Why Should I Accept Ads on my Mobile Phone?
Factors Affecting Intentions to Use Mobile Advertising

Autoria: Marcel Correia de Lima, Luis Fernando Hor-Meyll, Jorge Brantes Ferreira

ABSTRACT
Six billion cellular phone lines in the world, around 220 million in Brazil. Those numbers draw the attention of companies and academics, seeking to understand how cell phones can be used as an advertising media. This study sought to discover the stimuli and barriers to accepting advertisements via SMS messages. A survey was conducted on a random sample of 1,000 students of a high school in Rio de Janeiro. Results give evidence that even though users are concerned about invasion of privacy, the proposed model is adequate for evaluating the likelihood of consumers accepting advertisements via SMS.
INTRODUCTION
In 2020, the world will have over 55 million mobile devices, which open up huge possibilities and new types of applications for their users, allowing for more than communication - they can even acquire products and services, independent of where and when they are (Coursaris, et al., 2010). These features, stemming from technological development, attract the attention of companies to mobile marketing, the application of marketing strategies that use mobile devices as mediums for communication and transactions (Yang, 2007).
Cell phones with larger screens, PDAs, tablets, and iPads are examples of devices that have become components in a new convergent media that even allows consumers to receive promotional messages (Pousttchi & Wiedemann, 2006; Yang, 2007). In the United States, where more than 90% of the population has some type of those devices (Siqueira, 2011), more than $320 million was spent on advertisements and promotions via SMS. This value is projected to rise to $1.5 billion in 2013 (Giordano, 2010).
While some companies have treated SMS promotional messages with caution, given the lack of knowledge about it and the possibility that consumers might not accept the practice (Dickinger and Kleijnen, 2008), the potential mobile devices have as a media has been perceived and explored in various countries. Some motivations for companies to migrate towards mobile platforms are the possibility the technology offers for establishing a relatively more personal and interactive communication with their customers (Bauer, et al., 2005; Sultan, et al., 2009) and create strategies that are specific to the location of a consumer within a context of consumption (Sultan, et al., 2009). In Brazil, the practice is still incipient: in general, only cell phone companies habitually use their clients’ telephones as a platform for the promotion of products and services (Artoni, et al., 2010).
Despite the size of the market, there aren’t sufficient academic studies about initiatives related to mobile marketing (Hennig-Thurau, et al., 2010; Scharl, et al., 2005; Varnali & Toker, 2010) and factors that might lead consumers to desire (or reject) receiving promotional communications on their mobile devices are not clear.
Some specific promising consumer segments have already been identified, such as the teenage market, that constantly increase the usage of cell phones as the only device for communicating with their social circles and for receiving information (Sultan, et al., 2009).
The use of mobile devices by youths for communicating and accessing information services is widespread around the world (Sultan, et al., 2009), including Brazil, especially at higher-income strata. For younger consumers, cell phones represent more than simply a communication device: they are a way to express their individuality through personalized screen images and ringtones. By using these, youths feel empowered, and also have broad access to larger social circles, diverse information, and a wide range of digital content, including entertainment (Sultan, et al., 2009).
However, there isn’t much information concerning how young consumers from different parts of the world accept mobile advertising (Sultan, et al., 2009; Zhang & Mao, 2008). This study seeks to contribute towards filling in some knowledge gaps on the theme, in that it seeks to identify factors that upper-class, teenage Brazilian cell phone users consider to be relevant for their acceptance of advertisements received via SMS.

MOBILE MARKETING AND MOBILE ADVERTISING
The definition of what constitutes mobile marketing is controversial. Some authors even suggest that, since it is a new form of direct communication between companies and their consumers, it should be treated as a new form of direct marketing (Tsang et al., 2004; Roach, 2009).
Kotler and Keller (2006) considered it as marketing efforts that use mobile devices, primarily cell phones, generally to promote the construction of a strong connection between companies
and clients. Sultan et al., 2009 saw it as the use of wireless mobile devices as a platform for the direct delivery of content, as well as a channel of response in marketing communication programs. Markus et al. (2009) argued that mobile marketing doesn’t have a formal definition, but considered it to be the design, implementation and control of marketing activities by using wireless data transfer technology for mobile devices.

Recently, Shankar, Venkatesh, and Balasubramanian (2009) proposed that mobile marketing is “the communication and promotion, in two or more directions, of an offer between a company and its consumers through mobile media, devices or technologies” (p. 118). Roach (2009) defined mobile phone marketing as the use of cell phones to provide customers, depending upon their location and time, with personalized information that promotes goods, services, and ideas.

Some authors define mobile advertising as using mobile media to provide consumers, depending upon their location and time, personalized information that promotes goods, services and ideas, bringing benefits to stakeholders (Dickinger, et al., 2004; Dickinger & Kleijnen, 2008; Scharl, et al., 2005).

Advertising Age (apud Zhang & Mao, 2008, p. 788) established mobile advertising as the “use of wireless devices to deliver content and as a form of direct communication with consumers, within a marketing strategy that can involve various media”. This shows the overlap and confusion between the concepts of mobile marketing and mobile advertising.

In a sense, mobile advertising is the use of SMS messages as a channel for promotions and advertisements (Tsang, et al., 2004; Yang, 2007). Expanding upon this, He and Lu (2007) defined mobile advertising as a new form of marketing, based upon mobile devices, especially SMS messages (SMS advertising), that offers direct communication with consumers in any location at any moment.

Given the large variety and lack of consensus (Leppäniemi & Karjaluoto, 2005), this study adopts the definition given by He and Lu in assuming that mobile advertising means the sending of promotion messages to consumers via SMS messages.

If treated as communication in two or more directions, mobile media is interactive, including advertisements, promotions, post-sale services, customer support, and other forms of building relationships. However, some barriers to its adoption were identified. The reduced size of the screen and small keys make interface uncomfortable for some users, especially the elderly, which limits the target public of such campaigns, the size of the messages and the frequency of transmission (Shankar, Venkatesh, & Balasubramanian, 2009; Shankar, et al., 2010).

Furthermore, the intrusive nature of advertisements via mobile devices (Shankar, et al., 2010; Sultan, et al., 2009) makes many users feel their privacy is invaded by marketers that send messages without prior authorization (Leppäniemi & Karjaluoto, 2005), or that don’t give the consumer the option of being delisted from receiving the messages (opt-out) (Shankar, et al., 2010).

MODELS FOR CONSUMER ACCEPTANCE OF MOBILE ADVERTISING

There are various studies in the literature that have proposed models for the adoption and acceptance of mobile advertising initiatives by consumers. Roach (2009) proposed that, among the factors that influence consumers to accept promotional messages via SMS on their cell phones, client permission, the control that a service provider maintains over a transaction, and the trust that the consumer receiving the message has in the advertised brand are the most relevant. Varnali and Toker (2010) considered it adequate to apply models developed for explaining the acceptance of information systems and about the development of attitude for studies in mobile marketing, mobile advertising, and SMS advertising. These models explain the decision to adopt based upon theories related to technology adoption (Pedersen & Ling, 2002).
The most frequently used theories are (Huang & Symonds, 2009; Varnali & Toker, 2010):

- Theory of Reasoned Action (Fishbein & Ajzen, 1975);
- Innovation Diffusion Theory (Rogers, 1983);
- Theory of Planned Behavior (Ajzen, 2001);
- TAM – Technology Acceptance Model (Davis, 1989);
- TAM2 – extension of TAM (Venkatesh & Davis, 2000);

The Uses and Gratifications Theory was also considered in the models proposed by Bauer, et al., (2005), and Sultan, et al., (2009), which considered that utilitarian and hedonic reasons underlie the acceptance of this new medium by cell phone users.

Bauer, et al. (2005), developed a model based on Fishbein and Ajzen’s (1975) Theory of Reasoned Action, which contemplates subjective norms, the consumer’s attitude, innovation, information-seeking profiles, and previous knowledge, as well as the utility and risk perceived by the consumer as precursors to the intention to accept SMS advertising initiatives. Zhang and Mao (2008) also examined determining factors for accepting SMS promotional messages by Chinese consumers and discovered evidences that subjective norms (social influence) both preceded and contributed, in a positive way, towards the intention to adopt.

In this study, we propose the use of a Technology Acceptance Model to evaluate consumers’ adoption of mobile advertising. TAM models have been successfully employed in similar studies (Sultan, et al., 2009; Dickinger & Kleinjen, 2008; Wu & Wang, 2005; Bruner & Kumar, 2003), with some focusing on young cell phone users (Zhang & Mao, 2008; Yang, 2007). The constructs for the model formulation (Figure 1) and their effects (both direct and mediated) on the attitude and behavior intention towards mobile advertising adoption, as well as the hypotheses to be tested, are presented hereafter.

![Figure 1. Proposed model for consumer acceptance of mobile advertising](image-url)
Innovativeness
Each individual has a specific tendency to accept or reject innovation. Im, et al., (2003), cited by Bauer, et al., (2005), indicated that this tendency – innovative profile – can be divided into innate and actual aspects. The first capacity is linked with personality, while the second is related to a specific kind of innovation.

Since SMS advertising still hasn’t been habitually used as a promotion tool, and because few users have had the opportunity to receive advertisements on their cell phones, it doesn’t make much sense to measure actual innovation capacity (Bauer, et al., 2005). Thus, innate capacity is what is relevant for this research, in that consumers with a high degree of innovative capacity are more probable to try out new products and ideas, in order to develop a layered opinion (Leavitt & Walton, 1975, p. 549, apud Bauer et al., 2005). Individuals with a highly innovative profile, therefore, should be more inclined to receive and learn about mobile and cellular communication services (Peter & Olson, 2009), since they have greater knowledge about mobile communication technology, leading to the first hypothesis:

H1: Innovativeness will have a direct and positive effect on the consumer's existing knowledge regarding mobile communications.

Perceived utility
Consumers will accept promotional messages via SMS only if they perceive some benefit (Kavassalis, et al., 2003). During the decision process, in addition to dealing with the perception of the advertisement in relation to other activities, the consumer also evaluates it in relation to other sources of information. Thus time comes to be an important restriction (Kaas, 1990, as cited by Bauer, et al., 2005).

In a study about drivers for consumer acceptance in receiving SMS promotional messages, Merisavo, et al., (2007) indicated that the context of the information and the message utility are the strongest factors. Various studies have indicated a positive influence from the entertainment characteristics (hedonic) and information utility of messages, with the first dimension identified as being preponderant (Tsang, et al., 2004; Yang, 2007; Zhang & Mao, 2008).

The study conducted by Coursaris, et al., (2010), into the effects of promotional message characteristics sent via SMS on an American university students’ perceptions confirmed the positive effect of message size in the utilitarian value and perceived entertainment. This influenced attitude as much as intention for using mobile advertising. Thus, it is reasonable to propose that:

H2: Perceived utility will have a direct and positive effect on the consumer's attitude toward mobile advertising.

Attitude toward advertising
In general, consumers are familiar with advertisements, since they are exposed to them daily. Then, it is expected that they will have a relatively stable and consistent attitude toward advertising. However, few consumers have been exposed to mobile advertising, an innovation. This leads to the assumption that their attitudes in relation to advertising via SMS are less stable and easily changeable. Having more contact with promotional advertisements consequently leads to a greater propensity for accepting advertising via SMS (Bauer, et al., 2005). Since mobile advertising is a type of marketing communication (Scharl, et al., 2005) consumers’ attitudes can be seen, in a consistent manner, as related to their attitude regarding advertisements in general, not just those delivered on mobile devices (Bauer, et al., 2005).
is then expected that the attitude towards mobile marketing will be highly dependent upon the attitude towards advertising in general, as may be hypothesized:

**H3:** Attitude toward advertising will have a direct and positive effect on the consumer’s attitude toward mobile advertising.

**Social norms**
Social norms are a result of a person’s normative beliefs associated with a behavior. Adoption of a behavior depends on whether or not it is accepted by important referent individuals, the person’s motivation to comply with those referents, and his/her evaluation of the consequences (Ajzen & Fishbein, 1980). Shimp and Kavas (1984) proved a causal relationship between the subjective perception of social norms and attitude towards a behavior. Bauer *et al.* (2005) demonstrated that the attitude towards mobile marketing is strongly influenced by social norms. Direct positive effects of social norms are then expected to be reflected in a consumer’s attitude toward mobile advertising and his/her behavioral intention to adopt it.

**H4:** Social norms concerning the adoption of mobile marketing will have a direct and positive effect on the consumer’s attitude toward mobile marketing.

**H5:** Social norms concerning the adoption of mobile marketing will have a direct and positive effect on the behavioral intention to adopt mobile marketing.

**Existing knowledge**
Existing knowledge affects the cognitive decision-making process for accepting a specific, innovative product or action. This gives an individual the ability to understand the functioning, resources, and use of the innovation, reducing its perceived complexity (Bauer, *et al.*, 2005). Existing knowledge regarding the use of cell phones is a facilitator for the adoption of mobile advertising, in that it reduces the perceived complexity of using this media as a form of promotion (Bauer, *et al.*, 2005; Zhang & Mao, 2008). It can be expected that consumers with greater levels of knowledge about mobile communications will present more positive attitudes towards the use of this technology for advertising.

**H6:** Existing knowledge about mobile communications will have a direct and positive effect on the consumer’s attitude toward mobile advertising.

**Attitude toward mobile advertising**
Since the commercial use of advertising via SMS is still in its embryonic stages, it is impossible to measure its acceptance and use by consumers. Bauer *et al.*, (2005) proposed that the acceptance of SMS advertising can be anticipated by measuring consumer attitude in relation to its adoption. The last hypothesis can thus be formulated as:

**H7:** The more positive the consumer’s attitude toward mobile advertising, the greater his/her behavioral intention to adopt it.

**METHOD**
A cross-sectional survey was performed on a non-probabilistic sample. The majority of studies on consumer acceptance of technology have used this same method (Childers, *et al.*, 2001; Yousafzai, *et al.*, 2007), with structured questionnaires being administered to consumers.
The questionnaire

Constructs were measured using scales that had already been developed and tested:

- Innovativeness – Bauer, et al. (2005), 3 items;
- Perceived Utility – Bauer, et al. (2005), 4 items;
- Attitude toward Advertising - Pollay and Mittal (1993), 3 items;
- Social Norms - Shimp and Kavas (1984), 3 items;
- Existing Knowledge - Flynn and Goldsmith (1999), 5 items;
- Attitude toward Mobile Marketing - Shimp and Kavas (1984), 4 items;
- Behavioral Intention - Shimp and Kavas (1984), 3 items;

The scales were translated by a native English speaker also fluent in Portuguese, and then back-translated into English by another native English-speaking professor of Portuguese. Finally, another professor who teaches both English and Portuguese compared both versions to guarantee that the content was preserved in the Portuguese version.

In order to verify that the language matched with the target public of the research, the questionnaire was applied to 5 teenager students at an educational institution, to check for their correct understanding. In addition, while Bauer, et al. (2005) used a 7-point Likert scale, a 5-point scale was chosen to make it easier for teenagers.

Various safeguards were taken when constructing the online questionnaire (Dillman, et al., 1998), which was developed according to the programming techniques recommended by W3C (organization of best-practices in web programming), so that there wouldn’t be any rejection or distortion caused by web browsers, and so that it would appear the same, independent of screen size and resolution (Dillman, et al., 1998).

Questions were equally distributed over three screens, with ten questions on each in a way to avoid the need for scrolling. The first screen had a welcome message, introducing the questionnaire and emphasizing the ease of filling it out. When continuing to the second screen, the first page of the questionnaire was shown in its entirety, without scrolling bars. Its visual presentation was professional, pleasant, and similar to what a paper version would look like (Dillman, et al., 1998).

Response options, in Likert scales, were available in simple HTML tables, with a fixed screen width for each button in order to guarantee that the respondents perceived the alternatives as equally spaced (Dillman, et al., 1998; Heerwegh & Loosveldt, 2002).

After minor adjustments, the online questionnaire was pretested by 53 teenager students. Factor analysis indicated that some questions needed to be rewritten, since they were loaded in more than one factor. With the help of some of the pretest participants, the language used in the questionnaire was also checked for adequacy.

Sample

The population was composed of 3,468 cell phone-user teenage students of a high-school in Rio de Janeiro, Brazil. A probabilistic sample of 1,000 students, that did not take part in the pre-tests, was selected to receive an SMS message and an invitation to participate in the research by a banner in the school’s restricted area on the internet, only accessible by students through their individual passwords.

The sample was selected from a list of registration numbers of all high-school senior (last year) students. The list was imported into Microsoft Excel and each registration number was sequentially numbered from 1 to 3,468, to guarantee that there was no omission of any elements of the population, or mistaken inclusion of anyone not part of it. The “randomize” function of Microsoft Excel, using a macro specially developed, selected the 1,000 students.
Data collection
The questionnaire was presented on the school website in a restricted, controlled area, guaranteeing that people not invited to participate could not access it. The students in the sample received an invitation via the school’s internal system, and, when accessed the restricted area, a banner invited them to participate in the research, offering the possibility to receive results of school exams via SMS. The invitation made it clear that it was necessary to respond to the questionnaire before indicating the cell phone number for receiving messages about their performance. Those that were not part of the sample received an invitation and a banner with different content which didn’t inform about the research or the questionnaire. 409 questionnaires were completed. One was discarded because the respondent didn’t own a cell phone, and 23 others were incomplete (with missing values) and therefore not considered for analysis. The average age of respondents was 18 years old (dp = 1.86) and 66% were female.

RESULTS
Confirmatory factor analysis (CFA) was conducted to test the validity, unidimensionality and reliability of the scales (Fornell and Larcker, 1981; Garver and Mentzer, 1999). The measurement model presented satisfactory fit indices (RMSEA = 0.04, C.I. of 0.03 to 0.05; CFI = 0.97; IFI = 0.97; TLI = 0.96; $\chi^2 = 295.24$, d.f. = 161, p <0.001, $\chi^2$/d.f. = 1.83). The nomological validity (analysis of the correlation matrix between constructs), convergent validity (calculation of Average Variance Extracted for each construct), discriminant validity (comparison of the average variance extracted for each construct with shared variance between all pairs of constructs), and internal consistency, unidimensionality and reliability of the scales (analysis of alpha coefficients, composite reliability, and estimated factor loadings) were tested with satisfactory results, indicating the reliability of the scales.

Structural Model
Structural equation modeling (SEM) was carried out to test the model and the hypotheses. The significance of the estimated coefficients for the hypothesized relationships indicated whether the relationship between constructs appears to hold true or not (Byrne, 2010). All indices indicated good fit to the data. The ratio $\chi^2$/df was 2.9, lower than the limit (3.0) suggested by Byrne (2010). Moreover, the incremental fit indexes were greater than 0.90 (CFI = 0.92, TLI = 0.91, IFI = 0.92). The absolute fit indexes were below the 0.08 cutoff established in the literature (Hu and Bentler, 1999; Byrne, 2010; Hair, et al., 2009), also indicating a good fit (RMSEA = 0.073 [C.I. 0.034 to 0.041], SRMR = 0.076).

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Standardized Coefficient</th>
<th>p-value</th>
<th>Hypothesis Accepted</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: IN → EK</td>
<td>0.68</td>
<td>&lt;0.001</td>
<td>yes</td>
</tr>
<tr>
<td>H2: PU → ATT</td>
<td>0.78</td>
<td>&lt;0.001</td>
<td>yes</td>
</tr>
<tr>
<td>H3: ATA → ATT</td>
<td>0.09</td>
<td>0.013</td>
<td>yes</td>
</tr>
<tr>
<td>H4: SN → ATT</td>
<td>0.47</td>
<td>&lt;0.001</td>
<td>yes</td>
</tr>
<tr>
<td>H5: SN → INT</td>
<td>0.16</td>
<td>&lt;0.001</td>
<td>yes</td>
</tr>
<tr>
<td>H6: EK → ATT</td>
<td>0.03</td>
<td>0.446</td>
<td>no</td>
</tr>
<tr>
<td>H7: ATT → INT</td>
<td>0.86</td>
<td>&lt;0.001</td>
<td>yes</td>
</tr>
</tbody>
</table>

Table 1. Hypotheses, standardized path coefficients, and significances

The proposed model seems to satisfactorily fit to data. Furthermore, the model explained 83% of the variance in the attitude towards mobile advertising and 63% of the variance in
behavioral intention, lending strength to the belief that the constructs were suitable to characterize the studied phenomenon. Verification of each hypothesis (Table 1) was performed by the analysis of magnitude, sign and significance of the standardized path coefficients (Byrne, 2010). The hypotheses, the estimated coefficients and significance levels are shown in Table 1 and in Figure 3.

Figure 3. Standardized path coefficients (*p <0.05, **p <0.001)

DISCUSSION
Perceived utility was found to be the most important antecedent to the attitude toward SMS advertising (standardized coefficient = 0.78), result consistent with those encountered by Bauer, et al. (2005) and other studies on the acceptance of mobile advertisement - perceived utility was also the most relevant factor in the formation of attitude in the study involving Chinese youths conducted by Zhang and Mao (2008) and Wu and Wang (2005). Perceived utility is directly related to users subjective evaluations of the utility offered by promotional messages sent via SMS. This suggests that offering clear benefits and relevant information in the advertisement plays a key role in determining whether or not consumers will devote their attention to delivered messages, and more importantly, if they will develop favorable attitudes towards mobile advertising. The importance of offering advertisements with relevant information and an attractive format was highlighted in the study conducted by Leppäniemi e Karjaluoto (2005).

This favorable attitude, in turn, might lead to a behavioral intention to adopt and use mobile media as a way to receive promotional messages and advertisements, as evidenced by the strong significant direct effect of attitude on intention (0.86). This was also shown by Yang’s (2007), and can be understood as a predictor of intention of use, as proposed by Bauer, et al., (2005).

Social norms had the second highest significant effect on the attitude towards SMS advertising (0.47), a result that was unveiled in the study of Leppäniemi e Karjaluoto (2005), and that is also consistent with the findings of Zhang and Mao (2008), Yang (2007), and Bauer, et al. (2005). The intention to accept advertisements via SMS seems to be a consumer
deliberate process, in which he (she) takes into account the opinions of other people considered relevant. So, if the use of mobile advertising is commonplace and widely used by his/her social groups, a young consumer will tend to form more favorable attitudes toward it and utilize it more often.

It is to be noted that social norms displayed both direct and indirect effects (mediated by attitude) on the behavioral intention to use mobile advertising. Even though the direct effects were less pronounced than the indirect effects (0.16 versus 0.41), which is consistent with results obtained by Bauer, et al., (2005), they were still significant, stressing the importance that social norms play in the intention to adopt mobile technologies as an advertisement media. It is interesting to note that Zhang and Mao (2008) also found a significant, but less pronounced, effect in the direct relationship between subjective norms and the intention to accept advertisements via SMS.

**Attitude toward advertisements in general** also played a significant role in defining a consumer’s attitude in relation to mobile advertising, although its effect (0.09) was less prominent than the effects of other constructs. This result, once again consistent with those of Bauer, et al., (2005), shows that, while a generally favorable attitude towards all kinds of advertisements does help in forming a better attitude toward mobile advertising, it is not as important a concept in defining attitude and adoption intention when contrasted with others, such as perceived utility and social norms.

Finally, despite the fact that **innovativeness** displayed a significant direct effect (0.68) on consumers’ existing knowledge about mobile communications, such knowledge was found to not significantly affect a consumer’s attitude toward mobile advertising. Bauer et al., (2005) also encountered a significant, strong, and direct effect of an individual’s innovative characteristic on their existing knowledge, but the effect of knowledge on attitude was in turn very low, even though still significant. A possible reason for this could reside in the fact that, given the young age of the sample population, knowledge and day-to-day usage of mobile communications is so commonplace that it is not seen as a relevant factor for defining their attitude toward mobile advertising.

**CONCLUSIONS**

The results and relationships encountered in this study represent significant contributions to the theory of technology acceptance and to the research about mobile advertising. The findings confirm the importance of several constructs in the understanding of attitude and intention to adopt mobile advertising by consumers, as proposed by other authors (Bauer et al., 2005; Zhang & Mao, 2008).

The results also show that the indirect effects of perceived utility, social norms and attitude toward advertising, mediated by the attitude toward mobile advertising, contribute to a good explanation of behavioral intention to utilize such technology and media. The good explanatory power of the model suggests that it includes relevant relationships for the assessment of attitude and intention in relation to consumers' adoption of mobile advertising. The findings also support the direct influence of social norms on a consumer's intention of utilizing mobile advertising. Such effects should therefore be taken into account in future research.

The findings showed some similarities with results of research conducted within the context of other cultures (Sultan, et al., 2009; Zhang & Mao, 2008; Bauer, et al., 2005). Even though the markets, in different countries, with different cultures and at different stages of economic and technological development, might show diverse characteristics in terms of the acceptance of promotional messages sent via SMS, the youths in these markets show interesting similarities regarding the factors of accepting mobile advertising. The cell phone could be considered by them to be a technology that is intended for both personal and social usage, and
is therefore subjected to social norms that might be similar because they are related to the age
group and interests. Perhaps, for researchers interested in more properly examine the effects
of accepting promotional messages in markets of distinct cultures, it would be necessary to
include the concept of social distance (Hofstede, 1980).
Companies connected to the production of content for mobile devices might benefit from the
findings, as motivating factors for using mobile devices as a platform for communicating with
consumer audiences were highlighted. Once the most important factor for influencing the
attitude of the recipient is the messages perceived utility, it is important that promotional
messages have informational content that interests him (her).
Employing promotional materials based upon the location of the consumer, such as when they
are in close proximity to a store (for example in a Shopping Mall), can be evaluated. Text
messages, that lack visual and auditory impact, or impersonal messages, intended to target
mass audiences, should be avoided when sending advertisements and offers, since they might
be perceived by the recipients as lacking interesting information and having no entertainment
value.
For policy formulators, this study can help support the development of market norms and
regulations for advertisements for mobile devices and SMS messages, not yet been covered
by Brazilian laws.

Limitations and Suggestions for Future Research
An important limitation of the study is related to the collection and processing of data.
Regarding the external validity of the results, because the data reflect only the perspective of
young Brazilian high-school students of a reasonably high economic level, it is quite possible
that relationships found in this study do not apply to other types of consumers exactly as
presented.
Regarding the data collection procedure, although effort was made to make it clear what
mobile marketing was and what was being evaluated (with SMS examples even being sent to
respondents), some respondents might not have had a full grasp of the concept before
answering the questionnaires, which might have jeopardized the quality of information
collected.
Given the limitations outlined above, the replication of the proposed model with consumers
with profiles different from those here studied would be a good way to validate and expand
the scope of the results. Additionally, well-designed experiments, in which respondents
evaluate in more depth the possible uses and meanings of mobile marketing, can be a viable
alternative to explore how broadly the model’s findings can be generalized.
Future research may also explore other scales for the constructs or constructs that are
conceptually similar, comparing results with those here obtained. Finally, it would be
interesting to investigate possible moderating effects that certain demographic variables (e.g.
gender, income, age) might have on the relationships observed in the model.

REFERENCES
Artoni, P. R. C. D. et al. (2010). Recebi Um SMS, e Agora? O Consumidor De Baixa Renda
Frente Às Ações De Mobile marketing. In: XXXIV ENANPAD (Rio de Janeiro, ANPAD), 17.
acceptance of mobile marketing: a theoretical framework and empirical study. Journal of
Electronic Commerce Research, 6, 181-192.
Bruner II, G. C., & Kumar, A. (2003). Explaining Consumer Acceptance of Handheld Internet


