

# **Text Message Advertising: Dramatic Effect on Purchase Intentions.**

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## **Text Message Advertising: Dramatic Effect on Purchase Intentions**

### **Abstract**

*Although the development of Internet-based m-commerce has been disappointing, commercial applications for text messages have developed rapidly. This paper explores the role of SMS or text message advertising. Although SMS advertising is strictly a form of telemarketing, it shares features with email marketing and m-commerce.*

*An analysis of 26 text marketing campaigns (5401 respondents) demonstrates the surprising effectiveness of this new form of telemarketing. SMS advertising is effective, both in stimulating response and as a branding vehicle, as demonstrated by significant improvements in brand attitude and purchase intentions.*

### **Keywords**

*Mobile phone, text message advertising, SMS, branding, direct marketing*

## Introduction

The development of Internet-based m-commerce (e.g. WAP) has been disappointing in Europe and the U.S. However, SMS (Short Message Service) text messages have continued their explosive growth. SMS is proving to be an effective new tool in marketing communications, used either on its own, or integrated interactively with television, print and poster advertising.

The objective of this research was to examine consumer response to SMS advertising, including branding and purchase intention effects. The paper is based on the analysis of the market research findings of 26 commercial SMS campaigns, which were conducted in the U.K. by Enpocket UK, a leading provider of permission-based mobile marketing services in the U.K.

## Conceptual Framework

SMS or text messages were introduced in 1992. They consist of up to 160 characters of text sent to mobile phones. They are usually sent by mobile phones, but can also be computer-generated. Recipients can generally store a limited number of messages; unlike email, messages usually do not have a subject line that can be read without opening the message.

SMS has grown rapidly, in the UK 58 million messages a day are sent, more than either letters or emails together, (Mobile Data Association, 2003). SMS advertising is a form of direct marketing. The advantages of direct marketing are precision targeting, personalization, customization, and measurability (Yeshin, 1998). Direct marketing includes direct mail, direct response advertising, telemarketing and digital (email) marketing.

SMS shares features with both telemarketing and email marketing. Leiderman, (1990, 18) defines telemarketing as *“any measurable activity, using the telephone to help find, get, keep and develop a customer”*. Telemarketing has the advantages of impact, persuasiveness and interactivity; its major disadvantages are high cost and intrusiveness, which reduce consumer acceptance, (Leiderman, 1990; Stone, 1996). A telemarketing survey (Stone & Wyman, 1992) found an initial acceptance level for proactive telemarketing of only 13%. Although SMS advertising is delivered to the phone, computer mediation makes it less persuasive and interactive, but also reduces costs and intrusiveness, giving it some of the advantages of email marketing.

Jupiter (Pastore, 2001) predicts that digital or email marketing will be worth \$19 billion by 2006, when it will surpass internet advertising. Advantages of email marketing include low costs and digital processing, (Jackson & DeCormier, 1999; Peppers & Rodgers, 2000). Its major disadvantage is the proliferation of spam, which taints the reputation of email marketing and affects response rates (Windham, 2000). SMS spam is relatively undeveloped, but already spam text messages that trick recipients into phoning premium rate messages have caused consumer concern (BBCi, 2002).

In addition to the impact of telemarketing and the automation of email, SMS advertising enjoys advantages specific to m-commerce. Rask and Dholakia (2000) describe it as "*your best salesman in the pocket of your best customer*", the consumer is accessible at any time, at any place. Like other direct marketing SMS can be personalized and customized, in addition, targeting can be based on time and location, so that advertisements reach consumers at point of action, (Wunker & Hughes, 2001). SMS advertising includes a viral element as recipients can forward messages to their friends. The main disadvantage is its 160 character text-only format, but MMS messages can incorporate pictures or video clips. Worldwide wireless advertising revenue (mainly SMS advertising) is forecast to be between \$16 – \$23 billion by 2005, (Carat Interactive, 2002).

SMS advertising pioneers initially used it as a form of passive advertising and were surprised by consumer responses. Advertising varies from simple branded slogans at the end of sponsored subsidized messages (e.g. alerts when football goals are scored), to special offers and promotions. Research suggests that there is a branding effect (Lawson, 2002a) but, like other direct marketing, SMS advertising is thought to be most effective when it invites a response and includes an incentive.

Barwise and Strong (2002) report a trial of incentive-based text message advertising in the U.K. Respondents, who were paid a £5 fee on recruitment, and £0.05p per message, received over 100 messages during the 6 week trial period. Almost all respondents were satisfied or very satisfied. Most (81%) read all messages, 63% responded or took action, and 17% forwarded at least one message. Barwise and Strong suggest that text message advertising is most suitable for low price items.

Industry studies suggest that SMS advertising is regarded as intrusive, but relevance and added value (discounts or special offers) increase acceptance, (Patel 2001). Intrusiveness in advertising has long been recognised as a cause of annoyance (Bauer & Greyser, 1968). Intrusive advertising can negatively affect consumer attitudes and brand perceptions (MacKenzie & Lutz, 1989; Abernethy, 1991).

Li, Edwards and Lee (2002) speculate that intrusiveness may be related to the utility and expectedness of the interruption, this suggests that incentives, targeting and permission may mitigate intrusiveness. The concept of intrusiveness is related to permission. If consumers have given their permission, they are less likely to construe marketing as intrusive, as it will be anticipated (Godin, 1999). Factors that influence consumer attitudes to permission marketing include message relevance and monetary benefit, (Krishnamurthy, 2000).

## **Methodology**

The research consisted of an analysis of 26 research surveys that were undertaken to evaluate the effectiveness of 26 different SMS advertising campaigns. The advertising, and the market research that followed, occurred between October 2001 and January 2002. The 26 questionnaires shared a

common thread of questions, with modifications relevant to the specific brand advertised. The sample was drawn from Enpocket's database. All respondents had given permission to receive third party marketing. Responses from all the campaigns were merged into a single database of 5401 post-campaign interviews.

## Results

### Acceptability, Interest and Relevance

Overall 44% of respondents found receiving campaigns on their mobile phones very or fairly acceptable, with only 21% finding it fairly or very unacceptable. Acceptability was inversely related to respondents' age (younger people have more favourable views; Chi-square,  $p < 0.01$ ), but not related to gender. Acceptability was also significantly correlated with campaign interest, campaign relevance and monetary incentives. Campaign interest and campaign relevance are strongly correlated (Spearman's Rho correlation: 0.679). Interest and relevance are both significantly correlated with each form of response. Table 1 indicates the wide variation in acceptability, interest and relevance by campaign.

	<b>Acceptability (High or fair)</b>	<b>Interest (Very or fair)</b>	<b>Relevance (High or fair)</b>
Highest figure	60.5%	29.8%	27.3%
Lowest figure	16.1%	4.2%	6.5%
Average	42.3%	15.5%	16.2%
Valid responses	5360	2485	2013

*Table 1: Range of Acceptability, Interest and Relevance*

### Response

Most messages were read (89%), and 5% were forwarded to friends. All campaigns included a specific call to action (e.g. visit a web site, reply by text, visit an outlet). Response rates were high, see Table 2. For most of the campaigns (20 out of 26), respondents followed the specified call to action, with the most frequent response following the message directions. These included calls to action involving physical travel (e.g. visit McDonald's or the Carphone Warehouse).

<b>Response</b>	<b>Any Action</b>	<b>Text Back</b>	<b>Watch TV</b>	<b>Website</b>	<b>Purchase</b>	<b>Visit Place</b>
Highest	67.7%	51.6%	38.5%	25.0%	21.6%	19.7%
Average*	31.3%	15.7%	10.6%	11.3%	5.2%	4.8%
Lowest	3.1%	1.2%	1.5%	0.8%	2.3%	1.0%
S.D.	17.3%	15.4%	9.8%	8.3%	6.5%	6.0%

\*Averaged for those campaigns where this response was relevant 5401 respondents *Table 2 Response to Advertising Messages*

There was a relationship between level of relevance and action taken. Where people found the campaigns relevant they were significantly more likely to take action (visit another web site, visit a shop, reply to the message, supply email address, watch TV, buy the product, buy a newspaper or visit a restaurant). Those who took no action were more likely to say the campaigns were not relevant at all.

## Branding Effect

Overall spontaneous recall of brand advertised was 16%. Prompted brand recall was 43% on average; significantly higher rates were found for campaigns including monetary incentives (Chi square,  $p < 0.01$ ). Spontaneous brand recall was significantly correlated with all forms of response: visited website, replied to the message, supplied their email address, watched TV as a result of the campaign, or bought the product (Chi square,  $p < 0.01$ , for each response); visited a restaurant, bought a newspaper or bought from another company (Chi-square,  $p < 0.004$ , 0.03 and 0.021, respectively).

	<b>More positive about the brand</b>	<b>No change</b>	<b>Less positive about brand</b>
Highest	35.4%	93.3%	8.5%
Lowest	6.7%	60.0%	1.1%
Average	18.4%	77.9%	3.8%

2651 valid

responses

*Table 3: Range of Brand Attitude Change*

Respondents were also asked: "Did this campaign make you feel more or less positive about xxxxx (e.g. Expedia.co.uk.) or did it not change your impression at all?". Unsurprisingly, for most respondents there was no change in brand image (78% overall) but there were also considerable improvements, (18% on average), although for some campaigns the negative effect was not insignificant. Positive change of brand attitude was related to spontaneous recall (Chi-square,  $p < 0.01$ ). Table 3 indicates the wide variation in brand attitude change, by campaign.

## Purchase Intention

Respondents were asked about purchase intentions: "Did this campaign make you more or less likely to consider buying from xxxxx (e.g. Expedia.co.uk) in the future?" Increased likelihood to purchase was significantly correlated with improved brand image; generally the positive effect on purchase intention was approximately twice that of the positive effect on brand attitude. 85.7% of those who felt more positively towards the brand claimed they were more likely to make a purchase. Table 4 indicates the wide variation in purchase intention, by campaign.

	<b>More likely to buy</b>	<b>No change</b>	<b>Less likely to buy</b>
Highest	70.6%	78.3%	17.2%

Lowest	15.6%	25.9%	2.0%
Average	36.1%	56.3%	6.9%

2557 valid

responses

*Table 4 Range of Purchase Intention*

Positive brand effect and purchase intention are significantly related to all main actions, i.e. visiting the company's web site, visiting a shop, calling a number, replying to a number, supplying an email address, watching TV, buying the product, visiting a WAP site, buying a newspaper, requesting a brochure, and visiting a restaurant (Chi-square,  $p < 0.000$ ). Figure 1 illustrates the response pattern overall, demonstrating the relationship between action taken and increased likelihood to purchase.

<Figure 1. Relationship between Response and Purchase Intention>

Ordinal regression was used to model the dependence of change in purchase intention (an ordinal measure) on a number of predictors. Ordinal logistic regression was used because the dependent variable, purchase intention, was measured with a 3-item scale. The design of ordinal regression is based on the methodology of McCullagh (1980). The final model includes age (recoded into four categories), positive brand attitude change and message relevance as factors. The resulting goodness of fit was significant at 99% with an appropriate predicting power (Cox and Snell's pseudo-R squared 0.26), see Table 5. The estimated coefficients in an ordinal regression cannot be directly interpreted. Rather, the impact of a change in a particular variable can be determined by examining the change in the predicted probability, (holding other variables at their means). To do this we employed Long and Cheng (2000) xpost spreadsheet. This showed that increased purchase intention was related to positive brand attitude change and relevance. The youngest age range, 16 – 24, was also significant.

Parameter Estimates

	Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Threshold [PURCHASE = 1.00]	-2.908	.413	49.509	1	.000	-3.718	-2.098
[PURCHASE = 2.00]	1.162	.403	8.306	1	.004	.372	1.952
Location [POSITIVE=1.00]	-5.269	.316	277.867	1	.000	-5.888	-4.649
[POSITIVE=2.00]	-2.806	.275	104.152	1	.000	-3.345	-2.267
[POSITIVE=3.00]	0 <sup>a</sup>	.	.	0	.	.	.
[AGE_NEW=1.00]	-.412	.182	5.138	1	.023	-.767	-5.570E-02
[AGE_NEW=2.00]	-4.53E-02	.184	.060	1	.806	-.406	.316
[AGE_NEW=3.00]	.123	.202	.370	1	.543	-.273	.519
[AGE_NEW=4.00]	0 <sup>a</sup>	.	.	0	.	.	.
[RELEVANT=1.00]	1.789	.276	42.061	1	.000	1.249	2.330
[RELEVANT=2.00]	.838	.284	8.724	1	.003	.282	1.394
[RELEVANT=3.00]	.334	.281	1.416	1	.234	-.216	.884
[RELEVANT=4.00]	.115	.304	.143	1	.706	-.482	.712
[RELEVANT=5.00]	0 <sup>a</sup>	.	.	0	.	.	.

Link function: Logit.

a. This parameter is set to zero because it is redundant.

Table 5 Ordinal Regression Model

## Research Limitations

This research is based on *claimed* response and attitude change. It is likely that respondents are exaggerating their receptiveness and response to this new medium. In addition the campaigns took place over three months, some respondents will have received several advertising messages and responsiveness may decline over time. We were unable to determine whether response declines with repeated exposure.

## Discussion

SMS advertising is an effective interactive medium, that combines the impact of telemarketing, the digitalisation of email, and the localisation of m-commerce. Its precise targeting makes SMS advertising particularly suitable for time and place sensitive advertising.

The overall acceptability of SMS advertising was 44%, significantly higher than the acceptability of telemarketing (Stone and Wyman, 1992). The correlation found between acceptability, relevance and interest supports Godin's (1999) argument for permission marketing; moreover, these three dimensions are also related to response.

These 26 campaigns demonstrate the effectiveness of text message advertising. Response rates varied from 68% to 3%, with an average of 31%. This compares very favourably both with direct mail, with reported response rates between 1% and 5 %, (DMA, 2003; DMIS, 2000) and permission-based email marketing, with reported response rates from 1% to 8%, (Rettie, 2002; Doubleclick, 2002; Gartner, 2002). The average response rate of 31% compares reasonably well with the 63% found by Barwise and Strong (2002), for an *incentivised* scheme where respondents were paid both to take part, and per message received.

SMS advertising has three different effects: response, branding effect and effect on purchase. Respondents reported considerable effects in all three categories.

The branding effect found does not imply that SMS advertising could be used for its branding effect alone. All these campaigns included some call to action; we found a significant correlation between action and brand recall. However, the nature and direction of the causality is unclear; it may be that better known brands have a better response, it may be that text messages improve brand recall, or it may be that taking action, following a text, reinforces the brand recall. A message used just to support a brand, without a call to action, might not be effective.

The regression analysis suggests that perceived relevance is related to change in purchase intention, as predicted by permission marketing theory (Godin, 1999). Age is also related to change in purchase intention; this may be because younger people have been the early adopters of text messaging. Text messaging is becoming increasingly popular with older age groups, whose adoption is often prompted by their need to stay in touch with their children. As older people become more used to SMS they may become more responsive to this advertising medium.

This research supports the role of text creative (Barwise and Strong, 2002); there was a wide variation in attitudes and responses between the different campaigns. The research included three campaigns for Expedia. Responses varied from one of the best to one of the worst campaigns, reflecting the importance of the text message creativity and contents. The campaign rated highest included a much better promotional offer. The other two were similar, and, in fact, had a similar response in terms of action i.e. visits to the website, but they had very different branding and purchase effects. These effects may be the results of the *website* experience and unrelated to the text content.

The reported increased likelihood to purchase is the most important finding of this research; on average this was 35%, but it was as high as 71% for one campaign. Undoubtedly, these claims will be exaggerated, but they reflect an enthusiastic attitude. To some extent these response rates may be due to novelty: the proliferation of text message advertising and SPAM are likely to reduce the effectiveness of the medium over time. There is a need for future research of this medium which measures actual as opposed to reported behaviour, to facilitate this Enpocket is developing bar-coded SMS coupons that enable the tracking of actual responses.

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