

# USERS ACCEPTANCE OF LOCATION-BASED MARKETING APPS IN TOURISM SECTOR: AN EXPLORATORY ANALYSIS

*Pedro Palos-Sanchez<sup>1</sup>*

*Jose Ramon Saura<sup>2</sup>*

*Ana Reyes-Menendez<sup>3</sup>*

*Ivonne Vásquez Esquivel<sup>4</sup>*

## ABSTRACT

Mobile devices are the most used technology tools to access the Internet since they allow access from anywhere. This possibility has prompted companies to focus, to a greater extent, strategies based on geolocation marketing. Geolocation is a tool through which people or places can be located and have very diverse functionalities and applications. Location-Based Services (LBS) allow businesses to incorporate these types of tools into their digital marketing strategies. Social networks based on location services (LBSNS or Location-Based Social Network System) allow businesses to access information on the location of customers in real time.

The present study provides more information on LBS and geolocation marketing, also known as geomarketing, analyzing the utility and benefits that this tool has to digital marketing and social networks and the importance of its technological adoption. To achieve this objective, a thorough review of technology adoption literature was carried out and a series of interviews were made with experts and professionals in its two aspects: digital marketing and information technologies. The results show the way in the tourism sector, these tools are managed, the means in which they are active, the LBS systems used, the utility and benefits they perceive from them, as well as the importance and efforts that they dedicate to them.

This study reaches relevant conclusions for tourism professionals interested in incorporating LBS and geomarketing strategies into their businesses, as well as researchers interested in the behavior in Location-Based Services.

Keywords: Location-Based Services (LBS), Geomarketing, Digital Marketing, Social Networks, Location, Technology Adoption.

JEL Classification: M15, M31

## 1. INTRODUCTION

Nowadays, the need for users to be connected at all times is being greatly enhanced. While we surf the Internet we are permanently located, whether we do it from a fixed IP address, which locates our access router, as if we do it from a mobile device (Saura, Palos-Sanchez & Cerda, 2018).

---

<sup>1</sup> Department of Business Administration and Marketing, University of Seville, Seville, Spain (ppalos@us.es)

<sup>2</sup> Department of Business Economics, Rey Juan Carlos University, Madrid, Spain (joseramon.saura@urjc.es)

<sup>3</sup> Department of Business Economics, Rey Juan Carlos University, Madrid, Spain (ana.reyes@urjc.es)

<sup>4</sup> School of Business Administration, Technological Institute of Costa Rica, Cartago, Costa Rica (ivasquez@itcr.ac.cr)

This location represents an enormous source of benefits for companies since the location information of a user or consumer can increase their income. However, location information also plays a large role in the world of transport and logistics, for example: location-based information can present a solution to a growing range of problems.

Nowadays, smartphones are, by far, the most used devices to access the network. Technological advances such as the Internet, smartphone or geolocation have forced companies to develop specific marketing techniques for each device in order to commercialize them through different channels (Morales et al., 2014). Thus, the adaptation of online portals and web applications to mobile devices has increased the number of visits and makes their use more accessible and usable. This adaptation is known as App or Mobile Application (Palos-Sánchez, 2017). An App is a computer application designed to be executed on smartphones, tablets and other mobile devices and allows the user to perform a specific task of any kind, professional, leisure, educational, access to services, etc., facilitating the efforts or activities to develop into the device (Santiago et al., 2015; Clarke et al., 2015).

Mobile marketing is defined as any form of marketing that use a mobile device as channel for transmitting information (Ružić et al., 2012). Mobile devices combine functions previously specific to other tools such as computers, telephones, TV cameras, audios, video cameras, etc. (Nunes & Simões-Marques, 2015).

The main objective of this study is to clarify what are the influencing factors in the adoption of location-based applications services on geolocation marketing from the point of view of the tourism sector. To this end, a thorough review of the adoption literature was carried out and a series of interviews were made with experts and professionals in its double aspect: digital marketing and information technologies.

On the one hand, reviewing the literature of adoption of LBS (Location-Based Services) and geomarketing and, on the other, through a methodology of qualitative research, through interviews with experts, we can build a model that could be tested in subsequent quantitative research focused on a representative sample. Its results will be very useful for the scientific community that is researching the adoption of technologies, but also for technology experts, marketing directors and developers of mobile applications based on LBS. They can make decisions based on lower risks, if they know the main influencing factors and take them into account in their professional activities.

## **2. THEORETICAL FRAMEWORK**

### **2.1 Web 2.0 technology and cloud computing**

Web 2.0 technology stands out because the content is generated by the user, there is no longer any separation between consumers and information producers. With the help of standards and interoperability, any element of information is omnipresent. From its appearance, users are no longer isolated, they can create links among themselves to share information and interests (Fu et al., 2008).

To all this, we must add an important advantage, modularity, which allows to separate the container (interfaces) and the content (the information itself). Therefore, Web 2.0 allows users to create, classify, evaluate, update or comment the information and data through the Internet. This means that users can benefit from its social dimension by obtaining access to more relevant information due to the massive increase in online content.

The possibility that everyone can access and use the Internet to add content to an existing website, create their own, without being experts, or have knowledge about information technologies, is the most notorious feature of Web 2.0 (Saura et al. 2018).

If we transfer this concept to the geographical space, Web 2.0 is a direct and easy-to-use channel to create networks of “human sensors”, which will generate original data sets about their voluntary geographic information, with enormous potential for applications (Goodchild, 2007). Which represents another example, of content generated by the user, in this case related to the spatial reference. Thus, all the geolocated information, which comes from different sources of information, is represented in a geo-navigator (Wood et al., 2007).

The success of social networks, as well as the integration of social functions in e-commerce platforms, helps to integrate the user into web 2.0 technology. This fact has encouraged companies to be interested in social networks and all that information that contributes to a better understanding of consumer tastes, but geolocation adds a plus to all these features and makes the same information even more attractive. Thus, geospatial web services are contributing to the increased use of geographic information of clients and companies (Alameh, 2003).

This interest of companies through social networks and geolocation, together with the widespread use of the Internet through smartphone or tablet, have contributed to companies developing new marketing techniques specific to each of the devices, in order to market their products or services through different channels (Morales et al., 2014).

To all this we must add that the widespread use of mobile devices provides enormous benefits when combined with cloud computing (commonly translated as cloud), since it can offer virtually unlimited computing power and storage space, as well as access to updating of the data databases and new configurations, which are only available in the cloud. Cloud technology is usually confused with the Internet concept (Palos & Correia, 2016). We must highlight that cloud computing is a set of technologies that provide a series of advantages for both, the customer and the service provider, and that make possible real “economies of scale” in the provision of services through the Internet, reducing costs and increasing scalability. This technology is key to the development of geolocation services in detailed maps (Palos & Correia, 2016).

## **2.2 Mobile Marketing**

According to Mike Wehrs, President of the AMA (American Marketing Association), mobile marketing is “a set of practices that allows organizations or individuals to communicate and engage with their audience (consumers) in an interactive and relevant way through any device or mobile phone network”(Ružić et al., 2012). Therefore, mobile marketing is defined as a set of practices (activities, processes, commercial entities, advertising and means of promotion, consumer services, loyalty, social marketing and all other entities and marketing tools) that assumes participation as fundamental part of digital marketing strategies and interactions with users (relationships, user attraction, encourage activities, encourage interaction with the organization and other members of the community). It must be considered that the smartphone or the Tablet combine functionalities with other tools such as computers, telephones, TV cameras, audios, video cameras, etc. (Nunes & Simões-Marques, 2015).

It is important to mention the phenomenon of virality defined as Mobile Viral Marketing or Viral Mobile Marketing “as marketing that, through communication techniques and mobile devices, relies on the consumer as a prime element to transmit viral content to other consumers of its social sphere and, in turn, encourages these contacts to transmit content to other users” (Wedemann, 2007). This variation of marketing can use transmission media such as electronic messaging, banners, apps, QR codes, Bluetooth or geolocation apps. Some authors even want to use the term mobile marketing as a synonym for location marketing, where their services are based on the location of the business or the user, which is changing

in real time through the GPS signal that has incorporated by mobile devices (Ružić et al., 2012).

### **2.3 Geolocation or Geomarketing**

In 2009, geolocation begins to be used by companies (Florez & Aguilar, 2012). The term is related to the knowledge of the geographical location of places, objects or people automatically and in real time, using tools and technological mechanisms such as Internet, browsers, mobile telephony satellites, PDAs, smartphones or tablets, among other devices (Florez & Aguilar, 2012). This location is combined with coupons, offers, or simply by advertising directed to people who use these devices in specific geographical areas. That is when geomarketing or localization marketing strategies are used. It is a marketing tool that analyzes the behavior of consumers according to their geographical situation and uses this information to promote themselves (Red, 2012). This type of marketing is usually included in mobile marketing.

Therefore, companies can motivate the user to reveal their location, even when they are aware of the risks involved, such as privacy (Koohikamali et al., 2015). Companies that are geo-located get, on the one hand, new customers who, due to their closeness, are encouraged to know it and, on the other hand, to increase the loyalty of current customers. Therefore, geolocation is applied to marketing under two antagonistic but interrelated procedures; companies and customers or consumers: (Red.es, 2012).

- Companies: When a company decides to include geolocation strategies, not only must it register its geographical location, but it must also add information and contents such as photographs, videos, documents, etc. and shares this information through existing geolocation tools, such as QR codes, Bluetooth or other technologies.
- Users: Geolocation is increasingly used in social networks to promote the socialization of them, which can become customers if companies share information, promotions or offers when consumers are close to it.

They stand out as the three most important advantages of the use of geolocation that companies can determine which products or promotions are better adapted to lifestyles and consumption patterns from a geographical perspective. Therefore, it is possible to delimit the consumption zones, through a spatial analysis of the competitors. Finally, geolocation analyzes and detects possible locations for different points of sale (Cardoso, 2011). Another use of geomarketing is the increase in sales or the resolution of logistics problems among suppliers, distribution centers and retail stores (Tsiros & Vikas, 2000).

### **2.4 Social networks and geolocation**

The development of geolocation has been strongly driven by the improvement of mobile devices and the popularization of social networks (Beltrán, 2011). The disproportionate increase in the number of users of mobile devices, has caused that the exchange of information based on location has become a trend in social networks (Kim, 2016). The integration of location-based services (LBS) in social networks and mobile technologies has provided the appearance of a variety of new services (Varnali & Toker, 2010; Shim et al., 2011). Thus, a new variant emerges, the social geolocation, which began to be used as a result of the union of social networks and the GPS function of mobile devices, which allows the user to communicate and share the place where he/she is (Beltrán, 2011), as well as information related to the location, such as photographs or activities (Zhao et al., 2012).

This new type of social networks are known as location-based (LBSNS Location served social network systems), due to the importance of location in their functionalities. In recent

years, the number of LBSNS has increased rapidly throughout the world (Zhao et al., 2012). Nowadays, it is very advisable for companies to get involved in this trend and make themselves visible to consumers, so in addition to having their space on the network it is necessary to interact with customers. To this end, many social networks and applications with maps emerge, which focus their functionalities on geolocation. Some examples are Facebook places (2010), through which users can post their current location, recommend places and events, as well as evaluate them (Florez & Aguilar, 2012) like Google Maps or Earth tools, that use content such as maps with data, images, company records, traffic, reviews and other data. Foursquare, users are rewarded if they register places where they meet other people or discover new ones and finally Swarm, for the search and meeting with friends (Beltrán, 2011).

These geolocated social networks or LBSNS represent examples of the business potential that sociability and geolocation can reach. The study of its growth and future sustainability is a new source of research, in the course of which research shows success factors such as dependence on the continuous contribution of users (Fang and Neufeld, 2009; Chiu et al., 2013; Saura et al., 2018; Palos-Sanchez & Saura, 2018).

Several studies highlight the benefits for LBS companies. These benefits are the application of new promotion techniques, such as discounts, reward opportunities when they enter their stores or physical stores or when scanning the barcodes of their products using their mobile cameras (Kang et al., 2015); the location of the nearest activity or service, such as banks, hotels, restaurants or pharmacies; the reception of alerts, such as the notification of offers in a shopping center or traffic jams in nearby streets; the search for friends or people with whom you have an appointment (Singhal & Shukla, 2012); and obtaining quantitative information about user behavior; the increase in customer loyalty and the improvement of the relationship with it; the achievement of constant feedback and presence and being able to carry out more localized viral marketing campaigns (Beltrán, 2011).

**Table 1. Research articles on LBS and LBSNS**

<b>Author / s</b>	<b>Research</b>
Jacobsen (2004)	<i>Middleware for LBS</i>
Singhal and Shukla, (2012)	<i>Implementation of LBS in Androids using GPS and web services</i>
Zhou (2012)	<i>Examining the use of LBS from the perspectives of the unifying theory of acceptance, use of technology and privacy risk</i>
Ružić et al. (2012)	<i>Development of mobile marketing in Croatian tourism using LBS</i>
Kang et al. (2015)	<i>Use of the mobile in stores: Download and intention to use commercial apps based on location (LB) through mobile</i>
Koohikamali et al. (2015)	<i>Disclosure of the location in LBSNS apps: The role of incentives in sharing behavior</i>
Sun et al. (2015)	<i>The disclosure of location information in the LBSNS: Calculation of privacy, structure of benefits and gender differences</i>
Kim (2016)	<i>What drives to do the check-in on Facebook? Motivations, privacy, concerns, and participation of the mobile phone for the exchange of information LB</i>
Ketelaar et al. (2018)	<i>“Opening” location-based mobile ads: How openness and location congruency of location-based ads weaken negative effects of intrusiveness on brand choice</i>
Lee et al. (2018)	<i>What drives stickiness in location-based AR games? An examination of flow and satisfaction</i>

Source: Own Elaboration

### **3. METHODOLOGY**

Through a qualitative research methodology and through interviews with experts, we have found the main influencing factors in their intention to use. This technique is very appropriate in investigations of an exploratory nature (Trespacios et al., 2005). These factors, subsequently, can help to build a model of causal relationships that can be contrasted in quantitative research, carried out through a survey of a representative sample of the population under study.

The interviews were carried out with experts and professionals in its double aspect: digital marketing and information technologies. In order to select the experts, a database of executives of advertising agencies, experts in digital marketing consultancy, hotel and restaurant establishments in the city of Seville and its Province was created. This province has several cities and municipalities that have an important heritage such as Carmona, Écija or Alcalá de Guadaíra. In the case of the Capital, in its historic center you can locate, among the intricate of its well-known Barrio de Santa Cruz. The procedure for selecting the participants was one of convenience.

We contacted 35 experts and professionals and 25 of them agreed to participate in an interview of a minimum of 30 minutes and a maximum of 60 minutes. The development of the interviews was carried out by telephone in some cases, in others it was done personally, arriving to visit the establishments themselves in the case of professionals. In these cases, the websites were visited and their positioning in search engines, such as Google Place, and geolocalized social networks.

As for the script of the interview, mainly, the questions focused on knowing the reasons that had led them to use the LBS services in the organizations; how they were managed and why; what tools they knew and what they used; what intention of use they had over them; what results were expected from each one; what benefits they had observed through its use and why they believed it was so; how interaction with customers had improved; what importance they gave to the online image of the organization; What efforts do you dedicate or do you think you should dedicate to improve it? in what way and why; and finally the relationship between the way in which customers contract their services or products and the correct geolocation of them.

#### **3.1 An option for the treatment of information from the social phenomenology approach**

Some of the characteristics of a qualitative research are the registration and systematization of information. The difficulties of this type of research are those related to the type of research, as well as the codification of the information. The information must be coded by the researchers, considering the influence of actions related to feelings and perceptions or attitudes that the researchers may have on the subject of study.

For the process of developing a qualitative study to be corrected, authors must specify the topic of analysis. The investigator must transcribe the information specifically with respect to the facts participating in the study. Likewise, it is also important the adequacy of the time and how the data specifically fit the investigated act.

In addition, for the data collection process it may also be important that other researchers can code the information so that the process is more complete by following a manual or a guide. This fact means that the principal researcher can also review the information collected and compare it with the objectives or theoretical frameworks needed to correctly adjust and understand the qualitative information and the coding process. In order to better understand this codification information process, the following phases proposed by Boyatzys (1998) in Table 2.

**Table 2. Thematic analysis process phases**

Phase	Title
Phase 1	Familiarization with the data -information-
Phase 2	Generation of initial categories or codes
Phase 3	Search of themes
Phase 4	Review of topics
Phase 5	Definition and denomination of topics
Phase 6	Production of the final report

Source: Boyatzis (1998)

The different phases of the information processing can be superimposed with other stages of the study, and there is a round-trip movement between different phases as the analysis progresses. As a result of this flexibility offered by the method and which makes it possible to take advantage of the wealth of information. In order to achieve a process that has quality in the development of the investigation, that is clear and presents the arguments correctly, a series of phases must be followed in which each of the processes proposed below by Boyatzis (1998) is developed in Table 3:

**Table 3. Development of analysis process phases**

Phase	Description
Phase 1	Familiarization with the data -information-. It consists of the transcription, reading and rereading of the material and annotation of general ideas. It is about reading carefully and repeatedly the information looking for structures and meanings; it is about making the most of its potential.
Phase 2	Generation of initial codes. The coding process consists in organizing information in groups of the same meaning: "Code is understood to be the segment or most basic element of raw information that can be considered significant in relation to the subject under study" (Boyatzis, 1998). During the coding process, systematic work is carried out along all the information following the guidelines suggested by Boyatzis (1998) for this phase of the thematic analysis: a) the largest possible number of patterns in the information is codified; b) sufficient information is incorporated in each code so as not to lose perspective of the context; c) it is considered that the same data extract can be coded more than once. There are two forms of coding: inductive, which is done starting from the data, without previous coding; and theoretical, from the specific theoretical interests of the researcher.
Phase 3	Search of topics. It is considered a topic that "captures" some important information in relation to the research question, representing a level of structured response or meaning. Also, as a part found in information that at least describes and organizes information, and at most interprets aspects of a phenomenon (Boyatzys, 1998).
Phase 4	Review of topics. Re-coding and discovery of new topics is carried out, establishing a delimitation of the topics so as not to exceed.
Phase 5	Definition and denomination of topics. The themes are definitively identified, the "essentials" of the topic are established and the hierarchies (themes / sub-themes) are elaborated.
Phase 6	Writing a final report. A narrative based on argumentation that derives from the understanding and interpretation of the collected information is constructed. The thematic analysis fulfills some characteristics that are considered common to qualitative analysis -analysis as a cyclical process and reflective activity- the analytical process must be broad and systematic but not rigid; the data is fragmented and divided into significant units, but its connection with the whole is maintained; the data is organized in a system derived from them.

Source: Boyatzis (1998)

The results of the research have been adapted to the research process and are presented in the following section.

## **4. ANALYSIS AND DISCUSSION OF RESULTS**

### **4.1 Online identity**

Digital technology acts as a mediator in the experience of identity, which is constructed by people and also conditioned by social factors (Castañeda & Camacho, 2012). Therefore, the digital identity of an organization is essential to ensure long-term viability. The image that a company projects on the network can be decisive for its success or for its failure, depending on how good it is (Mayer-Schoenberger, 2007).

To check this question, a series of open questions related to digital identity were raised: online reputation, average score, opinions and recommendations from clients and number of followers in social networks. The majority of the interviewees agreed that:

“Currently, it is common for consumers not to hire a service or buy a product without first contrasting the opinions of other customers or the assessment given to them by the company.”

“There are hundreds of platforms, apps, websites, forums, etc. in which the clients give an assessment, they think and tell their experience of use. It is therefore difficult to be expectant to all of them.”

“Getting a good online image can take a while, which is why the time of existence of the digital identity conditions the importance that is given to the identity.”

The global importance that professionals and experts give to the digital identity is 4.5 out of 5. There is an aspect that is mainly relevant to them, the opinion of the clients, which is the axis that conditions the rest of the actions. The recommendations among users is another factor to be considered, however, in this case the professionals from older and mature establishments attach less importance to this factor and a greater importance to customer loyalty. It is all these factors that has less importance is related to participation in social networks, where the number of followers or “I like” is the factor to pay less attention.

### **4.2 Platforms, media and apps**

The interviewees were asked to comment on the most commonly used web platforms and the reasons why they used or recommended them (in the case of experts), based on the criteria that most benefit their business. Thus, they made an assessment that they were commenting on based on whether they had their own website, they were in a directory, agenda or web platform and if they combined both strategies.

“The existence of an own company website is an important point to build the digital identity, as a previous step to the geolocation”.

“The own website derives clients to the physical business”.

“The website of the company is an important source of trust for the e-commerce store”

Then, the interviewees grant, in general, a greater importance to that companies are present in directories, agendas or platforms. The most important reasons that they exposed were the following:

“The presence in platforms or apps of commercialization of products or services contributes more traffic to the website.”

“Appearing in directories or business agendas makes you gain more visibility on the Internet.”

“The user’s confidence in online sales is proportional to your presence through search engines. The indexation in these portals brings credibility to the business”.



### **4.3 Social Networks and LBS (Location Based Services)**

In the assessment they made of social networks, Facebook was the social network best valued by professionals, especially by hotel managers and restaurant owners, where more than 70% of them chose it as a favorite. The social networks Twitter with more than 20%, and Instagram, that exceeded 15% were the second and the third most valued. The experts chose LinkedIn in most cases. It turned out to be striking that for many professionals at the front of businesses, social networks do not contribute in a client way, but they serve to generate trust or in some cases, like Facebook, they could receive a client.

Next, they were asked about the LBS platforms. The most valued was Google Places with more than 40% of use and 75% of knowledge. The rest of the LBS services were barely known, except for those interviewed in the hotel and restaurant sector who know much better the potential of these platforms. However, in these cases the results obtained are very different and give greater value to reservations platforms such as Booking or Tripadvisor, than to social networks with LBS or simply LBS.

The knowledge of the geolocalized social network Foursquare barely reached 12%. This result coincides with an investigation that states that the expectation generated has not corresponded to the interest collected (IAB, 2010), since only 4% of the participants in the study knew Foursquare. This same study publishes that once explained its function only 35% was interested in it. The most relevant data obtained from this study was that current and potential users of Foursquare, were especially interested in using the application to take advantage of promotions from establishments near their current location.

The interviewees were asked about the use of the app or mobile applications they used. Also, if they had planned to make a version of the website or some service through an app. The result obtained was very low in this regard. Some professionals affirmed:

“I do not consider the app beneficial and its usefulness is more typical of day-to-day services”.

The overall results showed that less than 10% of the interviewees considered them to be very beneficial, and the majority found that they were able to use it to improve the marketing of their business with little or no benefit. A similar result reaches the valuation of the use of own blogs, which is considered as little beneficial in most cases. Asked by some of the most popular apps on social networking geolocation. The lack of knowledge about social navigation networks, such as Waze or Moovit, that use real-time traffic information, suggest better routes and notify users of traffic congestion or accidents that help to save time and fuel (Heiskala et al., 2016).

### **4.4 Geolocation techniques and tools**

The interviewees explained the reasons why they would use geolocation and help systems based on it. The systems they knew and, in some cases, have used in their business have been: Proximity marketing, in most cases they knew Bluetooth, but scarcely its application to geomarketing, QR codes, Marketing campaigns via electronic messaging, NFC Marketing and Coupons based in geolocation.

It is remarkable the negative result that geolocation techniques have obtained, most experts and professionals value negatively the benefit that these tools have for their business, even reaching a percentage of 80% that gives the worst score.

The technique best valued by users are QR codes around 34%, followed by proximity marketing strategies and marketing campaigns via electronic messaging with 28% and finally NFC marketing and the coupon with approximately 13%.

## 5. CONCLUSION

A correct strategy that maintains a good digital identity into an organization has been essential for the interviewees. The image that projects on the network and its own online reputation on social networks have proved to be very important. However, all this concern is not consistent with the importance that has been given to social networks, as the main source of reputational improvement and the professionals consulted give greater importance to other factors, which we could qualify as offline. These results lead us to conclude that the real dimension that the digital revolution supposes for trade or tourism has not yet been understood. The ignorance of some features and platforms consulted highlight the existing training deficit in this area.

The fact that social networks are not a direct source of profit for their businesses of the interviewees implies that they are not working in the correct direction and strategy of their presence on the Internet, since traffic and followers mark the success of the web strategy that is chosen it has surprised the little importance granted to Google Maps, that is one of the most popular LBS tools and that is revealed as indispensable for many business with physical presence. Perhaps, it explains the enormous preponderance that Facebook has against other social networks like Google +.

The apps have not been valued in the interviews as excessively beneficial for the business, mainly because of the costs of designing and managing these tools and also because of the limited knowledge of their implementation. It is essential that in a country like Spain, true tourist power, institutional advisory and training campaigns could be launched so that professionals and businesses can modernize in this sense.

Today, there are professional community manager services that can externally help small and medium businesses to be in social networks in order to develop their own blogs. This fact seems to be not much valued by the interviewees, although the experts have emphasized not enough effort that these specialists still have.

From the point of view of geolocation systems and services, the benefit granted is medium-high, but the importance does not correspond with the opinions expressed. The majority acknowledged that it undoubtedly affects the increase in the number of clients, decrease in advertising expenses, more knowledge of the customer on the web, improvement in the promotion of the business or in gaining consumer confidence or even in customer loyalty. However, it has been the businesses with the least experience and seniority that have given greater importance to this system, as well as those with a physical store, but which were sold through the Internet.

Among the geolocation techniques and tools best valued by the hotels in the sample these are QR codes. QR codes are proximity marketing and digital marketing campaigns via electronic messaging. These techniques can be classified as the most traditional and known, perhaps this is the reason for their best assessment. However, for some experts interviewed, the incorporation of geolocation in other apps or websites turns out to be the best complement of a business with physical presence that tries to convert traffic in the Internet in physical client. Undoubtedly, the use of geolocalization-based systems is not being sufficiently adopted by many businesses, but their future viability makes great expectations in this regard. Everything will depend on the evolution of e-commerce itself, online reservations and consumer confidence in the Internet, from the point of view of privacy or security.

Therefore, this study concludes with the contribution of influencing factors in the adoption of services based on geolocation, establishing the degree of influence that may have the need for an adequate digital identity, social networks, the use of apps, geomarketing activities, the importance of the set of geolocation techniques selected and finally, the perceived benefits

among which are the application of new promotion techniques; the location of the nearest activity or service; the reception of alerts by proximity; the search for friends or people; the reception of the location in case of theft or loss; obtaining quantitative information about user behavior; the increase in customer loyalty; the achievement of constant feedback and presence and finally the realization of more localized viral and digital marketing campaigns.

The limitations of this research are those related to the number of researches consulted, the methodological process carried out and the development of the location technology in Marketing industry. Researchers can use this study as a literature review of future studies based on the geolocation of marketing and its application to different industries and professional sectors.

## REFERENCES

- Alameh, N. (2003). Chaining geographic information web services. *IEEE Internet Computing*, 7(5), 22-29.
- Beltrán, L. G. (2011). La geolocalización social como herramienta de innovación empresarial en el desarrollo de los destinos turísticos. *Seminario Internacional Renovación y Reestructuración de Destinos Turísticos Consolidados del Litoral*. Universidad de Alicante, Instituto Universitario de Investigaciones Turísticas.
- Boyatzis, R. E. (1998). *Transforming qualitative information: Thematic analysis and code development*. Thousand Oaks, Calif: Sage Publications.
- Cardoso, C. E. P. (2011). Geomarketing como Suporte de Decisão em Gestão do Território (Doctoral dissertation, Faculdade de Ciências Sociais e Humanas, Universidade Nova de Lisboa).
- Castañeda, L. & Camacho, M. (2012). Desvelando nuestra identidad digital. *El profesional de la información*, 21(4), 354-360. Doi: 10.3145/epi.2012
- Chiu, C.-M., Cheng, H.-L., Huang, H.-Y., & Chen, C.-F. (2013). Exploring individuals' subjective well-being and loyalty towards social network sites from the perspective of network externalities: The Facebook case. *International Journal of Information Management*, 33(3), 539-552.
- Clarke, J., Montesino, M., Montanera, R., & Bermúdez, A. (2015). *Estudio mobile 2015*. Madrid: IAB.
- Fang, Y. & Neufeld, D. (2009). Understanding sustained participation in open source software projects. *Journal of Management Information Systems*, 25(4), 9-50.
- Florez, S. Y. V. & Aguilar, L. J. (2012). *Tendencias en Geolocalización para el 2012*. Madrid.
- Fu, F., Liu, L., & Wang, L. (2008). Empirical analysis of online social networks in the age of Web 2.0. *Physica A*, 387, 675-684.
- Goodchild, M. F. (2007). Citizens as sensors: The world of volunteered geography. *GeoJournal*, 69(4), 211-221.
- Heiskala, M., Jokinen, J. P., & Tinnilä, M. (2016). Crowdsensing-based transportation services - An analysis from business model and sustainability viewpoints. *Research in Transportation Business & Management*, 18, 38-48.
- Herráez, B., Bustamante, D., & Saura, J. R. (2017). Information classification on social networks. Content analysis of e-commerce companies on Twitter. *Revista Espacios*, 38 (52), 16.

- IAB (2010). *Geolocalización, movilidad y recomendación. A propósito de Foursquare. Informe de resultados*. Madrid: IAB.
- Jacobsen, H. A. (2004). *Middleware for Location-Based Services*.
- Kang, J. Y. M., Mun, J. M., & Johnson, K. K. (2015). In-store mobile usage: Downloading and usage intention toward mobile location-based retail apps. *Computers in Human Behavior*, 46, 210-217.
- Ketelaar, P. E., Bernritter, S. F., Woudenberg, T. J., Rozendaal, E., Konig, R. P., Hühn, A. E. & Janssen, L. (2018). "Opening" location-based mobile ads: How openness and location congruency of location-based ads weaken negative effects of intrusiveness on brand choice. *Journal of Business Research*, 91, 277-285. Doi:10.1016/j.jbusres.2018.06.018
- Kim, H. S. (2016). What drives you to check in on Facebook? Motivations, privacy concerns, and mobile phone involvement for location-based information sharing. *Computers in Human Behavior*, 54, 397-406.
- Koohikamali, M., Gerhart, N., & Mousavizadeh, M. (2015). Location disclosure on LB-SNAs: The role of incentives on sharing behavior. *Decision Support Systems*, 71, 78-87.
- Lee, C., Chiang, H., & Hsiao, K. (2018). What drives stickiness in location-based AR games? An examination of flow and satisfaction. *Telematics and Informatics*. Doi:10.1016/j.tele.2018.06.008
- Mayer-Schönberger, V. (2007). Useful void: the art of forgetting in the age of ubiquitous computing. *KSG faculty research working paper series, RWP07-022*, Retrieved 19th, January 2017 from [http://www.vmsweb.net/attachments/pdf/Useful\\_Void.pdf](http://www.vmsweb.net/attachments/pdf/Useful_Void.pdf)
- Morales, M. D. O., Aguilar, L. J., & Marín, L. M. G. (2014). Los desafíos del marketing en la era del big data. *Revista electrónica semestral*. ISSN: 1659-4142.
- Nunes, I. L. & Simões-Marques, M. J. (2015). Exploiting the potential and facing the challenges of mobile devices: application examples. *Procedia Manufacturing*, 3, 807-814.
- Palos-Sanchez, P. & Saura, J. R. (2018). The Effect of Internet Searches on Afforestation: The Case of a Green Search Engine. *Forests*, 9, 51. Doi:10.3390/f9020051
- Palos-Sanchez, P. R., Saura, J. R., & Debasa, F. (2018). The Influence of Social Networks on the Development of Recruitment Actions that Favor User Interface Design and Conversions in Mobile Applications Powered by Linked Data. *Mobile Information Systems*, 1(11). Doi:10.1155/2018/5047017
- Palos, P. R. & Correia, M. B. (2016). La actitud de los recursos humanos de las organizaciones ante la complejidad de las aplicaciones SaaS. *Dos Algarves: A multidisciplinary e-Journal*, 28, 87-103. Doi: 10.18089/DAMeJ.2016.28.6
- Red.es (2012). *Manual de Geolocalización para hoteles y alojamientos rurales*. Retrieved 29th January, 2017 from [http://www.alojamientosconectados.es/turismo/sites/default/files/7\\_Geolocalizacion.pdf](http://www.alojamientosconectados.es/turismo/sites/default/files/7_Geolocalizacion.pdf)
- Ružić, D., Bilos, A., & Kelic, I. (2012). Development of mobile marketing in croatian tourism using location-based services. In Faculty of Tourism and Hospitality Management in Opatija. Biennial International Congress. *Tourism & Hospitality Industry* (p. 151). University of Rijeka, Faculty of Tourism & Hospitality Management.
- Santiago, R., Trbaldo, S., Kamijo, M., & Fernández, Á. (2015). *Mobile Learning: Nuevas realidades en el aula*. Editorial Océano.
- Saura, J. R., Palos-Sánchez, P., & Cerdá Suárez, L. M. (2017). Understanding the Digital Marketing Environment with KPIs and Web Analytics. *Future Internet*, 9(4), 76. Doi:10.3390/fi9040076

- Saura, J. R., Palos-Sanchez, P. R. & Rios Martin, M. A. (2018). Attitudes to environmental factors in the tourism sector expressed in online comments: An exploratory study. *International Journal of Environmental Research and Public Health*, 15(3), 553. Doi:10.3390/ijerph15030553
- Shim, J. P., Dekleva, S., Guo, C., & Mittleman, D. (2011). Twitter, Google, iPhone/iPad, and Facebook (TGIF) and smart technology environments: how well do educators communicate with students via TGIF?. *Communications of AIS*, 29, 657-672.
- Singhal, M. & Shukla, A. (2012). Implementation of location-based services in android using GPS and web services. *IJCSI International Journal of Computer Science Issues*, 9(1), 237-242.
- Sun, Y., Wang, N., Shen, X. L., & Zhang, J. X. (2015). Location information disclosure in location-based social network services: Privacy calculus, benefit structure, and gender differences. *Computers in Human Behavior*, 52, 278-292.
- Trespalacios, J. A., Vázquez, R., & Bello, L. (2005). *Investigación de mercados: Métodos de recogida y análisis de la información para la toma de decisiones en marketing*. España: Paraninfo.
- Tsiros, M. & Vikas, M. (2000). Regret: A model of its antecedents and consequences in consumer decision making. *Journal of Consumer Research*, 26(4), 401-417.
- Varnali, K. & Toker, A. (2010). Mobile marketing research: The-state-of-the-art. *International Journal of Information Management*, 30(2), 144-151.
- Wedemann, D.G. (2007). Exploring the concept of Mobile Viral Marketing through Case Study Research, *Proceeding of 2nd Conference on Mobility and Mobile Information Systems*. Germany: Bonn.
- Wood, J., Dykes, J., Slingsby, A., & Clarke, K. (2007). Interactive visual exploration of a large spatio-temporal dataset: Reflections on a geovisualization mashup. *IEEE Transactions on visualisation and computer graphics*, 13(6), 1176-1183.
- Zhao, L., Lu, Y., & Gupta, S. (2012). Disclosure intention of location-related information in location-based social network services. *International Journal of Electronic Commerce*, 16(4), 53-90.
- Zhou, T. (2012). Examining location-based services usage from the perspectives of unified theory of acceptance and use of technology and privacy risk. *Journal of Electronic Commerce Research*, 13(2), 135.