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Attitudes of young consumers towards SMS advertising

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Technological advancements have provided various new mediums for advertising to consumers and have further allowed organisations to better reach consumers with regards to the frequency and impact of advertising. Advertisers have to be more creative in the formulation of advertisements and selection of advertising mediums so as to gain the attention of their target market. The need to create new mediums for advertising has led to the creation of new-age media such as inter alia, short message service (SMS) advertising. Before this medium can be effectively used to reach South African consumers, the attitude of consumers towards SMS advertisements need to be determined. This study therefore focuses on determining the perceptions of the younger consumer segment towards SMS advertisements. It is expected that this segment, due to their changing consumer behaviour and media habits, will be the future focus of a great deal of SMS advertising campaigns. Quota sampling was done in a large university and self-administered questionnaires were completed by 198 respondents.

It was found that consumers' perceptions of the entertainment value, informativeness and credibility of SMS advertisements are positively correlated to consumers' overall attitudes towards SMS advertisements. The study further found 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.

Key words: SMS, advertisement, consumer, organisation.

INTRODUCTION

Organisations today operate in an environment that is characterised by constant change and an increase in competition as a result of globalisation. Zyman and Brott (2002:31) suggest that the biggest change in the market place is that consumers have a greater selection with regards to products and services and those organisations should become more conscious of their advertising efforts. Organisations now view advertising as an investment and tend to value over-communication with consumers, resulting in greater budgets for advertising departments than in the past (Zyman and Brott, 2002:22-23).

Technological advancements have provided various new

mediums for advertising to consumers and have further allowed for organisations to better reach consumers with regards to the frequency and impact of advertising (Du Plessis, Bothma, Jordaan and Van Heerden, 2003: 339). These advances in technology, combined with the market place's need to increase advertising to consumers, has led to the fact that "Advertising is everywhere" (Cook, 2001:1). The constant exposure to advertising might cause consumers to become immune to advertising. Advertisers have to be more creative in the formulation of advertisements and selection of advertising mediums so as to gain the attention of their target market (Cappo, 2003: 61, 85, 87, 89).

This need to create new mediums for advertising has led to the creation of new-age media such as: the internet, which includes electronic-mail (e-mail) and websites; wireless application protocol (WAP); voice-over internet protocol (VoIP) and cellular technology and short

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message service (SMS). WAP is a wireless system that allows users to access the internet using their cell phones. VoIP involves the sending of voice messages over the internet (Du Plessis et al., 2003: 344-354).

In 2005, approximately 14 million South African adults (46% of the total population) owned a cell phone (AMPS, 2005) which created the opportunity for a new medium of advertising. Mobile communications and its most successful application, short message service (SMS), now allows for the direct and two-way communication between an organisation and consumers (Dickinger, Haghirian, Murphy and Scharl, 2004: 1; Haghirian, Madlberger and Tanuskova, 2005: 7). According to Yunos and Gao (<http://0-www.engr.sjsu.edu.innopac.up.ac.za:80/gaojerry/course/296A/wireless-add-paper2.pdf> (Downloaded: 2006-04-07)) "Short messaging service (SMS) is a digital cellular network feature and it allows users to send short text and numeric messages to and from digital cell phones using cell phones and e-mail addresses based on public SMS messaging gateways over the internet."

Based upon the benefits and proliferation of cell phones, one can expect an increase in the volume of SMS-type advertisements and its importance in the communication mix of an organisation. SMS advertising can be classified as traditional advertising, direct marketing or an interactive medium allowing for two-way communication between an organisation and customer/s (Du Plessis et al., 2003:350-351). Organisations are starting to use this medium as a method of sales promotion and send coupons to consumers' cell phones via SMS. This has proven to be an effective form of sales promotion as consumers have their cell phones on them at all times and have the coupon available when needed (Cravens and Piercy, 2003: 401-402; Dickinger et al., 2004: 4; Du Plessis et al., 2003: 351). In this research SMS advertising will be investigated as a component of the advertising and direct marketing elements.

Problem statement

Little research has been conducted with regard to consumers' perceptions of SMS advertising and also the impact of sending advertisements to consumers' via SMS (Haghirian et al., 2005: 7). This is particularly important in the South African context where the success of a new medium such as SMS advertising relies on the acceptance of the medium by consumers (Bauer, Reichardt, Barnes and Neumann, 2005:182). Before this medium can be effectively used to communicate with South African consumers, research needs to be conducted with regards to their attitudes towards SMS advertising. The majority of research conducted with regard to consumer attitudes towards mobile or SMS advertising has been conducted in foreign countries where the findings, due to cultural differences and differences in the adoption of technology, may not directly apply to South African con-

sumers.

The general consensus among academics and practitioners is that SMS advertising is an ideal medium for reaching young consumers (Scharl, Dickinger and Murphy, 2005: bn168). This study is therefore a partial replication of the study conducted by Tsang, Ho and Ling (2004: b65-78) but in a South African context. The focus is on the attitudes of a younger segment of consumers (students at a large University in the Gauteng province) towards SMS advertisements. The main objective of the research is to determine whether there is a correlation between consumer perceptions of the value of entertainment, informativeness, irritation and credibility of SMS advertisements and consumers' overall attitude towards SMS advertisements.

Literature background

SMS advertising

When defining SMS advertising, it is first necessary to analyse the definition of mobile marketing as this definition may in part apply to the definition of SMS advertising. Dickinger et al. (2004:2) define mobile marketing as "Using interactive wireless media to provide customers with time and location sensitive, personalized information that promotes goods, services and ideas, thereby generating value for all stakeholders." Mobile marketing is based upon sending information to consumers using either SMS or MMS (Multimedia Message Service) (Kavassalis, Spyropoulou, Drossos, Mitrokostas, Gikas and Hatzistamatiou, 2003: 56). It can therefore be assumed that mobile marketing involves some degree of SMS advertising with the latter being a component of mobile marketing. For the purpose of this study, SMS advertising will be defined as "Using short message service (SMS), sent to consumers' cell phones, to provide consumers with time and location sensitive information that promotes goods, services and ideas, thereby generating value for all stakeholders" (Kavassalis et al., 2003: 56).

Studies have highlighted a vast number of advantages of SMS advertising and includes that this medium allows for real-time communication with consumers anytime and anywhere (Tsang et al., 2004: 68). SMS advertising also increases the probability that the advertisement reaches the target market as consumers generally have only one cell phone which is very personal in nature and carried around with them at all times (Kavassalis et al., 2003: 57).

SMS advertising is the only channel relevant for recipients when on the move and is a great benefit for targeting young consumers who often have active lifestyles and are not exposed to the more traditional advertising channels (Heinonen and Strandvik, 2002: 142.) The younger generation of consumers have also been quicker than older generations in learning to use

and adapt to new technologies such as the internet and cell phones (Spero and Stone, 2004: 156).

Another benefit of SMS advertising is that, if effectively planned, an SMS advertising campaign is low in cost. The low cost of SMS advertising is amplified by the ability of this medium to target and provide specific customers with relevant information and obtain a high response rate among recipients of the message and reduce wastage (Kavassalis et al., 2003: 62-63).

Although SMS advertising has a great advantage over more traditional mediums of advertising, it is often stressed that the medium should not be used in isolation. SMS advertising should be complimentary with the traditional mediums of advertising (Kavassalis et al., 2003: 56; Scharl et al., 2005: 168). The complimentary nature of SMS advertising may be based upon the fact that mobile marketing and SMS advertising are still in the early stages of commercial deployment. Consumers may not as yet be fully adapted to cell phone technology and the receiving of SMS advertisements (Bauer et al., 2005: 183).

Consumer attitudes

This study focuses on determining consumer attitudes towards SMS advertisements and it is surmised that the attitudes towards SMS advertisements will affect both the success of SMS advertising campaigns and the purchase intentions of consumers who receive SMS advertisements. It was illustrated by Andersson and Nilsson (2000: 18) that SMS advertisements and the SMS advertising medium, in general, will affect the attainment of the advertising campaign objectives. Consumer attitudes consist of three components that is cognition, affect and conation according to Du Plessis and Rousseau (2007: 194-197). For the purposes of this study the first component is applicable.

According to Fishbein's Attitude Theory (in Andersson and Nilsson, 2000: 18), a stimulus, such as an SMS advertisement of a particular brand, has an affect on a consumer's belief system which in turn influences and leads to the consumer developing a specific attitude towards the advertised brand. The attitude which a consumer has with regards to a brand has an impact on a consumer's intention to purchase the brand offering.

The framework for the study of consumer attitudes towards SMS advertising relies on the models developed for the study of consumer attitudes towards internet or web advertising and advertising in general (Brackett and Carr, 2001: 25; Mackenzie and Lutz, 1989: 50). Ducoffe (1996: 29) developed a model depicting the perceptual antecedents of entertainment, informativeness and irritation, used to determine consumers' attitudes towards internet advertising and formed the basis for the model developed by Brackett and Carr (2001: 24-25) to test consumer attitudes towards web advertising. The model, as illustrated in Figure 1, has the same three constructs

identified in the model developed by Ducoffe (1996: 29) but it contains two additional constructs namely credibility, which is an antecedent of consumer attitudes towards an advertisement (Mackenzie and Lutz, 1989: 50), and relevant demographic variables which can have an impact on consumer attitudes towards internet advertising (Brackett and Carr, 2001: 24, 31).

The framework depicted in Figure 1 has in the past been used to test consumer attitudes towards SMS advertising (Tsang et al., 2004: 65-75) and the constructs entertainment, informativeness, irritation and credibility will be used in this study to test hypotheses. Demographic variables such as gender, income and occupation will not be considered.

Hypotheses

Entertainment

McQuail (in Ducoffe, 1996:23) defines entertainment as "...the ability to fulfil an audience's needs for escapism, diversion, aesthetic enjoyment, or emotional enjoyment." The model of consumer attitudes towards SMS advertisements as developed by Brackett and Carr (2001: 25) in Figure 1, theoretically depicts the relationship between consumer perceptions of the entertainment value of internet advertising and consumer attitudes towards internet advertising. This model has in various studies been used as the basis for hypothetical testing of the relationship in the SMS advertising or mobile marketing context (Bauer et al., 2005: 181-192; Haghirian et al., 2005:1-10; Tsang et al., 2004:65-78). Based upon the model, the following hypothesis can be stated:

H₁: Consumers' perceptions of the value of entertainment of SMS advertisements are positively correlated to consumers' overall attitudes towards SMS advertising.

The above hypothesis can be further supported by the uses-and-gratification model (Katz, Gurevitch and Haas, 1973: 166) which states that individuals have needs with regards to the mass media and these needs are classified into five groups. Of reference to this hypothesis is individuals' "needs related to strengthening aesthetic, pleasurable and emotional experience – or affective needs" (Katz et al., 1973: 166.) One can assume that advertising that satisfies consumers' need for aesthetics, pleasure and an emotional experience will be positively evaluated and accepted by consumers (Bauer et al., 2005: 185). In the study conducted by Bauer et al. (2005: 181-192), the relationship between consumers' perceived entertainment utility of mobile marketing and consumer attitudes towards mobile marketing was tested. The study found that consumers' perceived entertainment utility of mobile marketing has a positive influence on consumers' perceptions of the overall utility of mobile marketing, which in turn has a positive influence on consumer attitudes towards mobile marketing (Bauer et al., 2005:188).

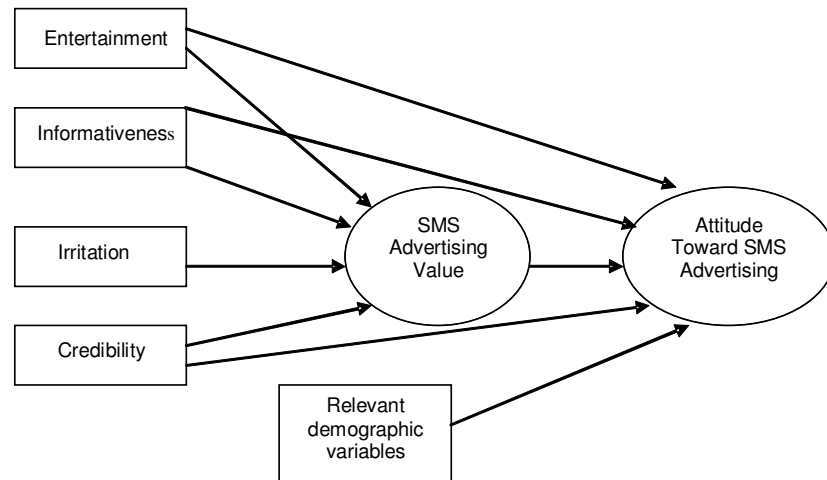


Figure 1. Model for testing consumer attitudes towards SMS advertisements.
Source: Adapted from Brackett and Carr (2001:25).

Informativeness

In the context of this study, informativeness can be defined as "...the ability of advertising to inform consumers of product alternatives so that purchases yielding the greatest possible satisfaction can be made" (Ducoffe, 1996: 22).

The model of consumers' attitudes towards SMS advertisements (Figure 1) illustrates that there is a relationship between consumers' perceptions of the informativeness of internet advertising and consumers' attitudes towards internet advertising (Brackett and Carr, 2001: 25). The model has been used in studies to illustrate that there is a positive correlation between consumers' perceptions of the informativeness of SMS advertisements and consumers' attitudes towards SMS advertisements (Tsang et al., 2004: 71; Haghirian et al., 2005: 4; Brackett and Carr, 2001:30-31).

Based upon the relationship between informativeness of a SMS advertisement and consumers' attitudes towards the SMS advertisement, the following hypothesis can be stated for this study:

H₂: Consumers' perceptions of the informativeness of SMS advertisements are positively correlated to consumers' overall attitudes towards SMS advertisements.

The stated hypothesis can be further supported by the uses-and-gratification model. The model suggests that individuals have "Needs related to strengthening information, knowledge, and understanding – these can be called cognitive needs" (Katz et al., 1973:166). If an advertisement satisfies a consumer's need for information and knowledge about a service or product, it can be assumed that the advertisement will be favourably perceived by the consumer. The study by Bauer et al.

(2005: 181-192) supports this assumption and highlights that there is a positive relationship between consumers' perceptions of the information utility of mobile marketing and consumers' perceptions of the overall utility of mobile marketing. The study further identified the positive association between consumers' perceptions of the overall utility of mobile marketing and consumers' attitudes towards mobile marketing (Bauer et al., 2005:188).

Irritation

Ducoffe (1996:23), in the context of advertising, defines irritation as: "When advertising employs tactics that annoy, offend, insult, or are overly manipulative". The relationship between consumers' perceptions of the irritation of an advertisement and consumers' attitudes towards an advertisement is theoretically supported by the attitude model developed by Brackett and Carr (2001: 5). Tsang et al. (2004: 71) tested the relationship between these two constructs and found that consumer perceptions of the irritation of SMS advertisements is negatively correlated to consumer attitudes towards SMS advertisements. The following hypothesis can therefore be stated:

H₃: Consumers' perceptions of the irritation of SMS advertisements are positively correlated to consumers' overall attitudes towards SMS advertisements.

Credibility

Advertisement credibility has been defined by Mackenzie and Lutz (1989:51) as "the extent to which the consumer perceives claims made about the brand in the ad (advertisement) to be truthful and believable." The model of

consumers' attitudes towards SMS advertisements (Figure 1) further supports the relationship between consumer perceptions of the credibility of the advertisement and consumer attitudes towards the advertisement (Brackett and Carr, 2001: 25). Research conducted by various researchers has identified that there is a positive correlation between consumer perceptions of the credibility of an advertisement and consumer attitudes towards the advertisement (Brackett and Carr, 2001:29; Tsang et al., 2004: 71). The following hypothesis can therefore be stated with regards to the constructs:

H₄: Consumers' perceptions of the credibility of SMS advertisements are positively correlated to consumers' overall attitudes towards SMS advertisements.

The stated hypothesis can be further supported by the uses-and-gratification model (Katz et al., 1973:166). The model states that individuals have "Needs related to strengthening credibility, confidence, stability, and status – these combine both cognitive and affective elements." Based upon these needs, it can be assumed that advertising and advertisements that satisfy consumers' need for credibility, will be positively perceived and valued by consumers.

METHOD

Sample

The target population for the study consisted of full-time registered undergraduate students at a large university in Gauteng. As the study made use of quota sampling, the above mentioned target population was subdivided into an equal proportion of male and female students. The realised sample was 200 students who own a cell phone and have in the past received an SMS advertisement from an organisation advertising a product or service.

The use of a student sample is often criticised by researchers who believe that such a sample is not representative of the greater market of general consumers (Wells and Mithun, 2003: 45). The use of a student sample for this study is justified as experts agree that SMS advertising is an ideal medium for reaching younger consumers (Scharl et al., 2005: 168).

With the use of quota sampling, the researcher selected respondents outside of the lecture halls provided they met the quota criteria and requirements as stated for the target population of the study (Cooper and Schindler, 2003: 200-201).

Measuring instrument

A pre-tested self-administered questionnaire was used. The entertainment, informativeness and irritation scales used in the study were adapted from ducoffe's (1996: 28) study of consumer attitudes towards advertising on the world wide web. The credibility scale was adapted from the scale developed by brackett and carr (2001: 25) in the study of consumer attitudes towards web advertising. For the purpose of this study the wording of scale items was slightly adapted to be more in line with consumer attitudes towards sms advertising. A five-point likert-type scale, labelled from (1-strongly disagree) to (5-strongly agree) was used and no items were reverse scored.

Table 1. Cronbach's alpha values for the constructs.

Construct	Cronbach's alpha
Entertainment	0.91
Informativeness	0.84
Irritation	0.81
Credibility	0.78

RESULTS

Reliability

The Cronbach's alpha values for the constructs are summarised in Table 1.

As can be seen in Table 1 all the Cronbach's Alpha values are higher than the acceptable level of internal consistency (.70).

In Table 2 the number of SMS messages sent and received by the respondents is illustrated (per day).

The findings in Table 2 suggest that the respondents are involved to a great extent with the SMS communication function of their cell phones and are experienced with the usage of cell phones and, more specifically, the SMS function. The findings imply that respondents, through their high level of involvement with their cell phones, depend on cell phones as a means of communicating with friends, family and possibly advertisers.

HYPOTHESES TESTS

The assumption of normality was assessed through the Kolmogorov-Smirnov test. Tests for normality were also assessed through a visual examination of histograms and normal probability plots. It showed that the data deviate to a great extent from a normal distribution.

The first hypothesis (H₁) investigated whether or not there is a positive correlation between consumers' perceptions of the entertainment value of SMS advertisements and consumers' overall attitudes towards SMS advertisements.

Hypothesis 1 was tested using the non-parametric test, Spearman's Rank Order correlation at a 95 percent level of confidence. Table 3 indicates the result of the hypothesis test.

The resulting p-value ($p < 0.001$) is less than 0.05 and therefore the hypothesis can be accepted. There is therefore a positive correlation between consumers'

Hypotheses tests

The assumption of normality was assessed through the Kolmogorov-Smirnov test. Tests for normality were also assessed through a visual examination of histograms and

Table 2. Number of SMS messages sent and received by respondents.

Number of SMS messages	Sent (%)	Received (%)
Between 1 and 5	37.9	35.9
Between 6 and 10	25.8	31.3
Between 11 and 15	18.1	16.7
More than 15	18.2	16.1
TOTAL (198 respondents)	100	100

Table 3. Results of spearman's rank order correlation – hypothesis 1.

		Entertainment value	
Spearman's rho	Overall Attitude	Correlation Coefficient	.671(**)
		Sig. (1-tailed)	.000
		N	200

Table 4. Results of spearman's rank order correlation – hypothesis 2.

		Informativeness	
Spearman's rho	Overall Attitude	Correlation Coefficient	.553(**)
		Sig. (1-tailed)	.000
		N	200

normal probability plots. It showed that the data deviate to a great extent from a normal distribution.

The first hypothesis (H_1) investigated whether or not there is a positive correlation between consumers' perceptions of the entertainment value of SMS advertisements and consumers' overall attitudes towards SMS advertisements.

Hypothesis 1 was tested using the non-parametric test, Spearman's Rank Order correlation at a 95 percent level of confidence. Table 3 indicates the result of the hypothesis test.

The resulting p-value ($p < 0.001$) is less than 0.05 and normal probability plots. It showed that the data deviate to a great extent from a normal distribution.

The first hypothesis (H_1) investigated whether or not there is a positive correlation between consumers' perceptions of the entertainment value of SMS advertisements and consumers' overall attitudes towards SMS advertisements.

Hypothesis 1 was tested using the non-parametric test, Spearman's Rank Order correlation at a 95 percent level of confidence. Table 3 indicates the result of the hypothesis test.

The resulting p-value ($p < 0.001$) is less than 0.05 and therefore the hypothesis can be accepted. There is therefore a positive correlation between consumers' therefore the hypothesis can be accepted. There is therefore a positive correlation between consumers's per-

ceptions of the entertainment value of SMS advertisements and consumers' attitudes towards SMS advertisements. This is supportive of the findings of Green, Salking and Akey (1999:238). This implies that management need to consider the entertainment aspect of SMS advertisements sent to consumers.

The coefficient of determination ($r^2 = 0.4502$) implies that 45% of the variance in consumers' attitudes towards SMS advertisements can be explained by the variation in consumers' perceptions of the entertainment value of SMS advertisements (Diamantopoulos and Schlegelmich, 2000: 204).

The second hypothesis (H_2) investigates the correlation between consumers' perceptions of the informativeness of SMS advertisements and consumers' overall attitudes towards SMS advertisements. Table 4 depicts the results of the Spearman's Rank Order Correlation which was used to test this hypothesis.

The p-value ($p < 0.001$) calculated in the test is significant at the 0.05 level and therefore the hypothesis can be accepted. Management needs to realise the effect which the information content of a SMS advertisement has on the attitudes of consumers and design advertisements that provide consumers with relevant and up-to-date information.

The Coefficient of determination ($r^2 = 0.3058$) implies that 30 percent of the variance in consumers' attitudes towards SMS advertisements can be explained by the

Table 5. Results of spearman's rank order correlation – hypothesis 3.

		Irritation	
Spearman's rho	Overall Attitude	Correlation Coefficient	-.547(**)
		Sig. (1-tailed)	.000
		N	200

Table 6. Results of spearman's rank order correlation – hypothesis 4.

		Credibility	
Spearman's rho	Overall Attitude	Correlation Coefficient	.451(**)
		Sig. (1-tailed)	.000
		N	200

variation in consumers' perceptions of the informativeness of SMS advertisements.

Hypothesis 3 is concerned with testing whether or not there is a positive correlation between consumers' perceptions of the irritation of SMS advertisements and consumers' overall attitudes towards SMS advertisements. Spearman's Rank Order Correlation was used to test the hypothesis and the results are displayed in Table 5.

The p-value ($p < 0.001$) is significant at the 0,05 level and the alternative hypothesis can be accepted. The coefficient of determination ($r^2 = 0.2992$) implies that nearly 30% of the variance in consumers' attitudes towards SMS advertisements can be explained by the variation in consumers' perceptions of the irritation of SMS advertisements.

Hypothesis 4 is concerned with testing whether or not there is a positive correlation between consumers' perceptions of the credibility of SMS advertisements and consumers' overall attitudes towards SMS advertisements. Table 6 shows the results of the Spearman's Rank Order Correlation which was used to test the hypothesis.

The p-value ($p < 0.001$) calculated for the test is significant at a 95% level of confidence ($p < 0.05$). The hypothesis can therefore be accepted. The coefficient of determination ($r^2 = 0.2034$) implies that, although there is a positive correlation between consumers' perception of the credibility of SMS advertisements and consumers' overall attitudes towards SMS advertisements, the strength between the two constructs is very weak.

The results of the hypotheses tests indicated that consumers' perceptions of the entertainment value, informativeness and credibility of SMS advertisements are positively correlated with the consumer attitudes towards SMS advertisements. This is consistent with the findings of Tsang et al. (2004: 71) in their study of consumer attitudes towards SMS advertisements. A major finding is that consumers have fairly negative attitudes towards SMS advertisements.

It is suggested that the framework developed by

Brackett and Carr (2001:24-25) be applied to consumer attitudes towards SMS advertisements in a South African context. The findings indicate that young South African consumers are highly engaged in the use of cell phones and the SMS functions, as a means of communicating with others.

Managerial implications

Based upon the consumers' negative attitudes towards SMS advertisements, marketers need to recognise that SMS advertisements, although offering many benefits in terms of reaching the youth, may not be as effective in creating favourable attitudes towards the advertised product or service. Consumers with negative attitudes towards SMS advertisements may choose to ignore, and not pursue the information of the SMS advertisement. Marketers will find it difficult to create awareness of a product or service when using SMS advertisements to consumers with negative attitudes towards the medium.

With regard to the fairly negative perceptions of the entertainment value of SMS advertisements, marketers need to look at ways of increasing the entertainment as well as the level of enjoyment consumers associate with the receiving of SMS advertisements. In order to overcome the screen size and entertainment limitations of SMS messages, marketers need to perhaps make use of the MMS (multimedia message services), which takes SMS messages to the next level and allows for the inclusion of visual elements, such as pictures and videos, as well as sound. The use of MMS can help marketers create more unique and entertaining advertisements that can be sent to consumers' cell phones (Dickinger et al., 2004: 7; Okazaki, 2006: 161). Marketers should also look at creating humorous SMS advertisements as these can help to gain the attention of readers (Barwise and Strong, 2002: 22). This would however require greater and more accurate capturing of consumer information so as to determine the consumers who have MMS enabled cell

phones.

The relationship between consumers' perceptions of the irritation of SMS advertisements and consumer attitudes towards SMS advertisements, suggests that marketers need to ensure that messages are sent to consumers at a reasonable time during the day. A recommendation is that marketers only send SMS advertisements to recipients between 09:00 and 19:30 on weekdays and when sending SMS advertisements to students, avoid sending the advertisement before noon as students may be in class or sleeping (Dickinger et al., 2004:6).

Respondents' perceptions of the credibility of SMS advertisements proved to be relatively negative which will have an adverse effect on consumers' attitudes towards SMS advertisements. This factor highlights the importance of permission-based marketing in protecting the credibility of the SMS advertising channel. Tsang et al. (2004:68) state that "Permission-based advertising differs from traditional irritating 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." Permission-based marketing ensures that advertisements are sent to only those consumers that are interested in receiving information from the organisation and avoids targeting those consumers that will perceive the advertisement as being intrusive or irritating. It is essential, for the success of an SMS advertising campaign, to first gain the permission of consumers before sending SMS advertisements to random consumers (Andersson and Nilsson, 2000: 47; Kavassalis et al., 2003: 64; Nysveen, Pedersen and Thorbjørnsen, 2003: 21). Leppäniemi and Karjaluoto (2005: 209) add that SMS advertising "...is considered more acceptable when delivered by a trusted source as opposed to an unknown one."

Limitations

The study is limited by the fact that a relatively small sample of participants (n=200) were selected using non-probability sampling. This limitation makes it difficult to generalise and apply the findings of this study to the entire population of young South Africans (Cooper and Schindler, 2006:413).

The study also failed to determine consumers' attitudes towards SMS advertisements when consumers have given permission to receive such advertisements. This represents a further limitation of the study. The inability to make use of parametric hypothesis tests also limited the ability to generalise the findings of the study (Cooper and Schindler, 2006: 502). The final limitation of the study is that the overall attitude construct was measured on one item. The scale may not be a very accurate measurement of consumers' overall attitudes towards SMS advertisements.

Recommendations for future research

Future researchers could use a bigger sample of respondents and where possible make use of random sampling when selecting respondents to participate in the study. Future research should also attempt to determine how consumers of different ages, class or culture (relevant demographic variables) differ in their attitudes towards SMS advertisements. South Africa is a diverse country in terms of different cultures and a study that highlights differences in consumer attitudes towards SMS advertisements based on cultural differences could be valuable. Future researchers should also develop a new scale to measure overall attitudes towards SMS advertisements, which incorporates more items.

Conclusion

Marketers need to understand the target audience for SMS advertising campaign and send messages to consumers whereby the language and content of the SMS advertisement is in unison with the target audience's profile and expectations.

Although consumers have neutral perceptions of the informativeness of SMS advertisements, consumers disagreed that SMS advertisements supplied relevant information. Marketers need to further ensure that they send only relevant information to targeted consumers. Consumers value SMS advertisements that are short, straight to the point and concern information that is relevant to their interests. Marketers can also create cryptic messages that stimulate the curiosity of those who receive the SMS advertisement (Barwise and Strong, 2002: 22-23).

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