Mobile marketing: conceptualization and research review

Marketing móvil: conceptualización y revisión de la investigación

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ABSTRACT:
This paper covers a review of the definition of mobile marketing, summarizing their characteristics compared to traditional marketing channels. Next, different approaches and research findings related to the acceptance and attitudes towards the mobile marketing are explored, as well as some of the most relevant theoretical approaches in this area. Two aspects of the process of acceptance stands out: perceived usefulness and perceived ease of use. Finally, a set of recommendations is presented to direct future research efforts in the area of mobile marketing.

Key Words: Mobile Marketing; Mobile Advertising; Digital Marketing; Consumer Behaviour

RESUMEN:
Este artículo abarca en primer lugar una revisión de la definición del marketing móvil, sintetizando sus características frente a los canales tradicionales de mercadeo. A continuación, se exploran diferentes enfoques de investigación relacionados con la aceptación y las actitudes frente al marketing y la publicidad móvil. Se destacan dos aspectos de este proceso de aceptación: la utilidad percibida y la facilidad de uso percibida. Finalmente, se presenta una serie de recomendaciones para encaminar los esfuerzos de investigación futuros en el área del marketing móvil.

Palabras clave: Marketing móvil; Publicidad móvil; Marketing digital; Comportamiento del consumidor

1. Introduction
This article addresses mobile marketing as a phenomenon of great impact and relevance for marketing communications nowadays. The growing adoption by consumers of mobile devices (smartphone and tablet), raises the need to continue studying how these new mobile digital platforms would be generating a context for the modification of the interaction and communication between the brands and their consumers.

The increased consumption of mobile digital media has allowed the expansion in the number and complexity of tactics through which brands can create and maintain more lasting
relationships with consumers. For instance, computer and communications market research firm International Data Corporation (IDC) points out that the global smartphone market grew by 40% in 2013 and is likely to reach 1.07 billion a year by 2017. The factors associated with this important growth, according to IDC, are, first and foremost, the subsidies offered by operators to users in exchange for the adoption by them of a minimum stay clause in their mobile communication service plan. Second, there is the increasingly frequent appearance of equipment in a lower price range that may currently be around $ 200 (IDC, 2013). And hand in hand with the growth in sales of mobile devices is the phenomenon of using the internet. According to ComScore (2016), although Latin America currently accounts for only 10% of the total global internet audience, it is the region with the highest growth between June 2015 and June 2016, at 11%, reaching thus a total of 197,612,000 unique visitors. In the case of Colombia, this same report indicates that by June 2016, a figure of 13’642,000 users had already been reached. Something to highlight is the distribution of these users by age ranges. In Colombia, 74% of users belong to Generation Y or Millennials, since they are between 15 and 34 years old, a comparatively higher figure than the global average of 52%. In addition, the growth potential of multiplatform online consumption is very broad. According to ComScore (2016), in Colombia the percentage of users accessing the internet via smartphone, tablet and desktop is 42%, compared to 66% in the USA or 78% in the UK. It is important then to study the mechanisms of adoption and use of mobile technologies, since unlike the desktop computer, and even the laptop, smartphones are considered as personal devices of private use, which suggests that consumers have different attitudes towards mobile services compared to traditional media (Park, Shenoy & Salvendy, 2008). According to these authors, television was the first screen that marketers relied on to provide information to consumers. After that, the internet appeared as a second screen through which it was tried to satisfy this need. The rise of e-commerce facilitated the emergence of a third screen, mobile marketing, which now allows users to access an almost unlimited amount of information on brands at any time and place through mobile devices. However, in spite of the advantages that mobile communication offers to companies, the aspect related to the confidence that consumers show to these tactics can become a factor against for the creation of loyalty and the development of services in this digital context.

2. Method
A documentary research is presented, in which the main approaches of recent scientific literature have been compiled, analyzed and synthesized to achieve an approach to the conceptualization and characterization of mobile marketing. For this purpose, different bibliographic sources have been consulted, mainly from publications specialized in the subjects of digital communication and new technologies. These searches are mainly performed via Scopus, one of the main databases of indexed publications relevant to the present topic of study.

Procedure to achieve the results of this research was a systematic review of the literature under the parameters indicated in the protocols for this purpose (Chicaíza-Becerra, Riaño-Casallas, Rojas-Berrio, & Garzón-Santos, 2017; Kitchenham, 2004; Pérez-Rave, Álvarez-Jaramillo, & Henao-Velásquez, 2012); in that vein, the following procedures were carried out:

2.1. Definition of questions or issues of interest:
This research addressed the following questions: What is the level of conceptualization of mobile marketing?, What are the main characteristics of mobile marketing?, What are the research approaches related to acceptance and attitudes towards marketing and mobile advertising?, and, What future lines of research exist for mobile marketing area?
2.2. Keyword selection
Systematic literature review process took into account the following keywords: digital, media, advertising, mobile marketing, consumer behavior, consumer psychology.

2.3. Definition of observation time:
Given the nature of raised questions and the progress of the topic in the scientific and professional literature, the documents generated from 2000 to 2017 were selected as the observation window, the ending review date was August 14th, 2017.

4. 2.4. Selection of Resources
The resources selected in the field of scientific publications were: Engineering Village, Scopus, ISI WoS, Jstor, Redalyc, Scielo and Scholar Google; while reports and secondary information were also used from professional sources such as: E-marketer, Marketing Science Institute (MSI), ComScore, International Data Corporation (IDC) and Mobile Marketing Association (MMA).

5. Construction of search strings
Search strings constructed contained in the first set of words: digital, media, advertising, mobile marketing; in the second, consumer behavior, consumer psychology. The limiters consisted exclusively of the observation window 2007-2017.

6. Filter Criteria
The filter criteria allowed to approach exclusively the documentation that dealt exclusively with the topic of mobile marketing, in order to obtain a systematic review of the literature that could address the research questions asked.

3. Results
3.1. Current context of mobile communications
As we move into the 21st century, the accelerated change faced by companies to establish value-sharing relationships with their customers in a long-term perspective is becoming increasingly visible. It has been suggested that these changes have been increased by the advent of the Internet on a global scale (Ainin and Noorismawati, 2003). Add to this the recent advances in mobile communication technologies, as well as the growing proliferation of mobile devices with their inherent characteristics, the mobile channel emerges today as a novel tool with great potential for marketing communications (Barnes, Reichardt, and Neumann 2005; Varnali and Toker, 2010).

To take advantage of the potential benefit of this new channel, brands must take into account the characteristics of mobile communication. These are largely derived from the characteristics of the Internet with which consumers have been familiarizing themselves since the mid-1990s. These include ease of contact with users, the ability to send personalized content and the ability to generate interactive experiences, which are more efficient than unidirectional (traditional) messages to improve the understanding of the advertising content that is intended to communicate (Risden et al., 1998, Macias, 2003). These characteristics become more relevant in a context of mobile communication because of the individualization properties that have not been available in other means of contact. In this new context, each user has their own identification number and usually carries the device with them most of the time. From this, advertisers can obtain specific data about the location of their consumers in real time in order to increase the effectiveness of communication (Yuan & Tsao, 2003; Tahtinen, 2005).
shows a comparison of the main means of communication in marketing with respect to a set of characteristics that affect the experience of the consumers.

### Table 1
Comparison of the main media in marketing

<table>
<thead>
<tr>
<th>Feature / Media</th>
<th>Magazines/Newspapers</th>
<th>TV</th>
<th>WWW</th>
<th>Mobile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chromatism</td>
<td>Colour / Grayscale.</td>
<td>Colour /</td>
<td>Colour</td>
<td>Colour</td>
</tr>
<tr>
<td></td>
<td>Static</td>
<td>Animated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Presentation</td>
<td>Pull</td>
<td>Push</td>
<td>Pull (banner)</td>
<td>Push (e-mail) / Pull (banner)</td>
</tr>
<tr>
<td>Involvement</td>
<td>High</td>
<td>Low</td>
<td>Middle High</td>
<td>High</td>
</tr>
<tr>
<td>Context</td>
<td>Very focused</td>
<td>Diverse</td>
<td>Focused</td>
<td>Average distraction</td>
</tr>
<tr>
<td>Information</td>
<td>Detailed</td>
<td>Limited</td>
<td>Detailed</td>
<td>Limited</td>
</tr>
<tr>
<td>Targeting</td>
<td>Medium</td>
<td>Low</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Type of advertisement</td>
<td>Exposure</td>
<td>Exposure</td>
<td>Interactive / Exposure</td>
<td>Interactive / Exposure</td>
</tr>
</tbody>
</table>


### 3.2. The rise of Mobile Marketing

During the last decade brands have taken advantage of the characteristics offered by mobile marketing, which include the possibility of sending promotions, to notify about experiential marketing activities, sending relevant advertising and actions that seek the loyalty of consumers. All characterized by real-time connectivity capabilities enabled by smartphones (Zoller, 2003). However, there are significant challenges for mobile marketing today, including downloading ad-blocking software, due perhaps to the sending of non-relevant information, as well as consumer concerns regarding the handling of personal and financial information (Tsang et al., 2004). Through this development, mobile marketing has become an opportunity for brands to maintain an interactive and meaningful communication with their consumers, in order to increase loyalty and positioning particularly in the segment of younger users. The growing penetration of smartphones along with the great popularity of mobile apps has made companies look for a quick development of these tools to incorporate them into their mix of digital marketing, in order to maintain a high level of competitiveness (Sultan & Rohm, 2005; Shankar & Malthouse, 2007; Shankar & Balasubramanian, 2009).

The pace of evolution of these mobile communication technologies has been so fast that the initial tools such as text messages (SMS) have given way to the great variety of possibilities offered by Smartphones. Some authors point to a very promising future for mobile platforms as a new alternative to strengthen the connection between brands and their consumers,
particularly the younger ones, thanks to the development in recent years of platforms based on 3G and 4G technologies (Wang, 2009). The new tactics take advantage of attributes such as larger screens and resolution, the possibility of browsing the network and the option of downloading and using thousands of applications, which is the opportunity to develop new mechanisms of interaction with customers (Persaud & Azhar, 2012). It has also been raised the possibility that mobile marketing can increase the perception of value of customers. Affirmations such as "always with customers" or "always on the device" have been research topics about the possible relationship between value perception and marketing actions in mobile communication contexts (Varnali & Toker, 2010).

3.3. Conceptualization of Mobile Marketing

Although there is a significant amount of literature on mobile marketing, still it has not been consolidated agreement on its definition (Varnali & Toker, 2010; Leppäniemi, Sinisalo, & Karjaluoto, 2006). The Mobile Marketing Association (MMA, 2008) defines mobile marketing as "the set of practices that enables organizations to communicate and engage with their audience in an interactive and relevant manner through any network or mobile device". Some later definitions by some scholars, give it a more specific role. For example, Shankar and Balasubramanian (2009) define mobile marketing as "communication and promotion of double or multiple pathways between a company and its customers using a medium, device or mobile technology".

Moreover, Scharl, Dickinger, and Murphy (2005, p. 125) refer to mobile marketing as "the use of a wireless means to provide consumers personalized information in real time, sensitive to geographical location, which seeks promote a good, service or idea, bringing benefits to all stakeholders ". More interesting is the fact that have been used at least four different terms to try to refer to the concept of marketing made through mobile means. Among these are the following: mobile marketing, mobile advertising, wireless marketing and wireless advertising (Dehkordi et al., 2012).

To properly address the issue, it is necessary to understand the characteristics of the devices that have fuelled this change in today's society and that offer new opportunities to innovate in marketing actions. These characteristics are:

- Ubiquity: It refers to the ability of users to receive information and carry out transactions wherever they are and at any time they require it (Clarke, 2001). This capability is feasible due to the fact that these devices are turned on almost at all times, in addition users usually take it with them wherever they go and check it quite frequently (Balasubramanian et al., 2002).

- Personalization: The mobile phone is a very personal device and is rarely used by someone other than its possessor (Bauer et al., 2005). It also provides personal information through its subscriber identification module (SIM), which is very valuable for marketing teams (Junglas & Watson, 2003). In addition, the device becomes a mechanism of self-expression not only by its brand, design and technological attributes, but also because it can also be object of aesthetic personalization through tones or melodies selected by users, as well as external protectors available in various Designs that reflect different personality types (Walsh & White, 2007).

- Two way communication: This is a key feature for potential applications in marketing. These devices allow more than any other tool, the possibility of establishing permanent connectivity with users (Schierholz, Kolbe, & Brenner, 2007). This property allows a greater level of use to be given to other devices that require a permanent physical connection, thus creating greater opportunities to generate meaningful communication experiences around brands (Neslin & Shankar, 2009).

- Location: It consists of the ability to identify a user's geographical location through the location of their device (Clarke, 2001). This feature is based on the use of geographic localization technologies, among which is the global positioning system known as GPS. With the application of this technology, marketers are now able to geographically focus products or services on a segment of potential customers. It is very likely that more applications of location-based marketing are currently being developed with technologies such as Bluetooth and Radio Frequency Identification (RFID), as was
raised in recent years by authors such as Bruner and Kumar (2007).
On the basis of these characteristics, a parallel can be established between mass marketing (one based on the use of mass media such as the print media, radio and television) and mobile marketing, which appears in the Table 2.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Mass Marketing</th>
<th>Mobile Marketing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus on the audience</td>
<td>All users of the product, existing and potential.</td>
<td>Existing and potential product users who have mobile devices and who agree to receive brand communication.</td>
</tr>
<tr>
<td>Potential types of communication</td>
<td>Text, voice and video in rich formats.</td>
<td>Text, voice and video in relatively small visual spaces (Smartphone), with increasing transmission speeds.</td>
</tr>
<tr>
<td>Communication direction</td>
<td>From the brand towards the consumer</td>
<td>Interactive between the consumer and the brand, and between consumers with respect to the brand.</td>
</tr>
<tr>
<td>Capacity to send communications from geolocation</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>Capacity to measure and track consumer response</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>Individualization of consumers</td>
<td>Low</td>
<td>Medium</td>
</tr>
<tr>
<td>Cost per audience reach</td>
<td>High</td>
<td>Low</td>
</tr>
</tbody>
</table>

Source: Adapted from: Shankar and Balasubramanian (2009).

On the other hand, Kaplan (2012) defines mobile marketing as "any marketing activity carried out through a ubiquitous network to which consumers are connected constantly using a personal mobile device." This author also proposes a way to classify the applications of the mobile marketing in four great typologies. To do this, it uses two variables: (1) the level of identification of consumers and (2) the level of activation of the communication. In terms of consumer identification, the use of a mobile device allows companies to customize messages for each of their users, according to the idea put forward in marketing one by one (Peppers, Rogers, & Dorf, 1999).

However, it is important to differentiate that mobile service operators are likely to have a greater ability to identify users individually compared to other companies that seek to achieve this level of knowledge of their consumer base. With respect to the activation level of the communication, the impulse communication (push), which is initiated by the company, is differentiated from pull communication, which is initiated by the consumer. Table 3 shows a synthesis of the four types of mobile marketing applications.
Table 3
Classification of mobile marketing applications.

<table>
<thead>
<tr>
<th>Consumers Engagement Level</th>
<th>Push</th>
<th>Pull</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td><strong>Victims:</strong> AT&amp;T sent SMS to 75 million customers by suggesting that saw American Idol and vote for their favorite participant using their mobile devices.</td>
<td><strong>Regular followers:</strong> The pop star Britney Spears proposed her fans receive $2.99 a month, the Britney’s Journal, a weekly text message that contains aspects of her life during a concert tour.</td>
</tr>
<tr>
<td>Low</td>
<td><strong>Unknown:</strong> Toyota teamed up with FOX TV to insert 10-second commercials into 26 mobile short films, known as websodes for the TV series Prison Break.</td>
<td><strong>Followers:</strong> Calvin Klein used quick-response codes on billboards in New York to provide users access to an exclusive commercial 40 seconds long.</td>
</tr>
</tbody>
</table>

Source: Adapted from Kaplan (2012).

Within the first group (low engagement / push), the companies spread a general message to a large number of users. This implies that the company cannot get to know which consumers have finally been impacted by the message. This group is called the "unknown". Within the second group (low engagement / pull), consumers choose to receive information but are not clearly identified at the time they are performing this action. The companies therefore do not know which customers are being specifically related, which is why this group is called the "followers". In the third group (high engagement / push), the companies know their clients individually and can send messages and information without first requesting their consent for such sending. In this group are the "victims". In the last group (high engagement / pull) are consumers who consciously give their permission to be contacted and provide personal information. This is the ideal form of relationship with customers as it allows one to carry out marketing tactics one by one, with a lower risk of irritating or generating dissatisfaction in their consumers. This group is known as the "regular followers".

The above definitions implies that its nature is primarily interactive, and can include advertising activities, promotion, and customer service, among other actions seeking to build long-term relationships with consumers. These marketing activities have been gaining importance in the changing competitive environment that organizations face today (Bolton & Shruti-Saxena, 2009). Despite this, the research interest has focused on mobile e-commerce, particularly in the role of technology in the growth of transactions via mobile devices.

3.4. Research on Acceptance of Mobile Marketing

One of the main areas of research in this field has focused on the acceptance of technology associated with the consumption of services on the Internet. Since the mid-1990s, acceptance has been gaining considerable importance as a field of research. Acceptance research has provided important results for interpreting the success or failure of new products and services (Silberer & Wohlfahrt, 2001). Innovations related to the use of services pose a particular scenario. For this type of services, the success they can have in the market is determined not only by their initial adoption level but also by the continuous use they may have thereafter (Leppäniemi, Sinisalo, & Karjaluoto, 2006). Since the success of an alternative marketing tool such as mobile marketing can only be assured if it is used continuously, mobile marketing can be considered as an innovation related to the use. In relation to this aspect, it has been found that the main driver for the adoption of mobile technologies is not utility or convenience during use, but more likely is the aspect related to entertainment and the derived fun experience of using mobile devices. This effect is more evident in users who have a lower level of experience in Internet use and those who show a lower level of confidence in mobile technologies (Kim, 2007; Bauer, Barnes et al., 2005).

This can have implications mainly for marketing communications, particularly for advertising.
For communication through advertising to be effective, consumers are required to allow the continuous receipt of advertising messages on their mobile devices (Barnes, 2003). Some authors claim that consumers will only accept mobile marketing if they come to perceive a benefit by receiving advertising messages on their mobile devices (Kavassalis et al. 2003). The economic information model of communication provides a theoretical basis for this assertion. The model conceives the consumer as an active organism, which consciously decides which advertising stimuli it wants to explore or perceive. Through this decision process, the user not only has to superimpose the perception of advertising on other available activities, but also has to select which type of sources and formats of advertising are most useful to him. Time is the main constraint within this decision situation (Leppäniemi & Karjaluoto, 2005).

One of the most important theoretical models to analyse the relationship between the attributes that make up an innovation and its rate of adoption is the Diffusion of Innovation Model developed by Rogers (1995). Generally, this theory suggests that when a concept is perceived as new, the person uses a series of communication tactics within his social system to reach a point at which he can decide whether to adopt or reject such innovation. The characteristics or attributes of innovation can influence both the adoption decision by consumers and the speed with which it can be disseminated within a social group. In short, this model suggests that if a potential adopter reports positive perceptions of the combination of attributes that make up innovation, then there will be an increase in the probability of adopting or accepting such innovation.

With respect to the factors that may influence the acceptance of mobile advertising by consumers, some researchers have found that such acceptance may be associated with the adoption of the mobile device itself (Barnes & Scornavacca, 2004; Bauer et al., 2005). On the other hand, a great amount of studies in the last decade looked for to establish what could be the factors associated with the acceptance of the advertising sent through text messages (SMS). For example, Merisavo et al. (2007) found that the utility and context of the content had a significant association with the acceptance of the advertising received by this medium.

Other studies have focused on the influence of a set of predispositions, inclinations, individual perceptions and consumer attitudes (Varnali & Toker, 2010). Other approaches seek to explore the possible relationship between demographic variables and the acceptance of mobile marketing, as well as the study of the diffusion of innovations in society. In order to do so, they have proposed a series of models that try to predict the rate of adoption and the decision that people make when adopting an innovation, taking into account the attributes that may be innovative as well as the personal characteristics of the potential adopter. (Bigné, 2007).

In spite of these theoretical developments, authors such as Roach (2009) argue that most studies on the diffusion of innovations have focused on the adoption of technological developments or tangible products, while there are comparatively fewer studies that focus on the adoption of intangibles, that is, innovations that can be assumed as processes, such as ideas, concepts or services. In this sense, it is considered relevant to assume that mobile marketing is conceptualized as an intangible innovation, which differentiates it from the tangible device, either the smartphone or the tablet, which would become product innovations.

In relation to academic research about the acceptance by consumers of mobile marketing actions, there are several theoretical approaches, including the one developed by Sultan et al., (2009), which proposes a conceptual model that investigates the influence of the mobile activity associated with both marketing and values - which includes the use of the mobile to access information and to share and access content - in the acceptance that consumers have against mobile marketing practices of brands. These factors are derived from the Technology Acceptance Model (TAM) (Davis, 1989) and from the theory of uses and gratifications, which emphasize the influence of factors associated with use as well as the reasons for use in behavioural intentions. This perspective also examines the indirect influence of two additional antecedent factors, the level of acceptance of perceived risk and personal involvement with the mobile phone, in the acceptance of mobile marketing practices among the youth public.
Accordingly, the Technology Acceptance Model (TAM) is based on two elements that contribute to predict the intention to adopt technological development: perceived ease of use and perceived utility (Davis, 1989). Although this model has been applied mainly in issues related to technological adoption within organizations, it has also been applied in more general contexts related to the adoption and use of different technological innovations by consumers (Davis et al., 1989; Venkatesh, 2000). In the case of a consumer's decision to adopt a mobile device or service, motivators include the relative advantage of innovation, the level of adjustment of innovation to existing patterns of use, the perceived complexity of the Innovation, the perceived risk associated with the use of innovation, as well as the level at which the use of innovation is perceived by other people (Rogers, 1995).

In addition, the Technology Adoption Model (TAM) proposed by Davis (1989), which in turn derives from the Theory of Reasoned Action (TRA) (Fishbein & Azjen, 1975), states that perceived utility and perceived ease of use influence not only attitudes towards innovation but, finally, in their adoption. Unlike TRA, TAM allows perceived utility and ease of use to directly trigger adoption, reflecting the notion that a positive attitude is not required for adoption to take place. For example, the norms of a social group can very directly induce the consumers within that group to adopt an innovation (Venkatesh & Davis, 2000). The TAM is well established as a robust, powerful and parsimonious model that predicts the acceptance of a technological innovation (Venkatesh & Davis, 2000). This model provides a basis for investigating the impact of external factors on internal beliefs, attitudes, and intentions of using tangible and intangible technology-based products (Davis et al., 1989).

Furthermore, TAM has been used frequently to study the use of various technological systems in the workplace, and some researchers have suggested that the model should be extended by adding new constructs that are relevant for predicting the level of consumer adoption to technology-based products (Nysveen et al., 2005). For example, some authors have considered the addition of "perceived fun" to TAM in order to identify whether the perception of entertainment or enjoyment can become a significant determinant for the acceptability behaviour of digital mobile services (Bruner & Kumar, 2005; Dabholkar & Bagozzi, 2002). With regard to the constitutive elements of TAM, it is found that perceived ease of use consists of the level at which the potential consumer expects the use of the technology to be effortless (Davis et al., 1989). In addition, the perceived ease of use affects the perceived utility, because, while maintaining the other aspects constant, to the extent that a system is easier to use, greater utility can generate for the user (Davis, 1989).

As for other mediating variables, some authors have proposed that technology-based services tend to affect consumers differently according to the age cohort in which they are found (Morris & Venkatesh, 2000). Some previous studies have found that age influences the ability to process information within a technology platform (Sharit & Czaja, 1994), while it was the most important factor in predicting the use and acceptance of various technological innovations (McFarland, 2001). Since the use of mobile digital services requires some degree of knowledge of the operation of these technologies and an information processing skill, age can become a critical factor influencing mobile marketing adoption behaviours (Yang & Folly, 2008).

On the other hand, research based on the uses and gratifications theory have focused mainly on the study of the use of technology by consumers for utilitarian and rational reasons and for more hedonic motivations related to the search for fun and entertainment (Lin, 1996; Stafford et al., 2004). From the point of view of marketing practitioners, two aspects of the process of adopting mobile innovations that are relevant to their work are highlighted: perceived utility and perceived ease of use. It has been suggested that some of the findings derived from research on the use of technological devices and web pages could be extended to the use of mobile communication devices and services (Balasubramanian, Konana, & Menon, 2003). The utility and entertainment derived from the use of innovation have been associated with an increase in loyalty and future use (Henderson et al., 1998). In addition, the design of the user interface, specifically the visual design elements, can increase consumer confidence in the
However, caution should be exercised when attempting to extrapolate the results of consumer use and perception research in traditional Internet environments to the mobile use environment. For example, a study on the adoption of WAP (Wireless Application Protocol) services found that the level of use of mobile internet sites was significantly reduced due to misapplication of the principles of traditional Web design (Ramsay, 2000). This may be due in part to the fact that insufficient attention has been paid to the "mobile" aspect of use in different types of activities and information exchange processes in these devices (Shankar & Balasubramanian, 2009).

One of the studies that pioneered the role of mobility and the context of use of technological devices, analyzed the role of three contextual factors: management (how many hands are used to manipulate the device), state (if the device is used during some movement or not), and location (if the apparatus is used in a space where other people are present). The findings of this study suggest that although some general principles of user-centered design can be applied to the context of mobile use, the design and use of mobile websites and devices also require a much more specialized research approach (Kim et al., 2002).

For its part, Pagani (2004) empirically examined the determinants of the adoption of third generation multimedia services in the Italian market. Within its findings, perceived utility, ease of use, price and speed of use, in that order, were the most important determinants for the adoption of these mobile services. He also found that the importance of these determinants differed according to the age segment. Another study conducted by Kleijnen, de Ruyter and Wetzels (2004), looked at the determinants of adoption of mobile games in the Netherlands. Their results indicate that perceived risk, followed by complexity and compatibility were the most important factors associated with the adoption of games.

### 3.5. Perspectives for the study of mobile marketing

Among the advantages offered by the use of mobile devices, there is the possibility of having a real consumer identity. This is due to the personal character smartphones have and to the possibility of getting contextual information regarding user’s behaviours in different places, even in real time. This has generated research lines in management sciences, in particular about topics that include mobile advertising, promotions, customer support (Varnali & Toker, 2010), mobile shopper marketing (Shankar et al., 2016), mobile interface usability (Venkatesh, Thong, & Xu 2012), customer preferences, and decision-making (Pescher, Reichhart, & Spann, 2014), among others.

The current importance of the mobile channel is given by the time users spend interacting with applications and web browsing on these devices. It is estimated that about half of the searches performed on Google is being carried out from mobile devices (Graham, 2015). This new consumer reality provides a setting for organizations to develop and invest in mobile marketing campaigns that adapt to new patterns of behaviour in terms of web browsing and apps usage. According to Berman (2016), these conditions include: 1. Mobile devices are always on, most of them has mobile internet connection and are always where the user is located; 2. The possibility to generate marketing activities from the geographical location of users at any given time; and 3. The ability to design and send personalized messages according to the pattern of use and previous consumer preferences.

However, there is still the need to perform more research from a theoretical perspective about digital consumer behaviour issues, in order to support decision-making in organisational and management science, specifically those related to the marketing function. In particular, it is relevant to highlight some of the priority topics proposed by the Marketing Science Institute (MSI, 2016), among which are: Changing Decision Processes, given the fact that consumers are almost always connected and have many more options to compare; Integrated Customer Experiences, as firms are challenged to design experiences that their customers have at
different touch points to provide higher value in the right time and context; New Data and Skills, as there is a feeling related to the old methods are not working properly, and that a reformulation is required for some indicators and metrics, leading to the synthesis of different methods that provide insights that lead to effective action in marketing.

All of the above indicates that mobile marketing research is only in its initial stage, and although several studies have been carried out on relevant aspects, some issues remain unaddressed by marketing research at both theoretical and empirical level (Deighton & Kornfeld, 2009). Within this line of research, priority has been given to the search for factors that may explain the adoption of mobile marketing in both consumers and organizations (Roach, 2009). In spite of this, the literature shows a great diversity of subjects treated. The main has been the acceptance and adoption of services such as instant messaging and online games. (Foulds & Burton, 2006).

Other studies have focused on the attitudes and perceptions that consumers have about commercial applications and marketing developed on mobile devices. (Carroll et al., 2007; Leppäniemi & Karjaluoto, 2005). Finally, there is no evidence in the literature about the study of current consumer usage patterns regarding mobile marketing tactics and the establishment of functional relationships between contextual factors and usage behaviours. There is also a lack of studies that focus on this type of technological mediation and its role in marketing management.

4. Conclusions

Given the increasing penetration of smartphones globally, it is important to investigate how consumers are responding to new mobile marketing tactics. These tools present important differences from those that are part of the traditional mix of communications and marketing promotions. These include the fact that unlike laptops smartphones are personal devices, which are almost always on and are reviewed with a high frequency by the users throughout the day. This opens up new opportunities to deliver more personalized communications at the right time and place to impact consumer buying decisions.

Also noteworthy is the future potential of mobile marketers from the viewpoint of the user profile, since the segment that has the highest growth rate in the use of these mobile devices are young adults or Millennials. If brands want to communicate with these new consumers they must understand how they are relating to these mobile communication technologies. The main characteristics of this new digital media includes ease of contact with users, the ability to send personalized content and the ability to generate interactive experiences.

The pace of evolution of these mobile communication technologies has been so fast that the initial tools such as text messages (SMS) have given way to the great variety of possibilities offered by Smartphones. It has also been raised the possibility that mobile marketing can increase the perception of value of customers.

One of the main areas of research in this field has focused on the acceptance of technology associated with the consumption of services on the Internet. Some of the models applied to the study of mobile marketing adoption include the Diffusion of Innovation Model developed by Rogers (1995) and the Technology Acceptance Model (TAM) (Davis, 1989) which in turn derives from the Theory of Reasoned Action (TRA) (Fishbein & Azjen, 1975). This new consumer reality provides a setting for organizations to develop and invest in mobile marketing campaigns that adapt to new patterns of behaviour in terms of web browsing and apps usage. However, there is still the need to perform more research from a theoretical perspective about digital consumer behaviour issues, in order to support decision-making in organisational and management science, specifically those related to the marketing function. It's apparent that mobile marketing research is only in its initial stage, and although several studies have been carried out on relevant aspects, some issues remain unaddressed by marketing research at both theoretical and empirical level.
References


