

## THE POTENTIAL OF MOBILE APPLICATIONS IN ORGANIZATION AND PROMOTION

Goran Pajnić, B.Sc.<sup>1</sup>, Davor Bošnjaković, B.Sc.<sup>2</sup>, Ivan Kelić, univ.spec.oec,<sup>3</sup>

<sup>1</sup>Chief Executive Officer at Belje Inc., Republic of Croatia, goran.pajnic@belje.hr

<sup>2</sup>Chief Executive Officer at Vupik Inc., Republic of Croatia, davor.bosnjakovic@vupik.hr

<sup>3</sup>Faculty of Economics in Osijek, Josip Juraj Strossmayer University of Osijek, Republic of Croatia, ikelic@efos.hr

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### Abstract

With the advent of mobile marketing and wide acceptance of the technology among end users through smartphone devices, the conditions are ripe for developing new promotional channels. According to some estimates, smartphone sales have exceeded one billion units, with no signs of slowing down. Through mobile applications, these devices allow for two-way communication between business entities and consumers. Initially, mobile applications were intended mostly for entertainment and were simple applications for personal use. Over time, they have evolved into sophisticated business-world functions, thus becoming an unavoidable trend in marketing activities. It is estimated there are 800,000 mobile applications on the market, with an incredible range of content. This paper aims to define the potential of mobile applications in modern marketing activities. To that end, a survey will be carried out with a sample of tourist board marketing managers. The results of the survey will indicate the extent to which mobile applications are used and considered important in modern business practice.

**JEL Classification:** M31, M37

**Keywords:** mobile marketing, Web 2.0, smartphone, e-business

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### 1. Introduction

Competition in the modern market has been rapidly changing, mainly due to the development of Internet technologies where participants are invited to take part in content generation. Consequently, participants become active users who can

fully use an application through a browser and have control over the content. As a result of the development of digital and communication technologies, new channels were created for business entities to distribute information to their customers. The new channels for distribution of information are part of the current Web 2.0 Internet technology, which includes e-mail, RSS, blog, forums, social networks, and one of the fastest growing trends presently—location-based applications using geographical location of the user. Tim O'Reilly defined the term Web 2.0 as: "...the business revolution in the computer industry caused by the move to the internet as platform, and an attempt to understand the rules for success on that new platform" (O'Reilly, 2006). The main characteristics of Web 2.0 are openness, freedom and collective intelligence (Strauss & Frost, 2009, 13-14), which all come together in user participation in content generation. Mobile applications enable users to receive real-time information on the screens of their devices (mobile phones, laptops or tablets) and then generate their own content and distribute it to others. To use mobile applications, one needs a mobile device – a smartphone or a tablet that can be connected to the Internet. Such devices have a built-in GPS tracker to locate the user, thus enabling two-way communication.

There are various definitions of the term marketing. Most experts accept the one that defines marketing as a social process by which individuals and groups obtain what they need and want through creating, offering, and exchanging products and services of value with others (Renko, 2009, 12). Marketing, as a business strategy, is dependant on the orientation of an organisation towards the market and customers wherein all employees of an organization should focus on the customer in performing their duties. Electronic marketing applications facilitate a more detailed insight into consumers' characteristics and behaviour patterns through the database and technology that enables interaction with them. Unlike traditional, i.e., analogue, offline marketing based on market research, electronic marketing facilitates strategic targeting of consumers as well as quick customization and flexibility of all marketing activities that respond to customers' specific needs. In general, we can conclude that e-marketing complements traditional marketing activities. Furthermore, e-marketing is closely linked to the development of new technologies, which seek to implement traditional marketing mix (variables) through network. It is the development of technology that has created the preconditions for the implementation of mobile marketing activities. Mobile marketing enables an organization or an individual to communicate and engage with their audience in an interactive and relevant manner through any mobile device or network (Venkatesh & Sridhar, 2009, 118). Some

authors find that mobile marketing is any marketing activity conducted through a ubiquitous network to which consumers are constantly connected using a personal mobile device to transmit information (Kaplan, 2012, 129-139).

New global marketing trends developed as a result of an increasing number of smartphone users. Mobile marketing features such as interactivity, measurability and possibility of direct communication with the user open up enormous opportunities that all types of organizations recognize. Integration of mobile technology into existing marketing campaigns has enabled users to access additional information easier and receive alerts about relevant events. Mobile marketing has enabled advertisers to create personalized multimedia campaigns for their target audiences and has given users the possibility to react, i.e., respond to the campaign directly. The main goal of this paper is to collect and analyse data in order to determine the extent to which business entities have recognized this technology. In view of the research problem and objectives the following hypotheses were defined:

- H1: Mobile applications, as a powerful promotional tool for business entities, record a steady growth in the number of users.
- H2: Business entities in tourism industry underuse mobile applications as an information distribution channel.

## **2. H1: Mobile applications, as a powerful promotional tool for business entities, record a steady growth in the number of users.**

Internet, one of the most significant technological phenomena of our time, provides business entities with completely new competitive opportunities through mobile marketing based on mobile applications. Links and search engines have created a parallel world, in which information can be obtained and integrated with a single click of the mouse. According to Chetan Sharma, an expert in the field of electronic advertising, the benefits of mobile advertising are as follows (Sharma, 2011):

- Reach - quantified audience.
- Targeting - ICT management at the right time, in the right place.
- Engagement - possibility of engaging consumers in the process.
- Viral - how fast and wide can the message be spread through the medium.
- Transactions - how fast, painlessly and effectively can a consumer execute a transaction that is advertised (buy a product, service, download...).

User participation is a key feature of mobile marketing which gives it the advantage over other marketing channels (Griffiths and al., 2004). As a result of rapid development of the Internet in the past few years, the devices that consumers use to access the Internet and obtain information have also developed. Research shows that after 2010 the sales of desktop computers compared to smartphones have been constantly decreasing (Kadlec, 2013, 4). According to the results of another research, the share of smartphone users worldwide amounted to around 29% (IDC - Press Release, 2011). In 2011, 627 million people were using smartphones, accounting for 12.3% of the total number of active telephone cards in the world. It is expected that in 2015 more than 1.5 billion people could be using smartphones, which would make 24.8% of active phone cards. Research has revealed that in 2012 there were 1.2 billion people using mobile applications worldwide. Statistics show that this trend has been growing at an annual rate of 29.8% and that it will reach 4.4 billion in 2017 (Portio Research, 2013). According to the results of research conducted by Gartner, the world's leading information technology research company, smartphone users downloaded more than 102 billion mobile applications in 2013 (Gartner, 2014). These results indicate that application downloading is on the rise. However, it needs to be pointed out that the rise pertains to free application downloading. Table 1 shows the number of paid application downloads in relation to free application downloads, as well as predicted downloads and trends.

**Table 1.** Downloads of mobile apps from all stores worldwide, 2010-2016 according to Gartner.

	2011	2012	2013	2014	2015	2016
<b>Free downloads</b>	22.1 billion	40.6 billion	73.3 billion	119.9 billion	189 billion	287.9 billion
<b>Paid-for downloads</b>	2.9 billion	5.0 billion	8.1 billion	11.9 billion	16.4 billion	21.7 billion
<b>Total downloads</b>	24.9 billion	45.6 billion	81.4 billion	131.7 billion	205.4 billion	309.6 billion
<b>Percentage free downloads</b>	88.4%	89.0%	90.0%	91.0%	92.0%	93.0%

Source: Gartner; 2012, available at: <http://goo.gl/amytyB> (15.03.2014.)

Free downloads account for almost 91% of all downloaded applications. Business entities that use applications as a promotional tool should therefore offer them

for free. To achieve recognition, draw attention, and eventually gain the trust of the community in online environment is a challenge for all business entities. The above results indicate that the proposed hypothesis, i.e. that mobile applications, as a powerful promotional tool for business entities, have recorded a steady growth in the number of users, has been confirmed. In other words, in the future, business entities will mainly use this technology in their promotional and organisational activities.

### **3. H2: Business entities in tourism industry underuse mobile applications as an information distribution channel.**

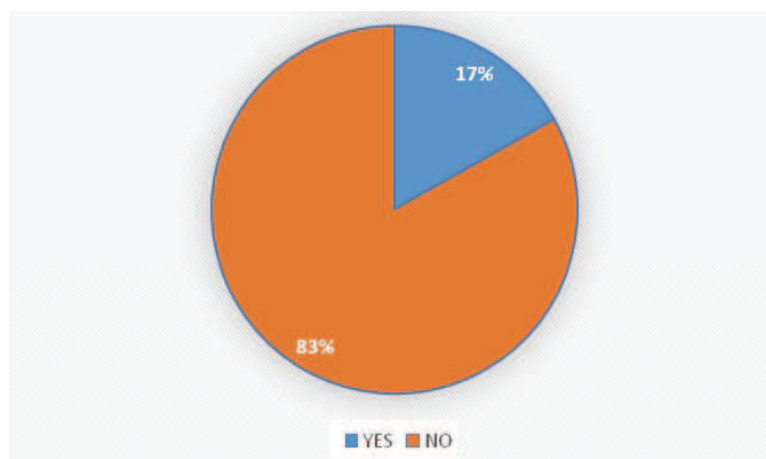
Numerous factors depend on the product development strategy. Tourism, as a specific activity mix, is characterized by a great deal of information playing a role in business decision making. This information needs to be accurate, timely and reliable. Marketing information system is an organized set of procedures and methods for continuing and planned collection, analysis and interpretation of data; assessment, maintaining and distribution of information to improve business decision making (Marušić & Prebežac, 2004, 6). The focus is on availability of the relevant content. Today, when all sectors of the economy are affected by the crisis, including tourism, it is safe to assume that ICT is key to overcoming the difficulties encountered by business entities in tourism industry all over the world. The answer to these problems lies in reinforcing e-marketing activities in all segments of business operation and promotion. As a result of rapidly developing ICT, all business entities in tourism industry have an opportunity to use this technology in online distribution, organization, marketing and sale and in doing so ensure their strong market penetration.

To gain a clear insight into the tourism board marketing activities on the Internet, a survey was conducted with a sample of 101 tourist board offices across different levels - county tourist board, city tourist board, municipal tourist board and regional tourist board. The survey also included the main office of the Croatian tourist board. The survey sample included a total of 14 county tourist board offices, 45 city tourist board offices, 39 municipal tourist board offices, two regional tourist board offices and the main Croatian tourist board office. The data were collected using a Google spreadsheet questionnaire which was sent to the official e-mail addresses of the tourist board offices from January to June 2012. The questionnaire consisted of 62 questions, nine of which were open-ended questions where respondents were required to write their response, while the rest were multiple-choice closed-ended questions. In view of the aim of the paper, i.e. investigating the application of Internet marketing tools and techniques in tourist boards, intentional

sampling was used to select the target audience. Therefore, the survey was conducted on a sample of employees of tourist board offices who are proficient in the field of Internet marketing and whose knowledge would be useful for determining the extent to which tourist board offices have developed mobile applications.

The aim of the questionnaire was to investigate whether respondents, i.e., tourist board online promotion managers have used Web 2.0 applications and if so, which applications have been used and to which extent, as well as to examine the attitude of respondents towards the advantages and disadvantages of these applications. The study also looked into how much tourist boards invest in adapting the content to mobile devices so that it can be used with the help of specialized mobile applications by asking whether the tourist board has invested financial resources in developing a mobile application. Figure 1 shows the results of the survey.

**Figure 1.** Has the tourist board invested in a custom-made mobile application



Source: Research results by authors

The results indicate that only 17% (17 offices) have a (custom-made) mobile application or some kind of application with features that identify the tourist board office in question. Given the fact that mobile applications can provide most of the information to their users, and can largely operate in the same form both offline and online, the results show that tourist boards have not recognized the importance of mobile applications. Tourist boards, as organizers and promoters of destinations must allow unrestricted flow of relevant information to all potential guests. Mobile applications enable all users to take part in the exchange of content. Most applications allow constant update of data and information (events, photos, links, contact information, available accommodation units in the area covered by the tourist board, etc.). Using mobile applications, tourist boards target their audience in or-



der to conduct pre-sale activities by presenting information on a destination to prospective guests. Since the application is constantly updated, the latest information about the destination that guests had visited is sent out to them. They can browse it, receive information about the upcoming events and perhaps decide to come back. The survey results confirm the hypothesis that tourist boards underuse this technology. Bearing in mind that the development of mobile applications has only started to take off, some tourist boards may still not be aware of the need to have an application developed. However, since there is a large number of applications that can provide information about the relevant destination, tourist boards should look into the existing ones and recommend them to their guests. A quality tourist application can be used as a travel guide, navigation system, booking agency, shopping guide, Wi-Fi hot spot locator, translator, information service provider (weather information, transit schedule, important phone numbers, exchange rates), historian, etc. (Šipoš, 2012). Given that there is a need for practical and simple, yet attractive mobile applications with quality content, the possibilities are limitless.

#### 4. Conclusion

Business entities, as well as other networked application users have been increasingly following the trend of providing relevant information to their customers through mobile applications. It is expected that in the future customer analysis will be performed on a daily basis and mobile applications are the best tool for that. Since information flows and changes rapidly, it is necessary to select the information that will be useful to customers and distribute it using the most adequate channel. The survey confirmed the hypotheses that mobile applications represent a powerful promotional tool for business entities, and that there is a steady growth in the number of users. A customer using these applications becomes also an administrator, and a distributor of information to other users, thereby creating a new kind of link between businesses and customers, which confirms the importance of investing in mobile technology. One-way communication, usually initiated by a business entity, has become an obsolete and inefficient promotion method. The latest trend favours two-way communication in which consumers are taking on an increasingly important role in creating a long-term strategy of the business entity. As the technology develops, the number of consumers using smartphones will grow. This creates a testing ground for location-based services – customer locators and customer interaction applications. Individuals receive relevant information through the information search/retrieval system in mobile applications. The more product and service customers use these technologies and

services, the more they will insist on obtaining useful and information-rich content. It is therefore necessary for business entities to invest in mobile applications in order to be recognized in the cyber world.

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