

Increasing Advertising Value of Mobile Marketing – An Empirical Study of Antecedents

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Abstract

Mobile marketing offers great opportunities for businesses. Marketing activities supported by mobile devices allow companies to directly communicate with their consumers without time or location barriers. Possibilities for marketers are numerous, but many aspects of mobile marketing still need further investigation. Especially, the topic of mobile advertising (m-advertising) is of major interest. M-advertising addresses consumers with individualized advertising messages via mobile devices. The underlying paper discusses the relevance of m-advertising and investigates how perceived advertising value of mobile marketing can be increased. The analysis is based on a study among consumers. All together a quota sample of 815 mobile phone users was interviewed. The results indicate that the message content is of greatest relevance for the perceived advertising value, while a high frequency of message exposure has a negative impact on it.

1. Introduction and Research Motivation

Devices and systems based on mobile technologies have become a commonplace in our everyday lives [3]. Their relevance is obvious to all of us. Mobile devices have changed the way we communicate and interact [10]. More than that, mobile technologies have not only altered our style of communication, but they also have a strong impact on modern management. They allow existing activities to be carried out more efficiently and enable many entirely new activities [3]. As a consequence, mobile technologies have the potential to create new markets, alter the competitive landscape of business, and change existing societal and market structures [54].

The rapid growth of the mobile industry has provided a foundation for mobile commerce (m-commerce). M-commerce can be defined as e-commerce that is carried out via mobile devices such as mobile phones [35] and involves an emerging set of applications and services people can access from their web-enabled mobile devices [59]. M-commerce applications include mobile financial applications, mobile inventory management, product locating and shopping, wireless engineering, mobile auctions, wireless data centers, and mobile advertising [39].

Undoubtedly, mobile technologies have a very powerful impact on modern business. Proponents of this technology claim that the growth and importance of m-commerce will exceed that of e-commerce [35]. But mobile devices have also changed the marketers' world. Mobile devices enable interactions between customer and advertiser that become increasingly rapid and easy [45] and are independent from the consumer's location. Users of mobile devices can receive digital photographs, moving video images and high-quality audio from their mobile handsets. Corporate users can connect to their office computer networks and send and receive e-mails [49]. Opportunities for direct interaction with consumers are unprecedented [23]. Consumers can be provided with information they are interested in, which gives marketers the chance to build customer relationships of a new dimension.

However, still little is known about how mobile technologies and their application can be successfully integrated into marketing activities [3]. As a result, modern advertisers are increasingly relying on various modes of interactive technology to advertise and promote their products and services [45]. Despite this, potential customers so far did not have the opportunity to signal their likes and dislikes with marketing activities via

mobile devices. This puts marketers at a high risk [49] as they are unsure whether their marketing activities cause positive or negative reactions by the customer.

It is generally assumed that the features of mobile devices will become equivalent to those of desktop computing in the future [35]. In any event, if marketers want to use efficiently the communication channels that mobile media provide, they need to understand how mobile consumers perceive and evaluate mobile devices as a source of advertising. For a long period of time it has been clear that perceptions of the advertising medium affect attitudes toward individual advertising [11].

This paper aims to contribute to this objective and presents results of an empirical investigation concerning advertising via mobile devices. It specifically focuses on an aspect of mobile advertising that has not been discussed in scientific literature so far: Advertising value of mobile marketing. The article is organized as follows: Firstly, an introductory definition of mobile marketing and mobile advertising is presented. The following section provides a review of relevant literature, which is discussed in terms of its relevance to advertising value. After that we discuss success factors of effective advertising via mobile devices and summarize them in an advertising value model. Then the applied research methodology is presented and the empirical evaluation of the advertising value model is carried out.

2. Mobile Marketing

The American Marketing Association [2] defines marketing as the process of planning and executing the conception, pricing, promotion, and distribution of goods, services, and ideas to create exchanges that satisfy individual and organizational goals [2]. In a mobile world, these activities are performed via mobile devices, such as cellular phones and pagers, cordless telephones, personal digital assistants, two-way radios, baby crib monitors, wireless networking systems, global positioning systems (GPS)-based locators and maps [3]. Mobile marketing can therefore be considered an instantiation of marketing in the context of a mobile environment. We 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* [9].

3. Mobile Advertising

Kotler [28] defines advertising as “any paid form of nonpersonal presentation and promotion of ideas, goods or services by an identified sponsor” (p. 590). Mobile advertising (in the following abbreviated as m-advertising) refers to the transmission of advertising messages via mobile devices such as mobile phones.

There are different synonyms for m-advertising, such as wireless advertising [30] or wireless advertising messaging [46]. Usually, m-advertising messages are transmitted via short message service (SMS) [7]. Like web-based and e-mail-based advertising, the receiver of m-advertising messages is addressed specifically. In contrast to that, mass media advertising is non-personal and does not address single recipients.

4. Characteristics of Mobile Advertising

“Good marketing management emphasizes the building of long-term relationships” (p. 10) [24]. Mobile advertising can support these goals in various ways, because it allows reciprocal communication processes between marketer and consumers. In Japan, where wireless Internet is already a reality, several portals are sending simple advertising messages to mobile phone users [57]. “As more wireless bandwidth will be available, content rich advertising involving audio, pictures and video clips can be produced for individual users with specific needs, interests and inclinations” [58]. It is therefore assumed that mobile advertising will be also an important source of revenue for mobile operators in the future [8].

Compared to advertising via classical media and Internet-based advertising, m-advertising has some distinctive features which enhance as well as limit advertising opportunities for marketers. These features refer to personalization and interactivity enhancements and usability and technological limitations. These items are discussed below.

4.1. Personalization

M-advertising provides potential for personalization, because mobile devices usually carry the user’s assigned identity [35]. If marketers employ mobile devices for their advertising activities, they can use consumer feedback to customize their messages and offerings and collect information about consumers’ preferences to improve future products and services [54]. This provides an exceptional advantage for marketers, since it enables them to reach their potential customers in a very individual way and thus increase the relationship with the user. Users are receptive to advertising that is personalized and relevant to their lifestyle, states Reza Chady, the head of global market research at Nokia Networks [8].

The aspect of personalization turns m-advertising into a very important m-commerce application, since it allows the usage of demographic information collected by wireless service providers and information on the current location of a mobile user. Thus, advertising can be carried out very precisely and with a clear focus on the target group [58]. Rao and Minakakis [48] argue that there is an urgent need for marketing techniques based on knowledge

of customer profiles, history, and their needs. Beyond personalization upon consumer's feedback, the ability to locate consumers allows the specific situation of a user to be considered. Consequently, advertising activities can be adapted to time and time-related items such as local events.

4.2. Interactivity

Consumer-marketer relationships are interactions in which actors are trying to satisfy their goals. Marketing communication can be viewed as coordinated action by consumers and marketers for fulfilling goals that neither party can accomplish individually [54]. M-advertising activities increase the possibilities of interaction, since they allow an immediate and direct feedback from the consumer. Similarly to Internet-based advertising, m-advertising can react very fast to customers' feedback.

5. Limitations of Mobile Advertising

5.1. Usability

Usability of mobile services and technology is one of the major hurdles marketing managers need to overcome in the future. Companies have to know what aspects of usability are important to users and how e-commerce-related services can be adapted to the wireless environment [59].

5.2. Technological Limitations

The main difference between mobile and desktop computer-based features is the size of the screen of the mobile device [35]. This seems to be one of the most difficult hurdles to overcome when applying advertising to mobile devices, because the scope for design of advertised messages is much more limited. There are also some differences, such as display format and color display, that cause limited scope of design. Additionally, mobile devices are also limited in computational power, memory, battery life [53], and bandwidth, a fact that causes constraints concerning the transferred data volume.

6. Advertising Value of Mobile Advertising

A major issue in advertising research is measurement of the effects of advertising on the recipient. As m-advertising is a rather new form of marketing on the basis of the Internet technology, it implies new and difficult challenges concerning the measurement of its effects and effectiveness. Especially the reciprocal communication between marketer and consumer makes it difficult to isolate the effects of the advertising exposure, because the marketer influences the customer behavior but the

customer also influences the marketer's behavior [45]. The approach of advertising value is described as follows: "While notions like enhanced quality, innovation, and customer satisfaction with products and services are now part of the zeitgeist of contemporary business culture, they have yet to be applied in earnest to advertising. Advertising value may therefore serve as an index of customer satisfaction with the *communication products* of organizations". Advertising value is a measure for advertising effectiveness. It is defined as "a subjective evaluation of the relative worth or utility of advertising to consumers" (p. 1) [12]. "A value is an enduring belief that a specific mode of conduct or end state of existence is personally-psychologically or socially-culturally preferable to a converse mode of conduct or an opposite end state of existence" [37] cited by (p. 34) [22]. Value potentially derives from the expectations about an offering itself, from experiences accompanying the exchange, and from the residual of having engaged in behaviors necessary to achieve the exchange. Hence, value can reflect the worth of the element itself as well as the experience associated with the transaction [24]. Values are the basis of actions, attitudes, and judgements in advertising as well as in other aspects of social life [5].

"Advertising value may be influenced by and influence both media and media vehicle context. For advertisers, this implies that by carefully selecting media that fit the communication task at hand and media vehicles that accurately target the most interested potential customers, they can enhance the value of their advertising" (p. 14 f.) [12]. This aspect is of particularly high relevance for m-advertising as an innovative marketing alternative. There is no doubt that the Internet and related technologies like mobile Internet etc. have the potential to add value [54]. Consequently, our research interest focuses on the antecedents of advertising value of m-advertising.

7. Antecedents of Advertising Value

The previous sections have outlined the unique instructional opportunities that mobile advertising provides for marketing. The following subsections present an "Advertising Value Model for Mobile Advertising", which aims at determining key influencing factors for the advertising value of m-advertising. The components of the model are presented beginning with the dependent variable "advertising value" (see Figure 1). An intensive literature review was used to establish content validity, i.e. whether the items represent all situations we sought to measure. In our model, we assume that 7 variables have a direct impact on the effectiveness of mobile advertising.

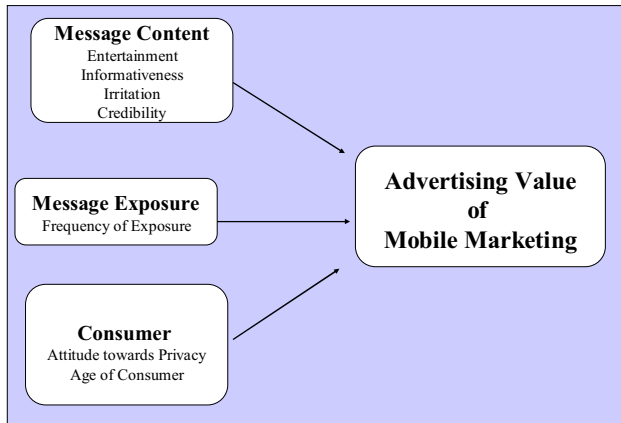


Figure 1: Advertising Value Model for Mobile Advertising

7.1. Characteristics of Message Content

Advertising messages refer to communication exchanges between advertisers and consumers [11]. Advertising theorists have been describing the critical stimulus features of various advertising media and their content [50]. Still advertising via mobile devices limits the possibilities of advertisers. The message sent needs to have certain attributes. It should be concise, use a language which is understood by the recipients, and use the available 160 characters [4].

Entertainment

A high degree of pleasure and involvement during interaction with computer-based media leads to concurrent subjective perceptions of positive affect and mood of the consumer [23]. People's feeling of enjoyment associated with advertisements play the greatest role in accounting for their overall attitudes towards them [52]. Entertainment denotes ist full ability to fulfill consumers' needs for "escapism, diversion, aesthetic enjoyment or emotional release" [41].

Entertainment is also a crucial factor for m-advertising. It is essential that the message is concise and funny, and thus immediately captures consumers' attention [26]. Entertainment services can increase customer loyalty and add value for the customer. As most people have a natural playfulness, providing games and prizes via text messaging (SMS) yields high participation. Delivering games and prizes to the target group's cellular phones is a successful way to attract and keep customers [21]. Interactive games for example can also be played via text messages. These features can be used to involve customers more deeply and make them more familiar with the advertised service or product [36]. Ducoffe showed that entertainment of the advertising information is significantly related to advertising value of traditional advertising [12]. Therefore we conclude that an

entertaining advertising message is being perceived more positive by the recipient.

H1: The higher the entertainment factor of mobile advertising messages, the higher the perceived advertising value of the consumer.

Informativeness

The quality of the information placed on a company's web site has a direct influence on the customers' perceptions of the company and the company's products. Accordingly, the information delivered to them via mobile devices also needs to show qualitative features like accuracy, timeliness, and usefulness for the consumer [53]. Apart from this, the user needs quick access to the information (s)he is looking for his/her current content of use. There is even the possibility that the information may be delivered automatically to the consumer [25].

In any event, consumers want the content of mobile services to be tailored to their interests [49]. On top of this, they are interested in getting messages that are relevant for them [43]. Information is thus considered a very valuable incentive in m-advertising, because recipients react very positively to advertising transferring incentives [57]. Not surprisingly, informativeness of the advertising information is therefore strongly related to the advertising value when it is transferred via traditional media vehicles [12]. In an interactive context, the benefits that advertising provides to consumers may have an indirect influence on measures of advertising effectiveness [45].

H2: The higher the informativeness of mobile advertising messages, the higher the perceived advertising value of the consumer.

Irritation

Indignity people feel when being addressed by advertisements has a very great influence on people's attitude towards advertising [52]. "When advertising employs techniques that annoy, offend, insult, or are overly manipulative, consumers are likely to perceive it as unwanted and irritating influence" (p. 23) [11].

Mobile advertising can provide an array of information that confuses and distracts the recipient as well as overwhelms the consumer with information [54]. Consumers may feel confused about them and react negatively. We therefore conclude that irritation caused by an incomprehensible mobile advertising message may reflect negatively on the perceived advertising value of m-advertising.

H3: The higher the irritation of mobile advertising messages, the lower the perceived advertising value of the consumer.

Credibility

Advertising credibility turned out to be significantly relevant to advertising value of web advertising [6].

McKenzie and Lutz [40] define advertising credibility as “consumers’ perception of the truthfulness and believability of advertising in general” (p. 51) [40], whereas Pavlou and Stewart refer to it as “predictability and fulfillment of implicit and explicit requirements of an agreement” (online document) [45]. Credibility of an advertisement is influenced by different factors, especially by the company’s credibility and the bearer of the message [18, 33]. But it is also influenced by the advertising medium. For example, Marshall and WoonBong [15] found out that a message on the Internet achieves less credibility than a printed message unless the message is communicated by a strong brand. There is no empirical evidence on the overall credibility of messages transferred to mobile devices and their influencing factors. Considering the findings cited above we conclude that the credibility of a mobile advertising message has a positive influence on the perceived advertising value of the consumer.

H4: The higher the perceived credibility of mobile advertising messages, the higher the perceived advertising value of the consumer.

7.2. Frequency of Exposure

The number of advertising messages received via mobile devices is an important factor influencing the advertising value for the consumer [21]. Ducoffe states that informativeness and entertainment of the advertising information should decline with repetition, because the information will be learned by the audience and thereby lessening its value [12]. As the quantity of promotional message rises, the attitude of the individual towards the promotional vehicle also worsens and leads to tedium from consumers’ point of view [20, 55]. In our model, the impact of informativeness is already analyzed on behalf of H2; therefore we investigate the relationship between the frequency of exposure and the advertising value.

H5: The higher the frequency of exposure to mobile advertising messages, the lower the advertising value of the consumer.

7.3. Mobile Consumer Characteristics

Due to the high number of advertisements and alternative advertising media, consumers have the possibility to select advertising messages and to choose when and how to interact. This raises the importance of consumers’ individual goals and gives them a new role in the mobile advertising process [45].

Attitude towards Privacy

Customer privacy has always been a critical issue in marketing, but has assumed a greater significance in recent years with the rise of Internet-based commercial transactions [51]. Most consumers are still quite

uncomfortable with the concept of mobile business and they are sceptical whether these businesses are feasible and secure [53]. Originally meant to connect the world of business, the mobile phone has been increasingly applied by private households and therewith entered the domestic sphere. Accordingly, the mobile phone has changed its identity: it has lost its internal coherence and its connotations of being a mobile technology [16]. Consumers regard their mobile phone a very private item. Mobile technologies are considered “personal” technologies, attached to a particular body or person [19]. Consequently, they are very sensitive towards receiving messages from unknown persons or organizations. Data control by unknown individuals can easily lead to annoyance among receivers [60].

Privacy issues are therefore very important when using mobile devices in addressing the consumers. This calls for the application of the permission marketing approach [27, 31, 56]. Before receiving advertising messages via a mobile device, consumers need to empower a marketer to send promotional messages in certain interest categories to them. Typically, this is done by asking the consumer to fill out a survey indicating his or her interests when registering for a service. After that, the marketer can match advertising messages with the interests of the consumer [29]. These processes allow a new kind of interactivity, which often leads to marketers collecting, compiling, and using information about customers [54]. Mobile advertising may therefore be considered the easiest way to tackle privacy. Privacy refers to the degree to which personal information is not known by others [51].

Consumers can no longer depend on the intuitive sense of place and presence that governs their observable behavior to make sure that they are not being watched or recorded by another individual [51], which leads to feelings of insecurity. We therefore conclude that consumers, who esteem their subjective privacy very highly, will perceive the value of a mobile advertising message lower.

H6: The higher the subjective privacy (personal information shared) is worth to the consumer, the lower the perceived advertising value of mobile advertising messages.

Age of Consumer

The last variable investigated is the age of the consumer. Generally, young people are heavy users of mobile services [9]. For them mobile devices have become as much as a fashion accessory as they are a communication device [49]. Younger consumers also show a more favorable attitude towards traditional advertising in a number of dimensions. They like looking at ads and they feel more comfortable when doing so [52]. Not surprisingly, they also show a very positive attitude towards mobile ads, whereas older consumers are also

positive about mobile ads, but more prudent [25]. Considering these facts we come to the conclusion that younger consumers value advertising message via mobile devices more than older consumers.

H7: The higher the age of the consumer, the lower the perceived advertising value of the consumer.

8. Study Method

The study was conducted over a six weeks period during which 815 mobile phone owners were interviewed on their perceived advertising value. For this purpose, a pre-tested, standardized questionnaire was applied. The interviewed persons were selected on the basis of a quota sample that is representative for the Austrian population. The quota are related to gender, age, and education. The face-to-face interviews have been carried out by trained undergraduate students in fall 2003. The Austrian market shows one of the highest penetration rates of mobile phone users in Europe [42] and is therefore very suitable for investigation on mobile marketing and advertising.

Apart from the socio-demographic attributes of the interviewee and the number of his/her advertising messages received, all measures were assessed via a 5-point-Likert-type scale ranging from “strongly agree” to “strongly disagree”. These scales were reverse-coded where appropriate. Scales and properties of purified measures will be made available upon request. The questions that cover the model are mainly basing on the studies by [11, 34, 38].

9. Results and Discussion

The obtained quota sample is very similar to the Austrian socio-demographic structure and shows the following attributes (see Table 1):

Gender		Education	
Men	47.2%	Elementary School	28.2%
Women	52.8%	Apprenticeship	25.5%
Age		Vocational School	17.5%
15-19 Years	7.5%	Secondary School	20.1%
20-29 Years	17.9%	University	8.6%
30-39 years	21.7%		
40-49 Years	15.1%		
50+ Years	37.8%		

Table 1: Sample Demographics

Table 2 shows the correlations between the factors hypothesized to impact on advertising value of m-advertising, respectively.

	Perceived Advertising Value
Advertising Message Content	
H1: Entertainment	.761**
H2: Informativeness	.692**
H3: Irritation	-.132**
H4: Credibility	.66**
Frequency of Exposure (H5)	-.099**
Consumer	
H6: Attitude toward Privacy	-.138**
H7: Age of Consumer	-.051
*p<.05 **p<.01 *** p<.001	

Table 2: Influencing Factors on Perceived Advertising Value of Mobile Advertising

Hypotheses 1 and 2 predict that entertainment as well as informativeness is positively associated with advertising value when addressing consumers via mobile devices. Both hypotheses were supported by the data. The high correlation coefficients indicate that there is a strong relationship with advertising value. These results are confirmed by other studies [11], who come to the same results investigating web advertising.

Entertainment has turned out to increase advertising value in different empirical investigations. For example, Ferrazzi et al. [15] found out that entertaining games in combination with sales messages can encourage dialogs with customers and project product images. Online advertising that is enriched with entertaining elements achieves a more positive evaluation by recipients and leads to higher intent to revisit the homepage than web sites without entertainment features [47].

Informativeness of the advertising message turns out to be the second strong influential factor on consumers' perceived advertising value. The advertising message is perceived as valuable as long as it provides information and thus creates some benefit for the consumer. Stewart and Pavlou [54] point at the importance of interactive media, like the Internet, as an information broker that allows “the customer to acquire real-time account information that was previously not available (p. 384).” They further conclude that this may be perceived as an added value the consumer may even be willing to pay for in some cases.

Hypothesis 3 predicts irritation to be negatively associated with perceived advertising value. Results indicate that irritation does negatively influence the value of mobile advertising. Still a low correlation coefficient indicated that the influence of irritation is not as strong as the influence of the variables entertainment and informativeness. Irritation is a phenomenon that is similar to reactance, i.e. consumers tend to refuse advertisements if they have the feeling that the advertisement is too intrusive [32]. In the context of web-based advertising

reactance, consumers tend to avoid web sites that show interrupting advertisements like pop-ups. The perception of intrusiveness can, however, be decreased if the advertisements are relevant to the target group and if they provide value to the recipient [13]. Thus, the perceived irritation can be influenced by an advertisement's message.

Hypothesis 4 indicates that a high credibility of the advertising message would be positively associated with advertising value. This hypothesis could also be confirmed. The correlation coefficient shows a strong relationship between the advertising value and perceived credibility. Credibility, which is based on the extent to which consumers believe that the marketer has the expertise and honesty to perform a transaction effectively and reliably, is the base of consumer trust [17]. Building customer trust is a complex process that involves technology and business practices, but it is crucial for the growth and success of mobile commerce [53]. Experience with a channel partner increases trust [17]. Since communication with consumers via their mobile devices is a very young phenomenon, marketers are requested to build and breed trust. It is therefore advisable to build awareness via other media as well [14].

The results indicate that success of mobile advertising activities strongly depends on message characteristics. The message characteristics need to be developed carefully. Marketers can not only rely on the fact that an advertising message sent via a mobile device will be read and remembered automatically. The mobile device may be an attention getter, but an attention getting device that is unrelated to the message will not attract consumers interested in the message or the product [44]. This creates new challenges for marketers in the future. Cyriac Roeding, the European chair of the Mobile Marketing Association indicates that "as bandwidth increases, advertisers will have to be innovative in their campaigns to overcome the limitations of handsets with small screens" [8].

Hypothesis 5 states that the frequency of exposure is negatively associated with perceived advertising value. This hypothesis was supported by the data. A high frequency of exposure seems to decrease the value of advertising. This result is also supported by scientific literature [12], which assumes that consumers who are confronted with ads repeatedly are less informed since they have already learned the content.

Hypothesis 6 suggests that customers who consider privacy as very valuable are less likely to attribute a high value to mobile advertising. This hypothesis was also supported. This result is not surprising since numerous studies have indicated similar results for other permission marketing tools, e.g. e-mails. According to Ackerman, Darrel and Weitzner [1], a trade-off between perceived privacy intrusion and user benefit is also possible. They assume that consumers will accept a certain degree of

privacy loss if the benefit is perceived as being sufficient and satisfying. But still, privacy concerns can not be dismissed. Especially the sharing of user information will be a major issue of discussion in the near future [57]. Unauthorized resale of personal information, intrusion and theft of customer databases, and the unauthorized use of lost or stolen mobile devices present threats to the successful usage of mobile advertising [48].

Hypothesis 7 states that the age of the advertising recipient reflects on the perceived advertising value. Surprisingly, this hypothesis could not be supported. Age does not influence the advertising recipients' perception of m-advertising significantly. These results are supported by Bracket and Carr's findings who showed in their study investigating advertising value of web ads that the age did not influence the perception either [6].

To investigate the influence of the factors in greater detail, a regression analysis was applied (Table 3).

Independent Variable	Dependent Variable Advertising Value of M-Advertising		
	T-Value	Beta	p-Value
Entertainment	t = 15.41	.481	.00
Information	t = 5.68	.176	.00
Irritation	t = -5.24	-.126	.00
Credibility	t = 8.52	.257	.00
Frequency of Exposure	t = -2.305	-.054	.021
Privacy	t = -.265	-.006	.79
Age	t = -.647	-.014	.51
Adjusted R ²	.653		

Table 3: Influencing Factors on Advertising Value of M-Advertising

The regression analysis supports the results of the hypotheses tests. A striking result of this study concerns the overwhelming importance especially of entertainment and credibility of the message on the advertising value perceived by the consumer (see section above).

10. Concluding Remarks

M-advertising activities provide many new opportunities and challenges for marketers. They allow addressing the consumers individually and enabling a direct and reciprocal communication with customers. However, in contrast to Internet-based advertising, the effects of advertising via mobile devices have not yet been sufficiently investigated.

The paper at hand presents antecedents of advertising value integrating m-advertising into the marketing activities of a company. Specifically, the effectiveness of

mobile advertising is investigated. Focuses of the study were influence factors on consumers' perceived advertising value of m-advertising. The results show that the advertising value of m-advertising is strongly related to the content and the frequency of the advertising message sent via mobile devices. Most surprisingly, the consumers' attributes do not play such a dominant role regarding advertising value. The assumption that mobile advertising is more effective among younger consumers could neither be verified.

On issues of future research, the paper offers some potential research avenues. Firstly, the content of a mobile advertising message should be revisited. In contrast to web advertising, advertising via mobile devices is limited by various constraints, like e.g. screen size. Apart from this, consumers consider their mobile phone a very private item and are extremely sensitive about the messages they receive. This creates numerous challenges for marketers, which need to be investigated in greater detail. Secondly, the integration and interaction into marketing activities using other media vehicles should be researched further as there can be cross-media interdependencies and image transfers. Additional experiments need to be designed to investigate the information process of the mobile ad recipients to develop normative recommendations in how to most effectively integrate mobile advertising into marketing activities. The uniqueness of mobile advertising compared to Internet-based advertising should be taken into account more deeply. E.g., what does an advertising message that is adjusted to the consumer's location (e.g. a supermarket) mean to the recipient of the advertising message? Finally, the presented study should be extended to further important influencing factors like the attitude toward advertising in general that may affect advertising value of m-advertising as well.

11. References

- [1] Ackerman, M., Darrel, T. and Weitzner, D. "Privacy in Context", *Human-Computer Interaction* 16, 2001, pp. 167 - 176.
- [2] AMA. "Ama Board Approves New Marketing Definition." *Marketing News March 1985*, 1985.
- [3] Balasubramanian, S., Peterson, R. A. and Jarvenpaa, S. L. "Exploring the Implications of M-Commerce for Markets and Marketing", *Journal of the Academy of Marketing Science* 30(4), 2002, pp. 348 - 361.
- [4] Barwise, P. and Strong, C. "Permission-Based Mobile Advertising", *Journal of Interactive Marketing* 16(1), 2002, pp. 14 - 24.
- [5] Beatty, S. E., Kahle, L. R., Homer, P. and Shekar, M. "Alternative Measurement Approaches to Consumer Values: The List of Values and the Rokeach Value Survey", *Psychology and Marketing* 2(3), 1985, pp. 181 - 200.
- [6] Brackett, L. K. and Carr, B., N. "Cyberspace Advertising Vs. Other Media: Consumer Vs. Mature Student Attitudes", *Journal of Advertising Research (September - October)*, 2001, pp. 23 - 32.
- [7] De Reyck, B. and Degraeve, Z. "Broadcast Scheduling for Mobile Advertising", *Operations Research* 51(4), 2003, pp. 509-518.
- [8] DeZoysa, S. "Mobile Advertising Needs to Get Personal", *Telecommunications International (Feb 2002)*, 2002.
- [9] Dickinger, A., Haghirian, P., Murphy, J. and Scharl, A. "An Investigation and Conceptual Model of Sms Marketing", *37th Hawaii International Conference on System Sciences (HICSS-38)*, 2004, pp. 31.
- [10] Dickinger, A., Haghirian, P. and Schlegelmilch, B. B. "M-Marketing: Ein Ausblick auf das Marketing der Zukunft", *Der Markt Special Issue M-Commerce(Fall/Winter 2003)*, 2003, pp. 107 - 116.
- [11] Ducoffe, R. H. "Advertising Value and Advertising on the Web", *Journal of Advertising Research (September - October)*, 1996, pp. 21 - 36.
- [12] Ducoffe, R. H. "How Consumers Assess the Value of Advertising", *Journal of Current Issues and Research in Advertising* 17/1, 1995, pp. 1 - 18.
- [13] Edwards, S. M., Li, H. and Lee, J.-H. "Forced Exposure and Psychological Reactance: Antecedents and Consequences of the Perceived Intrusiveness of Pup-up Ads", *Journal of Advertising* 31(3), 2002, pp. 83 - 95.
- [14] enpocket.com. "Consumer Preferences for Sms Marketing in the UK", 2002, www.enpocket.com/research
- [15] Ferrazzi, K., Chen, J. and Li, Z. "Idea: Playing Games with Customers", *Harvard Business Review* 81(4), 2003, pp. 21.
- [16] Fortunati, L. "The Mobile Phone: An Identity on the Move", *Personal and Ubiquitous Computing* 5, 2001, pp. 85 - 98.
- [17] Ganesan, S. "Determinants of Long-Term Orientation in Buyer-Seller Relationships", *Journal of Marketing* 58, 1994, pp. 1 - 19.
- [18] Goldsmith, R. E., Lafferty, B. A. and Newell, S. J. "The Impact of Corporate Credibility and Celebrity Credibility on Consumer Reaction to Advertisements and Brands", *Journal of Advertising* 29(3), 2000, pp. 43 - 54.
- [19] Green, N., Harper, R. H. R., Murtagh, G. and Cooper, G. "Configuring the Mobile User: Sociological and Industry Views", *Personal and Ubiquitous Computing* 5, 2001, pp. 146 - 156.

- [20] Ha, L. "Observations: Advertising Clutter in Consumer Magazines: Dimensions and Effects", *Journal of Advertising Research* 36(4), 1996, pp. 76 - 84.
- [21] Haghirian, P. and Dickinger, A. "Identifying Success Factors of Mobile Marketing", *ACR Asia-Pacific 2004 (Association of Consumer Research)*, 2004, (forthcoming).
- [22] Hetsroni, A. and Asya, I. "A Comparison of Values in Infomercials and Commercials", *Corporate Communications: An International Journal* 7(1), 2002, pp. 34 - 45.
- [23] Hoffman, D. L. and Novak, T., P. "Marketing in Hypermedia Computer-Mediated Environments: Conceptual Foundations", *Journal of Marketing* 60, 1996, pp. 50 - 68.
- [24] Houston, F. S. and Gassenheimer, J. B. "Marketing and Exchange", *Journal of Current Issues and Research in Advertising* 51(October), 1987, pp. 3 - 18.
- [25] Kaasinen, E. "User Needs for Location-Aware Mobile Services", *Personal and Ubiquitous Computing* 7, 2003, pp. 70 - 79.
- [26] Katterbach, W. "Die SMS-Verkäufer", *Impulse February 1st*, 2002, pp. 76.
- [27] Kent, R. and Brandal, H. "Improving Email Response in a Permission Marketing Context", *International Journal of Market Research* 45(4), 2003, pp. 489 - 503.
- [28] Kotler, P. "Marketing Management", Pearson Education, Upper Saddle River, New Jersey, 2003.
- [29] Krishnamurthy, S. "A Comprehensive Analysis of Permission Marketing", *Journal of Computer Mediated Communication* 6(2), 2001, <http://www.ascusc.org/jcmc/vol6/7issue2/krishnamurthy.html>.
- [30] Krishnamurthy, S. "E-Commerce Management", Thomson, South Western, Mason, Ohio, 2003.
- [31] Krishnamurthy, S. "Permission Marketing: Turning Strangers into Friends, and Friends into Customers", *Journal of Marketing Research* 77(4), 2000, pp. 171 - 173.
- [32] Kroeber-Riel, W. and Weinberg, P. "Konsumentenverhalten", Verlag Franz Vahlen Muenchen, Munich, 2003.
- [33] Lafferty, B. A., Goldsmith, R. E. and Newell, S. J. "The Dual Credibility Model: The Influence of Corporate and Endorser Credibility on Attitudes and Purchase Intentions", *Journal of Marketing Theory and Practice* 10(3), 2002, pp. 1-12.
- [34] Lastovicka, J. L. "Convergent and Discriminant Validity of Television Commercial Rating Scales", *Journal of Advertising* 12(2), 1983, pp. 14 - 23.
- [35] Lee, Y. E. and Benbasat, I. "Interface Design for Mobile Commerce", *Communications of the ACM* 46(12), 2003, pp. 49 - 52.
- [36] Lehmkuhl, F. "Küsse und Machotests", *FOCUS January 6th*, 2003.
- [37] Levi, S. "Values and Deeds", *Applied Psychology: An International Review* 39(4), 1990, pp. 379 - 400.
- [38] MacKenzie, S. B. and Lutz, R. L. "An Empirical Examination of the Structural Antecedents of Attitude toward the Ad in an Advertising Pretesting Context", *Journal of Marketing* 53(April 1998), 1989, pp. 48 - 65.
- [39] Malloy, A. D., Varshney, U. and Snow, A. P. "Supporting Mobile Commerce Applications Using Dependable Wireless Networks", *Mobile Networks and Applications* 7, 2002, pp. 225 - 234.
- [40] McKenzie, S. B. and Lutz, J. L. "An Empirical Examination of the Structural Antecedents of Attitude Towards the Ad in an Advertising Pre-Testing Context", *Journal of Marketing* 53, 1989, pp. 48 - 65.
- [41] McQuail, D. "Mass Communication Theory: An Introduction", Sage Publication, London, 1983.
- [42] Merrill Lynch. "Wireless Matrix – 3Q02, Quarterly Update on Global Wireless Industry Metrics", 2002.
- [43] Milne, G. and Gordon, M. E. "Direct Mail Privacy - Efficiency Trade-Offs within an Implied Social Contract Framework", *Journal of Public Policy & Marketing* 12(2), 1993, pp. 206 - 216.
- [44] Ogilvy, D. "Confessions of an Advertising Man", Ballantine Books, New York, 1963.
- [45] Pavlou, P. A. and Stewart, D. W. "Measuring the Effects and Effectiveness of Interactive Advertising: A Research Agenda", *Journal of Interactive Advertising* 1(1), 2000, (online document).
- [46] Petty, R. D. "Wireless Advertising Messaging: Legal Analysis and Public Policy Issues", *Journal of Public Policy & Marketing* 22(1), 2003, pp. 71 - 82.
- [47] Raney, A. A., Arpan, L. M., Padhupati, K. and Brill, D. A. "At the Movies, on the Web: An Investigation of the Effects of Entertaining and Interactive Web Content on Site and Brand Evaluations", *Journal of Interactive Marketing* 17(4), 2003, pp. 38 - 53.
- [48] Rao, B. and Minakakis, L. "Evolution of Mobile Location-Based Services", *Communications of the ACM* 46(12), 2003, pp. 61 - 65.
- [49] Robins, F. "The Marketing of 3G", *Marketing Intelligence & Planning* 21(6), 2003, pp. 370 - 378.

- [50] Rodgers, S. and Thorson, E. "The Interactive Advertising Model: How Users Perceive and Process Online Ads", *Journal of Interactive Advertising* 1(1), 2000, (online document).
- [51] Rust, R. T., Kannan, P. K. and Peng, N. "The Customer Economics of Internet Privacy", *Journal of the Academy of Marketing Science* 30(4), 2002, pp. 455 - 464.
- [52] Shavitt, S., Lowrey, P. and Haefner, J. "Public Attitudes Towards Advertising: More Favourable Than You Might Think", *Journal of Advertising Research* 38(4), 1998, pp. 7 - 22.
- [53] Siau, K. and Shen, Z. "Building Customer Trust in Mobile Commerce", *Communications of the ACM* 46(4), 2003, pp. 91 - 94.
- [54] Stewart, D. W. and Pavlou, P. A. "From Consumer Response to Active Consumer: Measuring the Effectiveness of Interactive Media", *Journal of the Academy of Marketing Science* 30(4), 2002, pp. 376 - 396.
- [55] Tellis, G. J. "Effective Frequency: One Exposure or Three Factors?" *Journal of Advertising Research* 37(4), 1997, pp. 75 - 80.
- [56] Tezinde, T., Smith, B. and Murphy, J. "Getting Permission: Exploring Factors Affecting Permission Marketing", *Journal of Interactive Marketing* 16(4), 2002, pp. 28 - 36.
- [57] Varshney, U. "Location Management for Mobile Commerce Applications in Wireless Internet Environment", *ACM Transactions on Internet Technology* 3(3), 2003, pp. 236 - 255.
- [58] Varshney, U. and Vetter, R. "Mobile Commerce: Framework, Applications and Networking Support", *Mobile Networks and Applications* 7, 2002, pp. 185 - 198.
- [59] Venkatesh, V., Ramesh, V. and Massey, A. P. "Understanding Usability in Mobile Marketing", *Communications of the ACM* 46(12), 2003, pp. 53 - 56.
- [60] Whitaker, L. "Ads Unplugged", *American Demographics* 23(6), 2001, pp. 30 - 34.