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## Model for Estimating the Potential of Social Networking Sites Usage in Tourism Industry in Bosnia and Herzegovina

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*Social networking has taken contemporary business experiences to a new level that cannot be compared with anything that happened so far. Tourism industry and travel booking activities have significantly benefited from such development. Potential travellers can communicate with tourist agencies and operators through social networking sites as well as with tourists who already have visited desired destination or used services from certain operator. This means that tourists can get information directly from actors in tourist activities in order to make their travel decision. Social networking has become large resources from which tourists can make decisions.*

*In this paper it will be given model for estimating the potential of social networking usage by consumers in Bosnia and Herzegovina. According to the given model, estimated potential of social networking usage by consumers is 43.281.660 €, which represents 12.19% of annual touristic expenditure of B&H citizens. Knowledge about mentioned potential is important data for marketers who plan to exploit social networking channel in their marketing efforts.*

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**Keywords:** *tourism industry; consumers; social networking sites; SNS communication*

## Overview of social networking development

Social networks were created on Internet as early as in beginning of 90-is of last century. In 1994 was created one of the first services of social networking named Geocities. Users of this site were able to create own web sites and upload big variety of digital material. Mutual interaction between users was limited only on use of e-mail service. 1995 brought to the light a social networking service named theglobe.com which allowed to users to work with personalized content, as well as direct interaction with those who had similar interests. Same year was created a social network called Classmates.com which allowed to users to create own profiles and to add other users in personal contacts. In 1997 was started a service AOL Instant Messenger which allowed exchange of messages in real time. Last decade was marked by appearance of social networks which allowed work with personal profiles, personal contacts and interaction between users of similar interests. These features were direct causes for rapid growth of such networks. In 2002 was created a social network Friendster which increased up to three million users in first three months of existence. Following year was created one of the most popular networks of that time, namely Myspace, and 2004 was created a leader in this area, Facebook, and in 2006 were created Twiter and Windows live.

**Table 1:** Overview of most popular social networks [1]

1999	2000	2003	2004	2005	2006	2011
Sina Weibo	Habbo	LinkedIn	Facebook	Bebo	Badoo	Google+
Tencent QQ		Skype	Orkut	Netease	Twitter	
			Tencent Weibo	Qzone	Vkontakte	
					Windows Live	

Growth of usage of social networks has been very intensive in last 10 years. There are estimated over 7 billion user accounts created on variety of social networks. This means that there are 2.91 accounts created per Internet user (2,405 billion of Internet users [2]). It can be noticed that social networks have become significant factor of integration of Internet users. In the following table it is given an overview of world's largest social networks in 2012.

**Table 2:** Overview of 15 biggest social networks users [3]

No.	Social network	Number of active users
1	Facebook	1.115.000.000
2	YouTube	1.000.000.000
3	Qzone	712.000.000
4	Sina Weibo	500.000.000
5	WhatsApp	350.000.000
6	Google+	327.000.000
7	TubmIr	300.000.000
8	LINE	275.000.000
9	Twitter	240.000.000
10	WeChat	236.000.000
11	Tencent Weibo	220.000.000
12	LinkedIn	184.000.000
13	Youku	175.000.000
14	Instagram	150.000.000
15	Tudou	114.000.000
	<b>TOTAL:</b>	<b>5.898.000.000</b>

From Table 2 it can be noticed that on 15 largest social networks there have been created nearly 5.9 billion user accounts. This is a huge communication potential that has already been recognized and exploited by business community. Today social networking is the fastest-growing active social online media. Business significance of social networks can be analyzed in terms of new type of consumers that have emerged from such a digital environment.

Different authors point out the following groups in social networking [4]:

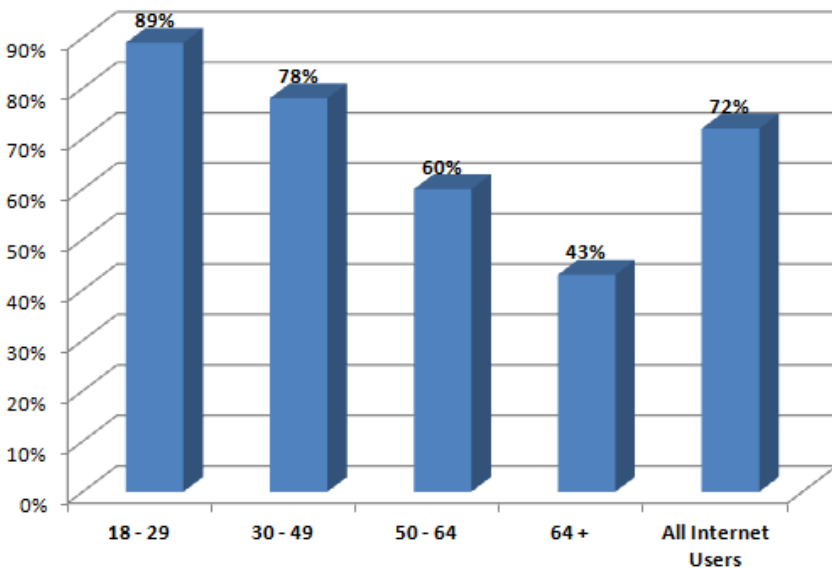
*Digital natives* are users of 18-30 years old who adopt the new technologies in a very natural way. They have born in this new age of

Knowledge and Information society; as consequence it is something natural, they have or are growing up with this technology era. They are the “native speakers” of the Internet language. They use instant messaging, mobile phones, blogs, geo-localization and different social applications where they can share contents

*Digital Immigrants* are users of 30-50 years old. They are on the peak of their professional career; therefore they do not have enough time to be up to date with the technological advances. However, they have to do it if they want to compete with younger generations. They have to do a big effort in order to adapt themselves to the new technologies and Internet applications.

*Digital wise people* are users of 50 onwards who despite of the fact that their learning curve is high, they have time to investigate and learn in order to be up to date.

### Social Networking Usage by Age



**Figure 1:** Social Networks Usage by Age in 2013 [5]

From Figure 1 it can be noticed that the biggest density (nearly 90% of Internet users) of social networks users is within group of digital natives. Although they are digitally very sophisticated group, they aren't rather significant in business terms because this is a group with small buying

power. In terms of business importance, the most significant group of social networks users is digital immigrants. Density of social networks users within this group of Internet users is around 78%. Also, they are on the peak of their professional career and they are a group with a great buying power. This means that advertising within this group could be profitable for different businesses. The third group of digital wise people has density of around 53%, and they are still an interesting group because they are mostly retired people that still have buying power and advertising to this group can have positive financial effects.

## **Social Networking in Tourism**

The Internet has now clearly established itself as the world's favourite place to book travel. There is little statistical difference between Europeans, Americans and Asians, the World Travel Monitor showed [6].

Regarding the use of social networking in tourism industry, there has to be noticed that tourism industry is a service industry which means that there has to be very intensive interaction between services provides and consumers. Because of a need for interaction with clients, tourism industry is one of the business sectors with a very close relationship with the new information and communication technologies. This means that mechanisms of online sharing of information can facilitate tourist industry to make closer relation to potential and current clients [7]. Probably, the most important feature of the tourists is that they use Internet, mobile technology and social media.

User generated content and mutual interaction between users are important features of social networks. Tourist operators are dealing with a new consumer, which can easily access information and easily share own views, comments and suggestions in an informal and collaborative way, increasing the value and influence power as determinants of choice for other consumers [8]. Changes which have arrived with growth of social networks are pushing marketing to shift from a business-to-consumer to a peer-to-peer model for the sharing of information. This digital mouth-to-mouth marketing is becoming an important feature in terms of approaching a consumer. As a consequence, tourist organizations have to implement strategies and tools (websites or portals) based on user generated contents.

This can be done by creating brand new portals or to incorporate these new technologies in existing portals.

Customer communities are becoming a major factor in marketing of tourist organizations. Process of building up customer communities needs to be understood. According to some researches there is rather close relation between customer interaction and creation of customer communities. As a first step, customer interaction allows remote experiences of products and services. Further on, customers are allowed to make a dynamic customization of their needs and to share their experience with others. Finally, this intensive sharing process causes that customers are becoming closer to each other by increasing mutual trust, and as a result there are customer communities that have been built [9].

Increasingly the choices of tourists are being based on discussion forums where specific questions about the destination can be formulated and exchanged between users. In these forums tourists are interested in many aspects about the destination such as transportation, restaurants, prices, as the destination is a single product that the tourist is experiencing.

It can be noticed that travellers are expected to search and share digital content on line. At the information and planning stages, consumers are likely to visit a variety of sites which will invariably include any one or more of the following [10]:

- General search query websites (search engines)
- Destination marketing websites
- Travel community websites
- Meta-search sites
- Links identified within social networking websites

As many tourists start their search on the Internet, social media can make it easier to communicate with guests; to learn from comments and improve service; to spread campaigns through viral marketing and to guide visitors from one highlight to another [11]. Search for tourist destination starts with reading of wikis and blogs, than getting involved in review sites, after that to connect with locals on social networks and finally to use geo-location applications for eventual online insight in destination.

## **Model for Estimating the Potential of Social Networking Sites Usage in Tourism Industry**

It is obvious that tourist industry is gaining the space within social networking communication channels. It is important to estimate business potential of travelers who prefer Internet social networking in their touristic activities. A predication model should be imposed as a tool which will provide tourist operators with additional marketing power.

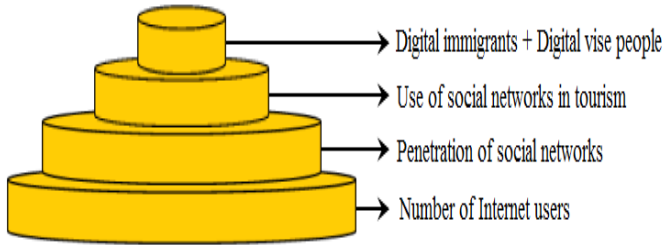
Potential of use of a certain digital environment in business purposes can be calculated according to variety of indicators, such as geographic coverage, communication channel, frequency of use of communication channel, etc. Therefore, it can be considered one or more following environments, regarding tourist industry:

- Overall Internet market in tourist industry
- Overall social networking market in tourist industry
- Available social networking market in tourist industry

Values of mentioned environments in tourism industry have to be calculated regarding the part GDP per capita expenditure in tourism, as following:

- Overall Internet market in tourist industry
  - total number of Internet users × part of GDP per capita expenditure in tourism
- Overall social networking market in tourist industry
  - total number of social networks users × part of GDP per capita expenditure in tourism
- Available social networking market in tourist industry
  - number of social network users who search on social networks for tourist purposes × percentage of (digital immigrants plus digital wise people) × part of GDP per capita expenditure in tourism

Most important is available social networking market in tourist industry. It refers to the part of Internet users who use social networks to search for tourist information. Therefore, this indicator is important to be calculated. In order to calculate it, there should be known following indicators: number of Internet users in a certain region of interest, penetration of social networking (%) in the region, penetration of social networks as a source of touristic information (%) in the region, number of digital immigrants plus digital wise people (%) and part of GDP per capita expenditure in tourism (%) in the region. Figure 2 illustrates how available population can be determined.



**Figure 2:** Available population for social networking market in tourist industry refers

Available SN market in tourist industry (ASNM) can be calculated as following:

$$ASNM = IU \times PSN \times SNTI \times DP \times GDPT$$

IU - Number of Internet users

PSN - Penetration of social networking (%)

SNTI - Penetration of social networks as a source of information of touristic information (%)

DP - digital immigrants plus digital wise people (%)

GDPT - part GDP per capita expenditure in tourism (%)

These are elements which have to be used in model for estimating the potential of social networking sites usage in tourism industry.

## **Findings on use of Social Media by Tourist Consumers in Bosnia and Herzegovina**

Primary research was conducted as an online poll. The poll was conducted during the period September – October 2013. Sample was created from author’s Facebook contacts. Sampling was made as multiple systematic sampling conducted in two levels. Firstly it was created a systematic sample of 120 members. Second level was to create systematic sub-sample of 10 examinees from each of those 120 sample members from first level. In total, there were 1200 examinees among whom the primary research was conducted. After the poll was conducted there were 1146 completed answers.



Percentage of returned answers was 95.59%. Average age of examinees was 36.58 years. Distribution of age is illustrated in Table 3.

**Table 3:** Distribution of age

<b>Internet natives</b>	<b>Internet immigrants</b>	<b>Internet wise people</b>
-30	30 - 50	50+
52.18%	40.31%	7.50%

The questionnaire for tourist consumers included the following questions:

- Do you use Internet search engines to find touristic information?
- Do you visit travel community websites to find touristic information?
- Do you search for touristic destination on social networks websites
- Does offer through social networks websites influence your decision

Results of field research of Internet users in Bosnia and Herzegovina in regard to their readiness to visit websites or social networking and to make travel decision are as following:

**Table 4:** Use of search engines

<b>Very often</b>	43.89%
<b>Occasionally</b>	45.20%
<b>Never</b>	10.91%

From Table 4 it can be noticed that only 43.90% of touristic clients use general search query websites on regular bases in order to be updated with touristic information. At the same time 45.12% of respondents use general search query websites occasionally, mainly before the travel, in order to make travel decision. This gives total of 89.02% of respondents who use search engines in order to get touristic information.

**Table 5:** Visit travel community websites

<b>Very often</b>	17.07%
<b>Occasionally</b>	51.22%
<b>Never</b>	31.71%

Findings illustrated in Table 5 show that 17% of respondents use travel community websites in order to make travel decision, while more than half of them do it occasionally, before the travel. It can be noticed that 68.29% of respondents visit travel community web sites in order to get touristic information.

**Table 6:** Search for touristic destination on social networks websites

<b>Very often</b>	18.29%
<b>Occasionally</b>	36.59%
<b>Never</b>	45.12%

When it comes to use of social networks websites as a source of information of touristic destination, it can be noticed that social networks are less used than previous sources. 18% of respondents use social networks on regular bases, illustrated in Table 6, while only 36% of them use social networks occasionally, before the travel. It means that 54.88% of respondents search touristic information on social networks websites, and that social networks are the least used source in comparison to other sources which are considered in this research.

**Table 7:** Influence of social networks

<b>Very high influence</b>	2.36%
<b>High influence</b>	7.59%
<b>Fair influence</b>	27.14%
<b>Low influence</b>	25.31%
<b>Not at all</b>	37.61%

Influence of social networks was measured with five-level Likert scale. Findings illustrated in Table 7 show that 37.09% of users of social networks are influenced by touristic information on social networks (from

fair to very high influence). It means that not all of the respondents who search touristic information on social networks are influenced by found content (difference is 17.79%). This also shows that existing touristic offer on social networks can be improved as well as that overall touristic offer must be improved when it comes to use of social networks.

Looking at the comparison of findings, it can be noticed that most used channel for searching after touristic information is use of search engines, while search on social networks is the least used channel.

In order to estimate the potential of social networking sites usage in tourism industry in Bosnia and Herzegovina some secondary data has to be researched. Main characteristic of business potential of overall Internet environment in Bosnia and Herzegovina is 2,327,578 users of Internet, which gives 60% population penetration [12]. Penetration of social networking within online population in Bosnia and Herzegovina is 80% [13]. Dominant social network is Facebook with 1,401,520 users which give online penetration of 71.68% and population penetration of 30.53% [14]. Sources in the World Bank show that an average GDP per capita in Bosnia and Herzegovina is on level of 3,710 € [15]. Annual touristic expenditure of citizens of Bosnia and Herzegovina is on level of 355 million € [15], which is 2.37% of GDP.

Based on given model it can be estimated the available potential of social networking sites in tourism industry in Bosnia and Herzegovina, as following:

$$\begin{aligned} \text{ASNM} &= \text{IU} \times \text{PSN} \times \text{SNTI} \times \text{DP} \times \text{GDPT} \\ &= 2,327,578 \times 80\% \times 54.88\% \times 48.37\% \times (3,710 \times 2.36\%) = 43,281,660 \text{ €} \end{aligned}$$

This represents 12.19% of annual touristic expenditure of B&H citizens.

## Conclusion

Development of social media networks has been very intensive in past decade and it has already made a tectonic impact on society as well as on contemporary business. Over 4.5 billion created personal profiles on 15 biggest social networks is a communication power that has not been seen so far. There have been derived three groups of social network users, namely

Digital natives, Digital Immigrants and Digital wise people, which describe different type of belonging and usage of social networks. Having defined such groups it gives researches opportunity to understand different types of business significance social network users.

Social networking in tourism industry has established itself as an important communication channel due to its interactive nature. Tourism industry is a service industry which means that there has to be very intensive interaction between services provides and consumers. Research of activities of Internet users in terms of obtaining touristic information can be considered through several activities such as: general search query websites, destination marketing websites, travel community websites or links identified within social media websites (social networks). It can be noticed that research of social networks can provide plenty answers regarding business value of its touristic potential.

Use of social networks websites in Bosnia and Herzegovina as a source of information about is not as frequent as other means of Internet communication. As a consequence the Influence of social networks on decision making process in tourism is less than general search query websites usage, visit of destination marketing websites or travel community websites. There is a huge room for potential development of social networks in tourism industry and it can be expected in near future that social networks to become main digital communication channel between touristic service providers and consumers.

Available social networking market in tourist industry represents the part of market that can be exploited by social networking communication channel. In this paper it has been given a model for calculating it. This model can be applied on any region, and even on any digital communication channel, in order to calculate the business available value of a certain population in a certain digital environment. Positive result of this research is knowledge about methodology to calculate size of social networking potential within tourism industry and how it can be measured and exploited.

To which extent the consumers' reachable SN market in tourist industry would be exploited depends on penetration of touristic marketing professionals into social networks and their skills to convert consumer's interaction into the money. This is a topic for future research and

consideration in order to determine real power of social networking in tourism.

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