

Consumer behaviour in the context of SMS-based marketing

Mahmud Akhter Shareef

School of Business, North South University, Dhaka, Bangladesh

Email: mahmud_akh@yahoo.com

Yogesh K. Dwivedi (Corresponding Author)

School of Management, Swansea University
Singleton Park, Swansea, SA2 8PP, Wales, UK.

TEL (Office): +44 (0) 1792 602340

FAX (Office): +44 (0) 1792 295626

Email: ykdwivedi@gmail.com

Nripendra P. Rana

School of Management, Swansea University,
Swansea, UK

E-mail: nrananp@gmail.com

Dr. Mahmud A. Shareef is currently Associate Professor, School of Business, North South University, Bangladesh. He is a researcher in DeGroote School of Business, McMaster University, Canada. His research interest is focused on development and performance of Electronic-government and quality management of Electronic-commerce. He has published more than 50 papers addressing adoption and quality issues of e-commerce and e-government in different refereed conference proceedings and international journals. He was the recipient of more than 10 academic awards including 2 Best Research Paper Awards in the UK and Canada.

Dr Yogesh K. Dwivedi is a Professor of Digital and Social Media at the School of Management, Swansea University, Wales, UK. He obtained his PhD and MSc in Information Systems from Brunel University, UK. He has co-authored several papers which have appeared in international referred journals such as CACM, DATA BASE, EJIS, ISJ, ISF, JCIS, JIT, JORS, and IMDS. He is Senior Editor of DATA BASE, Assistant Editor of TGPPP, Managing Editor of JECR and member of the editorial board/review board of several journals. He is a member of the AIS and IFIP WG8.6.

Dr Nripendra P. Rana is a Lecturer at the School of Management, Swansea University in the UK. He holds a BSc in Mathematics (Hons.), an MCA, an MTech, and an MPhil degree from Indian universities. He obtained his MBA with distinction and PhD from Swansea University, UK. He is currently working in the field of e-Government adoption and diffusion. He has varied work experience of teaching in the area of computer engineering and applications at undergraduate and postgraduate levels. He also possesses a good experience in the field of software development.

Abstract

Given the potential benefits such as time and location-based advertisements, the scope of interactivity and customisation through one-to-one target marketing, SMS-based (Short Messaging Service) advertisement, is now being considered as an important alternative marketing channel. This has raised a real challenge for marketers to harness the potential of this alternative channel by overcoming several limiting issues such as security, privacy, authenticity, and irritation of unknown senders. The main objective of this study is to identify and review relevant research issues faced by wireless marketing (particularly via SMS-based advertisement) as an aide to identify potential research gaps and for developing future guiding principles. The review and analysis of literature suggest that there is scope of undertaking further research on issues related to different cultures reflecting ubiquitous traits of mobile phone, SMS advertisement, market segmentation, location and time sensitive delivery, content and context of advertisement, language and appropriate delivery.

Keywords: SMS (Short Messaging Service), advertisement, mobile phone, mobile marketing, direct marketing, consumers' behaviour

1. Introduction

The application of the mobile phone is increasing fast worldwide in the twenty-first century. Thus, marketing managers are concerned of wireless marketing through SMS-based (Short Messaging Service) advertisements that are conducted through any hand-held device (like mobile phones) which can control consumers' attention, exposure, perceptions and behavioural attitude toward advertising information (Drossos et al., 2007; Faber et al., 2004). Existing studies have asserted that mobile marketing will provide lucrative prospects in the future and will be regarded as a popular media to the marketers for it can deliver personalised texts with a specific messages to the target market (Durkin, 2013; Rohm and Sultan, 2005; Slade et al., 2013). Wireless marketing and advertisements can be explained as interactions of any business entities with customers (even sometimes two-way communication) with the aim of providing product/service information, price and promotion.

Durkin (2013) asserted that proliferation, effectiveness, and success of customer focus marketing largely depends on personal interaction through an offline channel and remote interaction through a virtual medium like online or digital marketing. Mobile phone-based SMS marketing can avail both of the successful continua. Due to the ubiquitous characteristics of mass penetration with the potential of enormous benefits like time and location-based advertisements, the scope of interactivity and customisation through one-to-one target marketing in the appropriate context and the recent trend of SMS-based advertisement has captured the prime market share of mobile-commerce advertisements (Carroll et al., 2007; Peters et al., 2007; Xu, 2007). Through an empirical study among five developed consumer markets (namely, the USA, UK, Japan, Germany and France) and two prospective emerging online markets (i.e. China and Brazil), Barwise and Farley (2005)

revealed that 19% of consumer product companies are using SMS as a direct marketing advertisement. Thus, considering the rising popularity of SMS and its interactive impact among consumers to create relationship marketing as well as its generic conveniences for launching direct marketing, mobile advertisement through SMS is now considered as one of the effective channels of marketing (Liu and Li, 2009). As per Xu (2007), the predicted growth rate of SMS marketing is more than 39.8%. Consumer corporations such as Nike and McDonald's had explored the suitability to target customers and thereby maintain customer relationships through a two-way communication and found it as an effective interactive marketing channel (Charny, 2001).

The emergence of SMS-based advertising is surrounded by several issues, challenges, barriers and limitations. To overcome these and in order to make SMS-based advertising more successful and effective, many scholarly works have appeared in a variety of outlets from different disciplines (i.e. marketing, information systems and computer science). However, very few attempts have been made to review, analyse and synthesise existing research work as a guiding theory and practice in this emerging area. Hence, the main objective of this study is to identify and review scholarly research on the following interrelated issues related to wireless marketing (particularly SMS-based advertisement): (i) consumers behaviour for the advertisement operated through a mobile phone - perception, exposure, and attention; (ii) consumers' attitude toward SMS-based advertisement; and (iii) success factors and effectiveness of SMS advertisements for retaining existing customers and recruiting new customers. This submission will thus attempt to guide future research on consumer behaviour for SMS-based advertisements by synthesising existing knowledge.

The subsequent sections of this paper are organised as follows. The next section provides an overview of a method utilised to search and filter in order to identify relevant literature. Following this, the identified literature is reviewed, categorised and discussed. Further theoretical development will then be outlined and discussed based on the synthesis of the existing research reviewed in preceding section. Finally, key conclusions and limitations will be outlined.

2. Literature Review Method

In order to identify relevant studies on this rapidly growing area, the following keywords were used to perform a search using Google scholar as the search engine: SMS advertising, direct marketing, wireless advertising, digital marketing, and mobile advertising. The search and subsequent screening to exclude less relevant studies resulted in 243 scholarly articles in journals, proceedings of conferences, and book chapters. After reviewing the relevant critical factors, it was discovered that a large numbers of such articles were repetitive in nature as they examined similar issues under similar context and grounded on the same technology adoption theories. The analysis also revealed that a significant quantity of research articles developed paradigms of wireless marketing accentuating on the relevant issues of SMS-based advertisement but failed to articulate the state-of-the-art knowledge of the new SMS-based marketing theme conducted by mobile phones and derived concepts of mobile marketing. Rather, they engaged in defining and explaining digital marketing solely from a technological perspective discounting the analysis of and focus on human behaviour. Since this study is exploring, conceptualising, and developing guiding principles of SMS advertisements by focusing particularly on consumers' behaviour, the studies having the aforementioned keywords which analysed a complete

technological interference of this ever-growing field of marketing were discarded. Also, after a detailed screening and reviewing, a total of 87 scholarly articles were found relevant for undertaking this review (as presented below) in this emerging area of consumer behaviour by interlinking conceptual development and forming guiding principles for SMS-based advertisements conducted through the mobile phone.

3. Overview of Existing Literature

The scholarly articles reviewed in this article are from marketing, psychological behaviour, technology adoption and diffusion areas. Many of these studies provided integrative view of consumers' behaviour and application of technology. They attempted to investigate a new trend of consumers' behaviour in the digital technological interface like the Internet and mobile phone, and different applications of the mobile phone such as Bluetooth. Some studies focused solely on the marketing aspect by considering an alternative innovative digital channel. A few of these studies explored the cross-cultural effect on marketing strategy. A large number of these scholarly articles have focused on developing conceptual paradigms on SMS advertisements based on theoretical alignment of reasoned action (TRA), diffusion of innovation theory (DOI), unified theory of acceptance and use of technology (UTAUT), and a technology acceptance model (TAM). Some consumer behaviour and media selection theories are also analysed to shed light on the consumers' behavioural attitude for channel selection, such as media uses: gratification theory, cognitive learning theory, behavioural learning theory, mere exposure theory, consumer behaviour theory, etc. A large number of the reviewed studies addressed specific requirements of consumers for SMS advertisement such as authenticity, security, trustworthiness, timely delivery, contextual message and identified several ad-hoc

procedures to accomplish those issues in this new marketing channel. Many studies were solely engaged in designing a technological interface to meet those requirements.

The first step of the review was to undertake an initial analysis of the objectives, conceptual paradigms, methodology, key findings, conclusions, theoretical contributions and limitations which are reported in all existing studies included in this review. This resulted in the identification of nine broad categories of studies (as shown in Table 1) based on their similarities on the aspects specified above. These categories (and studies included in them) were numbered considering their gradual effort in advancing state-of-the-art knowledge of consumer behaviour for digital or interactive marketing with a special focus on SMS advertisement. The sequential numbering is conducted after deliberating over the studies and their categorisation, so that a stitching progression of theoretical development can be identified which is considered as a potential contribution of a literature review article (Gabbott, 2004).

3.1 First Category: General Attitude for Mobile Phone and SMS

The first category of research is primarily engaged in identifying and conceptualising consumers' attitude in general toward the mobile phone as a whole and then, SMS or other data transmitting procedures. These studies investigated the influence of different kinds of beliefs, attitude, and subjective norms on behavioural intention. Many such studies employed an empirical approach and behavioural theories for shedding light on issues related with the technology adoption. Such studies attempted to predict consumers' attitude toward digital marketing by applying previously accumulated knowledge on a general attitude toward the mobile phone or SMS. For example, Srisawatsakul and Papisatorn (2013) investigated consumers' attitude by conducting an empirical study among broadband users in Thailand by evaluating the factors that pursue adoption of mobile

broadband services with add-on advertising. It identified that wireless advertisement provides additional values. This study identified that attitude and subjective norms have a weak stimulus effect on behavioural intention for broadband services (contradicted by the studies of Zhang and Mao, 2008; Zhang and Li, 2012) with add-on advertising. However, this finding is somewhat controversial when trust is a governing factor. Liu and Li (2009) identified that usefulness, i.e., utilitarian aspect (cognitive attitude), is more important than hedonic (enjoyment). However, unlike other studies (e.g. Cockrill et al., 2011; Leek and Christodoulides, 2009), the claim by Liu and Li (2009) that enjoyment (affective attitude) has less pursuing effect is surprising. A number of previous empirical studies (see He et al., 2007; Moynihan et al., 2010; Muk, 2007) conducted among different communities (e.g. American, Turkish, Chinese, and South Korean) revealed that consumers' attitude is the potential contributing factor for the acceptance of SMS commercials. If consumers have a positive attitude toward an SMS and mobile phone messaging system and its utility, they will have a positive attitude toward SMS commercials and thus will accept this system. This is also argued by a recent review on acceptance of different m-payment systems through mobile phones (see Slade et al., 2013). Grant and O'Donohoe (2007) examined consumers' attitude based on their gratification in using the mobile phone as an interactive media. This study suggests that young consumers, although substantially engaged in sending and receiving SMS, do not like commercial SMS. It is almost the reverse perception about prospects of SMS advertisement identified by the above discussed studies. But the study as evidence of this finding is only expressed by some individual comments and did not provide any aggregate statistics. In addition to this, the study did not

identify the impact of many benefits which can be gained by SMS-based marketing like time, location, context-based characteristics, and personalisation of mobile marketing.

3.2 Second Category: Consumers Perception of SMS Advertisement

The focus of research included in this group was more specifically on consumers' specific response to wireless advertising, mobile marketing, SMS and MMS advertisements. This category captured different types of exposure and attention of consumers (Peters et al., 2007; Trappey and Woodside, 2005), perception (Turel et al., 2007; Zhang and Mao, 2008), acceptance and adoption (Hsu et al., 2007; Lu et al., 2010), and attitude and actual behaviour (Cheng et al., 2009; Phau and Teah, 2009; Tsang et al., 2004; Xu et al., 2009; Zhang and Li, 2012). Peters et al. (2007) utilised uses and a gratification theory to develop its conceptual model for revealing attitude toward wireless advertising messages including SMS. This theory acknowledges that consumers selectively expose themselves to any media based on their motivation of gratification. Streamlining consumers' perception for wireless advertisement on this underlying concept, some studies (Gauzente 2008; Peters et al., 2007; Trappey and Woodside, 2005) proposed a motivational state of consumers for advertisement operated through the mobile phone. The findings of these studies postulate that consumers have a positive attitude of wireless advertisement like SMS, because it can provide process, socialisation, and content motivations. Cheng et al. (2009), Hsu et al. (2007) and Van der Waldt et al. (2009) compared the attitudes of consumers among different forms of wireless advertisements like SMS and MMS (location-based advertisement) as well as e-mail and the Internet. These studies revealed that due to lack of privacy, for the effect of irritation, consumers have less of a positive attitude toward SMS advertisement in comparison to the Internet and MMS. Hsu et al. (2007), based on

DOI, identified that the perception of MMS varies based on diffusion stages. Phau and Teah (2009) and Tsang et al. (2004) found that the personalisation of advertisement and entertainment, credibility, and informativeness have a positive impact on creating intention toward an SMS advertisement. A number of previous studies (such as Hosseini et al., 2011; Turel et al., 2007; Zhang and Mao, 2008; Zhang and Li, 2012) explored the perception of consumers toward SMS advertisement and identified that wireless advertisement provides additional values - perceived usefulness to recipients which is deemed as a significant driving factor for commercial mobile advertisements. Presumably, trust is an important factor for this kind of contextual advertisement focused on direct marketing. Lu et al. (2010) identified that consumers' perception of usefulness, enjoyment, and cost-effectiveness are prevalent factors for the consumers to adopt this digital marketing system. Varnali et al. (2012) also recognised that incentive or a promotional offer associated with commercial SMS is a preferential factor for consumers in forming behavioural attitude toward this type of marketing. Exploring consumers' attitude, findings of the Cockrill et al. (2011) study suggest that privacy is a negative concern (similar to Leek and Christodoulides (2009) which also included security concerns) and that fun/excitement has a positive impact for the adoption of mobile phone, e.g. Bluetooth. Leppäniemi and Karjaluoto (2005) and Leek and Christodoulides (2009) identified that both utilitarian and hedonic (unlike Liu and Li, 2009) factors such as time, location, and context-based SMS advertising are the prevalent opportunities to capture consumers' positive attitude toward SMS advertising.

3.3 Third Category: Success Factors of SMS Advertisement

Similar to the second group, the third category of studies acknowledged the consumers' positive attitude about SMS-based advertisement conducted through mobile phones where one-to-one interaction is feasible. Consequently, several studies attempted to define the success factors of SMS advertising as an alternative channel to the traditional marketing through offline advertisement. They also measured the effectiveness of this new revolutionary mobile marketing channel. In this category of scholarly articles, some studies (Chaffey, 2000; Danaher and Rossiter, 2011; Drossos and Giaglis, 2005; Drossos et al., 2007; Gauzente et al., 2006; Heinonen and Strandvik, 2005; White, 2010) articulated the effectiveness and success factors from the perception of consumers as the end users, whereas same issues were captured from the perception of the marketing managers or sellers by other studies (Balan and Zegreanu, 2012; Chang and Hsieh, 2007; Dickinger and Haghirian, 2004; Okazaki and Taylor, 2008; Scharl et al., 2005).

Drossos et al. (2007) attempted to examine advertisement effectiveness through spatial advertising by investigating and pursuing variables which influence consumers' cognitive, emotional, and behavioural attitude for the effectiveness of SMS advertisements. This study recommended that incentive, interactivity, appeal, product involvement, and attitude toward SMS advertising are major sources for success of such mobile marketing. Gauzente et al. (2006) suggested that for the success of SMS advertisement, it should be more focused on consumers' personal requirements. For the success of SMS marketing, great emphasis was given on trusting the image of the SMS for acceptance. Drossos and Giaglis (2005) identified that SMS through the mobile phone as a direct one-to-one marketing tool has great prospects. However, for its effectiveness, it should have a proper strategy. Its targeting/segmenting should be appropriate, value should be added, and the source should

be reputable. The finding is consistent with the result that social influence (i.e. associative reference) has an important role which reflects an overarching effect of trustworthiness (similar to the study of Okazaki and Barwise, 2011). Chaffey (2000) reviewed marketing and ICT-based literature to compare offline and online marketing. This study identified the success factors of digital marketing by acknowledging the special opportunities of digital marketing. The findings suggested a framework of channel success that consist promotion scope in online customer behaviour, channel satisfaction, marketing outcomes, and business profitability are determinants of successful digital marketing. Although this study did not specifically focus on SMS-based mobile marketing, the conceptual derivation has rhetoric implications for mobile advertisements conducted through SMS. Commercial SMS, which has similar characteristics to the Internet when captured by mobile phone, offers similar benefits to the customers. The special benefits of SMS (e.g. scope of personalisation, two-way interactivity, one-to-one direct marketing, and time/location/context-based marketing) are added benefits of digital marketing offered through the mobile phone channel. The success factor framework can also provide a deep insight for the effectiveness of SMS advertisement, although it is neither exhaustive nor well supported by marketing literature related to channel effectiveness. Danaher and Rossiter (2011) and White (2010) suggested that SMS-based mobile advertisement has less effectiveness due to the perceptions of less reliability and trust. Tomaskova (2010) differentiated mobile marketing based on characteristics and identified that reliability of the message delivery system is the key governing factor for this to be effective.

Several studies have investigated sellers' perception to make the digital marketing effective and successful. Dickinger and Haghirian (2004) examined success factors of SMS

communications between sellers and buyers through interviews of 15 European mobile marketing experts. This study prioritised personalisation, conceived by the scope of SMS-based advertisement, as the driving force of developing positive attitude toward mobile advertisements which is confirmed by Balan and Zegreanu (2012) and Scharl et al. (2005). Okazaki and Taylor (2008) investigated sellers' intention to build a brand image, location-based direct marketing, and consumers' positive attitude toward SMS-based mobile technology-oriented marketing. Chang and Hsieh (2007) and Okazaki and Taylor (2008) asserted that positive behaviour is possible if technology could be implemented in a trusted manner. These studies also supports (similar to SMS consumer side studies) the needs of trust, usefulness, and friendliness.

3.4 Fourth Category: Competitive Advantage of SMS Advertisement as an Alternative Channel

The fourth category of studies was focused on exploring how the success factors (as identified by studies in the third category) can be utilised to capitalise the benefits of SMS marketing. These studies extensively addressed several scattered issues, although intertwined, as an exhaustive concept to create an effective SMS-based marketing channel. These raised and examined issues related to versatile opportunities which can be achieved through SMS as its unique trait; for example, content, context, the language of SMS for appropriate targeting, time and location-based advertisement, selection of appropriate delivery time, and market segmentation for demographic characteristics such as age. Nevertheless, many users of mobile phones can be irradiated by SMS commercials SMS for privacy and security concerns. Therefore, prior permission can be an essential concern for this new medium to be accepted overall by customers.

Chang (2013) explored when and how much consumers of different ages have exposure and attention to SMS-based advertisements. The focus was to predict consumers' actual behaviour. It identified that consumers' exposure and attention behaviour and perception mechanism is different in different age groups and thus customised advertisements has a potential impact on consumers' attitude toward SMS advertisements. Okazaki and Barwise (2011) examined the effect of 'push' where location-based customised commercial SMSs were pushed to get exposure to the customers. It then analysed SMS commercials associated with incentives and promotional marketing regarded as 'pull' advertisements. The findings are similar to Chang's (2013) study. It acknowledged that young consumers in particular have interest in commercial SMSs in the USA if it is exciting, enjoyable, and personalised. However, a great emphasis was put on a trusting image of the SMS for acceptance. Nathwani and Eason (2005) argued that MMS would be effective if consumers have accessibility and availability from any place as the main strength of mobile marketing is the location-based delivery. A number of studies (Baalbaki et al., 2007; Carroll et al., 2007; Rau et al., 2011; Scharl et al., 2005) suggested that content, permission, delivery time, and reputation are potential factors for consumers to accept SMS-based marketing channel. Heim et al. (2009) recognised that perceived relevance is an important factor for a positive attitude. This study also acknowledged that due to the scope of personalisation and time and location-based delivery of SMS advertisement, 3G and 4G mobile phones would generate a fruitful new channel (also supported by Zhang and Li, 2012). Yao et al. (2009) evaluated different value-added services of mobile phones and acknowledged that SMS advertisements launched through mobile phone has a marketing value.

Several studies (e.g. Smutkupt et al., 2010; Trabelsi and Ben Rached, 2009; Van der Waldt et al., 2009) affirmed that irritation can be an impediment for SMS-based direct marketing and consequently, recipients permission is an important issue for the success of SMS commercials. Smutkupt et al.'s (2010) study identified the effect of permission on the effectiveness of SMS. The study found that to create consumers' attention and response to any brand through an SMS advertisement, consumers' permission of sending an SMS has a valuable impact. Nantel and Sekhavat (2008) affirmed that a message's authenticity, credibility, and company's reputation (also confirmed by McDonald and Dahlberg, 2010) are very important to attract customers toward SMS advertisements. den Ouden and van Wijk (2007) confirmed that content and the organisation of language and keywords in the SMS is an important factor to be persuasive.

3.5 Fifth Category: General Effect of SMS Advertisement on Consumers Behaviour

Studies included in this group have attempted to disclose overall characteristics of SMS-based marketing and augmenting its pros and cons to the practitioners for initiating appropriate strategies. They opened up a line of debate regarding expected results and perceived effect of SMS marketing.

Xu (2007) revealed that personalisation of an advertisement (i.e. preparing the advertisement specific to customers' needs, lifestyle, taste, location, purchasing behaviour, income, and preference) is a major source of benefit and can be captured by an SMS-based advertisement offered through the mobile phone. Balabanis et al. (2007) suggest that for trusted sellers, SMS commercials are useful, which highlights the importance of trust and reputation in e-marketing. Anbu and Mavuso (2012) affirmed that the SMS-based alert system can attract customers and they can be exposed to this. Whittaker et al. (2012) and

Gold et al. (2011) found that the SMS of a mobile phone can be enjoyable and create cognitive and affective attitude for enjoyment. Gardan et al. (2011) and Wang et al. (2007) suggested that mobile marketing could be accepted among consumers if it can offer a personalised service with reliability. Ho et al. (2010) suggested that due to the ubiquitous characteristics of mobile phones particularly the scope of personalisation, instantaneity and convenience, SMS has great prospects. The study also identified that the selection of time, location, and context has a great influence on creating exposure, attention and a positive perception toward SMS. Wouters and Wetzels (2006) explored recall effect of SMS. Nysveen et al. (2005) explained the relationship (effect) of SMS and MMS with branding and recommended that SMS has a complementary value to the main channel and MMS creates a supplementary channel.

3.6 Sixth Category: Architectural Design of Technology for SMS Advertisement

This category of studies, while capturing consumers' behaviour, was particularly focused on technological design to promote an SMS-oriented marketing channel. They analysed the applications of different technological interfaces accomplishing the general and specific opportunities to govern consumers' behaviour that can be captured by SMS marketing. They primarily focused on the two issues: 1) timely delivery, location-based customised content, and appropriate selection of customers for specific content; and 2) ensuring security and authenticity in the transmission of SMS so that consumers can have trustworthiness on SMS advertisements.

Samaka et al. (2009) investigated architectural design for the application of different technologies to maintain user acceptance for bulk deliveries of SMS. The design specification ensured that some behavioural requirements such as time, location, and

context were under consideration for the selection of customers to receive SMS. It also recognised the requirement of customisation. Samaka et al. (2009) attempted to design a technological interface through the mobile phone for bulk delivery of SMS by having the same content sent to many customers of similar attitude. The necessity of trustworthiness of SMS for effectiveness was recognised by a number of studies (Bujang and Selamat 2008; Grillo et al., 2008a; Selamat et al., 2008). These studies analysed different technological encryptions for the inclusion of a credibility evaluation of SMS advertisements. Grillo et al. (2008b) identified three stakeholders of the SMS delivery system: seller, receiver, and intermediate channel member for non-repudiability (authentication). McClement and Kumar (2004) and van der Merwe et al. (2005) addressed the security problems in delivering SMS and recommended that the requirements of a trusted SMS is important for the proliferation of commercial SMS. The studies of De Reyck and Degraeve (2003, 2006) and Lv et al. (2008) explored an effective design of SMS to keep its trustworthiness as well as appropriate tracking so that the right content of message should be sent to the right customer.

3.7 Seventh Category: Diversified Issues of Using SMS Advertisement as a New Channel

The seventh group addressed some fragmented issues of mobile marketing. To get a complete and autonomous robust marketing channel through the mobile phone, these issues are critical to be resolved. For example, Robins (2000) and Durkin (2013) have addressed the driving and inhibiting factors of digital marketing and the appropriate usage of technology in marketing continuum. These studies asserted that due to cost- effectiveness and customer relationship management, mobile marketing has a lucrative future; however, the appropriate application of digital technology in the light of the customers changing

behaviour is the key to success. It identifies the opportunities of mobile marketing by indicating personalisation through face-to-face interaction and virtual interaction; it is engaged in maintaining a customer relationship by remote control and is the key element of successful marketing in the digital era. Robins (2000) reviewed the literature and evaluated many e-commerce sites and their characteristics to identify conceptual paradigms of e-marketing. It revealed that flexibility, scope of personalisation, dynamic interactivity, and customisation are overarching challenging issues of e-marketing. However, it recommended that due to the extreme speed of e-marketing where consumers can easily compare brands in a few seconds, demand for innovation might create a challenge for the orthodox marketing channel.

Dix et al. (2011) investigated the driving factors for acceptance, challenges and opportunities for the SMS-based advertisements. The findings asserted that for the success of digital marketing, first, the consumers' attitude should be created for acceptance of SMS and the mobile phone. Here, the potential impact may come from personalisation and usefulness. However, unlike the findings of Okazaki and Barwise (2011) and Hosseini et al. (2011), the effect of trust and privacy on creating consumers' attitude toward SMS advertisements is negligible. So, the primary challenging issue is to pursue a positive attitude of consumers toward SMS as a communication tool and then turning it to a marketing aspect. Li (2009) analysed the Chinese market for a new role of mobile operators to deliver the SMS advertising. It also analysed other stakeholders of this new marketing channel to be communicated with sellers through mobile phones. It identified that the roles of different stakeholders of mobile phones, like the consumers, are changing; for example,

mobile operators. Trust of SMS is a determining factor for consumers to adopt SMS, otherwise they will treat SMS advertising as spam.

3.8 Eighth Category: Strategy Development for SMS Advertisements

This group consists of studies that are engaged in developing executable strategies for mobile marketing through SMS. Many customers receive SMS but are not willing to be attentive and exposed to the content of commercial SMS. Converting recipients of SMS to buyers is a challenging issue, and needs development of the appropriate strategies.

Zegreanu (2012) attempted to develop the underlying strategies for successful SMS-based mobile marketing in a Romanian context. The findings suggested that customer satisfaction is the prime bottom line for SMS-based advertisement. Zolfani et al.'s (2012) study also investigated strategies for successful advertising through different media including SMS. Qureshi et al.'s (2012) study explored the difference of effect of different stimulus on traditional and e-marketing. The study identified that for a successful advertisement strategy, companies should focus on monthly cost, content and educational level. It also identified that mobile marketing through commercial SMS is not a very popular media in respect to printing and electronic media.

3.9 Ninth Category: Consumer Behaviour and Cross-cultural Effect of SMS Advertisements

This group of studies investigated the suitability of forming a generalised global marketing policy irrespective to any culture. This could be the ultimate research question in this experimental marketing channel to be resolved.

Jamieson (2012) investigated the cross-cultural effect on consumers' response to SMS advertisement acceptance by conducting an empirical study among consumers of South Korea and Australia. This study offered two major findings: 1) consumers are unwilling to

accept SMS advertisements through mobile phones (similar to the study by Grant and O'Donohoe, 2007); and 2) the cultural differences do not have an impact on consumer behaviour to the response of SMS commercials; this opposes the findings of Lillie (2012) who recognised the cultural differences in the intake of mobile picture messaging of Nokia's MMS. McDonald and Dahlberg (2010) reconciled attitudes of USA consumers with other cultures and observed that generally USA consumers do not bear a positive attitude toward SMS commercials unless the reputation (similar to Balabanis et al., 2007) of the advertising company (the seller) is good.

Okazaki (2005) identified marketing managers' perception in choosing SMS marketing for appropriate branding. It conducted a study among top marketing managers in Japan, USA, and Europe. It identified cross-cultural differences in perception. Japanese managers are not interested in this new channel whereas USA managers are interested. It also identified that costing, branding strategy, security, and facilitating conditions are the critical issues for choosing SMS as a marketing channel for the multinational companies.

Table 1 SMS-Based Marketing: A Summary from the Review of Existing Research

Research Focus	Sources	Theoretical Development	Limitations
Group 1: Attitude toward general SMS/mobile phone	Grant and O'Donohoe, 2007; He et al., 2007; Liu and Li, 2009; Moynihan et al., 2010; Muk, 2007; Slade et al., 2013; Srisawatsakul and Papisratorn, 2013	These studies addressed mobile phone users' general beliefs, attitude, and behavioural intention toward mobile phones, different message transmission through mobile phones like, SMS, MMS. These studies conceptualised behavioural attitude for different types of contents of SMS including commercial advertisement. In this regard, these studies analysed and identified potential connections with different embedded elements of usage like trust, security, reputation, reliability.	Most of the studies in this group developed its model by selecting variables randomly. Also, while applying findings about consumers' general attitude toward mobile phones or SMS for predicting attitude toward SMS advertisement, they did not incorporate the ubiquitous characteristics of the mobile phone which can offer time and location-based one-to-one interactivity.
Group 2: Perception about	Cheng et al., 2009; Cockrill et al., 2011; Ezakolaei and Nassab,	Although some studies based on the reference of previous groups indicated that many consumers	These studies failed to conceive consumer behaviour from the marketing aspect, like

<p>effective value of wireless advertising/ attitude/ adoption factor/ exposure, attention and actual behaviour/ response/ acceptance/ acceptability of young consumers toward SMS advertising</p>	<p>2007; Gauzente 2008; Hosseini et al., 2011; Hsu et al., 2007; Leek and Christodoulides, 2009; Leppäniemi and Karjaluoto, 2005; Lu et al., 2010; Peters et al., 2007; Phau and Teah, 2009; Trappey and Woodside, 2005; Tsang et al., 2004; Turel et al., 2007; Van der Waldt et al., 2009; Varnali et al., 2012; Xu et al., 2009; Zhang and Li, 2012; Zhang and Mao, 2008</p>	<p>have negative perception about mobile phone-based data transmission such as SMS, the overall implication of the research of this category affirmed that since SMS-based advertisement has many interactive, personalised, time, place, and context-based benefits, customers have gratification for wireless- based advertisement.</p>	<p>consumers' cognitive learning, distribution channel, and consumers' exposure to unknown advertisements. The studies also did not comprehensively explore and address specific characteristics of SMS and their appropriate usage.</p>
<p>Group 3: Success factors/ effectiveness from consumers' perceptions Effectiveness of SMS marketing from supplier side</p>	<p>Chaffey, 2000; Danaher and Rossiter, 2011; Drossos and Giaglis, 2005; Drossos et al., 2007; Gauzente et al., 2006; Heinonen and Strandvik, 2005; Tomaskova, 2010; White, 2010 Balan and Zegreanu, 2012; Chang and Hsieh, 2007; Dickinger and Haghirian, 2004; Okazaki and Taylor, 2008; Scharl et al., 2005</p>	<p>These studies were based on the perception, attention, and exposure of the end users, investigated how SMS-based marketing could be effective and successful. In this effort, they identified success factors and provided reasons of effectiveness. Some studies exclusively revealed from the opinion of experts to create an effective and successful marketing channel to communicate with consumers.</p> <p>These studies revealed that SMS-based marketing will be successful if it can capture the ubiquitous opportunities of a wireless device like providing time, location, and a customer context-based advertising message of products. As a result, SMS advertisement success depends on the capability of personalising information and delivery of time and location-based SMS to targeted customers.</p>	<p>The success factors of SMS marketing depends on both consumer behaviour and technological application. Due to technological constraints of SMS display and transmission, it has some barriers to appropriately motivate customers. But these studies barely reflected these barriers in their analysis. Nevertheless, these studies successfully pointed out some crucial issues for the success of SMS marketing like prioritising delivery time and location, and content as per customers' requirements.</p>
<p>Group 4: Specific influence of content/ targeting and appropriate delivery time/ language/age of customers</p>	<p>Baalbaki et al., 2007; Carroll et al., 2007; Chang, 2013; Chen et al., 2009; den Ouden and van Wijk, 2007; Heim et al., 2009; Nantel and Sekhavat, 2008; Nathwani and Eason, 2005; Okazaki and Barwise, 2011; Rau et al., 2011; Scharl et</p>	<p>The studies suggest that positive attitude of consumers toward SMS-based commercials is heavily dependent on mobile phones' scope to avail time and location-based communication and personalisation of an advertisement through SMS so that it can create an overall value to the customer and minimise the opportunity cost. However, acceptance, exposure, attention,</p>	<p>These studies covered several unique opportunities of SMS advertisements which cannot be created or availed by the traditional channel. However, many studies of this group, like the third group, did not properly assimilate and contrast the technological interfaces to examine the possibility of incorporating those theoretical scopes practically.</p>

Permission	al., 2005; Yao et al., 2009 Smutkupt et al., 2010; Trabelsi and Ben Rached, 2009; Van der Waldt et al., 2009	and a positive response are related to the delivery time, content reflecting personal requirements and relevance, language enjoyment and effectiveness. However, marketers should be careful of an irritation effect of the customer where prior permission is an inhibiting factor, so they must value customers' privacy and security concern.	
Group 5: General effect of wireless advertisement	Anbu and Mavuso, 2012; Balabanis et al., 2007; Gardan et al., 2011; Gold et al., 2011; Ho et al., 2010; Nysveen et al., 2005; Wang et al., 2007; Whittaker et al., 2012; Xu, 2007; Wouters and Wetzels, 2006	These studies investigated an integrative effect of SMS advertisements as a direct, dynamic, interactive, and robust marketing tool on consumers' behaviour. They identified that since the influence of location-based advertisements and personalisation on consumers' perception is positive, proactive measures should be adopted to communicate with consumers through SMS.	This group did not advance the conceptual paradigm of mobile marketing; rather it has a parallel effect on the studies of the previous groups. Theoretical support is absent here.
Group 6: Architectural design/ technological interface	Bujang and Selamat, 2008; De Reyck and Degraeve, 2003; De Reyck and Degraeve, 2006; Grillo et al., 2008a; Grillo et al., 2008b; Lv et al., 2008; McClement and Kumar, 2004; Samaka et al., 2009; Selamat et al., 2008; van der Merwe et al., 2005; Zhang et al., 2008	These studies focused on the application of technological interfaces to accomplish previously mentioned findings of SMS-based marketing. They analysed different technologies to accomplish timely and location-based customised delivery of advertisements through mobile phones by keeping the message personalised and appropriate. They also acknowledged the necessity of trustworthiness of the SMS in the virtual medium where many sellers are not identifiable with a well-spread reputation to the recipients and thus, it is very important to ensure the quality of data transmission through the mobile phone both in terms of language, authenticity, privacy, and security. As a result, this was researched by engaging in cross-checking and determining applications of different encryption to keep SMS trustworthy.	The researchers addressed architectural design of different modern technologies; however, one major limitation of these studies, on an aggregate, they did not explore consumers' behaviour substantially regarding different cultures relating to differences in their requirements.
Group 7: Several scattered issues of mobile	Dix et al., 2011; Durkin, 2013; Li, 2009; Robins, 2000	This group addressed multidisciplinary issues of mobile marketing which essentially arose during proliferation of SMS as a marketing channel. These issues	This group targeted scattered issues completely, so their contribution is partial; however, by stitching their conceptual findings, a gradual theoretical

marketing such as, driving factors for SMS, challenges and opportunities, and a new role and stakeholder analysis		included but not limited to driving and inhibiting factors of mobile phone-based marketing, many challenges from perspectives of recipients, buyers and sellers, and a new area of opportunities available through mobile phones due to its ubiquitous characteristics. The new role of mobile operators in this communication channel is addressed and interests of different stakeholders are analysed.	completeness can be achieved. However, these studies are not rooted on strong theoretical backgrounds.
Group 8: Strategies and different stimulus on traditional and e-marketing	Qureshi et al., 2012; Zegreanu, 2012; Zolfani et al., 2012	These studies focus on strategic issues of the sellers for SMS-based marketing channel. They streamlined the strategies applicable for the companies conducting SMS-based mobile marketing by shedding light on the implications of the findings of the previous groups. These studies suggested some operational strategies for e-marketing specifically conceiving commercial data transmission through mobile phones by comparing and contrasting with a traditional marketing policy.	The findings for effective SMS marketing strategies support the attitudinal factors pursuing adoption of SMS advertisement discovered by the studies illustrated in the above groups. But, these studies did not comprehensively integrate the uniqueness of SMS-based advertisements in creating strategies for creating fundamental scopes for SMS advertisements to be successful.
Group 9: Behavioural intention and cross-cultural effect from both recipients and sellers side	Jamieson, 2012; Lillie, 2012; McDonald and Dahlberg, 2010; Okazaki, 2005	The studies argued that the effect of direct marketing through SMS is different for different countries based on their attitudes toward mobile marketing.	These studies did not incorporate factors which were identified by different studies engaged in identifying consumers' attitude and behavioural response to SMS advertisements and success factors in creating the consumers' positive attitude like personalisation, interactivity, time, location, and context-based advantages. Without shedding light on these factors, by only conceptualising consumers' behavioural response to the commercial nature of SMS is misleading. While identifying consumers' similar response for different cultural communities for commercial SMSs, the studies did not theorise this phenomenon with the underlying concept of cultural traits like Hofstede (2001).

4. Discussion

The comprehensive contribution of research by group one has evolved since consumers have had an overall positive attitude for mobile phones; it is a new marketing channel that has been opened up by incorporating a robust, interactive and dynamic characteristic of mobile phones and SMS. The literature analysis suggests that ubiquitous characteristics of the mobile phone are gradually creating the consumers' attitude toward acceptance of the commercial usage of a mobile phone. This can open a great avenue for SMS-based commercialisation to formalise the consumers' positive perception about mobile marketing. Considering the limitations of these studies outlined in Table 1, future research may take the following direction:

Future research should consider the unique opportunities of SMS comprehensively while identifying a general attitude of consumers toward mobile phones and SMS.

The second group captured the outcome of the first research arena surrounded by the consumers' general attitude and advance specific investigation for consumers' attitude toward SMS advertisements. The second group of studies discussed the fundamental characteristics of SMS-based advertisements. It indicates that the ability to interact directly with the customer through personalisation, time and location-based contextual information is the prevalent driving power of SMS advertisements to create the consumers' positive attitude.

While revealing consumers' attitude toward SMS advertisement, future research should also be rooted on consumer behaviour theories, not only technology adoption theories.

The first, second and third categories of research are basically representing the connected concepts which are finally focusing on the theoretical progression of digital marketing in the light of SMS-based advertisements. Based on the specific response of consumers

toward SMS marketing which is the core objective of the second group, the third group is further engaged in promoting this new marketing by identifying issues related to the effectiveness and success of this alternative marketing channel.

While considering the successful factors of SMS advertisement, future research should integrate barriers of virtual wireless medium as a medium of marketing.

The findings of the fourth group provided an anatomy of the findings of the above mentioned studies. This group has identified subtle issues which are by nature mandatory for the long run acceptability and sustainability of this apparently revolutionary and plausibly radical channel. So, these scholarly articles have enlightened theoretical advancement of this future marketing channel.

Future research should consider integration of technological capability simultaneously in developing models of SMS advertisement in providing different unique opportunities which are not available by traditional marketing channels.

The studies of the fifth group aggregately provide support to the prediction of an extensive market opportunity for SMS-based marketing by capturing mobile technology in the new direct marketing strategy. In addition, the overall findings of these studies recognised that the sellers' reputation is important since trust is presumably a controlling construct to govern consumers' behaviour; however, they did not recommend any prescription for new ventures about how they can create trustworthiness on consumers' perception or can draw consumers' attention to their SMS.

Since the researchers of this group did not shed a comprehensive light on the theoretical aspect, *future research in this context should identify a general effect of SMS advertisement based on strong theoretical supports.*

The core mission of the studies of the sixth group does not involve any effort to advance the theoretical development of mobile marketing accentuating on SMS advertisement; rather it sheds light on the previously derived interlinked concepts of the above mentioned groups. Although this study was designed for technological interface, it first recognized the essential elements of customer requirements like time, location, and personalisation for SMS advertisement and then recommended different experimental results for selecting appropriate technology to accomplish those essential requirements for this channel to be persuasive to customers irrespective of any age.

Although, the researchers of this group considered several unique characteristics of SMS advertisement, the researchers still had scope *to develop a technological model for SMS advertisement by focusing extensively on the consumers' behavioural phenomena.*

The seventh group of studies, on average, did not include the unique characteristics of the mobile phone in capturing offline and online customers' attention, retention, and extension. Nevertheless, the contribution of this group in the completeness of the conceptual paradigm of SMS-based marketing is enormous. As a new and alternative channel which may have a radical force, it should be examined from all possible areas of weaknesses, threats, and opportunities. This group has served this invaluable area and resolved some burning issues which have a potential contribution in filling the gaps of theoretical progression.

Since the researchers of this group, like the fifth group, did not shed light on the theoretical aspect comprehensively, *future research in this context should develop their investigative model of different challenges of SMS advertisement with theoretical support.*

The studies of the eighth group primarily conducted empirical study among consumers and revealed that the effect of stimulus on traditional marketing and e-marketing is different.

So, the strategy should be different. The authors argued that an appropriate strategy is very important for the success of the new direct marketing trend as time, location and content-sensitive buyers have a positive attitude toward SMS advertisement. They also identified that a broad value is very important for e-marketing.

Extensive research should be conducted in developing strategies for SMS advertisement.

Future research should also address unique features of SMS advertisement and distinct competencies while developing strategies to attain competitive advantage.

The studies on the ninth group has been engaged in defining overall consumer behaviour for the mobile technology-oriented marketing channel primarily directed by SMS advertisement and investigated mainly for behavioural differences among cultures. So, these authors on one side investigated consumers' general response to SMS advertisement and on the other side explored any behavioural differences in cultural traits. However, they did not contrast and examine these findings with established cultural trait differences like Hofstede and many other cross-cultural theorists (Espinoza, 1999; Posey et al., 2010; Romano et al., 2010).

Future research in this area should consider different cultural attributes while conceptualising cross-cultural effect on consumer behaviour. They should also integrate unique characteristics of SMS advertisement in their consumer behaviour model.

The consensus on identifying a similar attitude toward SMS advertisement and developing consistent strategies for effectiveness of this new marketing as a radical channel to traditional marketing procedures could provide satisfaction of completeness of the analysis of the research on SMS-based marketing. The studies of the ninth group finally addressed the consumers' overall behaviour for SMS-based communications by aiming at direct

marketing and captured a very sensitive issue which creates further challenges for the researchers, i.e., any prediction of consumer behaviour cannot be generalised. Rather, this new flexible, virtual, and mobile channel, where unidentified senders' messages can be vulnerable, is culture dependent. Both sellers and recipients' interest and behaviour for SMS advertisement or overall mobile marketing may not have synchronised a straight line trend. This argument opens a new avenue of research on this revolutionary alternative marketing channel. This finding indicates the necessity of extensive research on different cultures reflecting ubiquitous traits of the mobile phone, SMS advertisement, market segmentation, location and time-sensitive delivery, content and context of advertisement, language, appropriate delivery, etc.

In addition, these studies primarily addressed the effect of cultural differences in terms of nations. However, they are not largely focused on market segmentation in an organised fashion considering the demographic differences inside a national cultural boundary such as age (Balabanis et al., 2007; Phau and Teah, 2009; Okazaki and Barwise, 2011); education (Zolfani et al., 2012); gender (Balabanis et al., 2007); etc.. Arguably, a significant limitation of these studies is indicative. For identifying consumers' attitude and behavioural response, appropriate market segmentation is prevalent and imperative. Without the proper market segmentation for deriving a new market channel for interaction with consumers, any effort to conceptualise consumers' behavioural response and essential requirements for SMS advertisement may provide non-transparent and misleading concepts and jeopardise the theoretical progression.

Future research should consider the moderating effect of different demographic traits on consumer behaviour model for SMS advertisement.

5. Conclusions

This article identified and reviewed a total of 87 relevant articles for understanding the existing research on the SMS-based new marketing channel. These studies were extensively reviewed for their objective, methodology utilised, key findings and conclusions, limitations, and contribution in the advancement of the mobile marketing theory (see Table 1). The authors also identified the research gaps that exist by analysing and evaluating the completeness of the theoretical paradigm of mobile marketing focusing on SMS advertisement. The following are the key points that were observed from the analysis and synthesis of the existing research related to SMS-based advertisement. Although consumers have different attitudes for mobile phones and SMS, the overall trend in this context is attractive and adaptive. A fragmented attitude of consumers toward SMS advertisement or overall mobile phone-based marketing is observed. However, researchers could not deny the attractive prospects of SMS-based marketing if appropriate and sound initiatives are implemented. Successful initiatives suggest time, location, and content-wise market segmentation and delivery as success factors. However, in this context, governing issues such as reliability, prior permission, trust, security should be thoroughly addressed and analysed. Applications of appropriate technology can fulfil these requirements (i.e. overcome such barriers). However, initiation and implementation of appropriate technology is the prime vulnerable issue in this context. Consumers may not have generalised behaviour for mobile technology and thus for SMS marketing. Hence, theoretical development should always consider analysis of cultural differences for predicting consumers' behaviour and developing strategy for mobile marketing where the prime focus is SMS advertisement.

Considering customers' distinct requirements, interest, cognitive, affective, and behavioural attitude, perception, attention, and exposure are rooted in the differences of demographic traits; further in-depth research is essential to examine different segments/demographics of the market of SMS advertisement. Existing studies (Drossos et al., 2007; Grant and O'Donohoe, 2007; Qureshi et al., 2012) provide evidence that mobile technology has many supplementary stimuli; future research should focus on different associated stimuli and responses assuming that human learning will take place as the result of responses to external events. Future research is imperative to understand the effect of reference groups and observational learning as the receipt of SMS is very much dominated by subjective norms (Hosseini et al., 2011; Srisawatsakul and Papasratorn, 2013; Zhang and Li, 2012). Hemispherical lateralisation or split-brain theory can be addressed to exploit and distinguish the effect of emotion from cognitive learning as researchers (Leek and Christodoulides, 2009; Liu and Li, 2009; Xu, 2007) identified differences in hedonic and utilitarian stimuli. As mobile phones can transmit enormous message both ways, excessive transmission of messages through mobile phones can create information overload which can cause difficulties for consumers to remember product information from advertisements of new brands in heavily advertised categories. Due to the scope of one-to-one communication through SMS advertisements (Chen et al., 2009; Rau et al., 2011), this new marketing channel can be an effective source to change negative beliefs or perceptions through mere exposure, change beliefs, shift beliefs, add beliefs, or change ideals. Future studies on this field based on empirical evidences can provide successive progression in the development of new marketing theories where the core issue would be SMS advertisement.

Reference

- Anbu, K. J. P. & Mavuso, M. R. (2012). Old wine in new wine skin: marketing library services through SMS-based alert service. *Library Hi Tech*, 30(2), 310-320.
- Baalbaki, I. B., Safa, O. M., & Moukaddem, A. (2007). SMS news alerts: Assessment of alternate subscription models. *Proceedings of the 8th International-Business-Information-Management-Association Conference*, June 20-22, Dublin, Ireland.
- Balabanis, G., Mitchell, V. W., & Heinonen-Mavrovouniotis, S. (2007). SMS-based surveys: strategies to improve participation. *International Journal of Advertising*, 26(3), 369-385.
- Balan, C., & Zegreanu, M. P. (2012). Insights into the Development of the Market of Mobile Marketing Services in Romania. *the Amfiteatru Economic journal*, 14, 786-801.
- Barwise, P. and Farley, J. U. (2005). The State of Interactive Marketing in Seven Countries: Interactive Marketing comes of Age. *Journal of Interactive Marketing*, 19(3), 67-80.
- Blanco, C. F., Blasco, M. G., & Azorin, II. (2009). Entertainment and Informational aspects as precursory factors of Attitudes and Behavioral Intentions in Mobile Advertising environments. *Proceeding of the 13th International-Business-Information-Management-Association Conference*, November 9-10, Marrakech, Morocco.
- Bujang, S. D. A., & Selamat, A. (2008). Model Checking Agent of SMS Management System for Direct Sales and Network Marketing. *Proceeding of Knowledge Management International Conference, June 10-12, Langkawi, Malaysia*.
- Carroll, A., Barnes, S. J., Scornavacca, E., & Fletcher, K. (2007). Consumer perceptions and attitudes towards SMS advertising: recent evidence from New Zealand. *International Journal of Advertising*, 26(1), 79-98.

- Chaffey, D. (2000). Achieving Internet Marketing Success. *The Marketing Review*, 1(1), 35-59.
- Chang, S. E., & Hsieh, Y. J. (2007). Exploring critical factors of multimedia messaging service - A qualitative case study in Taiwan. *Proceeding of the 1st International Symposium on Technology Innovation, Risk Management, and Supply Chain Management*, November 01-03, Beijing, China .
- Chang, Y. M. (2013). Age matters: Short Message Service advertising reading behaviors. *International Journal of Mobile Communications*, 11(2), 159-175.
- Charny, B. (2001, September 5). A Billboard in the Palm of Your Hand. Retrieved from the CNET News.com website: [http://news xom.com/2100?1033-272477.html?legacy=cnet](http://news.xom.com/2100?1033-272477.html?legacy=cnet) (accessed June 21, 2007).
- Chen, P. T., Hsieh, H. P., Cheng, J. Z., & Lin, Y. S. (2009). Broadband Mobile Advertisement: What are the Right Ingredient and Attributes for Mobile Subscribers. *Proceeding of International-Center-for-Management-of-Engineering-and-Technology, (PICMET 2009)*, vol. 1-5, August 02-06, Portland, Oregon.
- Cheng, J. M. S., Blankson, C., Wang, E. S. T., & Chen, L. S. L. (2009). Consumer attitudes and interactive digital advertising. *International Journal of Advertising*, 28(3), 501-525.
- Cockrill, A., Goode, M. M., & White, A. (2011). The Bluetooth Enigma: Practicalities Impair Potential Awareness is High. Can Usage Be Higher?. *Journal of Advertising Research*, 51(1), 298-312.
- Danaher, P. J., & Rossiter, J. R. (2011). Comparing perceptions of marketing communication channels. *European Journal of Marketing*, 45(1-2), 6-42.

- De Reyck, B., & Degraeve, Z. (2003). Broadcast scheduling for mobile advertising. *Operations Research*, 51(4), 509-517.
- De Reyck, B., & Degraeve, Z. (2006). MABS: Spreadsheet-based decision support for precision marketing. *European Journal of Operational Research*, 171(3), 935-950.
- den Ouden, H., & van Wijk, C. (2007). Reader evaluations of using teen talk in advertisements. *Tijdschrift Voor Communicatiewetenschap*, 35(3), 232-248.
- Dickinger, A. & Haghirian, P., (2004), An Investigation and Conceptual Model of SMS Marketing. Proceedings of the 37th Hawaii International Conference on System Sciences, 1-10.
- Dix, S., Jamieson, K., & Phau, I. (2011). *Drivers of Acceptance for SMS Advertising*. Proceeding of 20th Annual World Business Congress of the International-Management-Development-Association, vol. 20, July 03-07, Poznan, Poland.
- Drossos, D., Giaglis, G. M., Lekakos, G., Kokkinaki, F., & Stavragi, M. G. (2007). Determinants of Effective SMS Advertising: An Experimental Study. *Journal of Interactive Advertising*, 7(2), 16-27.
- Drossos, D., & Giaglis, G. M. (2005). Factors that influence the effectiveness of mobile advertising: The case of SMS. In P. Bozaris & E. N. Houstis (Eds.). *Advances in Informatics, Proceedings* (Vol. 3746, pp. 278-285).
- Durkin, M. (2013). Tweet me cruel: Perspectives on battling digital marketing myopia. *The Marketing Review*, 13(1), 51-63.
- Espinoza, M. M., (1999). Assessing the cross-cultural applicability of a service quality measure A comparative study between Quebec and Peru. *International Journal of Service Industry Management*, 10(5), 449-468.

- Faber, R. J., Lee, M., and Nan, X. (2004). Advertising and the Consumer Information Environment Online. *American Behavioral Scientist*, 48(4), 447-466.
- Gabbott, M. (2004). Undertaking a Literature Review in Marketing. *The Marketing Review*, 4, 411-429.
- Gardan, D. A., Geangu, I. P., & Rosu, A. M. (2011). Marketing Research Regarding Mobile Marketing Implications For Romanian Services Consumers. *Proceeding of the 6th International Conference on Business Excellence*, Vol 1, October 14-15, Brasov, Romania.
- Gauzente, C. (2008). Attitude toward m-advertising, perceived intrusiveness, perceived ad-clutter and behavioral consequences: A preliminary study. In A. M. Tjoa & R. R. Wagner (Eds.), *Dexa 2008: 19th International Conference on Database and Expert Systems Applications, Proceedings* (pp. 461-465).
- Gauzente, C., Ranchhod, A., & Gurau, C. (2006). Mobile marketing and consumer understanding: A pilot study. *Proceeding of the 19th International Conference on Database and Expert Systems Applications*, September 01-05, Turin, Italy.
- Gold, J., Aitken, C. K., Dixon, H. G., Lim, M. S. C., Gouillou, M., Spelman, T., . . . Hellard, M. E. (2011). A randomised controlled trial using mobile advertising to promote safer sex and sun safety to young people. *Health Education Research*, 26(5), 782-794.
- Grant, I. and O'Donohoe, S. (2007). Why young consumers are not open to mobile marketing communications. *International Journal of Advertising*, 26(2), 223-246.
- Grillo, A., Lentini, A., Me, G., & Italiano, G. F. (2008). Transaction oriented text messaging with Trusted-SMS. *24th Annual Computer Security Applications Conference, Proceedings* (pp. 485-494).

- Grillo, A., Lentini, A., Me, G., & Rulli, G. (2008). Trusted SMS - A novel framework for non-repudiable SMS-based processes. *Proceeding of the 1st International Conference on Health Informatics (HEALTHINF 2008)*, Vol. 1, January 28-31, Funchal, Portugal.
- He, D. H., Lu, Y. B., & Ieee. (2007). Consumers Perceptions and Acceptances towards Mobile Advertising: An Empirical Study in China. *Proceeding of the 3rd International Conference on Wireless Communications, Networking and Mobile Computing (WiCOM 2007)*, vol. 1-15, September 21-25, Shanghai, China.
- Heim, P., Walter, E., & Reutterer, T. (2009). User Acceptance of SMS-based Advertising Campaigns. *Proceeding of the 6th International Conference on Partial Least Squares and Related Methods*, September 04-07, Beijing, China.
- Heinonen, K., & Strandvik, T. (2005). Communication as an element of service value. *International Journal of Service Industry Management*, 16(2), 186-198.
- Ho, L. H., Chung, C. W., Chen, H. T., & Lee, A. H. I. (2010). The effects of government SMS in Taiwan. *International Journal of Technology Management*, 51(1), 22-38.
- Hofstede, G., (2001). *Culture's Consequences*, 2nd Edition, Sage, Thousand Oaks.
- Hosseini, M. H., Noroozi, A., Ghazizadeh, M., Goharpad, M., & Mobarekeh, A. N. (2011). Marketing without Wires: Survey of Factors Affecting Mobile Advertising Effectiveness in Iran. In S. Juan (Ed.), *Business and Economics Research*, Vol. 1, pp. 261-266).
- Hsu, C. L., Lu, H. P., & Hsu, H. H. (2007). Adoption of the mobile Internet: An empirical study of multimedia message service (MMS). *Omega-International Journal of Management Science*, 35(6), 715-726.
- Jamieson, K. (2012). *SMS Advertising: A Cross-national Study on Acceptance and*

Response. Proceeding of the 13th West Lake International Conference on Small and Medium Business, (WLICSMB 2011), October 15-17, Hangzhou, China.

Jansen, B. J., Liu, Z., & Simon, Z. (2013). The effect of ad rank on the performance of keyword advertising campaigns. *Journal of the American Society for Information Science and Technology, 64*(10), 2115-2132.

Leek, S., & Christodoulides, G. (2009). Next-Generation Mobile Marketing: How Young Consumers React to Bluetooth-Enabled Advertising. *Journal of Advertising Research, 49*(1), 44-53.

Leppäniemi, M. and Karjaluoto, H. (2005). Factors influencing consumers' willingness to accept mobile advertising: a conceptual model. *International Journal of Mobile Communications, 3*(3), 197–213.

Li, Q. (2009). Mobile advertising - An analysis of the market in China. *Journal of the Institute of Telecommunications Professionals, 3*, 43-47.

Lillie, J. (2012). Nokia's MMS: A cultural analysis of mobile picture messaging. *New Media & Society, 14*(1), 80-97.

Liu, F., & Li, J. Y. (2009). *Consumer Evaluations of Mobile Advertising-A Study on Short-Message-Service Advertisements. Proceeding of the 8th Wuhan International Conference on E-Business, May 30-31, Wuhan, China.*

Liu, W. Y., & Wang, T. (2008). *Unimodel-based Multi-source Portable Spam Filtering. Proceeding of the 5th International Conference on Fuzzy Systems and Knowledge Discovery, FSKD '08. October 18-20, Shandong, China, 540 - 544.*

Lu, Y. B., Deng, Z. H., & Wang, B. (2010). Exploring factors affecting Chinese consumers' usage of short message service for personal communication. *Information Systems*

Journal, 20(2), 183-208.

Lv, Y. J., Tong, Y., & Chen, T. B. (2008). Research on SMS Advertisement Recommendation Model in Mobile Commerce. *Proceeding of the 7th Wuhan International Conference on E-Business, Vol- I-III*, May 31-June 01, Wuhan, China.

Matskin, M. (2001). Collaborative advertising over Internet with agents. *Proceeding of the 12th International Workshop on Database and Expert Systems Applications (DEXA '01)*, Munich, Germany, 509-513.

McClement, K. N., & Kumar, V. (2004). *A novel approach to filtering SMS messages. Proceeding of the 5th World Wireless Congress*, May-25-28, San Francisco, USA.

McDonald, J., & Dahlberg, J. (2010). *US Consumer Attitudes Toward And Acceptance Of Sms Mobile Text Advertising, Proceeding of the 4th International Technology, Education and Development Conference (INTED)*, March 08-10, Valencia, Spain.

Moynihan, B., Kabadayi, S., & Kaiser, M. (2010). Consumer acceptance of SMS advertising: a study of American and Turkish consumers. *International Journal of Mobile Communications*, 8(4), 392-410.

Muk, A. (2007). Consumers' intentions to opt in to SMS advertising - A cross-national study of young Americans and Koreans. *International Journal of Advertising*, 26(2), 177-198.

Nantel, J., & Sekhavat, Y. (2008). The impact of SMS advertising on members of a virtual community. *Journal of Advertising Research*, 48(3), 363-374.

Nathwani, K., & Eason, K. (2005). Perceptions versus expectations of multimedia messaging service (MMS). *Personal and Ubiquitous Computing*, 9(4), 191-197.

Nysveen, H., Pedersen, P. E., Thorbjornsen, H., & Berthon, P. (2005). Mobilizing the brand

- The effects of mobile services on brand relationships and main channel use. *Journal of Service Research*, 7(3), 257-276.
- Okazaki, S. (2005). Mobile advertising adoption by multinationals - Senior executives' initial responses. *Internet Research-Electronic Networking Applications and Policy*, 15(2), 160-180.
- Okazaki, S., & Barwise, P. (2011). Has the Time Finally Come for the Medium of the Future? Research on Mobile Advertising. *Journal of Advertising Research*, 51(1), 59-71.
- Okazaki, S., & Taylor, C. R. (2008). What is SMS advertising and why do multinationals adopt it? Answers from an empirical study in European markets. *Journal of Business Research*, 61(1), 4-12.
- Peters, C., Amato, C. H., & Hollenbeck, C. R. (2007). An Exploratory Investigation of Consumers' Perceptions of Wireless Advertising. *Journal of Advertising*, 36(4), 129-145.
- Phau, I., & Teah, T. (2009). Young Consumers Motives for Using SMS and Perceptions Towards SMS Advertising. *Direct Marketing: An International Journal*, 3(2), 97-108.
- Posey, C., Lowry, P. B., Roberts, T. L., & Ellis, T. S. (2010). Proposing the online community self-disclosure model: The case of working professionals in France and the U.K. who use online communities. *European Journal of Information System*, 19(2), 181-195.
- Qureshi, I. M., Batool, I., & Shamim, A. (2012). Consumer Perception In Response To E-Marketing Stimuli: The Impact of Brand Salience, *Actual Problems of Economics* 2(4), 137-143.

- Rau, P. L. P., Zhang, T., Shang, X. L., & Zhou, J. (2011). Content relevance and delivery time of SMS advertising. *International Journal of Mobile Communications*, 9(1), 19-38.
- Rezakolaie, Y., & Nassab, N. H. (2007). An extension of IDT model in the adoption of mobile message services; case of Iran context. In M. G. SanchezTorrubia (Ed.), *Proceedings of the 6th Wseas International Conference on E-Activities: E-Activities: Networking the World* (pp. 181-185).
- Robins, F. (2000). The E-Marketing Mix. *The Marketing Review*, 1(2), 249-274.
- Rohm, A. J. & Sultan, F. (2005). Brand in the hand: an exploratory study of mobile marketing communications. *Proceedings of EURAM 2005*, April, Munich.
- Romano Jr. N. C., Pick J. B., and Roztock, N. (2010). A motivational model for technology-supported cross-organizational and cross-border collaboration. *European Journal of Information Systems*, 19, 117–133.
- Samaka, M., Fakhroo, A., Al-Omari, N., Moeinzadeh, Z., Al-Kubaisi, S., & Fakhri, H. (2009). *Wireless Application Deploying Cell Broadcast, and Bulk SMS/MMS. Proceeding of the 12th International-Business-Information-Management-Association Conference, June 29-30, Kuala Lumpur, Malaysia.*
- Scharl, A., Dickinger, A., & Murphy, J. (2005). Diffusion and success factors of mobile marketing. *Electronic Commerce Research and Applications*, 4(2), 159-173.
- Selamat, A., Dianah, S., & Bujang, A. (2008). The design of model checking agent for SMS management system. In N. T. Nguyen, G. S. Jo, R. J. Howlett & L. C. Jain (Eds.), *Agent and Multi-Agent Systems: Technologies and Applications, Proceedings* (Vol. 4953, pp. 813-821).

- Slade, E. L., Williams, M. D., and Dwivedi, Y. K. (2013). Mobile payment adoption: Classification and review of the extant literature. *The Marketing Review*, 13(2), 167-190.
- Smutkupt, P., Krairit, D., & Esichaikul, V. (2010). *An Empirical Study of the Effects of Permission on Mobile Advertising Effectiveness. Proceeding of Portland International Center for Management of Engineering and Technology (PICMET 10) Conference*, Portland, Oregon.
- Srisawatsakul, C., & Papasratorn, B. (2013). Factors Affecting Consumer Acceptance Mobile Broadband Services with Add-on Advertising: Thailand Case Study. *Wireless Personal Communications*, 69(3), 1055-1065.
- Tomaskova, H. (2010). Mobile marketing in Czech Republic focused on corporate mobile marketing. In A. Kallel, A. Hassairi, C. A. Bulucea & N. Mastorakis (Eds.), *Applied Economics, Business and Development* (pp. 147-152).
- Trabelsi, I., & Ben Rached, K. S. (2009). *Adolescent Reaction to Mobile Advertising: Role of the concept of Permission Marketing. Proceeding of the 13th International-Business-Information-Management-Association Conference*, November 09-10, Marrakech, Morocco.
- Trappey, 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.
- Tsang, M. M., Ho, S. C., & Liang, T. P. (2004). Consumer attitudes toward mobile advertising: An empirical study. *International Journal of Electronic Commerce*, 8(3), 65-78.

- Turel, O., Serenko, A., & Bontis, N. (2007). User acceptance of wireless short messaging services: Deconstructing perceived value. *Information & Management*, *44*(1), 63-73.
- van der Merwe, A., Seker, R., Gerber, A., & Ieee. (2005). Phishing in the system of systems settings: Mobile technology. Proceedings of the *International Conference on Systems, Man and Cybernetics, Vol 1-4*, 492-498.
- Van der Walddt, D. L. R., Rebello, T. M., & Brown, W. J. (2009). Attitudes of young consumers towards SMS advertising. *African Journal of Business Management*, *3*(9), 444-452.
- Varnali, K., Yilmaz, C., & Toker, A. (2012). Predictors of attitudinal and behavioral outcomes in mobile advertising: A field experiment. *Electronic Commerce Research and Applications*, *11*(6), 570-581.
- Wang, M. C., Liao, S., Zhu, R. S., Xu, D. J., Chen, H. P., Wang, W. P., & Pacis. (2007). *Evaluation on a Personalized Mobile Advertising System: a Comparative Approach. Proceeding of the 11th Pacific Asia Conference on Information Systems*, July 03-06, Auckland, New Zealand.
- White, P. (2010). Grabbing attention: the importance of modal density in advertising. *Visual Communication*, *9*(4), 371-397.
- Whittaker, R., Merry, S., Stasiak, K., McDowell, H., Doherty, I., Shepherd, M., . . . Rodgers, A. (2012). MEMO-A Mobile Phone Depression Prevention Intervention for Adolescents: Development Process and Postprogram Findings on Acceptability From a Randomized Controlled Trial. *Journal of Medical Internet Research*, *14*(1), e13.
- 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, D. J. (2007). The Influence Of Personalization In Affecting Consumer Attitudes Toward Mobile Advertising in China. *The Journal of Computer Information Systems*, 47(2), 9-19.

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.

Yao, X. L., Shu, H. Y., & Ieee Computer, S. O. C. (2009). *Study on Value-Added Service in Mobile Telecom Based on Association Rules. Proceeding of the 3rd International Workshop on e-Activity (IWEA2009)/10th ACIS International Conference on Software Engineering Artificial Intelligence, Networking and Parallel/Distributed Computing*, May 27-29, Daegu, South Korea.

Zegreanu, P. (2012). Mobile Marketing Strategies For Consumer's Acceptance Of Sms - A Romanian Case-Study. *Proceeding of the 7th International Conference on Business Excellence*, October 12-13, Brasov, Romania.

Zhang, J., & Mao, E. (2008). Understanding the acceptance of mobile SMS advertising among young chinese consumers. *Psychology & Marketing*, 25(8), 787-805.

Zhang, P., Ma, J. T., & Sun, X. R. (2008). Intelligent Delivery of Interactive Advertisement Content. *Bell Labs Technical Journal*, 13(3), 143-158.

Zhang, R. J., & Li, X. Y. (2012). Research on Consumers' Attitudes and Acceptance Intentions toward Mobile Marketing. In L. Hua (Ed.), *2012 International Conference on Management Science & Engineering* (pp. 727-732).

Zolfani, S. H., Rezaeiniya, N., Pourhossein, M., & Zavadskas, E. K. (2012). Decision

Making on Advertisement Strategy Selection Based on Life Cycle of Products by
Applying FAHP and TOPSIS GREY: Growth Stage Perspective; a Case about Food
Industry in IRAN. *Inzinerine Ekonomika-Engineering Economics*, 23(5), 471-484.