services than for providing hedonistic services.

Anita et al. (2021) use PE as an indicator of the degree of acceptance of the virtual tour of the museum by visitors to the museum’s website. The realization of the virtual tour enabled the community to have various activities related to the museum’s setting, despite the current restrictions of social distancing during the COVID-19 pandemic. In a study conducted by Gharaibeh et al. (2021) empirical results have clearly shown that the expected effect is the most important factor at the level of 0.001, which influences the intention of the
respondents to use mobile augmented reality in the tourism sector. That result indicate that utilitarian values are the most important aspect for users and that they crucially shape their intention to use this technology in tourism.

According to the literature review, the following hypothesis is set:

**H1**: PE of using websites has a positive effect on the intention to use websites to book accommodation in rural tourism households in the Republic of Serbia.

**Effort expectancy (EE)**

Venkatesh et al. (2003) define EE as “the degree of ease associated with the use of the system” (p. 450). It is common for effort-based assessments to be more pronounced in the early stages of adopting new behaviors when problems in the adjustment process are obstacles that need to be overcome (Davis, 1986; Szajna, 1996).

The results of a study conducted by Khalilzadeh et al. (2017) showed that EE has both direct and indirect impacts on technology usage when paying for services, in this case, in restaurants. Sair and Danish (2018) equate expected effort with ease of use. As their research confirmed a strong link between the expected effort and the intention to use mobile e-business, the paper recommends making mobile services easy to use while providing an easy-to-understand environment. Examining the intention of online bookings in rural tourism, San Martín and Herrero (2012) showed that the importance of EE increases in case of services whose booking process is more complex or which requires greater customer engagement.

In multiple papers (e.g., Wenli & Caixia, 2016; Gupta & Dogra, 2017; Palos-Sanchez et al., 2020), the authors, in addition to the already established association and positive impact on intended use, confirmed that PE is positively affected by EE. That means that EE defines the user’s image of the effort he needs to put in to get the expected result.

According to the above, the following hypothesis is derived:

**H2**: EE in using websites has a positive effect on the intention to use websites to book accommodation in rural tourism households in the Republic of Serbia.

**Social influence (SI)**

SI, Venkatesh et al. (2003) explain as “the degree to which an individual perceives that important others believe he or she should use the new system” (p. 451). This variable shows the extent to which a person’s behavior is influenced by the judge of how they think others will view them as a consequence of using a particular technology. Khalilzadeh et al. (2017) concluded that the impact of SI on the intention to use mobile payment is significant and that even if the user thinks that the use of mobile payment is convenient, suitable, and even fun, they will not start using it until it is socially acceptable.

Investigating consumer behavior related to online travel reservations, Sharma et al. (2020) concluded that the impact of SI on intent to use is not significant. The main reason for this is already present the wide utilization of the Internet in the tourism industry. This lack
of direct connectivity makes the social environment’s normative pressure to make online reservations, whether negative or positive, to be less important.

As several other authors (e.g., Sykes et al., 2009), so did Zuiderwijk et al. (2015) consider ways to improve the model of acceptance and use of technology by modifying SI. Most agree that it is necessary to consider the construction of social networks when researching the use of the system, so they emphasize the importance of network density and centralization. Density refers to the number of connections a person can use to get help, and centralization refers to their involvement in helping others. In this way, SI can be increased, and thus the intention to use technology.

Using the cited scientific literature as a basis, the following hypothesis is set:

H3: SI on the use of websites for booking accommodation in rural tourism households has a positive effect on tourists’ intention to use websites for booking accommodation in rural tourism households in the Republic of Serbia.

**Facilitating conditions (FC)**

Venkatesh et al. (2003) explain FC as “the degree to which an individual believes that an organizational and technical infrastructure exists to support the use of the system” (p. 453). When variables related to PE and EE participate in technology acceptance assessment models, FC have an insignificant role in predicting intended use. It was observed that FC have a direct impact on the use itself, regardless of the perceived intention to use. This direct impact on use increases with experience, as technology users find it easier to find new ways to get help and support, creating the conditions for further sustainable use.

San Martín and Herrero (2012) came to the interesting conclusion that there is no significant impact of FC on the intention to shop online in rural tourism. They assume that this absence of influence is caused by situations when the necessary FC are not present, so they practically act as a limiting factor. Further, the mere presence of FC fails to prompt the necessary motivation to shop online.

In contrast, FC are one of the most influential factors in online airline ticket reservations (Escobar-Rodríguez & Carvajal-Trujillo, 2013). In other areas as well, as confirmed in numerous papers (e.g., Farooq et al., 2017; Hsu et al., 2017; Hossain et al., 2019; Abdat, 2020), FC have a significant and positive impact on the intention to use. Therefore, the following hypothesis is set:

H4: Existence of conditions for the use of websites positively affects tourists’ intention to use websites for booking accommodation in rural tourism households in the Republic of Serbia.

**Behavioral intention (BI) and use behavior (UB)**

BI is the individual’s intention to perform a given behavior (Eisen, 1991). When the BI to use technology rises, at the same time rises the intention to use this technology.

As in this research, in research models, the intention to use is usually set as a dependent variable. Thus, Fuchs et al. (2011), when examining the intention of passengers to
use mobile technologies, observed the dependence of the intention to use on several independent variables. This is based on UTAUT variables, which are joined by Perceived Hedonic Quality, Perceived Information Quality, Perceived Trust, Perceived Monetary Transparency and Perceived Price Fairness. Perceived Monetary Transparency, Perceived Price Fairness, Perceived Hedonic Quality and SI were found to have a positive and statistically significant impact on BI. Lam and Hsu (2006) set BI as a dependent variable in relation to Past behavior, Attitude (as Behavioral beliefs), Subjective norm (Normative beliefs) and Perceived behavioral control (Control beliefs). The results of the study show that Past behavior, Subjective norm and Perceived behavioral control, but not Attitude, have a direct impact on BI. In addition, the intention to use, according to UTAUT, directly conditions the use, so it is used in research as a causal variable.

While BI represents an interest in use, UB represents actual use of technology. According to the UTAUT model, use is directly dependent on FC and intention to use. Lubis and Rahmiati (2019), observing the acceptance of online travel agents by Gen Z and Millennials, find that BI significantly affects UB.

Based on the aforementioned studies, the following hypotheses are set:

**H5**: Existence of conditions for the use of websites has a positive effect on the actual use of websites for booking accommodation in rural households of tourists in the Republic of Serbia.

**H6**: Tourists’ intention to use websites to book accommodation in rural households in the Republic of Serbia has a positive effect on the use of websites for online booking.

**Methodology**

In order to realize the goal of the paper, i.e., to identify predictors of intention to use and predictors of use of websites for booking accommodation in rural tourism households in the Republic of Serbia and test the hypotheses set, a research model was formed (Figure 1) and empirical research was conducted. The sample was 212 students of all levels of study at the Faculty of Hotel Management and Tourism in Vrnjačka Banja. Since students come from different cities across Serbia, making it feasible to gather a suitable sample in a reasonable amount of time and without incurring significant fees, it was thought to be an appropriate sample for the objectives of the research.

In August 2021, a questionnaire composed of 24 questions was forwarded to students to e-mail addresses received from the Faculty student office. In addition to questions related to the demographic characteristics of respondents, 19 questions, phrased based on relevant claims proposed in the literature (Venkatesh et al., 2003; Herrero & San Martín, 2012; San Martín & Herrero, 2012; Venkatesh et al., 2012; Gupta & Dogra, 2017), referred to the predictors of intention (PE, EE, SI, and FC), intention to use and actual use of websites for booking accommodation in rural households in Serbia.
Using a five-point Likert scale, respondents indicated their agreement with statements in the questionnaire (1 - I completely disagree, 5 - I completely agree). In order to ensure that the survey was filled out only by respondents who have used this type of reservation so far, a control question was asked - “Have you ever booked accommodation in a rural household in Serbia through a website?”. Only respondents who answered affirmatively to that question were allowed to proceed with the questionnaire. Out of 700 surveys sent, 264 answers were received, which gives a response rate of 38%, of which 212 passed the control question with an affirmative answer. There was no missing data since all survey questions were mandatory.

The collected data was processed using the Statistical Package for Social Sciences (SPSS 20). Mean value and standard deviation were calculated for each statement. Taking into account that the questionnaire statements were taken from other studies, Cronbach’s alpha coefficient was utilized to analyze the internal agreement of each scale employed in the study. The Cronbach’s alpha coefficient ranges from 0.749 to 0.912, indicating that each individual scale is extremely reliable. The normality of the distribution was assessed using the Kolmogorov-Smirnov test, followed by correlation analysis, the Durbin-Watson test, and calculated values of Tolerance and VIF, in order to check the assumptions about the data on which multiple regression is based. Finally, in order to test the set hypotheses, i.e., to examine the influence of independent variables on the dependent variables, a standard multiple regression was used.

Results and discussion

A total of 212 respondents participated in the survey, of which 42 respondents (19.8%) were male, while 170 (80.2%) were female. When it comes to age structure, 189 respondents (89.2%) are younger than 35 years, while 23 respondents (10.8%) are 35 years old or older. The most represented group of respondents was those under 25 years of age, with a share of 61.8% in the total sample. The highest level of education acquired by most respondents is high school degree (39.6%), followed by bachelor’s degree (32.5%), and master’s degree (25.5%). The lowest number of respondents received an associate’s degree (0.9%). Respondents mostly use mobile devices (94.8%) and laptops (64.6%) to access...
the Internet, while desktop computers are the least common (26.4%). Šumadija (66%) and Eastern Serbia (51.9%) stood out as the regions in which the largest percentage of respondents intend to visit rural tourism households in the coming period.

Descriptive statistics were used to investigate the mean values and standard deviations of the observed variables. As shown in Table 1, the mean for all variables is above 4.20, while the standard deviation does not exceed 1.201. The estimated Cronbach’s alpha coefficient for each scale is over 0.7, which implies that scales have a high level of internal consistency (Bagozzi & Yi, 1988; DeVellis, 2012).

Table 1. Summary of statistics of used scales and statements

<table>
<thead>
<tr>
<th>Scales and statements</th>
<th>Mean value</th>
<th>Standard deviation</th>
<th>Cronbach’s alpha coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Performance Expectancy (PE)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Using a website offering rural accommodation is very useful for finding accommodation</td>
<td>4.57</td>
<td>0.912</td>
<td></td>
</tr>
<tr>
<td>Using a website offering rural accommodation provides me with a simpler and faster process of finding accommodation</td>
<td>4.61</td>
<td>0.632</td>
<td></td>
</tr>
<tr>
<td>Using a website offering rural accommodation increases my efficiency in the process of finding accommodation</td>
<td>4.54</td>
<td>0.648</td>
<td></td>
</tr>
<tr>
<td>Using a website offering rural accommodation makes it easier to find the accommodation I want</td>
<td>4.60</td>
<td>0.619</td>
<td></td>
</tr>
<tr>
<td><strong>Effort Expectancy (EE)</strong></td>
<td>4.45</td>
<td>0.755</td>
<td></td>
</tr>
<tr>
<td>Using a website offering rural accommodation is simple for me</td>
<td>4.47</td>
<td>0.691</td>
<td></td>
</tr>
<tr>
<td>Using a website offering rural accommodation is an activity that I think I have enough skills to do</td>
<td>4.41</td>
<td>0.795</td>
<td></td>
</tr>
<tr>
<td>Using a website offering rural accommodation is easy for me</td>
<td>4.50</td>
<td>0.664</td>
<td></td>
</tr>
<tr>
<td>Using a website with rural accommodation does not require much effort</td>
<td>4.40</td>
<td>0.946</td>
<td></td>
</tr>
<tr>
<td><strong>Social Influence (SI)</strong></td>
<td>4.29</td>
<td>0.878</td>
<td></td>
</tr>
<tr>
<td>People whose opinions I respect consider it useful to use a website offering rural accommodation</td>
<td>4.32</td>
<td>0.761</td>
<td></td>
</tr>
<tr>
<td>People in my area find it useful to use a website offering rural accommodation</td>
<td>4.23</td>
<td>0.837</td>
<td></td>
</tr>
<tr>
<td>People who are important to me think that it is good to use a website offering rural accommodation</td>
<td>4.33</td>
<td>0.751</td>
<td></td>
</tr>
<tr>
<td><strong>Facilitating Conditions (FC)</strong></td>
<td>4.54</td>
<td>0.749</td>
<td></td>
</tr>
<tr>
<td>I have the resources to use a website offering rural accommodation</td>
<td>4.51</td>
<td>0.770</td>
<td></td>
</tr>
<tr>
<td>I have the knowledge necessary to use a website offering rural accommodation</td>
<td>4.59</td>
<td>0.685</td>
<td></td>
</tr>
<tr>
<td>Scales and statements</td>
<td>Mean value</td>
<td>Standard deviation</td>
<td>Cronbach’s alpha coefficient</td>
</tr>
<tr>
<td>-----------------------</td>
<td>------------</td>
<td>--------------------</td>
<td>------------------------------</td>
</tr>
<tr>
<td>I feel comfortable using a website offering rural accommodation</td>
<td>4.42</td>
<td>0.760</td>
<td></td>
</tr>
<tr>
<td>I have no problems with using a website offering rural accommodation</td>
<td>4.62</td>
<td>0.661</td>
<td></td>
</tr>
<tr>
<td><strong>Behavioral Intention (BI)</strong></td>
<td><strong>4.41</strong></td>
<td><strong>0.881</strong></td>
<td></td>
</tr>
<tr>
<td>I intend to use a website offering rural accommodation for making reservations for future trips</td>
<td>4.45</td>
<td>0.737</td>
<td></td>
</tr>
<tr>
<td>I will probably use a website offering rural accommodation for making reservations for future trips</td>
<td>4.45</td>
<td>0.717</td>
<td></td>
</tr>
<tr>
<td>I have decided to use a website offering rural accommodation for making reservations for future trips</td>
<td>4.33</td>
<td>0.910</td>
<td></td>
</tr>
<tr>
<td><strong>Use Behavior (UB)</strong></td>
<td><strong>Single-item scale</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How often do you use the website offering rural accommodation for making reservations</td>
<td>3.35</td>
<td>1.201</td>
<td></td>
</tr>
</tbody>
</table>

*Source: Authors’ calculation*

In order to examine the influence of BI predictors on tourists’ intentions to use websites for booking accommodation in rural tourism households in the Republic of Serbia, a standard multiple regression analysis was employed. First, analyses were conducted to determine that there are no problems of autocollinearity and multicollinearity among the observed variables. The results of the Kolmogorov-Smirnov test indicated that the normality of the sample distribution of data has not been proven. For this reason, the strength of the relationship between the variables was investigated using the Spearman rank correlation coefficient (ρ). According to Cohen (1988), a value of ρ from 0.10 to 0.29 indicates a small correlation between independents, from 0.30 to 0.49 indicates a medium, while a value of ρ from 0.50 to 1.0 shows a large correlation. A moderate positive and statistically significant correlation was calculated between all variables (*Table 2*). By checking the correlation matrix, it was determined that the correlations between independent variables, as well as between independent variables and the dependent variable, have values greater than 0.3 and less than 0.7, which excludes the possibility of autocorrelation. Additionally, the Durbin-Watson test showed a value of 1.035, indicating that there is a significant difference between independent or predictor variables and the dependent variable (i.e., BI). The absence of multicollinearity between the variables was also confirmed by the values of Tolerance and VIF, which are above 0.10 and below 10. These results showed that the assumptions about the data on which multiple regression is based were not violated.
Table 2. Spearman rank correlation coefficients between measured values of predictors of behavioral intention and behavioral intention, and predictors of use behavior and use behavior

<table>
<thead>
<tr>
<th>Scale</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Total performance expectancy</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Total effort expectancy</td>
<td>0.331 **</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Total social influence</td>
<td>0.457 **</td>
<td>0.403 **</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Total facilitating conditions</td>
<td>0.375 **</td>
<td>0.586 **</td>
<td>0.462 **</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>5. Total behavioral intention</td>
<td>0.487 **</td>
<td>0.420 **</td>
<td>0.400 **</td>
<td>0.490 **</td>
<td>-</td>
</tr>
<tr>
<td>6. Use behavior</td>
<td>0.304 **</td>
<td>0.279 **</td>
<td>0.254 **</td>
<td>0.321 **</td>
<td>0.389 **</td>
</tr>
</tbody>
</table>

** p < 0.001 (2-tailed)

Source: Authors’ calculation

The standard multiple regression showed a determination coefficient $R^2 = 0.379$, meaning that the model (which includes PE, EE, SI, and FC) explains 37.9% of the variance in tourists’ intention to use websites to make reservations in rural households in Serbia. Table 3 shows the contribution of each variable to the prediction of the dependent variable, statistical significance, and the results of the conducted collinearity diagnostics. The results of multiple regression reveal that only PE and FC are significant predictors of respondents’ intention to use websites to book accommodation in rural tourism households in the Republic of Serbia, while EE and SI do not significantly contribute to predicting BI.

Table 3. Relationship between predictors and behavioral intention

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Standardized coefficient</th>
<th>Significance</th>
<th>Diagnosis of collinearity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>β</td>
<td>Tolerance</td>
<td>VIF</td>
</tr>
<tr>
<td>Total performance expectancy</td>
<td>0.321</td>
<td>0.000</td>
<td>0.681</td>
</tr>
<tr>
<td>Total effort expectancy</td>
<td>0.137</td>
<td>0.055</td>
<td>0.594</td>
</tr>
<tr>
<td>Total social influence</td>
<td>0.099</td>
<td>0.145</td>
<td>0.654</td>
</tr>
<tr>
<td>Total facilitating conditions</td>
<td>0.222</td>
<td>0.003</td>
<td>0.552</td>
</tr>
</tbody>
</table>

*a Dependent variable: Total behavioral intention

Source: Authors’ calculation

Based on the obtained results, hypotheses H1 and H4 were accepted, while hypotheses H2 and H3 were rejected. The predictor that has the highest β coefficient is PE ($\beta = 0.321$), while SI has the lowest β coefficient ($\beta = 0.099$). These results are in accordance with the results of a study conducted by San Martín and Herrero (2012) in the context of rural tourism in Spain. However, unlike the study conducted on the example of rural households in Spain, which found that EE is the second strongest predictor of intention, while FC do not contribute to the prediction of tourists’ intention to use websites to book accommodation in rural households, in the context of Serbia, EE is not a predictor of intention ($\beta = 0.137$), while FC are the second strongest predictor of tourist intention ($\beta = 0.222$).
A significant impact of FC on the respondents’ intentions has also been identified in studies conducted in other contexts (e.g., Venkatesh et al., 2012; Escobar-Rodriguez & Carvajal-Trujillo, 2014; Gupta & Dogra, 2017).

Standard multiple regression was also used to examine the impact of FC and BI (predictor variables) and UB as a dependent variable (Table 4). No assumption about the data on which multiple regression is based was contradicted (DW = 2.025; ro < 0.7; Tolerance > 0.10; VIF < 10). The determination coefficient is $R^2 = 0.174$, which means that 17.4% of website use for booking accommodation in rural tourism households in the Republic of Serbia is explained by FC and BI. Of the two variables, BI provides the largest singular contribution ($beta = 0.288$), although FC make a statistically significant contribution ($beta = 0.190$), which means that the hypotheses H5 and H6 are accepted. The obtained results are in agreement with the results of previous studies (e.g., Escobar-Rodriguez & Carvajal-Trujillo, 2014; Ali et al., 2016), which found that FC and BI are significant predictors of website use, i.e., that the greater the intention of tourists to book accommodation through websites, the more likely it is that an online reservation will actually be made.

**Table 4.** Relationship between predictors and use behavior

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Standardized coefficient</th>
<th>Significance</th>
<th>Diagnosis of collinearity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total facilitating conditions</td>
<td>0.190</td>
<td>0.009</td>
<td>Tolerance: 0.758, VIF: 1.320</td>
</tr>
<tr>
<td>Total intent to use</td>
<td>0.288</td>
<td>0.000</td>
<td>Tolerance: 0.758, VIF: 1.320</td>
</tr>
</tbody>
</table>

*a Dependent variable: Use behavior

*Source: Authors’ calculation*

**Conclusion**

The results of the previous studies indicate that tourists recognize the need for efficient websites that would enable them to book accommodation in rural tourism in a simple and accessible way. It is interesting to note that even the possible additional effort that needs to be invested, as well as the lack of support from the social environment, do not diminish the expressed desire to use these websites.

The results of this paper provide new evidence that previous research on the acceptance and dissemination of technology, especially papers based on the UTAUT model, can be used as a starting point for research on the use of websites in the domain of rural tourism. The relationships among the common UTAUT model constructs reached in this study are largely consistent with the results of previous similar UTAUT studies. Descriptive results shed additional light on the profile of potential users of rural tourism accommodation booking websites. This and the factors that stand out in influencing the intention to use these sites are a key contribution to marketing theory and practice. Their practical implications can serve all other stakeholders in this field to come up with a
better strategy for improving and promoting the use of websites offering accommodation in rural tourism households, which, ultimately, should result in acquiring new clients while retaining existing ones.

The main limitation of this research is the significant imbalance in the gender and age structure of the sample. Of all respondents, only 19.8% are male, and 89.2% are under 35 years of age. This is expected considering that another limitation is the fact that the sample is comprised solely of students, i.e., 212 students of all levels of study at the Faculty of Hotel Management and Tourism in Vrnjačka Banja. As a direction in which some future research could go, research on a more representative sample is a clear necessity, as is finding ways to respond to the expressed wishes of tourists for more affordable websites for booking accommodation in rural tourism in Serbia.

Acknowledgements

The paper is part of the Research Program of the Faculty of Hotel Management and Tourism in Vrnjačka Banja University of Kragujevac for 2022, which is funded by the Ministry of Education, Science and Technological Development of the Republic of Serbia.

Conflict of interests

The authors declare no conflict of interest.

References


