The immersive power of Internet and the ability to conduct on-line business marks a line between failure and success. The objective of this paper is to determine whether there are any factors that can be related to the web presence of entities active in Slovenian tourism. Such factors would help to identify the key issues for improving the web presence of Slovenian tourism entities. A list of 2181 entities representing the population of active business units in the Slovenian tourism industry was obtained from Telecom Slovenia's on-line service www.bizi.si. The units were considered to be active in the tourism sector if their primary code belonged to the following group: i55.10, i55.20, i55.30, i56.10, n79.11, h49.39, n77.34, or r93.292. Each entity’s presence on the Internet by means of a web page address was checked. Statistical analyses (associations, simple logistic regression, decision trees) were performed to verify associations or relations between web presence and other data on companies. Of the 2181 entities, only 655 are present on the Internet by means of a web page. As expected, companies with more employees are more web-present than those with fewer; with two or more employees, the web presence exceeds 60%. Small firms, newly established ones, or those with few employees tend not to have web pages; the worrying fact is that there is a considerable number of companies still without a web page despite having an adequate annual income. The analysis has exposed the astonishing fact that many Slovenian companies in the tourism sector are not present on the Internet. Even some larger firms do not have a web page. This fact shows that Slovenian tourism entities are lagging behind global trends and that significant efforts need to be put into ICT and the e-enabling of Slovenian tourism sector.

Keywords: ICT in tourism, web presence, tourism industry, technologies

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Introduction
The development of information and communication technologies (ICT) has changed business practices to such an extent that the Information Era has emerged. This is even more so for the Internet as the infrastructure and the World Wide Web as the service running on it. The tourism sector is not exempt from such change. A tourist product exists only as information at the point of sale, and cannot be sampled before the purchase decision is made (World Tourism Organization, 1999). With ICT tools, customers empowered to identify their travel needs, pursue their travel motivations, explore possibilities, make purchasing decisions, and share their experiences. In contrast, the industry is becoming globalized by using the tools to develop, manage, and distribute their services on the global scale (Buhalis, 1998). Using or not using ICT technology nowadays marks a line between failure and success. Communicating with potential consumers on-line is a must. Searching for travel information available on-line is the prevailing mode of using the Internet for tourism.

Fesenmaier, Cook, Zach, Gretzel, and Stienmetz (2010) estimate that nearly 79 percent of the 135 million online travelers in 2008, or 105 million adults, used the web to facilitate their travel. In 2011, 93% of adults that use the Internet took at least one trip of 50 miles of more away from home or a trip that included an overnight stay, which represents almost 170 million on-line tourists in the US (Fesenmaier, Sheatsley, & Stienmetz, 2012). There was an almost 25% increase of adults using online services for travel in three years (2009–2012) in the US.

Internet search is the first information source for families in the US when it comes to the planning of holidays (eMarketer, 2008). Search engines are the primary source generating upstream traffic to the websites of tourism services providers (Hopkins, 2008). Thus, they are the intermediary between the customers and supplier. They relay tourism-related information and serve as an essential marketing tool. Using the potential of search engines, the suppliers can reach out to potential customers and persuade them to purchase the services, either a priori on-line or later on the site of the tourism facility (Xiang, Wöber, & Fesenmaier, 2008). Second to search engines in terms of most visited pages are social media sites (Hitwise, 2013). The importance of social media integration into websites leads to an even more enhanced web experience for both sides.

This paper only deals with presence of tourism entities via webpages. However, the ICT landscape is changing rapidly. The reader is advised to take into the account that several other platforms are complementing and sometimes even supplementing webpage presence. Social media platforms (e.g. Twitter, Facebook) are becoming increasingly important in international tourists’ decision-making processes (Schroeder & Pennington-Gray, 2015). Online tourist agencies (i.e. vertical sales channels) have a significant market share but not as high as expected (Stangl, Inversini, & Schegg, 2016).

The importance of Internet for business in general, and for tourism in particular, has undoubtedly been outlined by numerous researchers and proven in practice. How this general observation is reflected in practice in Slovenia has yet to be shown; in Slovenia, the web is increasingly used for travel-related information, as one in every ten Internet user searches for such information at least once a week (Cvetović, 2013).

As Chiu, Hsieh, Roan, Tseng, and Hsieh (2011) observe, consumers in multichannel environments can move easily among different channels. They engage in a so-called ‘cross-channel free-riding’ when they use one retailer’s channel to obtain information or evaluate products and then switch to another retailer’s channel to complete the purchase. Thus, having a web page is a starting point in making use of any of the available contemporary ICT-based distribution channels.

The objective of this paper is to describe how the Slovenian entities active in the tourism industry are using the Internet as a business tool, and which parameters indicate their web presence.

We present the underlying and related work in the second section. In the third section, we outline the research method, including data acquisition and data processing. In the fourth section, we evaluated the web presence of Slovenian tourism companies, and we identify the key problems. We conclude the paper with final remarks and comments in the fifth section.
Related Work

Tourism destinations and enterprises both increasingly need to adopt innovative methods and to enhance their competitiveness (Uran Maravić, Križaj, & Lesjak, 2015); the fusion of information and communication technologies enables the creation of new services, restructures existing models of service provision, and radically changes the competition of companies, regions, and destinations (Buhalis, 1998). On the demand side, the new, sophisticated, and demanding consumer increasingly becomes familiar with the emergent technologies and requires flexible, specialized, accessible, interactive products and communication with principals; in the middle point, icts link consumers and suppliers, thus adding value to firms' products. Interestingly, icts change(d) the supply and demand interaction for all types of industry, regardless of the size and location (Buhalis, 1998).

The cost-effectiveness of Internet tools enables companies to reach customers around the world and to interact directly with customers (Buhalis, 1998, 2003). It has assisted tourism service providers to use many activities in addition to, if not instead of, offline promotions. This is important as the Internet is thought of as a multi-promotion tool, and importantly, as a distribution channel (Gretzel, Mitsche, Hwang, & Fesenmaier, 2004). Web promotion is, therefore, becoming the primary promotional channel (Buhalis, 2003).

Through the Internet, companies have a possibility of addressing each target market differently, and create services through the destination to satisfy the needs of many market segments. A customer has become a dynamic target to whom personalized messages can be addressed (Buhalis & Law, 2008).

In terms of website presence, it was shown that this is a must for tourist destinations and the evaluation of their competitiveness (Mazanec, Wöber, & Zins, 2007, Uran Maravić, Gračan, & Zadel, 2015). Importantly, these websites need to be regularly updated not only regarding their content, but also regarding the technologies and appliances they support (Antonioli Corigliano & Baggio, 2006). Many websites have been reviewed and assessed; a review of these works was compiled in (Law, Qi, & Buhalis, 2010).

The studies of travel-related or tourist-related websites can be roughly divided into horizontal (sector-wide) and vertical (region-wide), e.g.:

- cross-national levels (So & Morrison, 2004),
- national level (Doolin, Burgess, & Cooper, 2002; Zafiropoulos & Vrana, 2006),
- regional level (Lu, Guo, & Bai, 2004),

In 2010, there were seventy-five website studies in the relevant tourism-related journals (Law et al., 2010). However, to the best of our knowledge, no enumeration and consequently no evaluation of Slovenian tourism websites has ever been conducted. Furthermore, no analysis of tourism entities being present online was performed at the national level; the research by (Brumen, Gorenak, Rosi, & Rangus, 2016) has established the association between the tourist arrivals in an area with increased web presence.

The reasons for a company to maintain a web page (or not) can extend beyond purely economic and financial ones. For example, a company might maintain a social network presence combined with cooperation with an online travel agency or an online marketer/sales channel (e.g. booking.com), and such a presence is considered adequate.

Method

The aim of this study is to describe the web presence of the Slovenian tourist industry. For this purpose, we first collected the data from our data source. Next, we use descriptive statistics to describe the nature of companies being present or not on the Internet. To determine which factors contribute to the web presence we use appropriate statistical methods.

Data Collection

The data source for our study was Telecom Slovenia’s on-line service www.bizi.si, which is connected to the Slovenian Court Registrar on a daily basis. Each business unit (company) is registered at the court with a single primary Statistical Classification of Economic Activities in the European Community (NACE v2)
Table 1 Web Presence of Entities by NACE Activity

<table>
<thead>
<tr>
<th>Code</th>
<th>Activity</th>
<th>No. of entities</th>
<th>No. of web present</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>I 55.10</td>
<td>Hotels and similar accommodation</td>
<td>520</td>
<td>236</td>
<td>45.4</td>
</tr>
<tr>
<td>R 93.29</td>
<td>Other amusement and recreation activities</td>
<td>26</td>
<td>11</td>
<td>42.3</td>
</tr>
<tr>
<td>H 49.39</td>
<td>Other passenger land transport</td>
<td>15</td>
<td>6</td>
<td>40.0</td>
</tr>
<tr>
<td>N 79.11</td>
<td>Travel agency and tour operator activities</td>
<td>364</td>
<td>136</td>
<td>37.3</td>
</tr>
<tr>
<td>I 55.30</td>
<td>Camping grounds, recreational vehicle parks and trailer parks</td>
<td>45</td>
<td>14</td>
<td>31.1</td>
</tr>
<tr>
<td>I 55.20</td>
<td>Holiday and other short-stay accommodation</td>
<td>676</td>
<td>205</td>
<td>30.3</td>
</tr>
<tr>
<td>N 77.34</td>
<td>Renting and leasing of water transport equipment</td>
<td>54</td>
<td>7</td>
<td>12.9</td>
</tr>
<tr>
<td>I 56.10</td>
<td>Tourist farms without accommodation</td>
<td>481</td>
<td>50</td>
<td>10.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>2181</td>
<td>665</td>
<td>30.5</td>
</tr>
</tbody>
</table>

code (EC, 2006); each company can have several secondary NACE codes. We have limited the search on NACE codes directly related to the tourism industry: I 55.10, I 55.20, I 55.30, I 56.10, N 79.11, H 49.39, N 77.34, or R 93.29; see Table 1.

For each business company, we checked whether bizi.si holds a URL (uniform resource locator) for a company’s website. The results in Table 1 show the total number of companies for each NACE group, the number of those that have a URL, and the percentage of web presence. Additionally, we recorded a company’s geographic location (based on the postal code of its address), number of employees, income (in €) and profits (in €).

Hypothesis
Based on the theoretical background and the stated research question, we state the following hypothesis: there is a set of variables describing companies that are not present on-line.

Statistical Analysis
We verified whether the web presence of a company has any correlation, association or connection in a company’s data. We considered differences to be significant at the α < 0.05 level. SPSS version 21 was used for analysis.

Limitations
The study is focused on the use of web pages as the primary Internet communication tool. It does not, however, cover the use of other means for presenting offers on-line, such as social media services (e.g. Facebook) or other intermediary services (e.g. booking.com) or similar.

Results and Discussion
In the first part, we describe the web presence of companies in terms of their NACE activity. Table 1 lists the activities with numbers and percentage of companies being web-present in each category.

Next, we categorize the companies based on the number of employees and, for each category, we check their web presence. The results are given in Table 2.

Table 2 shows that the web presence increases with the number of employees, as expected. The association is strongly positive (Sommer’s d measure is 0.909, p < 0.000).

Next, the data on web presence are presented with respect to the annual income. Here, too, it is expected that companies with higher annual income will be present on the Internet by means of a web page, and more so than those with lower income.

Figure 1 shows the relation between the percentages of web-present companies with respect to their yearly income. Here too, the lower income denotes that the web presence is lower. Binary logistic regression suggests that income is a statistically significant predictor of web presence, Wald = 28.942, p < 0.000.

To determine which of the factors (i.e. income or number of employees) best describes the interaction
Table 2  Web Presence by Number of Employees

<table>
<thead>
<tr>
<th>No. of employees</th>
<th>Web present</th>
<th>Not present</th>
<th>Total</th>
<th>Present (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>154</td>
<td>512</td>
<td>666</td>
<td>23.1</td>
</tr>
<tr>
<td>1</td>
<td>73</td>
<td>85</td>
<td>158</td>
<td>46.2</td>
</tr>
<tr>
<td>2</td>
<td>63</td>
<td>29</td>
<td>92</td>
<td>68.5</td>
</tr>
<tr>
<td>3–4</td>
<td>45</td>
<td>26</td>
<td>71</td>
<td>63.3</td>
</tr>
<tr>
<td>5–9</td>
<td>55</td>
<td>24</td>
<td>79</td>
<td>69.6</td>
</tr>
<tr>
<td>10–19</td>
<td>30</td>
<td>12</td>
<td>42</td>
<td>71.4</td>
</tr>
<tr>
<td>20–49</td>
<td>25</td>
<td>5</td>
<td>30</td>
<td>83.3</td>
</tr>
<tr>
<td>50–99</td>
<td>21</td>
<td>1</td>
<td>22</td>
<td>95.5</td>
</tr>
<tr>
<td>100–199</td>
<td>6</td>
<td>1</td>
<td>7</td>
<td>85.7</td>
</tr>
<tr>
<td>200–249</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td>100</td>
</tr>
<tr>
<td>250–499</td>
<td>5</td>
<td>0</td>
<td>5</td>
<td>100</td>
</tr>
<tr>
<td>500–999</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>100</td>
</tr>
<tr>
<td>&gt;1000</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>100</td>
</tr>
<tr>
<td>N/A</td>
<td>180</td>
<td>815</td>
<td>995</td>
<td>18.1</td>
</tr>
</tbody>
</table>

with the web presence of a company, a decision tree was created using a Chi-squared Automatic Interaction detection (CHAID) technique. This technique is used for prediction (similar to regression analysis), classification, and for detection of interaction between variables (Kass, 1980). In addition to the mentioned (expected) predictors, the geographic location of a company (its postal code), tourism activity area (NACE classification), and company’s net profits/loss were included. The decision tree is shown in Figure 2.

The prevailing parameter that predicts the company’s web presence is, based on the decision tree, the company’s income. This is, as mentioned earlier, not a surprise. However, the detailed analysis of the decision tree shows that most companies not present on the Internet are those whose income is below €22,722 or is not known; in this node only 18.3% companies are present, yet this represents 70.5% of the sample. With increased income (€22,722–€37,600 range), the presence increases to 31.5% in Node 2, to 50.8% in Node 3 (€37,600–€114,859 range), to 63.9% in Node 4 (€114,859–€400,125 range) and to almost 80% in Node 5 (income > €400,125).

To summarize, most companies not present on the Internet have low annual income, or the data on their income is not known. The latter can be due to the company just recently being incorporated, or it is not required to report income because the taxes are being paid at a flat rate. Based on Slovenian legislation, companies not exceeding €50,000 in annual income are exempt from publicly reporting it. Also noteworthy is that companies with two employees or more are prevalently present on-line (more than two thirds are present). It is more than obvious that small firms either do not invest in on-line presence or consider it to be not important.

The most interesting group in this sense is the one without employees (e.g. owners only). These companies are not present on-line in more than 75% of cases. The reasons can only be speculated upon without a detailed analysis using interviews or surveys. Nevertheless, the reasons might be in the fact that owners of these companies have very specific business; they know their customers in person, their customer base is non-changing and they have a limited capacity in providing the services to the customers. Thus, they (think they) have no need to increase their visibility beyond the existing customer base to avoid reaching their capacity limit. They may be reluctant (or unable) to increase their servicing capacity by employing additional workforce.

The results of our study are more or less in line with research conducted by the Slovenian Statistical Office in 2016 for activities in 2015 regarding on-line sales and advertising on the internet (Zupan, 2016). Their
study was focused on companies with 10 or more employees in all sectors; thus, it is not directly comparable to the current one. Nevertheless, they determined that 17% of these companies received orders or online reservations. On-line sales contributed to 2.2% of the total income; most of the income represented the sales to other companies or public institutions (77%), only 23% were sales to end consumers. In the hotel and similar accommodations sub-sector, these sales represented 14.7% of income, and 84% used the Internet as a sales channel. In the current study, 83.2% of companies with 10 or more employees are present on-line, so the numbers (almost) perfectly match.

Such a match leads little room for the premise that companies that do not have a web page because they supplement the web presence with other internet-enabled services, e.g. social network presence combined with on-line sales through an intermediary. In the current study, 84% of companies do have a web page, and in the Statistical Office study, 83.1% of those companies use the Internet as a sales channel. This simply means that if a company is using an internet sales channel, it is using its own web page, and is possibly combining and supplementing it with additional channels. It is highly unlikely that web pages are being replaced by supplements; it is much more likely that the web page is being supplemented by other channels.

The fact that one third of companies with relatively adequate annual income (more than €115k), but are still not present on-line requires further research. While that fact that small firms, newly established ones, or those with few employees do not have a web page can be explained, the fact that bigger companies do not have a web page is rather worrying.

**Conclusion**

Numerous studies, including in the tourism sector, have shown that web presence is of increasing importance and may mark the critical line between failure and success. Almost 20 years ago, Haynes, Becherer, and Helms (1998) observed that there was a huge unrealized potential in using Internet for conducting business. Today, we still observe that many tourism entities in Slovenia are not using the Internet; only 30.5% of companies are present on the Internet by means of a web page.

The present study has shown that companies with fewer than two employees prevalingly do not have a web page, while the penetration is below 80% for companies up to 20 employees. In contrast, the web presence of a company mostly depends on its annual income. The tipping point is at about €37,000 per annum, at which point 50% of companies start having a web page. Of great concern is the fact that relatively large companies with adequate annual income (€115,000 or more) do not have a web page.
One important finding of the present work is the fact that the same percentage of companies that are using the Internet as a sales channel are present on-line by means of their own web page. This means that other Internet sales channels, such as on-line travel agencies, vertically or horizontally oriented intermediaries, or social network media, are supplementing rather than replacing web pages.

The global trend in tourism is the ‘new communications paradigm’ (Mangold & Faulds, 2009), e.g. going beyond the static webpage into the world of social media (Amersdorffer, Bauhuber, & Oellrich, 2012; Lim, Chung, & Weaver, 2012; Xiang & Gretzel, 2010; Turnšek, Kurež, Brumen, Rosi, & Rangus, 2013); growth in online exposure can boost tourism incomes to rise 20% (Tourism Economics, 2013). This leaves significant upside potential for the tourism industry to more fully embrace an online presence (Rangus & Brumen, 2016). It seems that the Slovenian tourism industry has not yet caught up even with the ‘old paradigm’ of online presence via webpages. The results of the study can firstly help the decision makers to embrace new organizational values (Gorenak & Ferjan, 2015). Based on these findings the policy decision makers should be able to understand the needs of the sector better in order to increase the number of initiatives and the funds available to increase web visibility. Significant efforts need to be put into ICT and the e-enabling of Slovenian tourism sector.

Nevertheless, web presence itself is only the first step in a successful use of today’s most important distribution channel. Such a presence needs to be appealing, adapted to the modern mobile user and with relevant information.

The present work opened a series of research questions. One of the most important ones is the reason(s) behind the decision not to be present on-line with a web page, and the reasons are probably not the same for smaller and larger companies in terms of revenue and/or income. The extent of other Internet sales channels supplementing web pages is the second question; additionally, what is their share in induced income? Another field of research is the quality features of tourist web pages. For example, which features of a web page yield a higher click-to-transaction rate?

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