

Consumers Perception and Responsiveness to Bulk SMS Advertising in the Sudan

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Abstract

Mobile advertising has emerged as one of the most popular applications in mobile commerce, particularly in the form of SMS (Short Message System) advertising. This study aimed to explore how people of Sudan, perceive and respond to SMS marketing. The study employed descriptive approach to analyze the responses of a cross-sectional survey carried out with 240 mobile-phone users in Khartoum State. The results of the survey indicate that consumers generally feel positively about receiving SMS advertising but they have some concerns about providing their personal data to advertising companies. These findings confirm previous literature on privacy issues surrounding mobile advertising where consumers have a strong fear of spam and misuse of their personal data. The findings also suggest that consumers expect advertising messages to be relevant, less frequent and incentive based. The results also show high potential of SMS advertising in respect of level of advertising awareness and readership. Moreover, the results of the study indicate that there are many issues relating to this area, need to be addressed through future research.

Key words: Consumers attitude, Perception, SMS advertising, Mobile marketing

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انطباع وتجاوب المستهلكين لإعلان الرسائل القصيرة في الهاتف النقال في السودان

ملخص الدراسة

برز الإعلان عن طريق الهاتف النقال كأحد أقوى وأكثر التطبيقات شعبية للتجارة عن طريق الهاتف النقال لاسيما الإعلان عن طريق نظام الرسائل القصيرة (SMS). هدفت هذه الدراسة إلى استكشاف انطباع المستهلكين في السودان ومدى استجابتهم لهذا النوع من الإعلان وذلك من خلال دراسة وصفية عن طريق استبيان استطلع آراء 240 من مستخدمي الهاتف النقال في ولاية الخرطوم. وقد دلت نتائج الدراسة على أنّ للمستهلكين عموماً انطباعاً ايجابياً عن استقبال الرسائل الإعلانية على هواتفهم مع بعض التحفظات بشأن تقديم بياناتهم الشخصية للشركات المعلنة وذلك لخوفهم من إساءة استخدام هذه البيانات ولانزعاجهم من ورود الرسائل غير المرغوب فيها. وتؤكد هذه النتائج ما توصلت إليه الدراسات السابقة حول القضايا المتعلقة بخصوصية الهاتف النقال كوسيلة إعلانية. وقد أكدت نتائج الدراسة أيضاً أنّ معظم المستهلكين يتوقعون أنّ تكون الرسائل الإعلانية ذات صلة باهتماماتهم الشخصية ويفضلون استقبال رسائل قليلة مقابل نوع من الحوافز. كما أظهرت نتائج هذه الدراسة وعي المستهلكين وتذكّرتهم واستعدادهم لقراءة الرسائل الإعلانية مما يشير لوجود قبول وإمكانات عالية لهذا النوع من الإعلان في السودان. وقد اختتمت هذه الدراسة بإبراز عدة قضايا تحتاج للمعالجة من خلال البحوث المستقبلية.

I. Introduction:

Bulk Messaging is the dissemination of large numbers of [SMS](#) messages for delivery to [mobile phone](#) terminals. It is used by media companies, enterprises, banks and consumer brands for a variety of purposes including entertainment, enterprise and mobile marketing. Advertising products and services using bulk SMS is becoming a new trend in the world and provide great opportunities for advertisers in local markets. With the increase in mobile phone and other mobile communication devices, companies and marketers start to see this convenient and moveable device as a new and powerful channel for marketing, which increases the promotion budget of mobile advertising. The success that SMS has had as a messaging service provides a potentially huge SMS messaging customer base which could lend itself as an attractive opportunity for marketers. One of the main challenges and opportunities for companies that planning to use mobile advertising are to understand the factors that help them implement and use SMS successfully.

There is little research conducted on mobile advertising in Sudan and the impact of sending advertisements to consumers' mobile phones. This exploratory study aims to contribute to the efforts in this area, specifically, on the context of SMS based mobile advertising. This is mostly important where the success of SMS advertising as a new medium depends on the consumer's response and attitude. The main objective of this study is then to explore how Sudanese, perceive and respond to SMS marketing. Thus, this study aims to address this issue by answering the following questions:

1. What is the consumers' perception towards perceiving SMS advertisements?
2. How consumers are willing to receive SMS advertising?
3. How effective is SMS advertisements?

Hence, to address these questions, the rest of this paper is organized as follows: section II offers a background on mobile phone services in Sudan. These deemed important due to the impact of the status of mobile services and its extent of use on the issue at hand. Section III, provides the relevant literature review. Section IV, describes the sample and the research method used. Section V, presents the analysis and results and finally section VI concludes the paper.

II. Background on Mobile phone services in Sudan

The huge jump of telecommunication in Sudan was introduced by Sudatel Telecommunications Company, established in 1993 as a public shareholding company following the privatization of the Public Telecom Corporation, with major shares and management control now held by Etisalat of the UAE and Qatar Telecom. The company works the fixed services market with monopoly until the creation of Canar in 2005 which is also majority-owned by Etisalat.

Sudatel exited the mobile market when Zain acquired the remaining 61% stake of Mobitel (rebranded as Zain in 2007), Sudan's first and sole mobile operator, in a deal valued at \$1.332 billion, resulting in 100% ownership In February 2006. MTN ended the monopoly of Mobitel in July 2005 when it launched its services. Later the same year, Sudatel finalized its new cellular network, commercially named "Sudani", and started its operations limitedly in late 2005.

Sudan is regarded as one of Africa's most lucrative telecommunications markets and, by regional standards; Sudan has a large and relatively well-equipped telecommunications system. The Sudanese mobile market has been growing at an impressive rate over the past few years. The communication industry has enjoyed rapid growth since 1997 in term of the number of operators and subscribers. By the end of 2012 the mobile subscribers reached about 28

million with penetration rate of 78% of the total population (see Table 1) served by the three service providers Zain (12.557 m), MTN (7.905 m) and Sudani (7.298), with a coverage of 33% of the total country land (CBOS annual report, 2012). This high penetration rate showed the potential of mobile marketing, as a new advertising media, compared to internet with 5 million subscribers.

Table (1) Estimated market penetration rates in Sudan's telecoms sector – end 2011

Market	Penetration rate
Mobile	78%
Fixed	1%
Internet	24%

(Source: BuddeComm, accessed 11/11/2013)

Although, SMS has an extremely high consumer usage in Sudan, it still has a low business adoption. In other words, while millions of SMS messages are delivered between individual consumers, the use of SMS as a part of business and marketing strategies is (relatively) low. But more and more companies realizing the benefits of SMS, start using it as a new media within their traditional marketing communications strategies. The reason for this increase in business usage is clear – SMS is an extremely cost-effective, high-response-rate vehicle, which can help acquire and retain consumers, sell and promote products, drive loyalty, and reinforce branding efforts compared to other standard communications mediums available to marketers and advertisers, (see Table 2).

Table (2) comparison of different advertising mediums

Medium	Reach	Cost	Retention/effectiveness
TV	One of the highest	Very high	Good
Radio	medium	medium	Poor
Email	High	Extremely low	Extremely low
Internet Banner	High	Medium	Dropping
Print Media	Low	High	High
Billboard	Medium	Medium	medium
Personal interaction	Low	High	High
As a new medium available, SMS has the following characteristics			
SMS	High Reach	Low Cost	High Retention

Source: Click tell 2003, SMS Market Guide.

III. Relevant Literature Review:

Several international studies attempted to study SMS (short message system) advertising perceptions and attitudes; one of the first empirical studies was Barwise and Strong (2002) study of permission-based mobile text message advertising in the United Kingdom. The study explored the effectiveness of SMS as an advertising medium for reaching young adults on permission-based advertising via mobile phones. The results suggest that, for SMS advertising to be effective the text should be attractive, relevant and informative and explicit permission is essential.

Moreover, Kavassalis, P, et al (2002) claimed that for mobile marketing to be effective and lucrative, the industry participants should address the customer relevant, requested and interactive content. End-use privacy must be respected, so permission marketing for opt-in, with clear opt-out instructions, is the efficient way to proceed.

Bamba and Barnes (2006) examined the phenomenon of consumers' willingness to give permission to receive SMS advertisements. The results showed that even if the relevance of the advertisement is high, it does not on its own make consumers give permission; it needs to be combined with the control over opt-in conditions to assure consumers and gain permission. The important opt-in conditions required are: the possibility to withdraw at any time, personal data disclosure only with consent, and mobile phone operators as a primary advertising filter.

A study by Karjaluoto et al (2008) showed that the use of almost purely electronic channels in advertising has proved to be a great success. The case company has reduced its marketing expenses to one third, created a large SMS and e-mail opt-in database mostly via word-of mouth and made the mobile channel a very attractive and interactive channel among its opt-in users. Thus, there is strong evidence that mobile marketing works if the target audience is suitable.

Suher and Ispir (2009) investigated factors that affect consumer attitudes toward SMS advertising in Turkey and the relations between attitude and the indicators. The empirical data showed four factors are important for attitudes toward SMS advertising in Turkey: Infotainment, Life partner, Privacy, and Irritation.

Waldt & Brown (2009) study focused on determining the perceptions of the South African younger consumer segment towards SMS advertisements. It was found that consumers "perceptions of the entertainment value, informativeness and credibility of SMS advertisements are positively correlated to consumer" overall attitudes towards SMS advertisements. The study further found that consumers' perceptions of the irritation aspect of SMS advertisements, is negatively correlated with consumers' attitudes towards SMS advertisements. Consumers have generally negative overall attitudes towards SMS advertisements and it must be cautiously used when attempting to gain the attention of a younger segment of consumers. Permission based marketing, the sending of SMS advertisements to only those who have agreed to receive promotional information, is an important element for the success of SMS advertising.

IV. Methodology and sample:

The study employed descriptive approach in order to answer the research questions mentioned earlier. A cross-sectional survey was carried out in Khartoum, as representative sample of the Sudan in (2009). Out of 251 distributed questionnaires to mobile users, 240 usable questionnaires (with response rate over 95%) were employed to investigate their responsiveness to SMS advertising. According to Roscoe (1975) sample sizes larger than 30 and less than 500 are appropriate for most research. In this study, the sample size (n) = 240 subjects was comprised of usable responses from all subjects who participating in this research and was representative of the population for generalizability.

The distribution of subjects in regard to age, gender and occupation are displayed in Table 3. The table shows that the sample heavy mobile users range from the age of 18 to 25. The information about marital status supports the fact that users are mostly young, and are therefore student (73%), and single (71%).

Table (3) Sample Demographic

Variables	%
Sample spread across age	
18-25	49%
26-35	31%
36-45	20%
Sample spread across Gender	
Male	45%
Female	55%
Sample spread across Education level	
Secondary	6%
University student	73%
Graduate	21%
Sample spread across Marital status	
Single	71%
Married	25%
Other	4%

Source: Based on the survey data (2009)

The data are analyzed using the Statistical Package for Social Science (SPSS). The relevant descriptive statistics such as, frequencies and averages are calculated.

V. Analysis and Results:

Analyzing the frequency of SMS usage (as shown in Table 4), the following results were obtained:

Experience with SMS service:

The majority of the sample (90%) had been using SMS service for more than a year which means the respondents are familiar with the SMS service.

SMS Service usage:

Other than calling, most of the mobile users (89%) use SMS services more than the other mobile services. The high usage rate can make transition to receiving commercial SMS's easier as users have already used to the medium as means of communication.

The purpose of SMS Services Usage

Users mostly (58%) use SMS to communicate with friends (chat), and secondly to send contact information, 49%, and then 24% for news service, and 20% for entertainments (Table 4). As multiple uses of SMS services are possible, respondents can select more than one answer for this question.

Table 4: SMS Pattern of Usage

<i>Experience with SMS service:</i>	N	%
Less than a year	13	5%
More than a year	214	90%
Never use SMS	13	5%
<i>SMS Service usage:</i>		
SMS	214	89%
MMS	15	6%
WAP	38	16%
Games	75	31%
<i>The purpose of SMS Services Usage</i>		
To receive Information and news	58	24%
To send contact information	117	49%
To chat with friends and family	140	58%
To exchange jokes and funny stuff	48	20%

Source: Based on the survey data (2009) N=240

Consumers' Responses to SMS Advertising:

Heinonen and Strandvik (2003) stated that responsiveness refers to a consumer's willingness to respond and receive marketing communication. They argue that every marketing channel should be evaluated based on its responsiveness because this approach helps to understand the effects and effectiveness of communication. Kotler and Keller (2006) stated that "an attitude is a person's enduring favorable or unfavorable evaluations, emotional feelings, and action tendencies toward some object or idea".

Hence, positive attitude toward mobile advertising refers to the consumer favorable evaluations and willingness toward mobile advertising. As shown in Table 5, the study found that most of the respondents generally feel positively about receiving SMS advertising. When the respondents were asked about their willingness to receive mobile advertising, 78% of them responded with yes and 14% responded with no, and 8% of them were indifferent, which reflects that their willingness to receive mobile advertising is also positive. However, when the respondents were asked about their willingness to give their personal data to advertising company, those who replied yes are only 50% but 41% of the respondents stated that they are not willing to give their personal data to advertising companies because they think advertising messages will be irritating and because of the fear of data misuse. These findings confirm previous literature (M. Leppäniemi and H. Karjaluoto 2007, Kavassalis, p, et al 2002, Suher and Ispir 2009) on privacy issues surrounding mobile advertising, where consumers have a strong fear of spam and are highly concerned about losing control of the access and use of their personal information.

Table (5): Consumers' Responses to SMS Advertising

Measure	N	%
Attitude towards SMS advertising		
Positive	188	78
Negative	34	14
Neutral	18	8
willingness to receive SMS advertising		
Agree	177	74
Disagree	31	13
Neutral	32	13
willingness to give personal data to advertising company		
Yes	121	50
No	97	41
No answer	22	9
	N=240	

Source: Based on the survey data (2009)

N=240

Frequency of Messages:

Frequency is the number of times you touch each person with your message. According to Fuller (2003), one of few factors that contribute to mobile marketing becoming unwanted is frequency. Table 6 indicates that 45% of the valid respondents stated that receiving one message per day is suitable for them, 15% felt that 2 messages will be suitable for them, 3 messages a day was suitable for only 6% of the respondents, while 34% stated that they can receive more frequent advertisements. Issues to consider in this respect are that increasing the frequency of advertisements could use up phone memory and may irritate recipients and thus lead to "delete on receipt" reaction.

Table (6) Frequency of Messages:

Messages frequency	N	%
One message	107	45
Two messages	36	15
Three messages	15	6
Any no. of messages	82	34

N=240

Incentive:

Incentive based advertising is an approach that provides specific financial rewards to consumers who agree to receive advertisements. This type of approach has been discovered affecting the consumer intention to receive mobile advertising under a given attitude, which instead affects the consumer's actual advertisement receiving behavior. Advertisements sent by companies that provide no additional value may be perceived as spam. According to Drossos et al (2007), the use of incentives in SMS advertisements led to more positive attitudes and purchase intentions. The results in Table 7 showed that 17% of the respondents welcome receiving advertisement messages on their mobile in exchange for discount on advertised products, 24% in exchange for free credit, 28% without any exchange. Most respondents (31%) welcome advertising messages that relevant to them. This result supports other researches who indicated that mobile users expect the advertising to be highly relevant to them because of the

very personal nature of the mobile phone compared with other media. High relevance can only be achieved from data obtained explicitly from the consumer at the time of obtaining permission.

Table (7) Type of Incentive

Incentive*		
Discount on advertised product	42	17
Free credit	60	24
Personal profile	79	31
Without any reward	69	28

*More than one answer was selected

SMS Advertising Potential Effective Measures:

Recall of SMS advertising:

Recall is one of the several major measures used in advertising effectiveness testing. Strong empirical evidence shows that recall, when used in combination with other measures, is a valid measure of advertising effectiveness (Mehta & Purvis, 2006). The ability to recall an advertisement appears to be related to consumers' attitude. Those consumers who have positive attitude towards the advertisement are more able to recall it than those with negative attitude (Dubow, 1994). The study results show high potential of SMS advertising in respect of level of advertising awareness and readership.

The results in Table 8 showed the level of awareness among respondents, whether they had received advertising or not. Most of the respondents (62%) remembered that they do receive SMS advertising and they write down the copy they received, while 38% denied that mobile advertisements were in general remembered well. According to *M. Leppäniemi and H. Karjaluoto*, (2005) close to 80% of the test users reported remembering the mobile advertisement after 15 days in a mobile advertising campaign.

Level of Readership:

The results in Table 8 showed a high level of readership, where 76% of the respondents stated that they don't delete messages before reading them, that means the respondents usually read messages in full, 24% of the respondents usually read messages and delete them and only one respondent deletes the message without reading them.

Speed of Readership:

The results in Table 8 showed that 88% of the valid respondents usually read messages as soon as they receive them; this has an important implication for being able to provide time-sensitive information. However, 11% read messages when they find time for them.

Table 8: SMS advertising Potential Effectiveness Measures

Measure	N	%
Recall of advertising messages		
yes	147	62
NO	93	38
level of readership of advertising messages		
Read in full	182	76
Read and delete	57	24
Delete prior reading	1	0
Speed of reading advertising messages		
Read it as soon as received	211	88
Read it when have time	27	11
Read when I have few messages	2	1

Source: Based on the survey data (2009)

N=240

VI: Conclusions and Recommendations for Future Research:

In conclusion, this study broadens our understanding of consumers' responsiveness to SMS advertising messaging in Sudan. As SMS advertising is still relatively new in Sudan, understanding consumer's responses to SMS advertising is important as the success of a new medium such as SMS advertising relies on its acceptance by the consumers (Bauer et al 2005). The findings of the study lead to the following **conclusions**:

- First, it is found that SMS has the powerful marketing potential as advertising medium in Sudan as the respondents generally feel positively about receiving SMS advertising, although they have fears of irritating messages and personal data misuse. Thus, obtaining user trust and permission will be the main challenge faced by advertising companies. Second, other than permission, the consumers think advertiser should focus on relevance of message contents, less frequent messages and incentive base advertising.
- Third, the results show high potential of SMS advertising in respect of level of advertising awareness and readership, and its ability in providing time-sensitive information.

The implications of the findings and conclusions are that, companies need to play a leading role in influencing the perceptions, and thereby the attitudes and responsiveness of current and potential mobile users. The outcomes of this study have two practical implications for marketers and organizations venturing into marketing in Sudan and similar developing countries. First, the research provides a general guide, on user behavior, for marketing managers in organizations before they make major investments in new technology. The results underline the importance of precisely embodying mobile marketing messages and campaigns according to consumer utility and information requirements. Only if mobile marketing messages are designed creatively and are useful, or if they been relevant, less frequent and with incentives, will consumers develop a positive response towards mobile marketing leading to the behavioral intention to use mobile marketing services.

Recommendations for future research:

- First, most of the respondents of this study were students and may not reflect the views of other mobile users in Khartoum state. Thus, it would be interesting to repeat this study with a sample that includes all categories of mobile users from different regions of Sudan.

- Second, the study specifically focuses on one particular mobile service which is SMS. Other services such as Multimedia Messaging Service (MMS) and mobile internet advertising should also be taken into consideration in future studies.
- Third, this cross sectional study only looked at consumer responses at one point in time; a longitudinal study is also suggested in order to understand the sustainability of consumer perceptions and responses over time.

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