

The Effectiveness of SMS-Marketing versus Traditional Marketing Communication

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ABSTRACT

Nowadays most companies acknowledge the importance of SMS marketing in reaching and interacting with their customers (Kavassalis et al. 2003; Dickinger et al. 2004; Tsang, Ho & Liang 2004; Sharl, Dickinger & Murphy 2005; Muk 2007). However, there is much discussion in the press regarding the effectiveness when it comes to SMS marketing. Are customers willing to accept, reading and using SMS messages: how effective is SMS marketing compared to traditional marketing communications?

The goal of this study is to investigate the effectiveness of SMS advertising compared to traditional marketing communication for different aspects: location and time, interaction, incentive, advertising appeal, ad source, product involvement and attitude towards advertising.

The research results indicate that location and time, incentive, advertising appeal and product involvement have a significant positive influence on the attitude toward the ad, the attitude toward the brand and purchase intention for SMS advertising and not for the traditional marketing communications.

INTRODUCTION

Consumers are confronted everyday with a large amount of advertisements, which exceeds their information-processing abilities. As a result, consumers filter out excess visual and aural marketing stimuli (Rumbo 2002), which contributes to the uncertainty of the marketers of obtaining the consumers' attention. However, research has indicated that creativity can attract the consumers' attention. Both the advertising message and the choice of the advertising medium need to be creative (El-Murad & West 2004). Today, there is a shift away from traditional marketing to new, interactive, digital media based on a more targeted approach through personalized channels (Breneman, Cauberghe & Thielemans 2007). With the emergence of high speed wireless network technologies and the increasing penetration of the

mobile phone, the global interest of the advertising industry in the use of this medium for marketing purposes, has increased significantly (Bauer et al. 2005).

This study aims to investigate the effectiveness of SMS advertising and to determine whether this new type of advertising is more effective than the traditional marketing communications for different kind of messages. First, a brief overview of the literature of SMS advertising is given. Second, a preliminary research is conducted to analyse which traditional medium should be compared with the mobile phone. Afterwards different factors, to which the mobile literature refers, are identified and hypotheses are formulated and tested concerning these factors. Finally, the factors that contribute to the success of SMS advertising are discussed, as well as further research avenues.

OVERVIEW OF THE LITERATURE

The literature shows that there are different aspects that can have the potential to influence the effectiveness of SMS marketing (Drossos et al. 2005). The most important aspects are: location, time, interactivity, incentive, ad source, appeal, product involvement and attitude towards mobile advertising. In this brief literature overview, the different aspects are described.

For the first aspects, 'location and time', we notice that mobile phone users carry their phone all the time, wherever they go (Kavassalis et al. 2003; Bauer et al. 2005). Geo-location technologies, such as the Global Positioning System (GPS) or Cell of Origin (COO), provide the marketers with the opportunity to locate a particular consumer and to target people in a certain location (Tsang, Ho & Liang 2004). By adapting a service that takes into consideration the position of the user, more meaningful and relevant advertisements or promotions can be send to the potential customers (Sultan & Rohm 2005). In other words, prospects can be reached when and where it is most suitable for the effectiveness of the marketing campaign (Kavassalis et al. 2003). The mobile phone exceeds the time-space paradigm of traditional marketing: there is no longer a temporal and spatial separation between buyers and sellers (Watson et al. 2002). Therefore location-based advertising (LBA) is regarded as a very promising opportunity for marketers (Bauer et al. 2005).

SMS advertisement may or may not contain an interactive element. Interactive elements can convince the potential customer to search for more information concerning the advertised product or service and can convince the potential customer to give feedback to the advertiser. Interactive media exhibit a two-way communication enabling the recipient to affect the communication process actively. The mobile phone is a new, digital and interactive device, which allows the recipient of a message to reply to it immediately (Bauer et al. 2005). This leads to the creation of a continuous dialogue and the establishment of a relationship between the marketer and the consumer, allowing the marketer to better understand the target audience (Breneman, Cauberghe & Thielemans 2007), to use the consumers' feedback to customize messages and offerings and to improve future products and services (Haghirian, Madlberger & Tanuskova 2005). For the traditional marketing communication the interactive element is not always present.

SMS advertisements also have a range of possibilities to provide incentives to the mobile phone users. The effectiveness of incentives shows that individuals are greatly interested in acquiring financial benefits from direct marketing programs. Previous studies showed that price promotions change consumers' purchasing decisions (Chen, Monroe & Lou 1998) and that price discounts are particularly effective in generating product trial, purchase acceleration, additional spending and encouraging stockpile (Shi, Cheung & Prendergast 2005). Price discounts are also used to increase store traffic (Grewal, Monroe & Krishnan 1998 ; Lichtenstein & Bearden 1989) and stimulate purchases (Grewal et al. 1998).

Another aspect which can influence the effectiveness of SMS advertisements is the advertising appeal. Regarding this issue Drossos, Giaglos and Lekakos (2007) point out that the quality of information sent on the mobile phone is crucial, because due to the absence of sound, image and motion SMS ads may not be effective in inducing a significant emotional appeal. However, the technological application, EMS (Enhanced Message Service) links different SMS messages to each other, which offers the opportunity to send formatted text, sound and pictures (Breneman, Cauberghe & Thielemans 2007). Newspapers, magazines, flyers, e.g. on the other hand do not contain sound either, but formatted text and pictures are commonly used.

Product involvement can also influence the effectiveness of marketing communication (De Pelsmacker et al. 2008). Whether consumers react to advertising communication in an active

or passive way and whether they process this communication in a limited or extended way, depends on their level of involvement (Laurent & Kapferer 1985). Shiffman and Kanuk (2007) argue that the consumer's level of involvement depends on the degree of personal relevance of the product for that consumer. High-involvement purchases are those that hold great relevance or importance for the consumer and therefore incite extensive information processing (Shiffman & Kanuk 2007). With regard to highly involved consumers, the quality of the argument presented in the persuasive message has a great impact on the consumption decision (Shiffman & Kanuk 2007), since high involved consumers may be more likely to explore product-specific information (Drossos et al. 2005). Low-involvement purchases are those that hold little relevance or importance for the consumer and therefore incite very limited information processing (Shiffman & Kanuk 2007). In marketing to low involvement consumers the imagery of the promotional message has a great influence on the consumption decision (Shiffman & Kanuk 2007). An SMS has a 160-character text-only format. This limits the amount of information that can be transferred, which is often necessary for high involvement products. However MMS, the latest technological application, uses WAP (Wireless Application Protocol), which can lead to messages that are one hundred times greater than a traditional SMS (Bregman, Cauberghe & Thielemans 2007). For traditional marketing communications, especially for print advertisements, there is no limitation on the amount of characters used.

RESEARCH DESIGN

To determine which traditional medium (with emphasis on reaching the masses) would be compared with the mobile phone (a new, interactive and digital medium, with emphasis on a targeted approach) a preliminary research was conducted. Because the effectiveness of SMS advertising is examined and an SMS has a textual form, only textual media were taken into consideration. On the basis of the research results of the preliminary research, an empirical research was accomplished to compare the effectiveness of SMS marketing with traditional marketing communications.

Preliminary research

Sample

For the preliminary research a written questionnaire was used to collect data. The subjects were 40 students (22 females, 18 males) from master of Business Administration at a large urban university in Brussels, Belgium. We have used a student sample, because in mobile advertising, the target group are young consumers (Nysveen et al. 2005; Pedersen 2005; Rohm & Sultan 2006; Bauer et al. 2005; Kavassalis 2003). The average age of the students ranged between 19 to 25 years old (average_{age} = 21.78; s.d. 1.31).

Measurement instruments

First, the general evaluation of the six different media (newspapers, magazines, posters, flyers, abri's and mupies) was measured in the written questionnaire, by using the seven point semantic differential scale of Lord, Lee and Sauer (1994) (Cronbach's alpha, $\alpha = .89$).

In addition, the respondents' attitude toward advertising (Donthu & Gilliland 1996) (Cronbach's alpha, $\alpha = .75$) was analysed. Furthermore, for each medium, the subjects were asked to indicate their opinion on a seven-point scale ranging from 'completely disagree' (1) to 'completely agree' (7) for the following statements: "Advertisements provide useful information", "I think that advertisements are often deceptive" and "I usually do not pay attention to advertisements".

To select the brand names of the products used in the ads to compare SMS advertising with traditional marketing communications, the subjects were kindly asked to evaluate different brand names for brand awareness, experience with the brand and attitude toward the brand. We have selected the following products for high involvement: mobile phone, mp3 players, USB sticks, bags and backpacks and snacks as a low involvement product. These products are defined as commonly used in the daily life of young consumers (Forrester, 2003). After a depth interview with five experts separately, we have selected seven brand names for mobile phones, mp3 players and USB sticks, for backpacks 13 brand names and for snacks 19 brand names. The choice of the advertised brands used in the ads in the empirical research was made on the basis of the preliminary research results.

Research results

The research results for the general evaluation (Lord, Lee & Sauer 1994) and attitude toward advertising are as follows:

- Newspaper: $avg_{evaluation} = 5.29, (s.d. = 1.06)$; $avg_{aad} = 4.01, (s.d. = 0.65)$
- Magazines: $avg_{evaluation} = 5.69, (s.d. = 1.01)$; $avg_{aad} = 3.87, (s.d. = 0.74)$
- Flyers: $avg_{evaluation} = 3.38, (s.d. = 1.55)$; $avg_{aad} = 4.00, (s.d. = 0.83)$
- Posters: $avg_{evaluation} = 4.38, (s.d. = 1.38)$; $avg_{aad} = 3.75, (s.d. = 0.73)$
- Abri's: $avg_{evaluation} = 4.06, (s.d. = 1.42)$; $avg_{aad} = 3.78, (s.d. = 0.72)$
- Muppies: $avg_{evaluation} = 3.72, (s.d. = 1.22)$; $avg_{aad} = 3.98, (s.d. = 0.70)$.

On the basis of the research results of the general evaluation of the different media, newspapers and magazines were the most favourable media. The attitude toward advertising through the different media was also the most favourable for newspapers and magazines. Therefore, we have chosen for the medium 'newspapers and magazines' for our final empirical research. The highest score for magazines was for the magazine 'Flair' 19.6% and for the newspapers the highest score was for 'Metro' (a free newspaper which can be found at most public places, schools and universities) with 56.8%. Based on this research result, we have decided to compare the effectiveness of SMS advertising with the effectiveness of advertising through the newspaper 'Metro'.

For the brands which were used in the different advertisements in our preliminary research, we have measured: the respondents' brand awareness, the experience of the respondents with the brand and their attitude toward the brand. Taking into account the research results, we have decided to advertise those brands in the empirical research that were not extremely popular, but also not extremely unpopular. After all, these two extremes would lead to biased answers. It is suspected that the extremely popular brands will hide the effects on the constructs that are examined (attitude toward the ad, attitude toward the brand and purchase intention). Also the least popular brand is not a good option, because this brand may not be known by a number of respondents (Anschuetz 1997). On the basis of our research results, the following brands were selected for the products: Siemens (mobile phone), Packard Bell (mp3 player), Memorex (USB-stick), Zara (bag and backpack) and Lion (snack).

Empirical research

The main research questions for the empirical research concern the effectiveness of SMS advertising compared to traditional marketing communications. Therefore, we have formulated the following research questions:

1. Does SMS advertising lead to a more favourable attitude toward the advertisement in comparison to advertising through newspapers?
2. Does SMS advertising lead to a more favourable attitude toward the brand compared to advertising through newspapers?
3. Does SMS advertising lead to higher purchase intentions compared to advertising through newspapers?

In this study the respondents are exposed to an SMS or a newspaper advertisement consisting information that is based on their location, aiming to convince them to visit the nearest store where the advertised product is sold. Time and location are analysed as the perceived resources (money, time, effort) that are given up in order to obtain the advertised product (Cronin, Brady & Hult 2000). We therefore can translated our research questions into the following more detailed hypotheses:

- H₁: SMS advertisements lead to more positive attitudes toward the advertisement and the brand and to more positive purchase intentions compared to advertisements to newspapers, when the perceived effort to buy the advertised product is low.

As mentioned earlier in this paper, the mobile phone offers the possibility to the marketers to interact with their customers. In this study the respondents are exposed to an SMS or a newspaper advertisement whether or not consisting an interactive element. Interactivity positively affects attitudes toward the advertisement and the brand (Sundar & Kim 2005, Bauer et al. 2005, Sundar 2004, Liu & Schrum 2002). The mobile phone is a highly interactive medium (Bauer et al. 2005). However, for the traditional marketing communications, especially for print advertising, an interactive element is not always present. Therefore, we hypothesize that:

H₂: SMS advertisements that offer the possibility of interaction lead to more positive attitudes toward the advertisement and the brand and to more positive purchase intentions, compared to advertisements through newspapers.

Both SMS advertisements and traditional marketing communications have a range of possibilities to provide incentives. Because of the lack of the literature, we hypothesize that the effectiveness of incentives are comparable for both advertising media instruments.

H₃: SMS advertisements that offer incentives lead to more positive attitudes toward the advertisement and the brand and to more positive purchase intentions than advertisements without incentives, but there are no significant differences between incentives provided by SMS advertising or advertising through newspapers.

Through the literature review we learned that the quality of information sent on the mobile phone in the form of an SMS is crucial, due to the absence of sound, image and motion (Drossos, Giaglos & Lekakos, 2007). Since advertisements in newspapers can contain pictures, we hypothesize that:

H₄: SMS advertisements that use a rational appeal lead to more positive attitudes toward the advertisement and the brand and to more positive purchase intentions compared to advertisements through newspapers of the same size.

As indicated in the literature overview, highly involved consumers may be more likely to explore product-specific information (Drossos et al. 2005). As the amount of information that can be transferred through an SMS is limited to 160 characters, it seems to be better to advertise a low-involvement product. However, for traditional marketing communications, especially for print advertisements, there is no limitation on the amount of characters used. Therefore we suggest that low involvement products are more effective through SMS advertising than high involvement products. Yet for traditional marketing communications,

we cannot suggest a significant difference between high and low involvement products. The following hypothesis can be formulated:

H₅: Attitudes toward the advertisement (Aad) and the brand (Ab) and purchase intentions (PI) will be more favourable for SMS advertisements when an advertisement of a low involvement product is compared to an advertisement for a high involvement product. For traditional marketing no significant difference between Aad, Ab and PI will be found between low and high involvement products.

RESEARCH METHODOLOGY

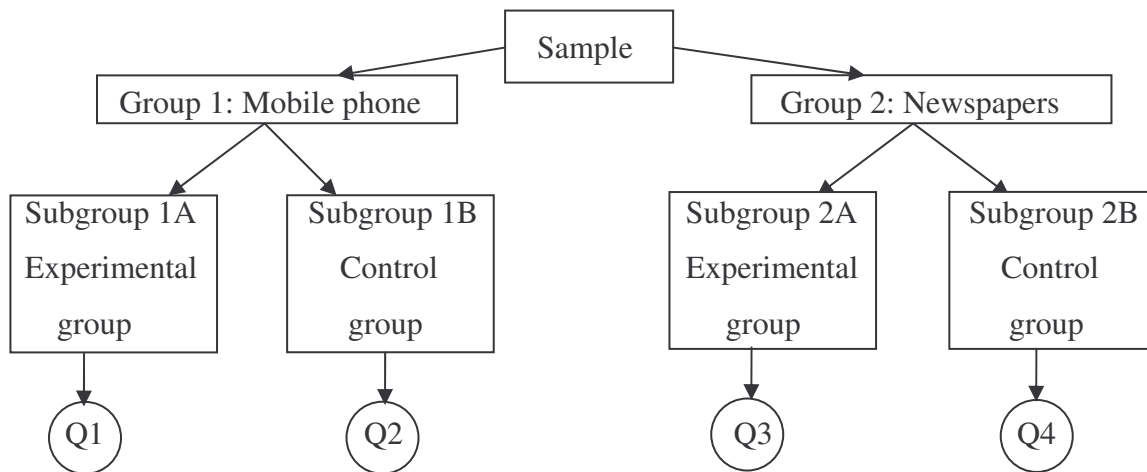
Sample

A student sample of 227 subjects (116 females, 111 males) in total participated in the survey. The students were within the age range of 18 to 25 years old (*Average_{age}* = 21.3 year, s.d. = 1.6). This choice was deliberately made because research has shown that SMS campaigns have been particularly successful in the younger segments of the market, a difficult audience to approach through traditional marketing channels (Kavassalis et al. 2003). They formed a good target group, since mobile phone ownership reached 100% and most of the participants were heavy users of SMS: 85% of the respondents sent at least one SMS message per day. 59% of the respondents indicated that they had already received commercial messages on their mobile phone. Noteworthy is that only 11% of the respondents gave the permission to receive SMS advertisements.

Research Design

The 227 students were randomly assigned to two groups of approximately equal size. In the first group, on the one hand, the effectiveness of SMS advertising was analysed. In the second group, on the other hand, the effectiveness of advertising through newspapers was examined. Each of these groups was divided into two subgroups. In this way we could work on the basis of an experimental group and a control group. In Figure I an overview of our research design is given.

Figure 1: Overview of the Research Design



For each of the four groups, a questionnaire was designed. For group 1, the questionnaires consisted in different ads shown via a mobile phone screen to increase external validity (see Figure 2). Modifications were made between the questionnaires for the experimental and the control group, in order to examine the effectiveness of SMS advertising. For the second group, the same procedure was followed for designing the questionnaires, but this time the questionnaires consisted in different ads shown via a newspaper to increase external validity (Figure 2) The seven experimental conditions, which were discussed in the overview of the literature, are illustrated in Table 1.

Figure 2: Example of an SMS advertising and a printed advertising



Table 1: Experimental conditions

		SMS advertising		Effect on: - Attitude toward the Ad - Attitude toward the Brand - Purchase Intention
		Advertising through newspapers		
		Experimental group Q1 and Q3	Control group Q2 and Q4	
Location and time	The advertisement was shown far from the point of sale.	The advertisement was shown near the point of sale.		
Interactivity	Interaction: the user could send an SMS to learn more about the brand.	No interaction		
Incentive	A 25% discount was advertised.	A 10% discount was advertised		
Appeal	Factual information and focus on product attributes were communicated.	The product was advertised appealing to the customer's senses.		
Involvement	High involvement	Low involvement		
Credibility	Source Q1 and Q2: the mobile phone Source Q3 and Q4: the newspaper			
Attitude	Q1 and Q2: Attitude toward SMS advertising Q3 and Q4: Attitude toward advertising through newspapers			

Measurement and Scaling

The constructs employed in the study were adapted from prior research. For ‘location and time’ we have used a two-item, seven point semantic differential scale anchored by “The time required to buy the product is” and “The effort that I must make to buy the product is” (Cronin, Brady & Hult 2000) (Cronbach’s alpha, $\alpha = .899$). For the construct ‘interactivity’ a single-item, seven point scale anchored by “The advertisement allows me to react very fast (is interactive)” was used (Sundar & Kim 2005). For the construct ‘incentive’ we used a four-

item, seven point semantic differential scale anchored by “bad buy/excellent buy”, “no savings at all/extremely large savings”, “extremely unfair price/extremely fair price” and “not a good value/extremely good value” (Berkowitz & Walton 1980) (Cronbach’s alpha, $\alpha = .800$). The ‘appeal’ of the advertisements was measured using a four-item, seven point semantic differential scale anchored by “tangible/intangible”, “logical/emotional”, “objective/subjective” and “factual/nonfactual” (Liu & Stout 1987) (Cronbach’s alpha, $\alpha = .78$). For the construct ‘product involvement’ we used a six-item, seven point semantic differential scale anchored by “unimportant/important”, “of no concern/of concern to me”, “irrelevant/relevant”, “means nothing to me/means a lot to me”, “trivial/fundamental” and “not involved/highly involved” (Zaichkowsky 1985) (Cronbach’s alpha, $\alpha = .95$). ‘Attitude toward the ad’ was measured using a four-item, seven point semantic differential scale anchored by “negative/positive”, “did not like it at all/liked it very much”, “pleasant/not pleasant” and “bad/good” (Spears & Singh 2004) ($\alpha = .86$). For the construct ‘attitude toward the brand’ we used an eight-item, seven point semantic differential scale anchored by “bad/good”, “dislike/like”, “poor quality/high quality”, “unpleasant/pleasant”, “unattractive/attractive”, “useless/useful”, “worthless/valuable” and “inferior/superior” (Gelb & Zinkhan 1986) ($\alpha = .91$). Finally, the construct ‘purchase intention’ was measured using a three-item, seven point semantic differential anchored by “It is very likely that I will buy (*brand*)”, “I will purchase (*brand*) the next time I need a (*product*)” and “I will definitely try (*brand*)” (Putrevu & Lord 1994) ($\alpha = .91$).

The results of an exploratory factor analysis showed that the various items for the different constructs loaded on one underlying factor. In addition, the results of the Cronbach’s Alpha analysis indicated that the various items had a high internal consistency. Based on these analyses, the different items were taken together for the measurement of the individual constructs.

RESEARCH RESULTS

The first hypotheses implicates that **SMS advertisements lead to more positive attitudes toward the advertisement and the brand and to more positive purchase intentions compared to advertisements in newspapers, when the perceived effort to buy the advertised product is low.**

- At first we analysed the effectiveness of SMS advertisements with regard to 'location and time'. Therefore we compared the first and the second questionnaire. The expectation that there would not exist a significant difference between the two questionnaires regarding the attitude toward the brand, could be confirmed on the basis of the research results ($t = 0.63$; $p = .533$). In addition, as we expected, there exists a significant difference between the two questionnaires in terms of attitude toward the ad. The attitude toward the ad is significantly better for the second questionnaire in comparison to the first questionnaire ($t = 2.59$; $p = .011$). Although we expected that there would exist a significant difference in terms of purchase intention between the two questionnaires regarding the variable 'location and time', this could not be confirmed on the basis of our analysis ($t = 0.17$; $p = .862$).
- Secondly, we analysed the effectiveness of print advertising (more precisely, advertising through newspapers) with regard to 'location and time', by comparing questionnaire 3 and 4. Also here we made the same expectations with regard to attitude toward the ad, attitude toward the brand and purchase intention. Our expectation, that there would not exist a significant difference between the two questionnaires regarding the attitude toward the brand, could be confirmed on the basis of the research results ($t = 0.30$; $p = .766$). Against all expectations, we did not found a significant difference between the two questionnaires regarding the attitude toward the ad ($t = 0.30$; $p = .764$). The same goes for the purchase intention too ($t = 1.80$; $p = .075$).
- To compare the effectiveness of SMS advertising to the effectiveness of advertising through newspapers, we compared on the one hand questionnaire one to questionnaire three and on the other hand questionnaire two to questionnaire four. The only difference between these questionnaires is the type of advertising: SMS advertising and advertising through newspapers. The comparison of questionnaire one and three appears in the upper part of Table 2. The research results show that no significant differences (with regard to 'location and time') could be found between the two

questionnaires in terms of attitude toward the ad, attitude toward the brand and purchase intentions. Although questionnaire two and four (bottom of Table 2) also place both types of advertising in relation to each other, significant differences were found regarding the variable 'location and time'. Questionnaire two (SMS advertising) leads to a significantly better attitude toward the ad compared to questionnaire four (advertising through newspapers) ($t = 2.21$; $p = .029$). Therefore, hypothesis 1 can only be supported partially. Although location-based advertising (LBA) is regarded as a very promising opportunity for marketers (Bauer et al., 2005), this research only reports a significant influence on the attitude toward the ad. As a consequence, additional research is necessary.

The second hypotheses runs as follows: **SMS advertisements that offer the possibility of interaction lead to more positive attitudes toward the advertisement and the brand and to more positive purchase intentions, compared to advertisements through newspapers.**

- Also here we first comment on the effectiveness of SMS advertising (Q1 & Q2) whether or not an element of interactivity is present. Furthermore, we make the same, previously-mentioned expectations with regard to the attitude toward the ad and toward the brand and the purchase intention. No significant difference could be found between the two questionnaires in terms of attitude toward the brand ($t = 1.67$; $p = .098$). As we expected, a significant difference exists between questionnaire one and two, with regard to the attitude toward the ad. However, this difference was observed in the opposite direction ($t = 2.91$; $p = .004$). The respondents that filled out questionnaire 1 were shown an SMS ad that aimed to convince the receiver to send an SMS to find out more information about the advertised product. Since there are costs united with responding to an SMS advertisement, which is irreconcilable with consumers' view that advertising should be free (Muk, 2007), this may have affected the dependent variables negatively. Furthermore, contrary to our expectations, no significant difference was found between both questionnaires with regard to purchase intention ($t = 1.22$; $p = .224$).
- Regarding the effectiveness of advertising through newspapers (Q3 & Q4), no significant difference was observed in terms of attitude toward the brand, whether or not an element of interactivity was present ($t = 0.45$; $p = .654$). Although we expected to reveal a significant difference with regard to the attitude toward the ad, this was not the case ($t = 0.30$; $p = .766$). However, as expected, a significant difference was found

with regard to the purchase intention. The research results show that the purchase intention is higher for questionnaire three, where an element of interactivity was present ($t = 2.63$; $p = .010$).

- With regard to our hypothesis, we compare both types of advertising (Q1 & Q3 ; Q2 & Q4). Although no significant differences could be observed through the comparison of questionnaire one and three, we yet found significant differences between questionnaire two and four, also placing both types of advertising in relation to each other. SMS advertising appears to be more interactive than advertising through newspapers ($t = 2.18$; $p = .031$). This interactivity has an effect on the attitude toward the ad, the attitude toward the brand and the respondents' purchase intention. The attitude toward the ad is more positive in the case of SMS advertising ($t = 2.98$; $p = .004$). The attitude toward the brand also seems to be better for SMS advertising in comparison to advertising through newspapers ($t = 3.05$, $p = .003$). Finally, SMS advertising leads to higher purchase intentions compared to advertising through newspapers ($t = 3.80$; $p < .001$). Since these results could only be found through the comparison of questionnaire two and four, we cannot draw a firm conclusion with regard to our second hypothesis.

The third hypotheses implicates that **SMS advertisements that offer incentives lead to more positive attitudes toward the advertisement and the brand and to more positive purchase intentions than advertisements without incentives, but there are no significant differences between incentives provided by SMS advertising or advertising through newspapers.**

- Also here we operate in the same way. The effectiveness of SMS advertising is analysed through the comparison of questionnaire one and two, with regard to the variable 'incentive'. As expected, there does not exist a significant difference between the two questionnaires in terms of attitude toward the brand ($t = 0.70$; $p = .486$). With regard to the attitude toward the ad and the purchase intention, we expected to find significant differences, but only in terms of purchase intention a significant difference could be observed (Aad: $t = 0.70$; $p = .486$) (PI: $t = 2.35$; $p = .021$). An incentive seems to have a positive influence on the purchase intention. This is conform to previous research in mobile advertising. Barwise and Strong (2002) go a step further by showing that many consumers require and even expect an incentive in order to accept commercial messages on their mobile phones. Tsang, Ho and Liang (2004)

pointed out that providing incentives increases the intention to receive SMS ads, which is in line with the findings of Hanley, Becker and Martinsen who demonstrated that monetary incentives incite college students to take into consideration the acceptance of ads on their mobile phone. A more recent research has shown that young mobile users are willing to switch their mobile phone supplier if they were offered free talk time and texts in return for receiving mobile advertisements (Bearne 2008).

- Regarding the effectiveness of advertising through newspapers, the variable 'incentive' seems not to be a success factor for advertising effectiveness, since no significant differences were found in terms of attitude toward the brand ($t = 0.27$; $p = .790$), attitude toward the ad ($t = 0.24$; $p = .811$) and purchase intention ($t = 1.02$; $p = .310$).
- When we compare both types of advertising, the research results show no significant differences in effectiveness. Our hypothesis can therefore be supported.

The fourth hypothesis runs as follows: **SMS advertisements that use a rational appeal lead to more positive attitudes toward the advertisement and the brand and to more positive purchase intentions compared to advertisements through newspapers of the same size.**

- With regard to the effectiveness of SMS advertising (Q1 & Q2), we expected not to find a significant difference in attitude toward the brand between the first and the second questionnaire, since the same brand was shown in each of the questionnaires. Nevertheless, the research results illustrate that a rational appeal leads to a more favourable attitude toward the brand, compared to an emotional appeal ($t = 7.88$; $p < .001$). In addition, we observed a significant difference in terms of attitude toward the ad: an advertisement with an emotional appeal seems to have a positive influence on the attitude toward the ad ($t = 2.16$; $p = .033$). Furthermore, we can conclude that the advertisement's appeal influences the purchase intention, since the intention to purchase the advertised product is higher in the case of a rational advertisement's appeal ($t = 2.25$; $p = .027$). With regard to SMS advertising, we therefore can conclude that an advertisement using a rational appeal leads to a more favourable attitude toward the brand and to higher purchase intentions in comparison to an emotional advertisement's appeal.
- With reference to the effectiveness of advertising through newspapers (Q3 & Q4), no significant differences between questionnaire three and questionnaire four could be

observed in terms of attitude toward the ad and toward the brand and purchase intention.

- When we compare both types of advertising (Q1 & Q3 – Q2 & Q4), the research results do not show any significant differences. Therefore, our hypothesis can not be supported.

The fifth hypothesis implicates that **attitudes toward the advertisement and the brand and purchase intentions will be more favourable for SMS advertisements when an advertisement of a low involvement product is compared to an advertisement for a high involvement product. For traditional marketing no significant differences in Aad, Ab and PI will be found between low and high involvement products.**

- At first we analysed the effectiveness of SMS advertising with regard of ‘product involvement’. Since the advertisement in the first questionnaire illustrated a high involvement product (backpacks and bags of ‘Tommy Hilfiger’) and the advertisement in questionnaire 2 showed a low involvement product (snack ‘Lion’), we expected to find a significant difference between the two questionnaires in terms of attitude toward the brand. However, no difference was found ($t = 1.67$; $p = .097$). However, in terms of attitude toward the advertisement we found a significant difference. The research results showed that the respondent’s attitude toward the ad in questionnaire 2 (low involvement product) was more favourable compared to the first questionnaire (high involvement product) ($t = 4.168$; $p = < .001$). Furthermore, as we expected, there exists a significant difference between the two questionnaires in terms of purchase intention. The purchase intention is significantly higher for the low involvement product ($t = 3.02$; $p = .003$). We therefore can conclude that the attitude toward the advertisement and the purchase intention are more favourable for SMS advertisements when an ad of a low involvement product is compared to an ad for a high involvement product.
- Secondly, we analysed the effectiveness of print advertising with regard to ‘product involvement’, by comparing questionnaire 3 and 4. Although the third and the fourth questionnaire advertised another brand (Q3: HI ‘Tommy Hilfiger’ – Q4: LI ‘Lion’), no significant differences could be observed in terms of attitude toward the brand ($t = 0.98$; $p = .328$). However, the research results illustrated significant differences in terms of attitude toward the advertisement and purchase intention. The attitude toward the ad is significantly better for questionnaire 4, in comparison to questionnaire 3 ($t =$

2.09; $p = .039$). In addition, the purchase intention was significantly higher for the fourth questionnaire, in comparison to the third questionnaire ($t = 2.16$; $p = .033$). Since we'd expected not to find significant differences in attitude toward the ad, attitude toward the brand and purchase intention between high- en low involvement products for traditional marketing, the second part of hypothesis 5 cannot be supported.

- When we compare both types of advertising, no differences can be found.

Table 2: Effectiveness of SMS advertising versus advertising through newspapers

		Aad		Ab		PI	
		t-value	p-value	t-value	p-value	t-value	p-value
Comparison Q1-Q3	Location and Time	0.70	.485	0.69	.492	1.09	.277
	Interaction	0.50	.616	0.56	.579	0.21	.831
	Incentive	1.37	.173	0.02	.982	0.01	.996
	Appeal	1.67	.098	0.41	.687	0.28	.781
	Involvement	0.07	.944	0.69	.495	1.02	.311
Comparison Q2-Q4	Location and Time	2.21	<u>.029</u>	0.53	.601	1.05	.298
	Interaction	2.98	<u>.004</u>	3.05	<u>.003</u>	3.80	<u><.001</u>
	Incentive	0.72	.473	0.94	.348	1.05	.298
	Appeal	0.67	.506	1.36	.176	0.17	.864
	Involvement	1.94	.055	0.20	.840	1.38	.172

CONCLUSION

SMS advertising provides many opportunities and challenges for the advertising industry. Because the mobile phone is a very personal device, using it for marketing purposes, would signify that marketers would be able to address the consumers individually and enter into a direct dialogue with customers. However, few investigation was conducted regarding the effectiveness of SMS advertising. The paper at hand attempts to complete this emptiness, by presenting antecedents of SMS advertising effectiveness: location and time, interaction, incentive, appeal and product involvement. Furthermore, we analysed whether this factors also contribute to the success of advertising through newspapers, a type of traditional

advertising. Nowadays, a shift away from traditional marketing to new, interactive and digital media can be observed. Therefore, we examined whether SMS advertising tops advertising through newspapers, in terms of effectiveness.

With regard to the effectiveness of SMS advertising, the results show that the variable 'location and time' influences the attitude toward the ad. Although we expected that the extension of the possibility of interaction would lead to more favourable attitudes toward the ad and the brand and to a higher purchase intentions, this could not be confirmed by our research. The attitude toward the ad is even better regarding an advertisement where no elements of interaction are present. This may be due to the costs associated with sending an SMS. Offering an incentive appears to be successful, since the purchase intention is higher when a benefit can be gained by receiving an SMS ad. Also the advertisement's appeal is of influence. An emotional advertising appeal leads to a more favourable attitude toward the ad, whereas a rational advertising appeal leads to a more positive attitude toward the brand and a higher purchase intention. Finally, the results demonstrate that it is better to advertise products of low involvement, since the attitude toward the ad is more favourable and the purchase intention is higher in that case.

Regarding the effectiveness of advertising through newspapers, the results show that an advertising message where elements of interaction are present leads to a higher purchase intention. In addition, it appears that it is better to advertise products of low involvement, since they also lead to higher purchase intentions. Because the research only revealed these results, we decided that the investigated factors aren't antecedents that contribute to successful advertising through newspapers. Therefore, additional research is necessary.

Regarding the comparison of SMS advertising and advertising through newspapers in terms of effectiveness, we ought to deal with the obtained results with some caution, since we cannot draw a firm conclusion on the basis of the research results. Further research in this domain is therefore necessary.

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