Factors Affecting Acceptance Of SMS Marketing

Kanpapak Yampratoom

Follow this and additional works at: https://aisel.aisnet.org/iceb2011

This material is brought to you by the International Conference on Electronic Business (ICEB) at AIS Electronic Library (AISeL). It has been accepted for inclusion in ICEB 2011 Proceedings by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.
FACTORS AFFECTING ACCEPTANCE OF SMS MARKETING
Kanpapak Yampratoom, Thammasat University, panadday@gmail.com

ABSTRACT
This study intends to explore the factors affecting Thais’ acceptance of mobile marketing. Previous studies have shown significant differences between informativeness, entertainment, and permission. Moreover, transparency of information disclosure and image congruence have not been studied in this context. We found that personalization, informativeness, entertainment, transparency of information disclosure, and subjective norms are factors affecting acceptance. The sample population accepts a marketing message by considering mainly its value/utility and opinion of reference group; they accept mobile marketing based on utilitarian reasons more than hedonic consumption.

Keywords: SMS Marketing, Mobile Marketing Acceptance, Theory of Reasoned Action

INTRODUCTION
Mobile cellular subscriptions in Thailand grow steadily from 3,056,000 in 2000 to 65,952,313 in 2009 [15]. Short message service (SMS) is popular especially during holidays resulting in critical mass of both mobile phone and SMS. The ubiquitous and interactive nature of the device allows two-way communications between users and marketers. [4] Location-based services allow mobile network operators to locate the user/consumer [30] and use location information to align marketing service with needs [30] [37] resulting in the mobile phone becoming a popular marketing device. However, the ubiquitousness property which allows marketers to reach mobile consumers without the restraints of time or place may annoy consumer and become ineffective or rejected.

In Thailand, consumer’s annoyance is also a major problem in mobile marketing. A study by [5] shows that only 4.17% of Thai mobile users have positive attitude towards mobile marketing. 83% of complaints registered at the Telecommunications Consumer Protection Institute are due to marketing messages [35].

Researches in marketing and mobile advertisements have shown that mobile users accept messages that satisfy the criteria of entertainment, informativeness, and personalization, but the results are inconsistent. [34] [37] found that entertainment affects the attitude of Taiwanese and Chinese, respectively, which differ from the results of [8] that studied Bangladeshis. [34] points out that informativeness has a positive effect on Taiwanese attitude while [8] and [37] found that it doesn’t affect Bangladeshi and Chinese attitude. Another major inconsistency is that many research found consumers have positive attitude towards permission-based mobile marketing [3] [34] but [36] found that permission is not a significant factor. Inconsistencies between results show that acceptance may depend on individual needs.

Self-concept theory shows that consumers may also decide to consume based on image or symbolic reasons. Products and services have symbolic roles for owners. Consumers are motivated to develop their self-concept by consuming products that possess certain images. [20] Products with images must be seen by others during purchase, consumption, or disposal [24]. Mobile phones are generally kept close at hand and considered a status symbol [4]. Marketing communication can be sent to consumers’ mobile phones without constraints on time or place, resulting in any-time any-place consumption of messages. We may say that mobile marketing communication is a service with symbol. We are thus studying this topic because acceptance may also come from impression of or desire for images instead of purely utilitarian reasons.

One disadvantage of personalized services is that consumers must disclose some personal information [9]. Awareness of the risk involved in mobile marketing make consumers afraid that the information will be used without their permission or knowledge [4] which can be considered an invasion of privacy [9]. Privacy Concern thus becomes a major issue in electronic communications that has been widely studied. Privacy concern has a negative relation with purchase [28] and significantly affects trust in websites [6]. Personalization and concern for privacy influence usage of personalized on-line services [7]. Information privacy concern has a negative effect on information disclosure intention and a positive effect on protection intention [38]. We may conclude that uncertainties on how consumer information will be used, including for whom and for what purpose, has a negative effect on consumer attitude. Although personalization is useful for
consumers because they will receive marketing messages that are fewer and more specific to their interests, privacy concern should not be ignored because consumers will not feel certain that they should accept SMS mobile marketing as a good thing. Hofstede’s uncertainty avoidance dimension describes how societies (people) in culture with high uncertainty avoidance use custom and formal rules to guide behavior and response to uncertain or ambiguous situation [14, p.110]. Although acceptance is a personal decision and even Hofstede (1994) warn of the danger in using a country’s score to predict individual’s behavior [33], Hofstede’s cultural dimensions can guide us in the search for relevant factors. Thai culture’s relatively high uncertainty avoidance score may make Thais prefer clarity in uncertain situations. Therefore, if marketers openly disclose how they collect and use personal information, Thai consumers can feel more confident so that they will eventually accept marketing communication.

Finally, Thai culture scores high on collectivism [13, p.53] Persons in such culture are more likely to involve others in their decisions by asking for opinions from friends and families [21, p.155]. Their decision and behavior are influenced by reference groups. This study will explore whether subjective norms will affect acceptance of persons in a collective culture.

The objects of this study are 1) factors affecting acceptance of SMS marketing, 2) how the informativeness and entertainment factors differ from other countries, and 3) the form of SMS marketing that will be acceptable to Thais. The result of the study can help marketers communicate with millions of mobile phone customers. It can also help guide the planning of marketing communication strategy through mobile phones / create campaigns that are appropriate to consumers needs. The result of this study may also show that acceptance of mobile marketing depends on utility, subjective norms, and images – in contrast with other studies which consider only utility and subjective norms.

**LITERATURE REVIEW**

**Acceptance**

There are many theories that model how users come to accept and use a technology: Technology Acceptance Model, Diffusion of Innovation, and Theory of Reasoned Action. We did not use Technology Acceptance Model because [22] shows that, in a high power distance culture, *perceived usefulness* and *perceived ease of use* do not significantly affect behavioral intention. Diffusion of Innovation theory may not be appropriate because SMS marketing is widespread and definitely not new. This study follows the framework of Theory of Reasoned Action.

**Informativeness & Entertainment**

Use and Gratification Theory of [17] shows that message recipient want more information, knowledge, understanding, and aesthetically pleasing experience. [34] [4] [36] show that if mobile marketing messages are designed to have informational value or provide useful information (informativeness), consumers will have positive attitude. [34] [4] [37] [36] show that entertainment is an influential factor on consumer attitude.

**Personalization**

Personalization builds customer loyalty by creating a meaningful one-to-one relationship through understanding of individual’s needs and responding to them by using contextual knowledge [31]. [37] shows that personalization is an influential factor on Chinese mobile phone users’ attitude.

**Transparency of Information Disclosure**

Hofstede’s uncertainty avoidance dimension describes how societies (people) in culture with high uncertainty avoidance use rituals and formal rules to guide behavior and response to uncertain or ambiguous situation [14 p.110]. Applied to privacy issue, this dimension helps us understand that Thai consumers with high uncertainty avoidance may prefer clarity in uncertain situations. Transparency of information disclosure helps reduce such uncertainty by informing the users about the purpose of collecting and retaining personal information.

**Permission**

Permission-based marketing requires consent to receive messages from the consumers while allowing them to cancel at any time [2]. [3] shows that more than half of mobile users are satisfied with advertisements that require permission. [34] shows that permission-based features result in positive attitude.

**Image Congruence**

Self-concept represents the totality of the individual’s thoughts and feelings having reference to himself as an object [24]. Each person has an (possibly many) image of himself which describes his personality, character, ownership, relationship, and behavior[32]. This concept can be categorized further into 1) Actual Self-Concept or how he sees himself, 2) Ideal Self-Concept or how he would like to see himself, 3) Social-Self Image or how he feels others see
him, and 4) Ideal social self-Image or how he would like others to see him [32]. This study will skip Social-Self Image and Ideal social self-Image because they are closely related to Subjective Norms.

Products and brands have certain images and symbolic roles for ownership and for show. Consumers are thus motivated to develop their self-concept by consuming symbol products [20, p.314]. These symbolic values are assessed based on congruence with personal image [32]. Congruence theory posit that higher congruence make people like the brand more [20, p.314]. [18] shows that congruence between self-image and service image strongly affect the attitude on mobile financial services.

Attitude, Subjective Norms, and Intention

Theory of Reasoned Action by [1] points out that intention results from attitude and subjective norms. Behavioral intention can be predicted from attitude towards such behavior, which is consistent with studies by [34] [4] [16]. Moreover, if consumers believe or are aware that people they trust want to accept SMS marketing, they will be intent to accept SMS marketing themselves. [25] further points out that subjective norms is the strongest predictor of Taiwanese consumer intention to accept advertisement via SMS. [4] shows that subjective norms has an admittedly weak influence on intention to accept mobile marketing. TRA also shows that normative belief about others’ expectations cause subjective norms, and must be considered together with motivation to comply because society has a weaker influence on individualists than on conformists.

RESEARCH FRAMEWORK

The framework for this research is based on Theory of Reasoned Action which stated that human behaviors can be controlled through reasoning by the intention for the behavior, which, in turn, results from attitude towards that behavior and subjective norms effect which are influenced by beliefs. Research has shown that if consumers believe the marketing message is informative, respond to entertainment need, personalized according to individual need, the attitude will be positive. If consumers believe there is a transparency of information disclosure on how their personal information are collected and used, consumers will be confident enough about SMS marketing to have a positive attitude. Moreover, any messages sent to consumers should have their permission first. SMS marketing may also have symbolic value to consumers, with image congruence between actual and ideal self-images that will result in positive attitude. Finally, if consumers believe that people who are important to them think they should receive SMS marketing (social beliefs) and if they have the motivation to comply, consumers will feel the pressure from subjective norms that will result in intention to receive SMS marketing.

There are 10 research hypotheses from this framework:

H1) Perceived Informativeness has a positive effect on attitude towards acceptance of SMS marketing.
H2) Perceived Entertainment has a positive effect on attitude towards acceptance of SMS marketing.
H3) Perceived Personalization has a positive effect on attitude towards acceptance of SMS marketing.
H4) Transparency of Information Disclosure has a positive effect on attitude towards acceptance of SMS marketing.
H5) Consumers’ belief that mobile marketing requires permission has a positive effect on attitude towards acceptance of SMS marketing.
H6) Congruence between actual self-image and SMS marketing image has a positive effect on attitude towards acceptance of SMS marketing.
H7) Congruence between ideal self-image and SMS marketing image has a positive effect on attitude towards acceptance of SMS marketing.
H8) Positive attitude towards acceptance of SMS marketing results in consumer intention to accept SMS marketing.
H9) Influence of social group and belief about other people’s expectation, together with motivation to comply with others result in subjective norms.
H10) Subjective norms has an influence on intention to accept SMS marketing.

METHODOLOGY

Sampling

Research targets are Thai mobile phone users in Bangkok between 18–63 years old who have used SMS before. Bangkok has the largest number of mobile phones in Thailand and use more communication features such as SMS than other urban areas. Simple random sampling is used to obtain subjects.

Out of 668 questionnaires received, 626 are completed correctly, with 46.5% male and 53.5%
female. 36.9% of respondents are between 18–24 years old. 36.7% received SMS marketing messages weekly, 23.5% daily. Most of them (48.7%) received 1–5 messages each day in the past three months.

As for the format of marketing messages through mobile phone, most respondents receive product information (52.4%) followed by invitations to attend product fairs (38.3%), a chance to win prize advertised on product labels (38.3%), discount code (33.1%), newsletter with product information (19.3%), registration for gasoline discount (12.5%).

**Measurement and Scaling**

This study uses questionnaires to test the hypotheses, using validated measures from past studies (except for transparency of information disclosure).

*Entertainment: adapted from [10] [34] [4]*

ENT1: I feel that receiving SMS marketing is enjoyable.
ENT2: I feel that receiving SMS marketing is pleasant.
ENT3: I feel that receiving SMS marketing is entertaining.
ENT4: I feel that receiving SMS marketing is exciting.
ENT5: Participating in an SMS marketing is fun.

*Informativeness: adapted from [10] [34] [4] [37]*

INF1: I feel that SMS marketing is a good source for timely information.
INF2: SMS marketing provides the information I need.
INF3: SMS marketing is a good source of up-to-date product information.
INF4: SMS marketing supplies complete product information.
INF5: SMS marketing is a convenient source of product information.

*Permission: adapted from [23]*

PEM1: It is important for me that I can control the permission to receive SMS marketing.
PEM2: It is important for me that I can refuse to receive SMS marketing.
PEM3: It is important for me that I can filter SMS marketing to match my need.
PEM4: I would only be prepared to receive SMS marketing if I had provided my permission.

*Personalization: adapted from [7] [37]*

PES1: I feel that SMS marketing displays personalized message to me.
PES2: I feel that mobile advertising is personalized for my usage.
PES3: I value SMS marketing that are personalized on information that I have voluntarily given out but can identify me as an individual.
PES4: I value SMS marketing that are personalized on information that I have voluntarily given out but cannot identify me as an individual.
PES5: I value SMS marketing that are personalized on information that is collected automatically.

*Transparency of Information Disclosure: created specifically for this study*

TOID1: SMS marketing should disclose the purpose of using your personal information.
TOID2: SMS marketing should disclose the purpose of using your personal information when the purpose has changed.
TOID3: SMS marketing should completely disclose the details of how they use your personal information.
TOID4: SMS marketing should disclose the duration that your personal information will be retained.
TOID5: SMS marketing should disclose the details of personal information that will be kept in databases.
TOID6: Knowing which databases contain your personal information is better than not knowing where your personal information is kept.

*Attitude: adapted from [34] [4] [37]*

ATT1: Overall, I like SMS marketing.
ATT2: Generally, I find SMS marketing a good thing.
ATT3: I like the idea of using SMS marketing.
ATT4: I like SMS marketing.
ATT5: Using SMS marketing is a wise idea.

*Subjective Norms: adapted from [1] [4]*

SN1: If you accept SMS marketing, people important to you will see that it is useful.
SN2: You will accept SMS marketing if you feel that people important to you think you should do so.
SN3: If you accept SMS marketing, people important to you will see that it is valuable.
SN4: If you accept SMS marketing, people important to you will think you are smart.

*Normative Beliefs and Motivation to Comply: adapted from [1]*

NB1: You will accept SMS marketing according to the needs of family members.
NB2: You will accept SMS marketing according to the needs of close friends.
NB3: You will accept SMS marketing according to the needs of colleagues/classmates.
MC1: You usually act according to what your
family members think you should do.
MC2: You usually act according to what your close friends think you should do.
MC3: You usually act according to what your colleagues/classmates think you should do.

Intention to Adopt SMS Marketing: adapted from [16] [25] [1]
INT1: If I see advertising asking me send text message to get free coupon on my cell phone I will send the text message to the number.
INT2: If I receive a useful ad message on my cell phone, I will send back text message to the number to get more information.
INT3: I intend to accept SMS marketing messages in the future.
INT4: If I receive a useful ad message on my cell phone, I will call back to the number to get more information.
INT5: If I receive a coupon message on my cell phone, I will visit the specific shop to use the coupon.

This study uses a six-point Likert scale ranging from strongly agree to strongly disagree.

To measure the image dimension, we use measures from [11] [18]. Because some properties are not relevant to mobile marketing, we use individual interviews with 20 subjects who have received SMS marketing before. Subjects assess all 15 properties to pick those that can describe the images of SMS marketing and mobile phone users. We then select only properties that are selected by more than 70% of the subjects, which are properties that reflect 1) modern/old-fashioned 2) fast/slow 3) technology leader/follower 4) professional/amateur and 5) effective/ineffective. Congruence score is calculated from

\[ D = \sum \left( P_i - S_i \right)^2 \]

Where D = difference score reflecting congruence between images of consumer and of SMS marketing.

i = image dimension
S_i = perceived image of SMS marketing in the i dimension
P_i = perceived self image in the i dimension

RELIABILITY AND VALIDITY

Reliability of Measures
We pre-test the questionnaire with 159 mobile phone users in Bangkok to measure internal consistency reliability using Cronbach’s alpha analysis which should be higher than 0.7 [12].

Cronbach’s alpha of entertainment = .9074, informativeness = .7493, personalization = .7785, permission = .9286, transparency of information disclosure = .9061, attitude towards SMS marketing = .9278, subjective norms = .8576, normative beliefs = .9035, motivation to comply = .8589, intention to adopt SMS marketing = .8773, actual self image = .8397, ideal self image = .8972, and SMS marketing image = .8458.

Validity of Measures
We perform factor analysis to evaluate construct validity using Principal Component Analysis (PCA) with varimax rotation. Factor loading value of 0.45 is used as the criteria [12]. Results show that all variables in this study have factor loading higher than 0.45 except INF4 and INF5. We also eliminate ENT1 because it meaning is very close to ENT3 but with lower factor loading. The factor loadings are as followed:

ENT1 - ENT5 = .756 .832 .834 .699 .858
INF1 - INF5 = .697 .584 .0 .0 .0
PEM1 - PEM4 = .832 .837 .768 .769
PES1 - PES5 = .562 .565 .596 .602 .583
TOID1 - TOID6 = .706 .770 .851 .817 .733 .811
ATT1 - ATT5 = .756 .690 .687 .685 .528
NB1 - NB3 = .559 .724 .754
MC1 - MC3 = .604 .765 .742
SN1 - SN4 = .815 .635 .713 .553
INT1 - INT5 = .700 .801 .632 .666 .669
AMG8 AMG11 AMG13 AMG14 AMG15 = .763 .775 .625 .776 .797
IMG8 IMG11 IMG13 IMG14 IMG15 = .569 .632 .782 .862 .837
SMG8 SMG11 SMG13 SMG14 SMG15 = .623 .721 .844 .822 .733

RESULTS

Model Testing
This study uses multiple regression analysis to test hypotheses. We found that attitude towards acceptance of SMS marketing are influenced by personalization, informativeness, entertainment, and transparency of information disclosure. These 4 variables can account for the attitude towards acceptance with R² = 0.393 and Betas = .263, .201, .195, and .182 respectively. On the other hand, permission, actual self image congruence, and ideal self image congruence do not significantly affect the dependent variable (p = .724, .260, 145 while Beta = -.011, .036, -.046). Therefore, H1-H4 are supported while H5-H7 are not supported.

Social belief has an effect on subjective norms (p = .000, Beta = .167). Finally, attitude towards SMS marketing and subjective norms can help explain intention to adopt SMS marketing (R² = .362) and Betas = .570 and .18. Thus H8-H10 are supported.
SMS Marketing Acceptable to Thais

We found that SMS marketing messages acceptable to Thais can be classified into 4 standard types following the framework by [29] 1) information such as travel advices, registration to receive useful information 2) entertainment such as sending an SMS to register to receive wallpapers and view movie trailers 3) raffle like winning a shopping trip with friends and family 4) coupons.

DISCUSSION

The results from our questionnaire show that marketers should be creative with marketing messages by personalizing the message to fit the interest of each mobile phone user. The message must also be useful, informative, or entertaining – with emphasis on informativeness because the result shows that informativeness is more important than entertainment. Moreover, marketers should disclose in details how they will use consumer personal information so that consumers will feel confident that their information is protected. They can then feel assured and can accept SMS marketing.

Finally, attitude towards acceptance of SMS marketing is more important than subjective norms. Marketers should design marketing communications and promotional campaigns that emphasize the importance of directly approaching consumers rather than through influential friends or mobile word-of-mouth.

This study provides evidence that Thai mobile users accept mobile marketing based on utility and subjective norms, while the form of SMS marketing that they can accept are the standard types classified in [29].

THEORETICAL IMPLICATIONS

Although the sample group place more importance on utility factor than entertainment factor, opposite to the findings of [34] [4] [36]. The reason may be that the form of SMS marketing that users are most familiar with is informative rather than entertaining, as can be seen from our result which shows that 52.4% have received informative messages while entertaining SMS like trying to win prizes has only 38.3% participation rate. Nonetheless, both factors affect the attitude of mobile users in accordant with Use and Gratification theory [17] which states that message recipient will be satisfied if the message 1) increase information, knowledge, understanding and 2) improve aesthetic experience, pleasant, and stimulating. Collectivism makes subjective norms affect acceptance. However, accepting SMS marketing is highly individualistic. Thais place more importance on attitude than subjective norms. The result suggests that people can be both individualistic and collectivistic. The focus changes depending on the current situation, in agreement with Theory of Reasoned Action which states that the importance of attitude and subjective norms depend on situations and individuals.

Permission is useful in reducing spam, but research has shown that permission is not significant for our study, similar to the results found by [36] but in contrast with [3] [34]. The reason might be that when users do not recognize that the number being used to send marketing message belong to with which they are familiar, they can simply erase the message without opening it. The time and cost involved is lower than calling the sender.

Mobile phone users place importance on personalization of marketing message the most because users can then receive only the messages they are interested in. Similar to permission, it also reduces annoyance from receiving too many messages, but it is more convenient because they don’t have to grant and revoke permission on each product/service of each company. All other things being equal, this relative advantage will make people choose personalization over permission.

Finally, this study shows that the sample group consumes mobile marketing messages based on utilitarian reasons rather than hedonic consumption or the happiness that will arise from messages with images that align with their self images. For Thai consumers, entertainment has less influence on attitude than informativeness. Image congruence (both actual and ideal) do not affect attitude.

LIMITATIONS AND FUTURE RESEARCH

This research is limited by its sample group. Although the questionnaires are randomly distributed, most replies come from young people between 18–24 years old (36.9%). This digital generation is familiar with technology and surrounded by information. They are highly individualistic and their decision to consume is probably based on themselves rather than other people’s opinions. It is thus difficult to say that the result of this study will remain the same is the sample group are more widely diverse. Moreover, there may be some limitation on the language
used to construct measures because the original questions are in English, so they had to be translated into Thai.

Based on this limitation, future research may be done on a more diverse sample population with different lifestyles and consumption behaviors. On the other hand, comparative studies can also be done on a number of subgroups with specific population segments so that we can find out the most appropriate way to design SMS marketing for each subgroup, or find other utilitarian reasons that may affect the decision to consume messages, such as economic utility.

REFERENCES