CONSUMER ATTITUDE TOWARD MOBILE ADVERTISING IN AN EMERGING MARKET: AN EMPIRICAL STUDY

Humayun Kabir Chowdhury, Nargis Parvin, Christian Weitenberner, Michael Becker

Abstract:
The high penetration rate of mobile phones has resulted in the increasing use of handheld devices to deliver advertisements for products and services. Short Message Service (SMS), in particular, has been very successful. Based on the existing literature about attitudes toward advertising and consumer behavior models, a research framework is constructed to illustrate the factors affecting consumer attitudes toward SMS-based advertisements in Bangladesh. The findings of this study show that if mobile advertisers can present mobile ads pleasingly, with appropriate information, consumers will not be annoyed and there is a fair possibility that they will gradually like the ads. Furthermore, credibility, a construct of this study, has found to be the most significant of the factors affecting respondents’ attitude toward mobile ads.

Keywords: Mobile Ads, Consumer Attitudes, Short Messaging Service (SMS), Entertainment, Informativeness, Irritation, Credibility

INTRODUCTION

Mobile market growth, especially in developing countries, has provided a direct net benefit to local and national economies through increased employment, employment wages, tax revenue, and Gross Domestic Product (GDP) (GSM World 2006). It is estimated that for ten percent of mobile penetration growth, GDP will grow on average of 0.6% per annum (GSM World 2006). With increased mobile phone use, and its key contributions to a market’s growth, questions can be raised regarding how marketers can take advantage of the mobile channel and which key variables will stimulate consumer acceptance of marketing through the mobile channel, a.k.a. mobile marketing.

Telecommunications can be seen as a social and economic enabler. The advantages of improved communications extend beyond financial opportunities to include improved family and community fellowship, and health services. In many developing countries, fixed landline penetration falls below 1% of the total population for reasons such as the prohibitive costs of usage and the costs of building new infrastructure (ITU 2005; GSM...


Sprint Website, (2006), Tariffs and Service Plans. www.sprint.com


A recent survey of Bangladesh mobile users. It is important to understand consumer attitudes toward mobile marketing in emerging markets. This article will investigate the existing consumer attitudes toward mobile marketing in emerging mobile markets.

There are several barriers that need to be addressed for developing countries like Bangladesh to expand growth beyond the single digits. The initial cost of the phone and connection charges pose the largest obstacle for many would-be subscribers, followed by the cost of minutes and value-added services. Many Bangladesh network operators also require the use of a credit card to obtain post-paid subscriptions, this is one factor that explains why 93% of total subscribers are pre-paid customers (GSM Association 2006).

Mobile marketing presents an opportunity for consumers, operators, and governments to benefit from increased mobile adoption by providing alternative capitalization methods for obtaining mobile phones, subscriptions, and services. It is important to understand consumer attitudes toward mobile advertising in the hopes of utilizing mobile advertising campaigns to supplement mobile usage fees and startup costs. Furthermore, understanding consumer attitudes toward mobile marketing in emerging mobile markets is highly relevant. This article will investigate the existing hypotheses of consumer attitudes toward mobile marketing and propose additional findings in regards to emerging markets from a recent survey of Bangladesh mobile users.

MOBILE ADVERTISING

Advertising communication goals can be parsimoniously stated as reaching a target audience, increasing brand recall, and increasing sales (Hanley et al. 2006; Fortunato and Windels 2005; Lee 2006; Rohm and Sultan 2006). Developing advertising strategies to achieve these goals centers around two critical factors: (1) understanding the communication channels to reach the audience and (2) understanding the use behavior of these mass media channels by the audience (Dholakia and Dholakia 2004; Fortunato and Dunnam 2004; Heller 2006). Therefore, advertisers need to choose the right medium for advertising so that they will be noticed by their desired target audience and illicit the desired response to the promoted call-to-action (Haghiri et al. 2005).

Globally, the high penetration rate of mobile phones has resulted in the increasing use of mobile advertisements to market products and services. Mobile advertising differs from traditional media advertising in many ways. Among the two most salient differentiating characteristics are that mobile advertising is (a) interactive and (b) can be used to target an individual (Bauer 2005). Probably one of the most significant differences may be the interactivity of mobile advertisements. What this interactivity implies for the mobile audience is that it provides them with the ability to “choose and respond” to a particular advertisement of their liking (Stewart and Pavlou 2002).

BANGLADESH MOBILE MARKET

Bangladesh’s mobile industry is expanding quickly. The leading mobile phone company, GrameenPhone, took six years to reach the one million subscriber mark in August 2003, about one more year to reach the second million mark in September 2004 and just about six months to attain the three million subscriber mark (The Age 2006; Cellular News 2006). According to industry figures, there are some 9 million mobile phone users in Bangladesh in 2006 (almost 6.5% of the population), up from only 3.6 million in 2004. Officials forecast the mobile phone market will double to around 18 million by 2007 (almost 16% of the population) (Yahoo 2006). In order to understand the barriers that could prevent further growth of the Bangladesh mobile market, it is important to evaluate Bangladesh against other emerging and established...
markets in regards to Mobile Penetration, GDP, Mobile Taxes, and Mobile usage charges. A comparison of the Bangladesh mobile market with Sri Lanka and the United States is displayed in Table 1.

<table>
<thead>
<tr>
<th>Table 1 – Mobile Market Comparison</th>
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<tr>
<td>Bangladesh</td>
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<tr>
<td>Total Mobile Subscribers (2005 ITU)</td>
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<td>Mobile Penetration (2005 ITU)</td>
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<td>GPD (PPP, CIA Fact Book, ($) US)</td>
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<td>Post-Paid Connection Charge ($)</td>
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<td>Pre-Paid M2M ($US average/min)</td>
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<td>SMS ($US/message)</td>
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A recent study from the GSM Association on Mobile Taxation in Bangladesh suggests that the cost of activating new subscribers is slowing mobile growth. The Bangladesh Government has placed moderate taxes on the transactions related to signing new subscribers including an import tax on new mobile phones of approximately US$4.61 and a tax on new SIM activation of US$13.84 (GSM Association (1) 2006). Adding the price of an unsubsidized mobile phone, it can cost new subscribers over US$56 to obtain mobile service, or approximately 32% of the average monthly wage. In comparison with Sri Lanka, which has no specific SIM Tax, Bangladesh mobile subscribers pay approximately 16.5% of mobile costs on taxes compared with Sri Lanka mobile subscribers who pay approximately 15.6% (GSM Association (2) 2006). It has been suggested that if the Bangladesh Government removed the tax for new connections, this would spur new subscriber growth which would in turn create larger tax revenue from Mobile usage. These taxes plus the cost of new handsets have forced many Bangladesh mobile users into the grey-markets to obtain mobile handsets. The GSM Association as well as mobile companies like Nokia have been aggressively pursuing their development initiatives to provide a sub-US$30 handset to connect the world’s developing countries. Even with the price for new handsets already ranging from US$35-US$45, grey-markets will still flourish in developing countries as they provide more competitive price points.

In addition to voice services, Short Message Service (SMS), in particular, has been very successful in Bangladesh. Many Bangladesh mobile users find this a less expensive form of communication. Some companies in Bangladesh offer free SMS service. They will usually include an advertisement at the end of the message. Thus, the rising popularity of SMS has created a new channel for mobile advertising. Recently, the use of mobile information services and SMS has increased dramatically since 2001. More than half, approximately 3.5 Million, of the mobile phone subscribers in Bangladesh use SMS at least once a day. Mobile internet analysts in Bangladesh predict that mobile advertising market will grow extremely fast in the coming years (Baku Today 2006). In lieu of these observations, the key drivers of consumer acceptance of mobile advertising in Bangladesh have not yet been formally analyzed. Henceforth, the authors of this study set out to evaluate the attitude of consumers toward mobile ads as a model for Bangladesh and potentially other emerging markets. A better understanding of these issues is critical to the effective use of mobile advertising in Bangladesh and in similar developing countries. Mobile marketing can be a very effective tool for reaching consumers, suggested by Rask and Dholakia, “SMS advertising” can be “your best salesman in the pocket of your best customer.” Mobile marketing revenues in the US have reached approximately US$5 Billion in 2005 and provide the highest average response rates to advertising messages (15.7%) when compared with television (10.6%), web based (11.3%), and other forms of advertising (4.8%-5.2%) (Rettie 2005). Mobile marketing opens a personalized, location based, and timely channel direct to the consumer, offering opportunities for both corporate marketers as well as local merchants looking to grow their businesses.

LITERATURE REVIEW

Advertising messages refer to communication exchanges between advertisers and consumers (Ducoffe 1996). Advertising theorists have been describing the critical stimulus features of various advertising media and their content (Rodgers and Thorson 2000). Still advertising via mobile devices limits the possibilities of advertisers. The prevailing literature on advertising, and mobile advertising, has shown that a number of elements contribute to consumer acceptance of mobile advertising, including a consumer attitude, the credibility of the marketer, the entertainment and information value of the message, and the level of intrusiveness or irritation the consumer has when being exposed to the message (Bauer et al. 2005; Tsang et al. 2004).

Recently, surveys in reaction to the word “advertising” were used to measure attitudes toward advertising by categorizing them into areas such as function, affective
response, practice, industry, and user-related, and general (Sinisalo et al. 2005; Tähtineu and Salo 2004). By far, scaled statements about advertising have been most often used by researchers. A set of related attitudinal statements related to advertising in terms of its entertainment, informational value, irritation, and credibility were selected for use in the present study.

ATTITUDE THEORIES IN MARKETING

Attitude is an important concept in research on marketing and information systems. Attitude toward advertising via mobile devices pertains to consumers' attitude toward the advertising type in general and not to the exposure to one particular ad. In general, attitudes are “mental states used by individuals to structure the way they perceive their environment and guide the way they respond to it” (Aaker et al. 1995; p. 254). A significant correlation between favorable attitudes toward advertising and respondents’ rating of specific advertisements as being annoying, likeable, enjoyable etc. has been observed (Bauer and Greyser 1968). Fishbein (1967) defined attitude as, “a learned predisposition of human beings.” Based on this predisposition, an individual would respond to an object (or an idea) or a number of things (or opinions). Kotler (2000) stated that “an attitude is a person’s enduring favorable or unfavorable evaluations, emotional feelings, and action tendencies toward some object or idea.” Since researchers have been studying the subject for a very long time, there is a large body of literature dealing with consumer attitudes toward advertising in general and as of late quite a few have begun to study attitudes toward mobile advertising (Mitchell and Olson 1981; Mackenzie and Lutz 1989).

ATTITUDES TOWARD ADVERTISING IN GENERAL

Attitudes toward advertising have been a focus of attention for a long time. The general attitude toward advertising manifests itself not only through political and regulatory activities but also through the exposure of individuals to advertising, the attention they pay to it, their evaluations to specific advertisements, and their responses to those advertisements. James and Cover (1992) have shown that the overall attitudes toward advertising affect the involvement with specific advertisements in significant but complex ways (Brackett and Carr 2001; Briggs and Hollis 1997).

Early surveys of consumer attitudes revealed positive results toward advertising. Gallup (1959) found that a majority of respondents liked advertising and found it to be informative. Bauer and Greyser (1968) reported that more people held favorable attitudes toward advertising than unfavorable attitudes. However, this positive trend changed after 1970. Alwitt and Probhaker (1994) and Mittal (1994) found evidence of the unfavorable public attitude toward advertising. More recently studies have focused on attitude structures. Elliot and Speck (1998) investigated six major media (TV, broadcasting, magazines, newspapers, Yellow Pages, and direct mail) and found that television and magazines exhibited the highest level of ad-related communication problems.

ATTITUDE TOWARD MOBILE ADVERTISING

As an extension of the internet environment, the high penetration of mobile phones in recent years has created a good opportunity for mobile advertising (Bauer et al. 2005; Leppaniemi et al. 2006). There are different synonyms for advertising via mobile devices, such as wireless advertising (Barnes 2002; Krishnamurthy 2003) or wireless advertising messaging (Pett 2003). Usually, mobile advertising messages are transmitted via short message service (SMS) (De Reyck and Degraeve 2003).

The Wireless Advertising Association (WAA) defines wireless marketing as sending advertising messages to mobile devices such as mobile phones through the wireless network (Krishnamurthy 2003; Pett 2003). Mobile advertising and internet advertising have many features in common – both are emerging media used to deliver digital texts, images, and voices with interactive, immediate, personalized, and responsive capabilities (Yoon and Kim 2001). Mobile advertising relaxes the mobility constraint associated with fixed-line internet access. One may expect mobile advertising to be more favorable to consumers for location-sensitive and time-critical events (Barwise and Strong 2002; Zoller et al. 2001).

Since the mobile phone is a very personal device that allows an individual to be assessed virtually any time and anywhere, mobile advertising must be more personalized and may take different forms. Based on different strategic applications, wireless marketing can be permission-based, incentive-based, or location-based (Barnes and Scornavacca 2004; Barwise and Strong 2002). Permission-based advertising differs from traditional advertising in that messages about specific products, services, or content are sent only to individuals who have explicitly indicated their willingness to receive the message. Consumers often impatiently ignore the message when interrupted by an advertisement (Barnes 2002; Denk and Hackl 2004; Varshney 2003; Wang and Wang 2005). Incentive-based advertising provides specific financial rewards to individuals who agree to receive promotions and
campaigns (Hanley et al. 2006). For example, mobile phone companies may reward customers with free connection time for listening to voice advertisements or some other incentives. Both permission-based and incentive-based advertising mechanisms are feasible for mobile advertising (Zoller et al. 2001).

ENTERTAINMENT

People’s feeling of enjoyment associated with advertisements play the greatest role in accounting for their overall attitudes toward them (Shavitt, Lowrey, and Haeffner 1998). Entertainment services can increase customer loyalty and add value for the customer. As most people have a natural playfulness, providing games and prizes via text messaging (SMS) yields high participation (Haghirian and Dickinger 2004; McQuail 1983). Delivering games and prizes to the target group’s mobile phones is a successful way to attract and keep customers (Haghirian and Dickinger 2004). Interactive games for example can also be played via text messages. These features can be used to involve customers more deeply and make them more familiar with the advertised service or product (Krishnamurthy 2000). Therefore, we concur with Bauer et al. (2005) that an entertaining advertising message is being perceived more positive by the recipient.

INFORMATIVENESS

The quality of the information placed on a company’s website has a direct influence on the customers’ perceptions of the company and the company’s products (Kaasinen 2003; Siau and Shen 2003). Accordingly, the information delivered to them via mobile devices also needs to show qualitative features like relevance, timeliness, and usefulness for the consumer and they are interested in getting messages that are relevant for them (Siau and Shen 2003; Milne and Gordon 1993). Information is thus considered a very valuable incentive in mobile marketing, because recipients react very positively to advertising transferring incentives (Varshney 2003). Informativeness of the advertising information is strongly related to the attitude toward the advertising when it is transferred via traditional media (Ducoffe 1995). Therefore, we conclude that informativeness of an advertising message positively influences consumer attitude toward the advertisement.

IRRITATION

Advertisements have a great influence on people’s attitude toward advertising (Shavitt et al. 1998). When advertising employs techniques that annoy, offend, insult, or are overly manipulative, consumers are likely to perceive it as unwanted and irritating influence (Ducoffe 1996). Mobile advertising can provide an array of information that confuses and distracts the recipient as well as overwhelms the consumer with information (Stewart and Pavlou 2002). Consumers may feel confused about the ads and may react negatively. Therefore, we conclude that irritation caused by an incomprehensible mobile advertising message may reflect negatively on the attitude toward the advertisement.

CREDIBILITY

Advertising credibility is consumers’ perception of the truthfulness and believability of advertising in general (Pavlou and Stewart 2000). Credibility of an advertisement is influenced by different factors, especially by the company’s credibility and the bearer of the message (Goldsmith et al. 2000). We can expect that the credibility of messages transferred to mobile devices also can influence consumer attitude toward the advertising. Therefore, based on the previous literature we conclude that the credibility of a mobile advertising message has a positive influence on consumer attitude toward advertisement.

STUDY CONSTRUCTS AND RESEARCH FRAMEWORK

Based on the existing literature about attitudes toward advertising and consumer behavior models, as discussed above, a research framework is constructed to illustrate the factors affecting consumer attitudes toward SMS-based advertisements. Various measures of the construct have been used: from a measure of an “overall favorability or unfavorability” to a set of belief items related to positive and negative outcomes of advertising in the economic and social areas (Bauer and Greyser 1968). Perceptions related to other aspects of advertising include informational value, entertainment, interruptive nature, ethics, and deception and falsehood. These were later included in the belief set related to attitudes toward advertising by other researchers (Haller 1974; Durand and Lambert 1985; Larkin 1977; Lutz 1985; Muehling 1987). Information systems-specific advertising attitudes have also been studied. For example, the technology acceptance model that predicts the use of information systems consists of five major constructs: perceived usefulness, perceived ease of use, attitude, intention, and use (Davis 1989; Davis et al. 1989; MacKenzie and Lutz 1989; Rogers 1986; 1995; Shimp 1981). The constructs discussed above are summarized in a model illustrated in Figure 1.
On the basis of the discussion, it is predicted that entertainment, informational value, and credibility have a direct and positive influence and irritation has direct negative influence on consumer attitude toward mobile advertising, and from this model the following four sets of hypotheses can be developed from the above framework:

**Hypothesis 1:** The perceived entertainment of mobile ads has a direct positive effect on attitude toward mobile advertising.

**Hypothesis 2:** The perceived informativeness of mobile ads has a direct positive effect on attitude toward mobile advertising.

**Hypothesis 3:** The perceived irritation of mobile ads has a direct negative effect on attitude toward mobile advertising.

**Hypothesis 4:** The perceived credibility of mobile ads has a direct positive effect on attitude toward mobile advertising.

**METHODOLOGY**

A survey was conducted on a convenience sample to test the hypotheses. The survey utilized a questionnaire designed to collect data regarding attitude toward mobile advertising and its determinants (see Appendix 1). A student sample was used in this study as most university students in Bangladesh own mobile phones and are heavy users of SMS, so they formed a good target group for mobile advertising. Thus, the lack of product familiarity is not expected to influence attitude on mobile ads greatly (Calder et al. 1981; 1982; Beltramini 1983).

**MEASURES**

The survey had three parts. The first part contained the cover page of the questionnaire that provided the purpose of the study. In the second part of the survey the subjects were asked to respond to fifteen questions on a 7-point Likert scale. The third part collected the respondent's demographic data. The question items were primarily adapted from the instruments used by Tsang et al. (2004). The questionnaire was first translated from English to Bengali by the researcher. Then a professor in marketing revised the translation of the questionnaire to ensure that all idioms and local expressions were included and properly stated. The Bengali version was then translated back to English by another professor who was familiar with the subject content. The questionnaire was pretested on 35 individuals and was revised on the basis of their feedback. It was then distributed in the business classes at a national university in Bangladesh. Questionnaire items were arranged in the order of attitude measures, entertainment, informativeness, irritation, credibility, and demographic information. Subjects spent 8-10 minutes to fill out the entire questionnaire.

**DATA COLLECTION**

A total of 318 responses were collected. The removal of outliers and records with missing values left 309 responses. A total of 309 questionnaires were subsequently used for data analysis. The responses included 258 males and 51 females. 88 percent of subjects were graduate students at the average age of 22. More than half of the respondents sent at least one SMS message per day. More than 70 percent of the respondents had more than two years of experience using mobile phones.

**DATA ANALYSIS RELIABILITY OF THE MEASURES**

The data were first tested for reliability using Cronbach's alpha to assess reliability. Internal consistency (reliability) values of the measurement items were assessed before entering into the structural analysis. Conceptually, reliability is defined as the degree to which measures are free from error and therefore yield consistent results (Cronbach 1951; Peter 1979). Results of the reliability test show that the data collected from the survey are reliable and suitable for further analysis (see Table 2).

<table>
<thead>
<tr>
<th>Constructs</th>
<th>No. of Items</th>
<th>a - values</th>
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<tbody>
<tr>
<td>Attitude Toward SMS-ads</td>
<td>3</td>
<td>0.819</td>
</tr>
<tr>
<td>Entertainment</td>
<td>3</td>
<td>0.855</td>
</tr>
<tr>
<td>Informativeness</td>
<td>3</td>
<td>0.828</td>
</tr>
<tr>
<td>Irritation</td>
<td>3</td>
<td>0.886</td>
</tr>
<tr>
<td>Credibility</td>
<td>3</td>
<td>0.836</td>
</tr>
</tbody>
</table>

**DATA ANALYSIS METHOD**

Data were analyzed via structural equation models using Amos (Analysis of MOment Structures) 4.01. Amos is a computer program for estimating the unknown coefficients within a system of structural equations, and is but one of several computer-based covariance structure models for conducting such analysis. Amos, as like LISREL, is useful when the researcher desires to explore the causal relationships among a set of variables. The method is called covariance structure analysis because the implications of the simultaneous regressions are studied primarily at the level of correlations or covariances. Typically, a covariance structure theory or model is specified via a simultaneous set of structural linear regressions of particular variables on other variables.

**RESULTS**

The independent variables follow the four hypotheses. Figure 2 shows the overall result and Table 3 shows the structural results needed for testing the hypotheses.

**STRUCTURAL EQUATION MODELING**

In order to examine the simultaneous effect of the constructs, their relationships were estimated by structural equation modeling. The fit of the structural model was estimated...
by various indices (as shown in Table 3), and the results demonstrated good fit. For models with good fit, most empirical analyses suggest that the ratio of chi-square normalized to degree of freedom ($\chi^2/df$) should not exceed 3.0 (Carmines and McIver 1981). In addition, the obtained goodness-of-fit (GFI) measure was 0.92 and the adjusted goodness-of-fit (AGFI) measure was 0.89, respectively, which are both higher than the suggested values. The other two indices of good fit—the normalized fit index (NFI) and the comparative fit index (CFI)—are recommended to exceed 0.90. The results also meet this requirement. Finally, the discrepancies between the proposed model and population covariance matrix, as measured by the root mean square error of approximation (RMSEA), are in line with the suggested cutoff value of 0.08 for good fit (Byrne 1998).

**TESTS OF HYPOTHESES**

Hypothesis 1 (H1) states that the attitude toward mobile advertising will be positively affected by the perception of entertainment within mobile ads. That is, when consumers face a mobile advertisement, they will enjoy it and their impression toward the product of the advertisement will be positive. However, the results show that the influence of perceived entertainment on attitude toward mobile advertising is negative and not significant ($H_{1} = -0.04, p = 0.42$). Hypothesis 2 ($H_{2}$) predicted that the attitude toward mobile advertising would be positively affected by the perception of informativeness. Specifically, when consumers encounter a mobile advertisement, they would feel that they received some information that they needed to make a purchase decision. The direct effect of perceived informativeness on attitude toward mobile advertising is positive and insignificant ($y = -0.05, p = 0.46$). In hypothesis 3 ($H_{3}$) it has been predicted that irritation would be negatively associated with consumer attitude toward mobile advertising. The result is opposite to the hypothesis. The influence of irritation on attitude toward mobile advertising is positive and insignificant ($y = -0.002, p = 0.969$). Finally, hypothesis 4 ($H_{4}$) predicted that the perceptions of credibility of mobile ads has a direct positive effect on attitude toward mobile advertising. The results support this hypothesis as the path between credibility and attitude toward mobile ads is positive and significant ($y = 0.839, p = 0.001$).

**DISCUSSION & CONCLUDING REMARKS**

This study was conducted to examine the effects of some important constructs on consumer attitude toward mobile advertising. In general, this study tested the direct influence of entertainment, informativeness, irritation, and credibility on consumer attitude toward mobile ads. The results proposed a model where only one variable (credibility) has shown direct positive and significant influence on consumer attitude toward mobile ads. Most importantly, credibility has found to be the most significant of the factors affecting respondents’ attitude toward mobile ads. We hypothesized and validated that the credibility of a mobile advertising message will have a direct positive influence on consumer attitude toward advertisement.

As the empirical data shows, the respondents held negative attitudes with regard to entertainment and informativeness about receiving mobile ads. This finding is contradictory compared to the previous research (Bauer et al. 2005). This may have been because the consumers in Bangladesh found that mobile ads were not very entertaining or informative, or they may have not been exposed to many entertaining or informative mobile advertisements, or it may have been because of cultural factors. However, this finding shows that the success of mobile advertising activities strongly depends on message characteristics. Marketers can not solely rely on the fact that an advertising message sent via a mobile device will be read and remembered automatically.
On the other hand, they have not considered mobile ads irritating, i.e., they are not annoyed from receiving mobile ads. Thus, if the mobile advertisers can present the mobile ads pleasingly with appropriate information, consumers will not become annoyed and there is a fair possibility that they engage in ads they feel are relevant.

Mobile advertising activities provide many new opportunities and challenges for marketers. They enable the ability to address consumers individually and allow for direct and reciprocal communication with customers. The effects of advertising via mobile devices have not yet been fully investigated in emerging markets.

Results of this study substantially contribute to theoretical and managerial understanding of consumer attitude toward mobile ads in a developing country. At the theory level, this study has produced greater understanding of the variables that appear to be most responsible in structuring consumer attitude with regard to mobile ads in Bangladesh. In other words, the model as a whole means that when a consumer forms an attitude toward a mobile ad, she may retrieve the constructs directly related to it. It would be interesting to know what factors best contribute to negative attitudes toward mobile advertising and how attitudes can be changed. From a practical standpoint, results of this study could provide managers with greater insight concerning the potential benefits (and limitations) associated with using perceived quality strategies. This research clarifies the sometimes confusing roles of entertainment, informativeness, and irritation in case of mobile ads. Practitioners may use the findings to design marketing programs with mobile ads that create positive attitudes and avoid negative effects.

LIMITATION AND FUTURE RESEARCH

There are some limitations in this study and thus future research should continue to test and to refine relationships investigated in the present study and variables that moderate them. More specifically, this study suggests two fertile directions for future research. First, it is clear that future research is required to yield a more complete understanding of the phenomena surrounding perceived quality for the purpose of generalization for emerging South Asian countries. This study has attempted to outline major variables that logically and theoretically should impact the linkages in attitude toward mobile ads in Bangladesh. However, data should be collected from other third world countries to confirm whether the same results of the perceived quality model are observed. Secondly, the data was collected in a convenience sample in a classroom, which may have resulted in sampling biases. Moreover, the generalization of the findings using student subjects is limited. Thus, future research should consider subjects other than students in an attempt to replicate the model developed in this study that would allow for greater external validity. Thirdly, the instrument for measuring attitudes toward mobile advertising was adapted from previous research. Despite pretesting and proper evaluation to ensure reliability, there may have been linguistic biases in the translation from English to Bengali. Finally, the four constructs studied herein, (i.e., entertainment, informativeness, irritation, and credibility) are, themselves, a simplified abstraction. Other potentially important cues were excluded from the present study. Notable among these is product category and incentives which could play an important role in forming consumer attitude toward mobile ads in emerging markets. This can only be answered empirically in future research.

APPENDIX 1 – SURVEY QUESTIONNAIRE

Attitude Measures:
1. I like to look at mobile advertising.
2. On average, brands that are advertised on mobiles are better in quality.
3. Most of the products perform as well as the mobile ads claim.

Entertainment:
1. I feel that receiving mobile advertisements is enjoyable.
2. I feel that receiving mobile advertisements is pleasing.
3. I feel that receiving mobile advertisements is entertaining.

Informativeness:
1. Mobile advertising helps me keep up-to-date about products that I need.
2. Mobile advertising is a good source for timely information.
3. Mobile advertisements usually provide the information I need.

Irritation:
1. I feel that mobile advertising is irritating.
2. I feel that mobile advertisements are almost everywhere.
3. Contents in mobile advertisements are often annoying.

Credibility:
1. I use mobile advertising as a reference for purchasing.
2. I can trust on mobile advertisements.
3. I am impressed by the mobile advertisements.

Demographics:
1. Gender.
2. Age.
3. # of SMS messages sent per day.

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