

CONSUMER ATTITUDE TOWARDS DIFFERENT LOCATION BASED ADVERTISEMENTS TYPES AND THEIR IMPACT ON PURCHASE INTENTION

Rafiq Mansoor, Huazhong University of Science and Technology
Jing Zhang, Huazhong University of Science and Technology
Iqra Hafeez, Huazhong University of Science and Technology
Zubair Nawaz, Huazhong University of Science and Technology
Shabina Naz, Huazhong University of Science and Technology

ABSTRACT

Most of the studies on consumer attitude toward Location Based Advertisement (LBA) lack sufficient considerations of mobile advertisement types. This study broadens the view of mobile advertisement in both Short Messaging Service (SMS) and Multimedia Messaging Service (MMS) with further classification and examines their impact upon consumer attitude towards LBA as well as the mediating role of mobile user's types. Moreover explores consumer attitude's mediating role in LBA and purchase intention link. Results of the study indicate significant and positive impact of advertising types on attitude and reveals that consumers' attitude significantly influences purchase intention. The results also justify the cultivation theory in mobile phone users and indicate that heavy users show more positive attitude towards mobile advertisement than medium and lighter users. The study contributes to LBA literature and proposes significant way of LBA advertisement to enhance consumers' purchase intension.

Keywords: Attitude, LBA, Purchase Intention, Short Messaging Service, Multimedii Messaging Service, Smart Phone Users.

INTRODUCTION

Just a decade ago, offline businesses were mostly dependent on sources of advertisement like television, radio, billboards, and newspapers for marketing of different products and various services. But current advancements of technology have a great impact on advertisement and marketing. With the development of communication and advertising technology, companies have made different strategies to reach customer at the time of buying with near and far purchasing place to influence consumer attitude towards itself. In these latest technologies, the one which attract both advertiser and consumer due to their unique quality of using location system of consumer is Location Based Service (LBS) (Xu & Gupta, 2009). Advertisement through LBS have been taking the place of all other types of advertisement and having its unique place in promotional mix with greater expansion, in coming years it will be next blooming and popular type of advertisement. According to marketers consequences it is expected that \$26 bn will be spent worldwide in mobile text based LBA up to 2022 (Mobilesquared, 2018). Companies have

also built a reasonable growth in budgets of mobile advertisement as an advertiser realizes that it's a great opportunity to connect everyone, anywhere with mobile phone and also have prospect to developed consumer relationship with responses directly from customers (Sinkovics et al., 2012). Researcher has also revealed that consumer responses have become improved due to geographical targeting possible due to LBS. Previous studies resulted that mobile message advertisement with location have influenced consumer's attitude positively towards LBA and enhanced its PI (Lee et al., 2017).

Scholars mostly focused on factors like LBA with technology development, acceptance, avoidance, and privacy concern (Lin et al., 2016; Shin & Lin, 2016), and its effectiveness, adaptation and influences customer behaviour with PI and Short Messaging Service (SMS) (Chen et al., 2014; Lin et al., 2016). But a very little attention has been appealed by the topic of advertisement types of LBA other than SMS and their influences in recent decades. Still there is huge research gap for identification of perilous issues and Multimedia Message Service (MMS) of picture and motion (vedio) type advertisment which has got much importance due to easy availability of internet and increased trend of android phone users (Lin et al., 2016) with their impact on consumer attitude which is most important factor in worst of their prominence specially due to consumers further identification of their decision power. Xu et al. (2009) study resulted that picture based multimedia message influences consumer attitude more than text based message with LBA and have positive impact on PI of consumers. Chen et al. (2014) determines that animated format of LBA message has more impact on users than static format.

Moreover with LBA, recent resarch has extended the literature by using cultivation theory with regard to mobile phone users and its effect due to LBA. Gerbner and Gross (1976) firstly indicated the cultivation difference of media content and resulted that heavy users are more susceptible due to media content than light users. As now a days mobile phone has been replaced on television and other medium of advertisement, communication, and entertainment and users are always busy with it at every where and every time. Consumers believe mobile device use as a personal device (Rice & Hagen, 2010), so sending LBA messages on their mobile devices would be considered and their result possible to be a high level of psychological reactance (Brehm, 1966) as compared to other form of less personal advertising channel like television or radio and newspapers. Previous research of cultivation theory on television and other media types regarding advertisment shows contradictory responses on different viewers and users (Pleshko & Al-Houti, 2012). Current study has addressed the potential cultivating effects across different levels of mobile users (the perception between heavy users, medium users, and light users). The research aims at fulfilling the mobile advertisment research gap of cultivation literature by focusing on a population whose altered behaviour due to mobile using can affect the mobile advertisment stimuli and its furture importance.

The major goal of the study is to proceed the current research on LBA and to conclude the consumer attitude response on different kinds of LBA mobile messages with mediating effect of heavy, medium, and light users of mobile phone consumers on these LBA types of advertisement and further investigate the attitude impact on PI due to these type of advertisement.

Location Based Advertisement

Currently most of business organization wants to communicate with customer with high privacy and relativeness at everywhere and every time to implement a high impact of advertisement on consumer through the most touches and consumer using devices like mobile phone or other technological developed devices. Demonstrating this point of sight mobile phone advertisement as best due to their unique characteristic of advertising everywhere any time also with new technology of LBS through which it has become possible to reach customer with high privacy and beats geographical and time fences. LBS are thought as applications which give value over localization and personalization (Masters, 2014). Studies show that due to their property of personalization and targeting a specific customer it's has taken a better place in marketing with increasing of acceptance (Lu, 2017).

LBA is a highly individualized and personalized form of advertisement with location aware landscapes, which cater the precise needs and wants of each discrete ad receiver (Unni & Harmon, 2007; Xu et al., 2009). van't Riet et al. (2016) justify that location congruence is one of the main factor of LBA for success in the supermarket advertisement. According to Armstrong and Kotler (2015) business holders prefers LBA for engaging and building a good relationship with customers. According to Lee et al. (2015) timeliness and location congruity service quality LBA has positive impact on consumer attitude. The study search concluded that American students overlook more to their need in LBA message (Kini & Suomi, 2018). Location text alerts are a best way as 70% consumers show their positive response on it and think that location based advertisement is useful. Whereas 60% think that text based alert messages are unruffled and innovative. While 59% found them useful (Placecast, 2012b).

LBA is now also getting place due to its unique and economical alternative form of advertisement in terms of breaking the advertising clutter (Cleff, 2007) than other forms of expansive advertising like TV, Newspaper, magazine and billboards. With LBA, advertisement with mobile medium through SMS and MMS can be contextualized with their interest and favourites (Banerjee & Dholakia, 2008). Lin et al. (2013) study preferences of smartphone users and preferred LBS over Non-LBS. Generally, it expresses that consumer finding LBA as a positive way of communication and advertisement that increase their likelihood to find best and better opportunity for purchasing. Consumer mostly valued to discount offers and promotion types but it's also like to inform about different products with detail and attractive layout message at specific location and special events.

Xu et al. (2009) compared the LBA formats and its impact on consumer purchase intention due to attitude towards LBA and resulted that consumer is influenced more on MMS than SMS. Chen et al. (2014) study shows that animated (text with dynamic pictures) formats LBA with less personal information influences consumer attitude more positively towards LBA relatively to stationary (text with still pictures) formats. Lee et al. (2015) focused on psychological effect on consumer's attitude towards LBA occurring due to location congruity and information tailoring. Merisavo et al. (2007) argued in their study that strongest positive drivers for accepting of mobile based advertisement are perceived utility of contextual information of message. A very little attention has taken the format and information of LBA messages.

Above indication showing clearly that there is a lot of tremendous potential occur in LBA due to their unique characteristic and properties. The up-to-date advertisement consent advertiser to embrace several formats and interface layout, as well as use multimedia elements and empirical hints into has advertising content to attract more consumers. By using such numerous capabilities enables advertisers to make their LBA more interesting and attractive, and thus, will be able to attract more target consumer attitude. Thus different formats have different influences values on consumers to know more about the format types and their influences on consumers' attitude the current study is considered. Current research will study the impact of LBA on consumer attitude towards LBA with different LBA message types and also searches out the influences on purchase intention on behalf of light, medium, and heavy mobile users. This will further improve theory of LBA and give benefit to advertiser to suggest more influencing type of LBA advertisement for their campaigns for different types of mobile users.

Attitude

Attitude is an enduring behaviour in comparative ways of favourable or unfavourable, showing positive or negative aspect of behaviour. Kotler and Keller (2006) called attitude as enduring beneficial or destructive thoughts, feeling, emotion, motion progresses of any man or woman towards any notion or object. Attitude is considered as essential concept in the study of information study as well as in marketing. The psychological literature of advertisement confirmed that attitude is a key for predicting the consumer behaviour and responses to advertising" as the study show that attitude is habitually stimulated from memory, where it stores the relations among the advertisement and their valuations.

On behalf of consequence of an attitude in advertisement, Watson et al. (2013) resulted that the position in marketing and advertising occupied by attitude is so essential and crucial which is not possible to replace anyway. The degree of attitude changes in advertisement is explained in better way in ELM (likelihood model) that attitude changes is occurrences due to level of interest and the way of adaptation of getting information (Petty et al., 1996). The two model elaboration likelihood (Petty & Cacioppo, 1986) and another conceptually similar one heuristic-systematic (Chaiken, 1980) both gives the useful theoretical outline for the study of attitude. In these both process models, the critical role is assigned to involvement due to their determining of processing motivation of message recipients. The models expected that when recipients motivated to procedure its content due to persuasive message they involved in logical processing and scrutinize of content. Due to this condition, the attitude of post-message depends on the excellence of message urgings, message with strong arguments influences more changing in the attitude as compared to weak argument message. In convention, when processing motivation occurrence is low, persuasion transpires only with peripheral route (or with heuristic processing). In such situation, the peripheral message prompts (or message status) or heuristics (like message length) conclude the change occurrence in the attitude. Petty et al. (1983) test elaboration likelihood model with participant's product attitude by taking magazine advertisement. Wouters and Wetzels (2006) resulted that text-based message effect positively in mobile advertisement while still picture conveying a developing role in attitude creation.

Malik and Dubey (2013) defines attitude of internet advertisement consumer as “*an overall tendency of like or disliking of online advertisement.*” Constructed on this overview, the temperament of customer towards mobile advertisement indicates the general predisposition of the mobile advertising responses of consumer like or dislike to advertisement which comes from their mobile phone. Different studies concluded alter results about the attitude of consumer towards LBA. Ketelaar and Van-Balen (2018) concluded that users have revealed negative attitude towards mobile advertisement due to their privacy concern. But with other expect consumer shows positive attitude towards LBA, as Unni and Harmon (2007) concluded that consumer shows positive attitude towards location based advertisement and feel more valuable from LBA if the advertisements were also context specific and relevant. Park and Ohm (2014) determine that information accuracy have positively influences on the attitude of consumers. According to Martí et al. (2013) attitude of teenager towards mobile advertisement is increased if the advertisement have some entertainment. Previous study reveals that motion advertisement have positive impact on initial attitude (Sung & Cho, 2012). Kotler and Keller (2006) studied the advertisement colour role and resulted that consumer prefer coloured than as compared to black-and-white colour ads. Previous studies have shown that study of LBA and consumer attitude is important and current study will explore that how consumer attitude responds on LBA message types and how it boosts the purchase intention.

Advertisement Types

Smart phones with location access gives opportunity of effective advertisement at optimum time and location to influence the people more effectively (Ketelaar et al., 2017). Advertiser mostly decides about the message information detail and type according to consumers. In LBA, message is the most important and basic as all effect of consumer depends on it. The most of the studies empirical evidence show that message content types is crucial and important in context of influencing the attitude and involvement of consumers. It is more dynamic and effective if it is brief, memorable, clarified, and well-coordinated with user requirement, location, and timing (Shankar & Balasubramanian, 2009). Sharp (2013) defined mobile advertisement as by using message service like SMS and MMS. According to MMA (2011) there are different types of messages text based, graphic (static and clickable), video type, and mobile TV. In which current study are taking the most used these days: SMS and MMS.

SMS and consumer attitude

SMS is a text based communication form used in mobile phone and it was originated back in 1992 to eliminate ingesting of more time on conversation in mobile communication. From fast decade it's also using for advertisement and after being the location invention in mobile phone, it used specially in location based target advertisement for more accurate and with time influences on consumer for purchasing products. According to Bauer et al. (2005) it's a communication type which provide an individual communication path for accurate targeting of consumers with a high impact. Previous studies shows that text based SMS message had occupied a novel placement in mobile and social communication due to their explicit setting and nature of personalization (Dickinger et al., 2004). SMS shows a more conversation rate in

marketing campaigns as PortioResearch (2014) results shows that SMS is with high revenues from all other types of communication with USD of 130 billion in worldwide.

Kemp (2012) study argued that effective text based SMS advertisement influences positively the consumer attitude towards advertisement. The study revealed that effective design of mobile based SMS campaigns advertising have significant positive consequences on purchase intention (Drossos et al., 2014). Placecast (2012a) research on LBA marketing resulted that opt-in text based LBA increases consumer visiting the retailer shop up to 73%, while more than 60% reported of purchase post-receipt and 47% state that getting advertisement on phone is attractive and interested. Due to richness of distinctive properties it differentiates from other advertising types. As with beneficitation there is also an integral limitation of short text based message for delivering adequate quantity of information for justification of consumers, which directly affect the intention of consumer on behalf of purchasing.

According to Raacke and Bonds-Raacke (2011) the text based SMS is contain letters or characters up to 160 which become data of approximately 140 bytes. Previous study on advertisement resulted that different sizes of advertisement have a different effect on evoking and recognition of consumer attention towards the ads. Silk and Geiger (1972) study on advertisement size observed that brand users have a positive connection with increasing of advertisement size. Chiang and Chen (2017) show in their study that in valuable LBA advertisement media richness have a critical role and importance. Now a days, different sign and characters are also used in text message for representing their feelings in short ways which mostly people like due to less reading and direct convey of message which shows the importance of less words with great importance. Mutable of previous studies due to advertisement size with miscellaneous consequence on consumer, we assert SMS into two further types, Short SMS (SSMS) have characters up to 160 and Detail SMS (DSMS) characters more than 160 (Double or thrice of 160 characters). In current study main concern is to find out the effect of these types of message (SSMS, DSMS) in LBA advertisement on consumers attitude.

H1a: Short SMS and detailed SMS through location-based advertisement influence consumer attitude positively.

H1b: LBA detailed SMS evokes consumer attitude more significantly than short SMS.

MMS and consumer attitude

Numerous researches have been done for finding SMS effect (Bart et al., 2014) but very little attention is gained by MMS specially focuses on attitude of consumer in targeting market. MMS type messaging service became emanate into communication market after a decade of SMS in 2002 and got more attention in less time due to unique characteristic of entertainment type. According to Trappey III & Woodside (2005) MMS is advanced and attractive form of SMS, containing photo, sound and motion picture along with text providing more information. McQuarrie and Phillips (2005) argued in their study that picture advertisement has more positive impact on consumer attitude than text based advertisement. Mitchell (1986) illuminate in their study that visual models have more inferences than verbal messages. Study on MMS and SMS location based advertisement comparison argued that consumer shows more desire, attention and

interest in MMS than SMS in LBA and also reveal more glorious attitude towards purchase intention in MMS (Lin et al., 2013). Bart et al. (2012) argued in their study that moving advertisement with mobile screen display campaign have greater impact on consumer. Xu et al. (2009) resulted in comparison of multimedia and text based LBA messages that multimedia message more attracted the consumers and there is more favourable attitude of consumer toward multimedia LBA. According to Sung and Cho (2012) the picture motion mobile based advertisement influences positively the consumer initial attitude state towards advertisement.

MMS has been mainly used in two different types, still picture MMS and motion (video) MMS. The still picture conveying indirect message without any animatedly changing information and location (Larkin & Simon, 1987). Motion (video) gives information in more powerful way by changing both information and location simultaneously and representing temporally and consecutively (Ainsworth & VanLabeke, 2004). Due to characteristic of multimode MMS video message presented typical information as well as aurally while picture message have just presented typical visual information (Mayer & Moreno, 2002). Video MMS message due to moving clip effect and attract responses of consumer more than still picture MMS message. According to Xu and Gupta (2009) the mobile moving MMS have attracted attention more due to its characteristic of movement of pictures with time and multimodality. According to Bart et al. (2014) the mobile display type advertising has high impact on consumer involvement.

Heuristically people realize and are attracted more by still and motion pictures as compared to text picture. The heuristic process uses less cognitive assets and superficial dispensation of message understanding. According to Chaiken (1980) in heuristic processing user agreement and consideration is stimulated without any semantic dispensation of the advertisement as do in systematic processing. While this heuristic process is dominant in advertisement of motion picture. Therefore, it is presumable that attitude is more influenced from picture advertisement than other types of message advertisement. Arguel and Jamet (2009) also finalised that motion picture advertisement influenced more the consumer initial attitude than text or still picture advertisement. In LBA, due to sending limited bandwidth the sending video is small and limited. To further know about their effects with separation from other form of advertisement, we have divided the MMS into two main parts Picture MMS (PMMS) and video MMS (VMMS) and research will be focused to inspect their impacts on consumer in LBA. According to the subsequent literature evaluation and supposition, we have concluded the following Hypothesis:

H2a: Picture MMS through location-based advertisement influence consumer attitude positively.

H2b: LBA picture MMS evokes consumer attitude more significantly than detail SMS and short SMS.

H3a: Video MMS through location-based advertisement influence consumer attitude positively.

H3b: LBA video MMS evokes consumer attitude more significantly than picture MMS, detail SMS, and short SMS.

Moderation of Usage Rate

Gerbner and Gross (1976) firstly indicated the cultivation difference of media content and resulted that heavy user susceptible due to media content more than light users. Cultivation study focuses the perception comparison between the different levels of viewership. Past research on TV commercials and web advertisement on cultivation difference assumption also show a difference between heavy and light users (Pleshko & Al-Houti, 2012). Occasionally, recent research resulted that heavy media users tend less grim towards media messages while show more favourability towards other advertisement type like TV and web base advertisement (Pleshko & Al-Houti, 2012). Koo et al. (2012) concluded that attitude of man due to believing that mobile phone is now an essential part of life and have more attachment and severely using mobile phone with different applications have influenced positively from marketing than women who don't have such feeling and attachment. Recently Shin and Lin (2016) investigated the relationship of perceptual factors with LBA avoidance influence due to consumers usages levels of mobile device and resulted that there are difference between light, medium and heavy users of mobile phone with more influence of LBA entertainment and perceived utility on heavy and medium users than from light users.

Based on past studies on cultivation theory, a lot of research have been done on relation between individuals, revelation to messages of different media type like Television advertising and consequences pertinent to cultivation (Morgan & Shanahan, 2010), but still less research have attract it in mobile advertisement and its cultivation effects. On behalf of above prevalent research on cultivation theory which shows differences in influences on consumer due to advertising stimuli with different advertisement channel with regards to heavy user and light users. Current research procure further their collaborations to examine the influences of LBA messages types on the heavy, medium and lighter mobile phone viewers and user's attitude and PI. The following hypothesis is assumed for examining the required expectation.

H4: Mobile users moderate the link between Location Based Advertisements Types and Consumer attitude such that different LBA message types evokes heavy users' attitude more significantly than medium and less users.

Attitude and Purchase Intention

Advertising attitude is main factor which influences Purchase Intention (PI) (MacKenzie & Lutz, 1989). Ling et al. (2010) argued that attitude due to LBA has a significant impact on PI. Advertisement in purchasing place effects the decision taking power of the consumers and enhanced PI as according to consumer physiology they give more priority to nearby purchasing place (Patwa et al., 2016). Koski (2004) concluded that LBA advertisement has a powerful and tenacious urge on consumers to buy the product on spot and don't reflect any consequences on product purchase. Armstrong and Kotler (2015) argued that LBS impact positively on consumers due to their properties of customizations and personalization with enhancement in PI. Xu et al. (2009) resulted that multimedia have positive impact on attitude of consumer and enhanced more PI than text based advertisement.

The study reveals that SMS advertising is increases PI specially for low involvement product with high targeted impulse buying consumers (Drossos et al., 2014). Davis and Sajtos (2009) resulted that the use of impulsively SMS text service is an excessive impulse buying tendency. Impulse buying can be seen at the place where the actual purchase of product will do. Previous research Wells et al. (2011) shows that more likelihood is possible of online buying influencing directly from environment cues. Therefore, we can call LBA as environmental cue which affects the purchasing behaviour of consumers.

H5: Attitude due to LBA influences positively the purchase intention and enhances it.

RESEARCH METHODOLOGY

Pretest

To developed better understandings of the consumer attitude it is very crucial to identify advertisement product aeration which is well related and important to consumer attitude and PI. Initially we selected three different outlets providing different products/services as: (1) flower shop, (2) Mobile service center, and (3) Coffee shop. A pre-test was done for detecting the best choice for consumer participation in different categories. For each category thirty expert participant responses were taken by ten differential items using 7-point semantic (Cronbch's $\alpha=0.94$) adopted from (McQuarrie & Munson, 1992). The pretest included items are “important/unimportant,” “exciting/unexciting,” and “related/unrelated.” According to responded replies, we finalized the mobile service center, as it was near and more suitable for collection of data from new comer who wanted more to connect with their family members at their countries at the earliest after coming out of country and far away from home and as well as want to find out the nearest and best telecom service offering company.

Four kinds of mobile messages SSMS, DSMS, PMMS, and VMMS have been designed on the basis of the telecom service. The SSMS have contained up to 160 character of text with an important detail of service. The DSMS contained text based detail more than 160 words and have less than 480 words with service providing information. The third PMMS contained picture with service providing information as shown in Figure 1. The last VMMS is with small video of 13 to 14 seconds containing of service providing company information. The video is available on YouTube link (<https://youtu.be/bctVxutIngU>).

Text based SSMS is “China Unicom office in Huazhong University near Jimao market is offering different mobile services of China Unicom to international students of University”. While in detail SMS the detail is more brought and rich “China Unicom Office near Jimao and management department in Huazhong University is offering different mobile related services (china unicom new sim cards, balance checking, your recent service promotion types) for international students of Huazhong University. Visiting timing from 8:00 AM till 5:00 PM”.

All messages have provided with information of location. When participants click on the message location part, a location map of direction with service center is displayed as shown in Figure 2. LBS function will be actuated too, and after that the direction or map will be revealed in next screen. Also the map has shown the current location of the participant and service providing center.



FIGURE 1
PICTURE MMS

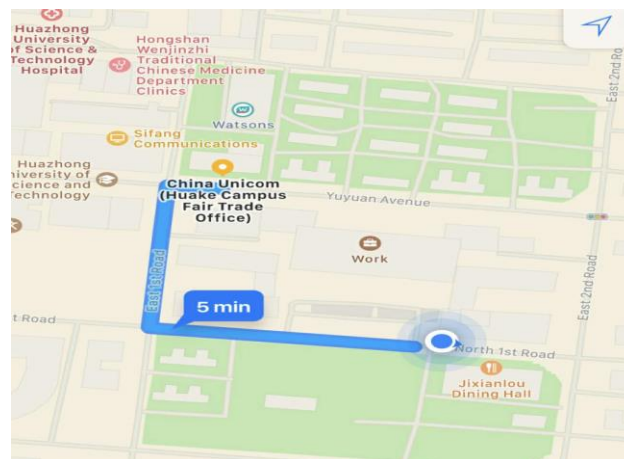


FIGURE 2
LOCATION MAP AFTER CLICKING THE LOCATION OPTION

Measures and Procedure

Both constructs was measured by using Likert-type scales. A scale adapted from (De-Pelsmacker et al., 2002) and used by (Armstrong and Kotler, 2015) having $\alpha=0.909$ with AVE=0.676, and C.R=0.924, has used for collecting data of measurement of attitude towards the advertisement message. It contains total seven items such as “*I found it positive impression*”, “*I found it interesting*”, and “*I found it exaggerated*”. The scale established by (Chandran & Morwitz, 2005) and further used by (Armstrong and Kotler, 2015) have $\alpha=0.795$ with

AVE=0.770, and C.R=0.960, has re-used to measure PI responses of consumer due to LBA. It contain total nine items such as “*How likely are you to buy the product on offer at that time*”, and “*what chance is there that you will buy this product at that time*”. Lastly the mobile device usage measurement was done by using open-ended questioners adopted from (Shin & Lin, 2016).

Experimental way of collecting data was followed for research. The data was collected in School of Management of Huazhong University of science and technology Wuhan China in September first week from new management student and others related departments in Chinese language class belonging to master and PhD studies to whom on first day of arrival to university international student office provided china Unicom mobile SIM card without any charges. Total number of students was 50 in each class, and data was collected in four different stages, while each stage of data collection was arranged in four different days. The student with aged ranged from 24 to 40 with mean value of 30, the research study shows that this stage of age is more willing of new technology adaptation. The participants were well aware about LBA and had previous experience of it by getting mobile SMS, as most of them belong to underdeveloped or developed countries and also have good command and knowledge of new features of mobile phone. The participants have acknowledged that they don't assess the ads themselves but put their attitude reactions towards them.

Data collection process was divided in four stages and at each stage of data collection described message was assigned to each participant. On first stage text message SSMS, on second stage DSMS, on third stage PMMS, and last stage VMMS were send to participants containing the detail of location. After receiving the advertisement each participant was given time of one to two minutes for reading of message and see their location. After that all participant were given instructions to indicate their attitude towards the advertisement of the services of china mobile and also their PI according to their attitude. The whole process of collecting data had taken 12 to 15 mins.

RESULTS

Table 1 shows demographic characteristics of the sample. Males dominate the sample size with 84% as compare to females (16%). Most of the respondents are between the age range of 26-30 years and account for 60% of sample size. Educational level categories comprises of Master and PhD foreign students which having almost similar representation in the sample size 52% and 48% respectively.

MANOVA has been used for finding significant difference of consumer attitude towards different types of LBA (SSMS, DSMS, PMMS and VMMS) with altered mobile user types as mediator. For individual advertisement types one way ANOVA analysis is used for finding significant difference occurrences. T-test regression analysis has been used for finding effect of attitude on PI.

Table 1 DEMOGRAPHICS				
Variable	Categories	N=200	Percent	Cumulative
Gender	Male	168	84	84
	Female	32	16	100
Age	17-25	48	24	24
	26-30	120	60	84
	31-35	24	12	96
	36-40	8	4	100
Education Level	Master	104	52	52
	PhD	96	48	100

ANOVA was conducted for attitude with an alpha level of 0.5. The Univariate ANOVA result indicate that there was a significant differential effect on attitude of different types of LBA $F(3, 200)=4.298$, $p>0.05=0.006$, partial $\eta^2=0.062$ with SSMS ($M=4.56$, $SD=1.02$), DSMS ($M=5.03$, $SD=0.92$), PMMS ($M=5.32$, $SD=1.17$) and VMMS ($M=4.89$, $SD=1.20$). Consistent with the hypothesis, PMMS outperformed the other message types of LBAs, whereas SSMS was the rated lowest (Figure 3).

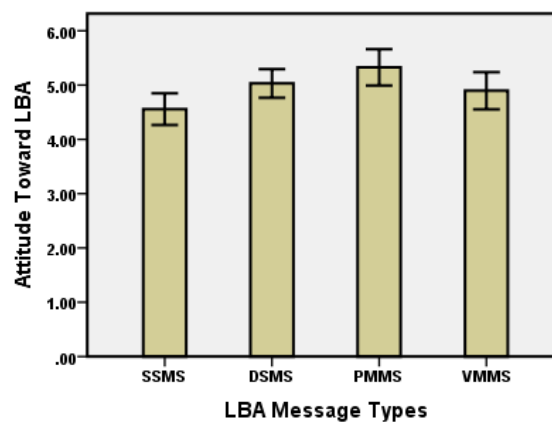


FIGURE 3
MEAN OF ATTITUDE TOWARDS ADVERTISEMENT

Comparison of means (Table 2) shows that heavy users have the highest mean (4.77) as compared to medium users (4.80), and light users (5.13). The heavy users are the high value with total number of 94, then medium having 80 users, and light users show the lowest value of 26

users, which justify that people are using mobile phone more in their daily life and it's a best way of attachment for retailer and advertisement with their consumer.

Table 2 COMPARISON OF MEANS OF USERS				
Variable	Category	Mean	N	Std. Error of Mean
Mobile Device User	Light Users	4.77	26	0.183
	Medium Users	4.80	80	0.112
	Heavy Users	5.13	94	0.090
	Total	4.95	200	0.067

Results through MANOVA and separately Univariate ANOVA shows that there are significant variances between different types of users as explained in the cultivation theory. The MANOVA results of different mobile users show significant difference effect on attitude on different types of location based advertisement messages (SSMS, DSMS, PMMS and VMMS) with Wilk's $\Lambda=0.900$, $F(4, 200)=5.293$, $p=0.000$, partial $\eta^2=0.051$ (Figure 4).

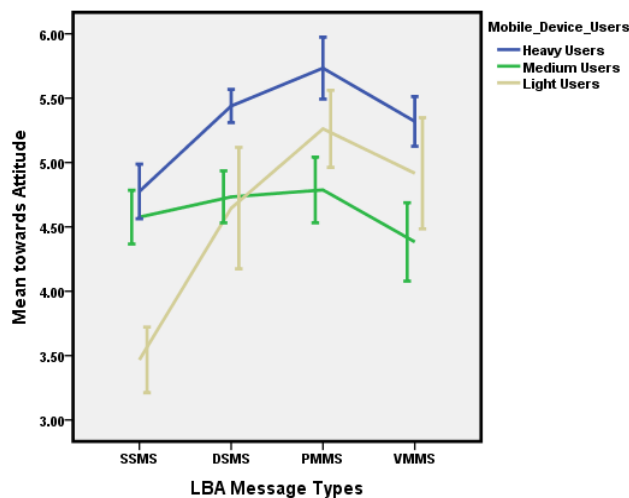


FIGURE 4
DIFFERENCE AMONG DIFFERENT TYPES OF MOBILE USERS

In Univariate ANOVA analysis at alpha level of 0.5 was used to determine different user's type's attitude difference at altered types of LBA messages types. The Univariate ANOVA analysis at SSMS resulted with $F(2, 50)=3.747$, $p=0.031$, partial $\eta^2=0.138$ having heavy user ($M=4.77$; $SD=1.017$), medium users ($M=4.58$, $SD=0.979$), and lighter user ($M=3.46$,

SD=0.570). While among DSMS users shows significant difference with $F(2, 50)=4.365$, $p=0.018$, partial $\eta^2=0.157$ with heavy users ($M=5.43$, $SD=0.605$), medium users ($M=4.73$, $SD=0.903$), and light user ($M=4.64$, $SD=1.33$). On PMMS LBA advertisement type users types shows a significant difference $F(2, 50)=3.783$, $p=0.030$, partial $\eta^2=0.139$ with heavy users ($M=5.7$, $SD=1.20$), medium users ($M=4.78$, $SD=1.08$), light user ($M=5.26$, $SD=0.79$). VMMS resulted $F(2, 50)=3.655$, $p=0.033$, partial $\eta^2=0.135$ which shows a significant difference among different types of mobile users at different advertisement types with heavy users ($M=5.31$, $SD=0.94$), medium users ($M=4.38$, $SD=1.36$), light user ($M=4.91$, $SD=1.05$).

In Table 3a analysis outcome of regression shows positive attitude effect on consumer purchase intention. Overall simulation conclusion shows significant positive influences on PI, as in model (1) attitude is bringing 46% positive change in purchase intention of consumer. More results on behalf of different advertisement types of attitude on purchase intention, stimulation occur due to SMSs (58%) and MMSv (59%) followed by SMSd (49%). While MMSp stimulate the consumer PI so low only 19% (model 4).

Table 3a REGRESSION RESULTS					
Variable	PI (overall)	PI (SMSs)	PI (SMSd)	PI (MMSp)	PI (MMSv)
Attitude	0.461 7.315***	0.587 5.030***	0.495 3.948***	0.191 1.350	0.591 5.073***
Constant	2.965 11.525***	2.231 4.143***	2.513 4.341***	4.274 9.120***	2.273 4.657***
F-statistic	53.506***	55.299***	39.586***	31.822	45.738***
Observations	200	50	50	50	50
Note: t-statistics in parenthesis (*) (**) (***) indicate level of significance at 10%, 5% and 1% respectively. Significance is led by if; t-stat>1.960. The variable is considered significantly influencing the PI if it fulfills criteria.					

Results with cultivate difference is given in Table 3b, which shows a significant positive impact on purchase intention. Medium user's attitude shows highest motivation factors towards purchase intention about of 53% changing, while light and high users shows approximately similar near to each other about of 36% and 33% positive motivation factors changing towards purchase intention. Policy implications possession the significant and positive role of attitude in provoking the consumer purchase intention with effectiveness of media types of VMMS and SSMS. However, the mobile user's role (Medium Users) is also important due to its adversative effect on consumer purchase intention.

Table 3b
REGRESSION RESULTS

Variable	PI (overall)	PI (Light User)	PI (Medium User)	PI (High User)
Attitude	0.461 7.315***	0.368 1.938*	0.536 5.610***	0.335 3.406***
Constant	2.965 11.525***	3.425 5.144***	2.473 6.315***	3.530 8.033***
F-statistic	53.506***	23.756*	39.468***	27.601***
Observations	200	26	80	94

Note: t-statistics in parenthesis (*) (**) (***) indicate level of significance at 10%, 5% and 1% respectively. Significance is led by if; t-stat>1.960. The variable is considered significantly influencing the PI if it fulfills criteria.

DISCUSSION

In this section we discussed consequences of research with description, hypothetical interference and applied interference, implications, and the future prospective.

Attitude Influences over Location-Based Advertisements Types

The primary research perseverance is to find the existence of the consequence of LBAs on the attitude of the consumers. The simulation results support the hypothesis *H1(a)*, *H2(a)*, and *H3(a)* that consumer attitude is influenced positively due LBAs as the statistical result of overall mean level of different LBAs [SSMS (4.56), DSMS (5.03), PMMS (5.32) and VMMS (4.89)] is positive. The results supported *H2(b)* with previous results of attitude towards LBA (Koo et al., 2012; Xu & Gupta, 2009) that multimedia message of picture has high positive impact on consumer attitude towards LBA. The simulation result among SSMS and DSMS support *H1(b)*, that detail SMS advertising is more effective and have greater impact on consumer attitude. The results reject the *H3(b)* that multimedia message with motion picture create high influences than any picture and text message (Sung & Cho, 2012) as the result show that VMMS evoke consumer attitude more than SSMS but less than DSMS and PMMS.

Attitude Influence of Mobile User's Characteristics on LBAs Types

The results regarding to mobile users support the cultivation theory (Pleshko & Al-Houti, 2012) and *H4* with justification of (Shin & Lin, 2016) that heavy mobile users are more influenced due to LBA. The results confirmed that heavy users at all types of LBA types are influenced more than medium or lighter users. The medium and lighter users of mobile phone results vary at different LBA types. In SSMS, the medium users seems to be more influenced

while for DSMS both shows similar result while for PMMS and VMMS the lighter users are more influenced than medium but less than higher mobile users.

Purchase Intention Influences on Attitude Responses

Regression analysis as show in Table 3a support the hypothesis *H5* and study of (Armstrong and Kotler, 2015) that purchase intention of the consumer is positively influenced by consumer attitude. The overall PI is enhanced up to 46% due to different types of LBA. The result rejected the research result of Xu et al. (2009) that purchase is influenced more by multimedia message than text based message as the text based message of both types' shows more influence respectively 58% and 49% change as picture MMS which shows just 19% change in consumer PI. But in regards of VMMS the consumer PI change shows up to 59% as similar to text based advertisement. Table 3b shows the regression analysis of attitude influences mobile user types and results concluded that medium users of mobile phone, attitude have more impact on PI of consumer while the lighter and high mobile users shows respectively similar impact on consumer purchase intention.

CONCLUSION AND LIMITATION

The research examined the location based advertisement message types impact on consumer attitude. The main consequences show a positive impact of location based message advertisement types on consumer attitude. MMSp shows more influences on consumer attitude at different types of advertisement. The mobile users based analyses justify cultivation theory and shows that heavy users have high impact in mobile advertisement due to more attachment and focusing. Regarding purchase intention the attitude in LBA has positive impact on consumers. In short, we can conclude that as SMS, the multimedia message is also a basic source of advertising in LBA. Findings of the study have done a great addition in LBA studies. In the field of mobile advertising industry, these findings can be used as a vital tool for the choice to mobile message marketing, and mainly a range of specific kind of LBA mobile message advertisement. It also entreaties to advertisers through occasioned exploration guide for scheduling operative mobile advertisement.

Research has limited to using only one service regarding LBA, which do not achieve the perception obligations of consumers. Selection of more comprehensive and consumer specific products/service will explore in depth effects, and research with authentic marketplace will generate more elaborate assumption. Additionally, a thriving sort of picture and video LBA messages will also be fascinating the more attention of consumer and will be helpful in drawing their attention towards itself and explore their attitude more for enhancement of purchase intention. The study is also limited regarding collection data as data was collected form university students of aged between 24-38 years, which is a probable restraint; for raising generalizability, it well to upsurges the age range up to (+40), which are tremendously lucrative market fragment with high prominences of discretionary revenue (Nasco et al., 2012).

REFERENCES

- Ainsworth, S., & VanLabeke, N. (2004). Multiple forms of dynamic representation. *Learning and Instruction*, 14(3), 241-255.
- Arguel, A., & Jamet, E. (2009). Using video and static pictures to improve learning of procedural contents. *Computers in Human Behavior*, 25(2), 354-359.
- Armstrong, G., & Kotler, P. (2015). *Marketing: An introduction*, (Twelfth Edition). Upper Saddle River, NJ: Pearson Education.
- Banerjee, S.S., & Dholakia, R.R. (2008). *Mobile advertising: Does location based advertising work?*.
- Bart, Y., Stephen, A.T., & Sarvary, M. (2012). *A field study of the determinants of mobile advertising effectiveness*.
- Bart, Y., Stephen, A.T., & Sarvary, M. (2014). Which products are best suited to mobile advertising? A field study of mobile display advertising effects on consumer attitudes and intentions. *Journal of Marketing Research*, 51(3), 270-285.
- Bauer, H.H., Reichardt, T., Barnes, S.J., & Neumann, M.M. (2005). Driving consumer acceptance of mobile marketing: A theoretical framework and empirical study. *Journal of Electronic Commerce Research*, 6(3), 181.
- Beatrix Cleff, E. (2007). Privacy issues in mobile advertising. *International Review of Law Computers and Technology*, 21(3), 225-236.
- Brehm, J.W. (1966). *A theory of psychological reactance*.
- Chaiken, S. (1980). Heuristic versus systematic information processing and the use of source versus message cues in persuasion. *Journal of Personality And Social Psychology*, 39(5), 752-769.
- Chandran, S., & Morwitz, V.G. (2005). Effects of participative pricing on consumers' cognitions and actions: A goal theoretic perspective. *Journal of Consumer Research*, 32(2), 249-259.
- Chen, J.V., Su, B.C., & Yen, D.C. (2014). Location-based advertising in an emerging market: A study of Mongolian mobile phone users. *International Journal of Mobile Communications*, 12(3), 291-310.
- Chiang, I.P., & Chen, C.H. (2017). Evaluating antecedents and consequences of location-based services. *International Journal of Electronic Commerce Studies*, 8(1), 47-76.
- Davis, R., & Sajtos, L. (2009). Anytime, anywhere: Measuring the ubiquitous consumer's impulse purchase behavior. *International Journal of Mobile Marketing*, 4(1), 79-90.
- De-Pelsmacker, P., Geuens, M., & Anckaert, P. (2002). Media context and advertising effectiveness: The role of context appreciation and context/ad similarity. *Journal of Advertising*, 31(2), 49-61.
- Dickinger, A., Haghirian, P., Murphy, J., & Scharl, A. (2004). *An investigation and conceptual model of SMS marketing*. Paper presented at the System sciences, 2004. proceedings of the 37th annual hawaii international conference on.
- Drossos, D.A., Kokkinaki, F., Giaglis, G.M., & Fouskas, K.G. (2014). The effects of product involvement and impulse buying on purchase intentions in mobile text advertising. *Electronic Commerce Research and Applications*, 13(6), 423-430.
- Kemp, E., Bui, M., & Chapa, S. (2012). The role of advertising in consumer emotion management. *International Journal of Advertising*, 31(2), 339-353.
- Ketelaar, P.E., Bernritter, S.F., Van't-Riet, J., Hühn, A.E., Van-Woudenberg, T.J., Müller, B.C., & Janssen, L. (2017). Disentangling location-based advertising: The effects of location congruency and medium type on consumers' ad attention and brand choice. *International Journal of Advertising*, 36(2), 356-367.
- Ketelaar, P.E., & Van-Balen, M. (2018). The smartphone as your follower: The role of smartphone literacy in the relation between privacy concerns, attitude and behaviour towards phone-embedded tracking. *Computers in Human Behavior*, 78(1), 174-182.
- Kini, R.B., & Suomi, R. (2018). Changing attitudes toward location-based advertising in the USA and Finland. *Journal of Computer Information Systems*, 58(1), 66-78.
- Koo, W., Knight, D.K., Yang, K., & Xiang, Z. (2012). Generation Y consumers' value perceptions toward apparel mobile advertising: Functions of modality and culture. *International Journal of Marketing Studies*, 4(2), 56-70.
- Koski, N. (2004). Impulse buying on the internet: encouraging and discouraging factors. *Frontiers of E-business Research*, 4(1), 23-35.

- Kotler, P., & Keller, K.L. (2006). *Marketing management 12e*.
- Larkin, J.H., & Simon, H.A. (1987). Why a diagram is (sometimes) worth ten thousand words. *Cognitive Science*, 11(1), 65-100.
- Lee, E.B., Lee, S.G., & Yang, C.G. (2017). The influences of advertisement attitude and brand attitude on purchase intention of smartphone advertising. *Industrial Management & Data Systems*, 117(6), 1011-1036.
- Lee, S., Kim, K.J., & Sundar, S.S. (2015). Customization in location-based advertising: Effects of tailoring source, locational congruity, and product involvement on ad attitudes. *Computers in Human Behavior*, 51(1), 336-343.
- Lin, H., Yeo, B., & Chen, Y. (2013). Mobilizing timely location-based advertising: A study of effectiveness on persuasion. *Australian Journal of Business and Management Research*, 3(6), 15-29.
- Lin, T.T., Paragas, F., & Bautista, J.R. (2016). Determinants of mobile consumers perceived value of location-based advertising and user responses. *International Journal of Mobile Communications*, 14(2), 99-117.
- Lin, T.T., Paragas, F., Goh, D., & Bautista, J.R. (2016). Developing location-based mobile advertising in Singapore: A socio-technical perspective. *Technological Forecasting and Social Change*, 103(1), 334-349.
- Ling, K.C., Piew, T.H., & Chai, L.T. (2010). The determinants of consumers attitude towards advertising. *Canadian Social Science*, 6(4), 114-126.
- Lu, K. (2017). Growth in mobile news use driven by older adults. *Pew Research Center*. Retrieved August 12th.
- MacKenzie, S.B., & Lutz, R.J. (1989). An empirical examination of the structural antecedents of attitude toward the ad in an advertising pretesting context. *The Journal of Marketing*, 23(1) 48-65.
- Malik, R., & Dubey, S. (2013). Role of advertising value as a mediator in formation of attitudes towards online advertising in indian online space. Retrieved March, 2(1), 201-206.
- Martí, P.J., Sanz-Blas, S., Ruiz-Mafé, C., & Aldás-Manzano, J. (2013). Key factors of teenagers mobile advertising acceptance. *Industrial Management & Data Systems*, 113(5), 732-749.
- Masters, H.P. (2014). *Location based services development and privacy issues*.
- Mayer, R.E., & Moreno, R. (2002). Animation as an aid to multimedia learning. *Educational Psychology Review*, 14(1), 87-99.
- McQuarrie, E.F., & Munson, J.M. (1992). A revised product involvement inventory: Improved usability and validity. *ACR North American Advances*.
- McQuarrie, E.F., & Phillips, B.J. (2005). Indirect persuasion in advertising: How consumers process metaphors presented in pictures and words. *Journal of Advertising*, 34(2), 7-20.
- Merisavo, M., Kajalo, S., Karjaluo, H., Virtanen, V., Salmenkivi, S., Raulas, M., & Leppäniemi, M. (2007). An empirical study of the drivers of consumer acceptance of mobile advertising. *Journal of Interactive Advertising*, 7(2), 41-50.
- Mitchell, A.A. (1986). The effect of verbal and visual components of advertisements on brand attitudes and attitude toward the advertisement. *Journal of Consumer Research*, 13(1), 12-24.
- MMA Producer (2011). *Mobile advertising*. Retrieved from <http://www.mmaglobal.com/>
- Mobilesquared (2018). Operators target \$26BN business messaging market. Retrieved from <http://mobilesquared.co.uk/2018/02/20/operators-targets-business-messaging-market/>
- Morgan, M., & Shanahan, J. (2010). The state of cultivation. *Journal of Broadcasting & Electronic Media*, 54(2), 337-355.
- Nasco, S.A., Hale, D., & Thomas, M. (2012). Mature consumers speak: Insights on information search and self-efficacy for service purchases. *Services Marketing Quarterly*, 33(2), 119-137.
- Park, E., & Ohm, J. (2014). Factors influencing users employment of mobile map services. *Telematics and Informatics*, 31(2), 253-265.
- Patwa, N., Kavuri, S.P., Grandhi, B., & Hongrak, K. (2016). Study on effectiveness of location-based advertising on food service industry in Sydney. *Journal of Bussiness and Technovation*, 4, 112-124.
- Petty, R.E., & Cacioppo, J.T. (1986). The elaboration likelihood model of persuasion. *Communication and Persuasion* (pp. 1-24). Springer.
- Petty, R.E., Cacioppo, J.T., & Schumann, D. (1983). Central and peripheral routes to advertising effectiveness: The moderating role of involvement. *Journal of Consumer Research*, 10(2), 135-146.
- Petty, R.E., Cacioppo, J.T., Yes, R.I., US, L.A., Amazon, U., No, F.E., & No, R. (1996). *Attitudes and persuasion: Classic and contemporary approaches*. Boulder, Colorado: Westview Press.

- Placecast. (2012a). *Best practices in location-based text marketings*. San Francisco, CA: Placecast.
- Placecast. (2012b). *When it comes mobile shopping Parents Know Best*. San Francisco, CA: Placecast.
- Pleshko, L.P., & Al-Houti, S. (2012). Heavy versus light users: A preliminary study of behavior patterns in retail services. *Academy of Marketing Studies Journal*, 16(1), 61-79.
- PortioResearch. (2014). *Worldwide A2P SMS Markets (2014-2017)*.
- Raacke, J., & Bonds-Raacke, J. (2011). An investigation of the dimensions of SMS communication use by college students. *Individual Differences Research*, 9(4), 20-49.
- Rice, R.E., & Hagen, I. (2010). Young adults perpetual contact, social connectivity and social control through the Internet and mobile phones. *Annals of the International Communication Association*, 34(1), 3-39.
- Shankar, V., & Balasubramanian, S. (2009). Mobile marketing: A synthesis and prognosis. *Journal of Interactive Marketing*, 23(2), 118-129.
- Sharp, K.L. (2013). *Modelling the factors that influence black Generation Y students' attitudes towards mobile advertising*. North-West University.
- Shin, W., & Lin, T.T.C. (2016). Who avoids location-based advertising and why? Investigating the relationship between user perceptions and advertising avoidance. *Computers in Human Behavior*, 63(1), 444-452.
- Silk, A.J., & Geiger, F.P. (1972). Advertisement size and the relationship between product usage and advertising exposure. *Journal of Marketing Research*, 21(1), 22-26.
- Sinkovics, R.R., Pezderka, N., & Haghirian, P. (2012). Determinants of consumer perceptions toward mobile advertising: A comparison between Japan and Austria. *Journal of Interactive Marketing*, 26(1), 21-32.
- Sung, J., & Cho, K. (2012). The influence of media type on attitude toward mobile advertisements over time. *Cyberpsychology, Behavior, and Social Networking*, 15(1), 31-36.
- Trappey III, R.J., & Woodside, A.G. (2005). Consumer responses to interactive advertising campaigns coupling short-message-service direct marketing and TV commercials. *Journal of Advertising Research*, 45(4), 382-401.
- Unni, R., & Harmon, R. (2007). Perceived effectiveness of push vs. pull mobile location based advertising. *Journal of Interactive Advertising*, 7(2), 28-40.
- van't-Riet, J., Hühn, A., Ketelaar, P., Khan, V.-J., König, R., Rozendaal, E., & Markopoulos, P. (2016). Investigating the effects of location-based advertising in the supermarket: Does goal congruence trump location congruence? *Journal of Interactive Advertising*, 16(1), 31-43.
- Watson, C., McCarthy, J., & Rowley, J. (2013). Consumer attitudes towards mobile marketing in the smart phone era. *International Journal of Information Management*, 33(5), 840-849.
- Wells, J.D., Parboteeah, V., & Valacich, J.S. (2011). Online impulse buying: Understanding the interplay between consumer impulsiveness and website quality. *Journal of the Association for Information Systems*, 12(1), 32-49.
- Wouters, J., & Wetzels, M. (2006). Recall effect of short message service as a complementary marketing communications instrument. *Journal of Advertising Research*, 46(2), 209-216.
- Xu, H., & Gupta, S. (2009). The effects of privacy concerns and personal innovativeness on potential and experienced customers adoption of location-based services. *Electronic Markets*, 19(2-3), 137-149.
- Xu, H., Oh, L.B., & Teo, H.H. (2009). Perceived effectiveness of text vs. multimedia location-based advertising messaging. *International Journal of Mobile Communications*, 7(2), 154-177.