

**The Influence of Short Message Service (SMS) Advertising on the Purchase Behaviour of Young Consumers in a Tertiary Institution in Ghana**

Daniel Ofosu\*  
Koforidua Polytechnic, P.O.Box KF 981, Koforidua,  
Eastern Region,  
Ghana, West Africa  
Email: ofosu.daniel@gmail.com

Mavis Gyanewa  
Koforidua Polytechnic, P.O.Box KF 981, Koforidua, Eastern Region,  
Ghana, West Africa  
Email: gyanewa2005@yahoo.com

Ivy Boadi  
Koforidua Nurses and Midwifery Training College, P.O.Box 142, Koforidua, Eastern  
Region,  
Ghana, West Africa  
Email: boadiivy@yahoo.com

— *Review of* —  
**Integrative  
Business &  
Economics**  
— *Research* —

#### **ABSTRACT**

Technology has advanced the use of text messaging (SMS) as an advertising medium in recent times. Thus telecom operators in Ghana use SMS advertising (SMS ad) to gain the attention of prospective consumers to patronize their products. Young people have been the major drivers of mobile phone and SMS, however, the factors that induce them to accept mobile devices as an advertising medium and to purchase a product are not yet fully understood. The perception of both young and female consumers has also not been explored to allow advertisers to plan effective campaigns to elicit the response of this segment of the market. This study examines the attitudes and factors that drive consumers' acceptance of SMS ads and purchase behaviour. A stratified random sampling was done in one of the leading Polytechnics in Ghana, and self-administered questionnaires were completed by 80(students) respondents, aged between 18-35 years. Statistical Package for Social Sciences (SPSS version 16.0) was used to analyze the data gathered. It was observed that consumers' perception of informativeness of SMS ads are positively correlated to their overall attitudes towards SMS ad and purchase behaviour while irritation and trust were attitudes which had a negative correlation on their purchase behaviour. Permission and trust are identified in this study as important elements that ensure the success of SMS ads. The advertiser is advised to develop innovative strategy to capture the attention of young male consumers who have disaffection for SMS ads.

**Keywords:** SMS advertising, young consumers, attitudes, purchase behaviour

#### **1. INTRODUCTION**

### **1.1 Mobile phone penetration**

Access to mobile phone has increased significantly across the world in recent times. In terms of penetration and access, it is estimated that 5.9 billion people (87% of the world population and 79% of all developing countries) use mobile phones which are compatible with short message service (SMS) application (ITU, 2011).

Africa is the second largest mobile market in the world after Asia and 735 million people are projected to have used mobile phone by the end of 2012 in Africa alone (GSMA, 2011).

Ghana, one of Africa's middle-income economies and from where this study is being conducted, has more than 23 million active mobile subscribers (IFAD, 2012; NCA, 2012). This figure represents about 99.7% mobile penetration rate in the country (Samuel, 2012).

### **1.2 Short Message Service (SMS)**

SMS, also referred to as texting or text is a communications protocol which is used to send and receive text messages (typically a maximum of 160 characters), is seen as a form of communication, used not only for person-to-person contact, but also as business-to-person and increasingly government-to-person (*New Zealand Government Web Standards, 2012*).

SMS has been the most successful non-voice service and a key revenue generator for mobile operators in the history of telecommunications (Ovum, 2012; Portio Research 2011; tekelec.com). Worldwide, mobile network operators earned approximately US\$ 115 billion and US\$153 billion in 2010 and 2011 respectively on text/SMS based services.

However, despite the solid revenue generated from SMS, telecom operators around the world lost up to US\$13.9 billion in 2011 and US\$8.7 billion in 2010 (Ovum, 2012); the Business & Financial Times Newspaper (2012) reported that telecom operators in Ghana also recorded a negative growth in SMS revenue for the year 2011.

The loss in revenue is attributed to the increasing shift towards Internet Protocol (IP) based messaging which allows users of smart phones such as Black berry and galaxy tabs to send instant messages and to communicate on social media platforms like Facebook and WhatsApp free of charge (Ovum, 2012; Portio Research, 2011). Nonetheless, SMS remains a sound revenue stream, and it is expected to generate an amount of US\$ 334.7 billion by end of 2015 (Portio Research, 2011).

### **1.3 Young people's adoption of Mobile Phone and SMS**

The definition of a young person varies from one country to the other. The United Nations (UN) and the Commonwealth Secretariat classify young people as persons between the ages of 15-24 years and 15-29 years respectively. Informed by the two definitions, the National Youth Policy of Ghana (2010) puts the age at 15-35 years.

This study focuses on people between the ages of 18-35 years. The range has been chosen because in Ghana, 18 years and above are regarded by the constitution as the ideal age when people can make informed decisions such as taking part in a voting exercise.

Young people (consumers) have been credited with the upsurge in the use of mobile phones across the world (Barwise and Strong, 2002; Gauzente, 2007; Okazaki and Taylor, 2008).

This can be attributed to the fact that young people are in the period of liking to learn a new thing so they are interested in new technology...while most of adults are lazy to learn new thing (Nattharika et. al,2009).

A study conducted by Rettie et. al (2005) has shown that young people have been the early adopters of text messaging. They are also thought to be the heavy users of SMS services (Astrid et. al 2004), and despite their low income, they are assumed to be more sensitive to advertising and socially accepted and luxury products (Manisha, 2010).

Young people are probably interested in expensive mobile gadgets (such as Galaxy tab and ipad) and mobile related services (such as SMS, Wireless Application Protocol (WAP), Whatz App and Multimedia Messaging Services(MMS)) due to the influence of reference groups (Igbaia, 1993; David, 2002; Kaarina and Petteri, 2005;Boonlert, 2011).

A reference group includes friends, family members, and professional associations, who because of their inter-connectedness have some power to influence the buying habits of consumers on the basis of widely and commonly shared beliefs (Voss, 2011).

### **1.4 SMS advertising**

The increased use of mobile phones allows users or consumers to conveniently

participate in electronic commerce (the transaction and the transfer of ownership or rights to use a good or service whether against monetary payment or otherwise over a wireless device) at anytime, anywhere, and at a minimal cost (Magic, 2000; Philbin, 2000; Aphrodite and Evaggelia, 2001; Rajnish and Stephan, 2007).

Traditional medium of advertising (newspapers, magazines, television or radio) does not allow marketers to reach their potential customers in a very individual way (Robins, 2003). It also lacks immediate interaction between advertisers and consumers to foster long term relationship so as to persuade the latter to take some action to purchase the advertised product or service, now or in the future (Bauer et. al, 2005; Faraz and Seyedreza, 2011).

To address these challenges, there is a shift away from traditional marketing to new, interactive, digital media based on a more targeted approach through personalized channels (Breneman et. al, 2007).

The rise in the use of mobile phone, and SMS as a medium of marketing has generated the term “*SMS advertising*” (Van der Waldt et. al 2009). SMS advertising is part of the concept of Mobile advertising/marketing, which involves using interactive wireless media to provide customers with time and location sensitive, personalized information that promotes goods, services and ideas, thereby increasing the response-to-advertisement ratio (De Reyck and Degraeve ,2003; Astrid et. al, 2004).

SMS advertising has been a major breakthrough for marketers to target consumers with a degree of precision (Sandeep, 2000). InvolveMobile (2010) categorizes mobile marketing landscape into three (3) distinct channels: (i)SMS / text messaging (ii) Mobile websites and (iii) Mobile applications (or apps, like iPhone apps).

The InvolveMobile(2010) argues that while it is essential for large companies and brands to have a mobile website presence and potentially a mobile app for information or transaction purposes, it still only services a small portion of the population.

It thus recommends the use of SMS or text messaging since it is ubiquitous, simple, interactive, and allows companies to contact customers with ease anywhere and at anytime. SMS is also the dominant format of mobile marketing communication (Smith et. al, 2005).

For the purpose of this study, the researcher defines SMS advertising as *any form of personalized and non-personalized advertisement sent to mobile users via text*

*message, with the aim of persuading the receiver to take some action, now or in the future, about the advertised product (goods, services or ideas).*

### **1.5 Attitudes towards SMS advertising**

The attitude of consumers towards SMS advertising has been the focus of my studies on mobile advertising and advertising- in- general. An attitude is generally considered as an individual's inclination to respond to specific situations (Chowdhury et al., 2006). It is also a mental and neutral state of readiness to respond, which is organized through experience and exerts a directive and/or dynamic influence on behaviour (Allport, 1975).

Miza et. al. (2010) adds that an attitude is the psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor. In relation to this, an attitude can also be defined as a person's enduring favorable or unfavorable evaluations, emotional feelings, and action tendencies toward some object or idea (Kotler and Keller, 2006).

It can thus be inferred that consumers' positive attitude towards SMS advertising is shaped by their favourable evaluation which increases their willingness to accept SMS as a marketing or advertising channel.

This conclusion is deduced from the on-going discussion that an individual's inclination to respond to a specific entity is as a result of their favourable or unfavourable evaluation.

A recent study (Faraz and Seyedreza, 2011) revealed that consumers hold positive attitudes toward mobile advertising (including SMS advertising) and advertising-in-general, adding that attitude is also significantly and positively influenced by informativeness and trust.

There are factors which negatively or positively affect the attitude of consumers towards SMS advertisements. These factors (listed below) were tested in this paper to examine the correlation between attitudes and actual purchase decisions.

#### **1.5.1 Informativeness**

Informativeness is the ability of advertising to inform consumers of product alternatives so that purchases yielding the greatest possible satisfaction can be made (Ducoffe, 1996: 22). Van der Waldt et. al (2009) has suggested consumers disagree

that SMS advertisements supplied the relevant information, and therefore recommended that marketers should send only relevant information since consumers value SMS advertisements that are short, straight to the point and concern information that is relevant to their interests. Young consumers' list of interests include entertainment, and incentive or reward (monetary benefit)-based advertisement (Milne and Gordon, 1993; Kavassalis et al. 2003; Rettie et. al 2005; Mirza et.al ,2011) .

### **1.5.2 Trust**

Trust as used in this paper is related to credibility, which can be defined as the extent to which the consumer perceives claims made about the brand in the ad to be truthful and believable (Mackenzie and Lutz ,1989:51). Credibility can also be expanded to capture the extent to which consumers believe that a firm can design and deliver products and services that satisfy their needs and wants, and this has been found to have direct positive effects on attitude toward an ad, the brand, and purchase intent (Choi and Rifon 2002; Dimitris et. al, 2007).

Trust is not that important to consumers in mobile advertising, according to Marko et. al (2007). However, previous studies (Brackett and Carr, 2001:29; Tsang et.al., 2004: 71) have found that there is a positive correlation between consumer perceptions of the credibility/trust of an advertisement and consumer attitudes towards the advertisement. This has also been confirmed by a recent study (Van der Waldt et. al, 2009).

### **1.5.3 Irritation**

Although Faraz and Seyedreza (2011) admitted that people with different cultural backgrounds respond differently to mobile advertising, their findings revealed that relatively high level of exposure to advertisements can lead to negative attitudes toward advertisements. However, an advertisement based on the personal data and the permission of consumers tend to be relevant or useful to the receiver hence its acceptance (Milne and Gordon, 1993; Robins, 2003).

Personalizing the message increases its impact (Astrid et.al 2004). However, user permission is crucial if targeted advertising can meet the expectation of consumers; it is the most important variable, as consumers are apprehensive of mobile advertising and high levels of spam (Caroll et. al, 2007). Advertising based on the user permission or personalization minimizes irritation (Tsang et. al., 2004) .

Defined by Ducoffe (1996:23) as when advertising employs tactics that annoy, offend,

insult, or are overly manipulative, irritation has been confirmed by other researchers (Stewart and Pavlou, 2002; Van der Waldt et. al, 2009; Wanmo Koo, 2010 ) to be negatively correlated to consumers' attitude towards SMS advertisements. Earlier studies (Bauer and Greyser, 1968; MacKenzie et. al, 1989; Abernethy, 1991) have also found non-personalized advertisements to be intrusive and hence seen as the cause of annoyance (irritation), which can negatively affect consumer attitudes and brand perception.

#### **1.5.4 Gender**

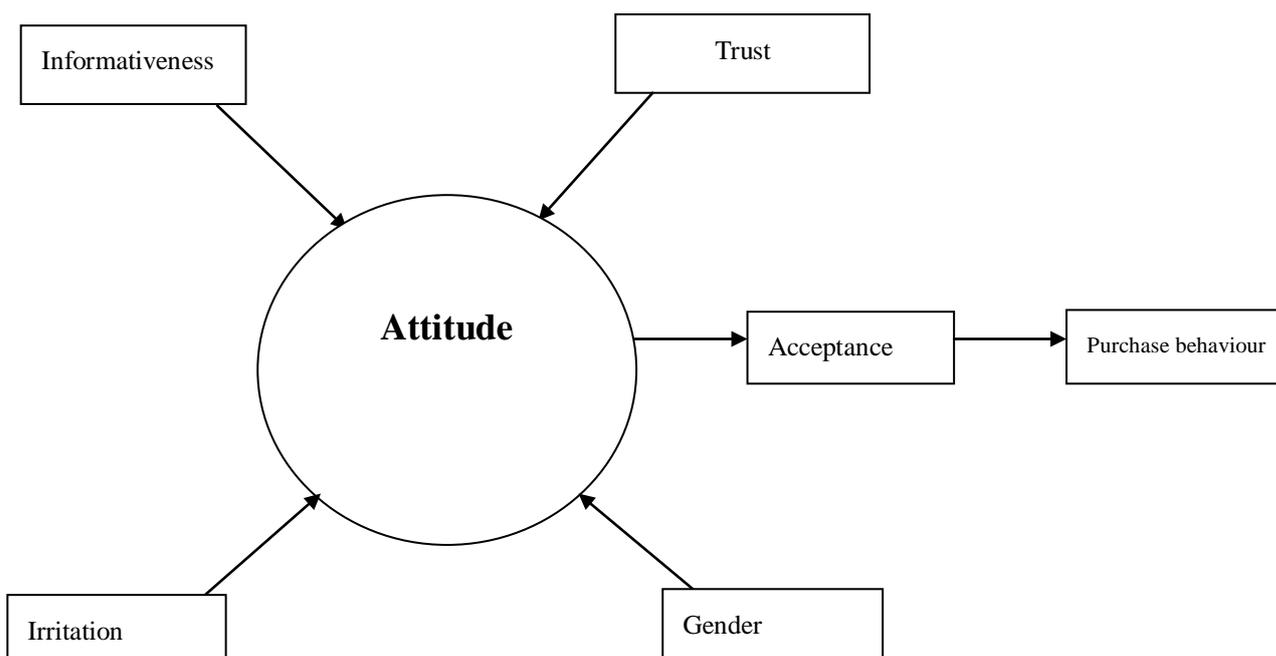
Generally, women and men perceive mobile phones and their usage differently (Ozhan, 2004). In terms of usage, men and women tend to perceive advertising messages differently (Wolin 2003a,b). Thus, it can be deduced that the role of the mobile phone differs between genders (Ling, 2001). On the relationship between attitude towards advertising in general and gender, Shavitt et. al (1998) found that male consumers show a more favourable attitude toward advertisements than female consumers.

A recent study (Upstream/YouGov ,2011) has also revealed a notable gender bias in response rates for nine different channels of advertising which included radio, television, SMS and Electronic mail. According to the findings, male respondents typically were more likely to respond to mobile channels (i.e. SMS 18% male and 13% female), while female respondents were more likely to be influenced by television advertising (i.e. 34% female and 3% male). On the contrary, female consumers are found to have much time to open and read SMS advertisements, and also more likely to respond to SMS advertisements than males.

The attitude of both women and female in online shopping (through the use of promotional e-mails) can be used to explain their behaviour in SMS advertising. Garbarino and Strahilevitz (2004) explored the gender effects on online shopping, and found that women perceive a higher level of risk than men. However, women were more willing to make a purchase if a friend made a recommendation. This implies that women seem more susceptible to the effects of interpersonal and interdependent relationships [than men] (Okazaki, 2007).

The dependency of women on reference groups to make purchase decisions can be likened to viral marketing, a situation whereby recipients of advertising messages forward the received messages to other recipients who do not belong to the initial target group of the campaign (Rettie et. al, 2005, Bauer et. al, 2005).

Faraz and Seyedreza’s (2011) findings have also confirmed previous study (Nysveen et al. ,2005) that there is no significant difference between male and female attitude toward mobile advertising and advertising-in-general. These inconsistencies are possibly attributable to cultural influences. As noted by Okazaki (2007), cultural influences on gender may be dissimilar across cultures. Fig.1 illustrates the relationship between attitudes and purchase behaviour.



**Fig. 1: Simple model: relationship between attitudes and purchase behaviour**

**1.6 Purchase behaviour**

Organizations operate in an environment that is characterized by constant change and an increase in competition as a result of globalization. Paul and Olson (2008) indicate that consumer behaviour involves interactions among people’s thinking, feelings, and actions, and the environment. Fareena and Andrew (2008:39) for instance, suggest that young consumers’ intention to participate in mobile marketing (SMS advertising) is influenced by hedonic purpose (that is, fun or entertainment) and functional purpose (that is obtaining incentives and information).

Consumers have a greater selection with regards to products and services (Zyman and Brott, 2002). Many decisions made by consumers are also shaped entirely by previous behaviour (Trefor, 2004). Below is a discussion on consumers’ decision processes which include factors which impact on their purchase intentions and actual purchases.

### **1.6.1 Purchase intentions and actual purchases**

Ajzen and Fishbein (1980) examined the relationship between purchase intentions and actual purchase through the Theory of Reasoned Action (TRA). The Theory (TRA) asserted that behaviour is influenced by behavioural intentions; this is because individuals consciously decide on performing or not performing a specific behaviour. Also, individuals consider and evaluate various criteria concerning the behaviour before actually performing it. Consumers express their preferences (purchase intentions) based on utility maximization in terms of the costs and benefits presented to them (Alba et.al, 2007).

Hence, it can be inferred that young people's acceptance of mobile technology is linked to the fact that the utility obtained from the use of mobile phone is greater than the utility provided by other available means of communication (such as fixed telephone lines). The need to send relevant messages to mobile users to increase their utility and level of acceptance has thus been stressed by many researchers (Krishnamurthy, 2000; Barwise and Strong, 2002)

Fishbein and Ajzen (1975) assert that intentions are the best predictor of behaviour which allows an individual to independently incorporate all relevant factors that may influence his or her actual behaviour. Early studies (such as Clawson, 1971; Warshaw, 1980; Jamieson and Bass, 1989) have observed a positive relationship between intentions and actual purchase.

The observations above are also consistent with the findings of Mirza et. al (2011) and Henderson and Divett (2003), who argued that Perceived usefulness (PU), which is one of the features of Technology Acceptance Model (TAM), and developed by Davis (1989, 1993) has a positive correlation with behaviour.

Another feature of TAM is Perceived ease of use (PEOU) which is defined as the degree to which an individual believes that using a particular system would be free of physical and mental effort (Davis, 1993:477).

While PU deals with the degree to which an individual believes that using a particular system would enhance his or her job performance (Davis, 1993:477), Henderson and Divett (2003) postulate the more positive the PEOU and PU of the system, the higher the probability of actually using the system. TAM was used in this research to explain why young people use SMS as a means of communication.

### 1.6.2 Purchase decision process

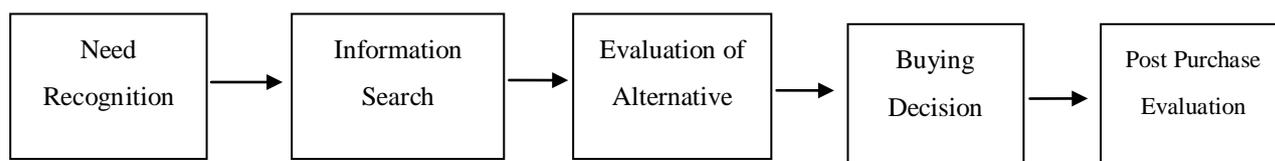
The market place is such that consumers have a greater selection with regards to products and services (Zyman and Brott, 2002), and since many decisions by consumers are shaped entirely by previous behaviour (Trefor, 2004), it is important for business enterprises to understand the needs and wants of young consumers so as to retain and to create value for them (Kotler, 1999; Fareena and Andrew, 2008).

In making a choice about which products and services to buy, young people - like other consumers - go through five stages, otherwise known as consumer buying decision process (CBDP) (Clow and Baack 2004: 61). The five CBDP consists of the following: (i) problem recognition (ii) information search (iii) alternative evaluation (iv) buying decision and (v) evaluation after buying decision (Post-purchase behaviour).

The purchase process starts when a consumer recognizes a problem or a need (Gupta et. al 2004). The consumer begins to search for information and then evaluates alternatives according to qualifications (price, quality, image etc.) of product/service or brand (Purinton et. al, 1998: 2). When the consumer has enough information, he/she makes a choice between the alternatives and then buys the product or service. After buying a product, the consumer compares it with their expectations and is either satisfied or dissatisfied. If he/she is satisfied, buying behaviour is repeated (McQuitty et.al, 2000: 7).

To increase consumer's favorable thoughts and feelings about a product, service or a brand, and encourage their repeated purchase, organizations are advised to switch from a transactional perspective to a customer-loyalty-building perspective (Kotler, 1999; Paul and Olson , 2008).

This paper looks at young consumers' exposure to SMS advertising and the influence it has on their intention to purchase a product or service of Vodafone (whether now or in the future). Fig.2 below depicts the five consumer buying decision processes:



**Fig. 2: The stages of a consumer buying decision process**

### **1.7 Statement of the problem**

Young people have become a target for marketers through mobile devices due to their technological intuition and their great consumption of mobile services (Lee and Murphy, 2006; Ines and Kaouther, 2010 ).

However, the factors that help attract the “attention” and “interest” of young consumers to “desire”and take “action” in demanding advertised products or services through SMS have not be explored (Palmer, 2005).

Also literature addressing SMS adverting in developing countries like Ghana is limited; most studies in this field are from developed countries, and have focused on the attitude of consumers (young people) towards SMS advertising and the acceptance of mobile technology as an advertising medium. Studies on how these attitudes influence the purchase behaviour of consumers is also limited.

In Ghana, studies on how mobile operators employ this marketing platform is also limited; a recent study (Nana Yaa et. al., 2011) for instance, only attempted to investigate the impact of integrated marketing communication effort on business performance of telecommunication companies in Ghana.

This study thus examines the factors that drive the purchase behaviour of young consumers in SMS advertising, using Vodafone Ghana limited as a case study. The objectives of the research were:

- i. To examine the factors that influence young consumers’ use of SMS as a medium of communication in Ghana;
- ii. To explore the relationship between attitudes and the purchase behaviour of young people(consumers) in Ghana in SMS ad; and
- iii. To examine how both young men and women perceive SMS ads

This study is relevant because it will guide the operator (Vodafone) in making policy decisions on its marketing strategies through SMS. It will also build on existing knowledge on attitude and how it further influences the purchase behaviour of young consumers, and lastly, it will serve as a basis for future research in the area of consumer behaviour, business decision management, and advertising.

## **2. METHODOLOGY**

Qualitative research method was adopted to enable the researcher use a systematic empirical inquiry to investigate, make sense of, or interpret the meaning of a social

phenomenon as experienced by individuals themselves (Malterud, 2001; Shank 2002). Both primary (questionnaire and observation) and secondary sources of data were used in data collection.

The questionnaire, pre-tested to check the reliability and validity of the method used (Saunders et al., 2009), was distributed to eighty (80) students selected from Koforidua Polytechnic, a tertiary institution in Ghana through a stratified random sampling method (SRSM) in the proportion of 38(48%) male and 42(51%) female. SRSM ensured that every member of the population had an equal chance of being selected for the sample (Jaccard and Becker, 1990).

The eligibility criteria or the characteristics that the population possessed before they were included in the study was that: a student (between 18-35 years) must own a mobile phone, be a subscriber of Vodafone Ghana and should have in the past months (prior to data collection period) received SMS advertisements from the operator.

The use of a student sample is often criticized by researchers who believe that such a sample is not representative of the greater market of general consumers (Wells and Mithun, 2003). However, the use of a student sample for this study is justified as experts agree that SMS advertising is an ideal medium for reaching younger consumers in the age category specified by this study (Scharl et al., 2005).

The pattern of SMS advertisements from Vodafone were observed and recorded for a period one month in order to put the questionnaire in perspective. The use of secondary data in this study also proved economical, relatively accessible, time saving (Boslaugh, 2007; Weijun, 2008). It also enabled the researcher to place the study in the context of existing knowledge (Blumberg et al., 2008).

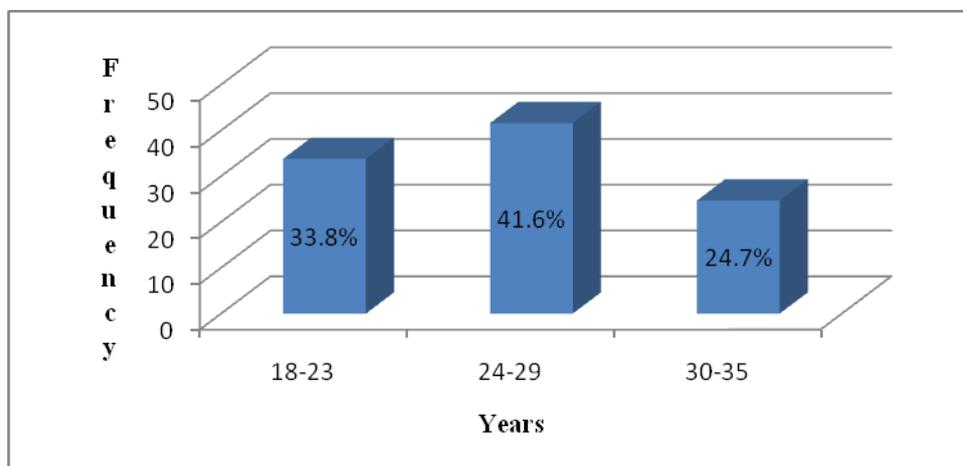
The data collected was analyzed using the Statistical Package for Social Sciences (SPSS version 16.0). Tables, charts and cross tabulation were generated to provide clearer understanding of the discussion of the findings of this study.

### **3. RESULTS AND ANALYSIS**

#### **3.1 Age distribution and use of SMS**

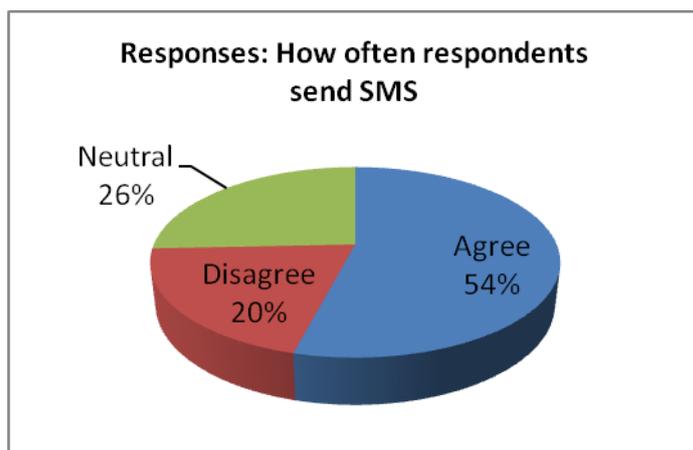
Out of the 80 sampled respondents, 33.8% were in the age group of 18-23 years, while 41.6% and 24.7% were aged 24-29 years and 30-35 years respectively. The age distribution (refer to fig.3) suggests the respondents were young. The respondents

often use SMS as a means of communication on daily basis. From fig.4,54% as opposed to 20% respondents agreed that they often use SMS, while 26% of the respondents were neutral.



**Fig.3: Age distribution of respondents**

Source: Filed survey, 2012



**Fig. 4: I often send SMS**

Source: Field Survey, 2012

### 3.2 Use of SMS using TAM-Technology Acceptance Model(Davis,1993)

#### 3.2.1 Perceived Ease of Use (PEOU)

This simply refers to the degree to which using a particular system will be “free from any physical and mental effort”. Although some of the respondents (46.8%) agree composing messages takes time, most of the respondents (41.6%) generally perceive an ease of use in expressing their thought through SMS as shown in fig.5.

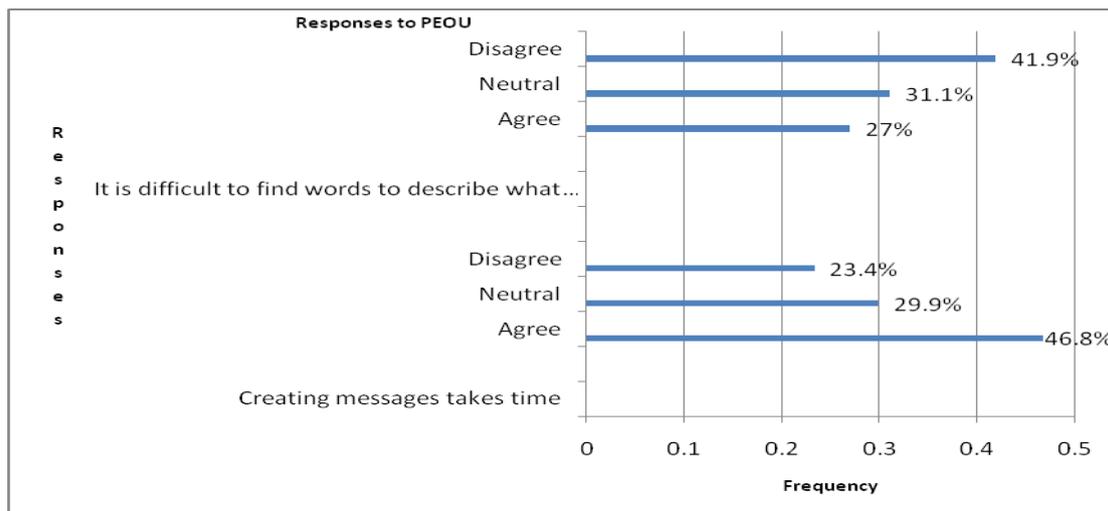


Fig. 5: Responses: Perceived Ease of Use (PEOU)

Source: Field Survey, 2012

### 3.2.2 Perceived Usefulness (PU)

This simply refers to the degree to which using a particular system will “enhance one’s job performance”. The respondents generally perceive SMS to be useful since it is affordable (82%), fast (74%) and convenient (71.3%) as shown in fig.6.

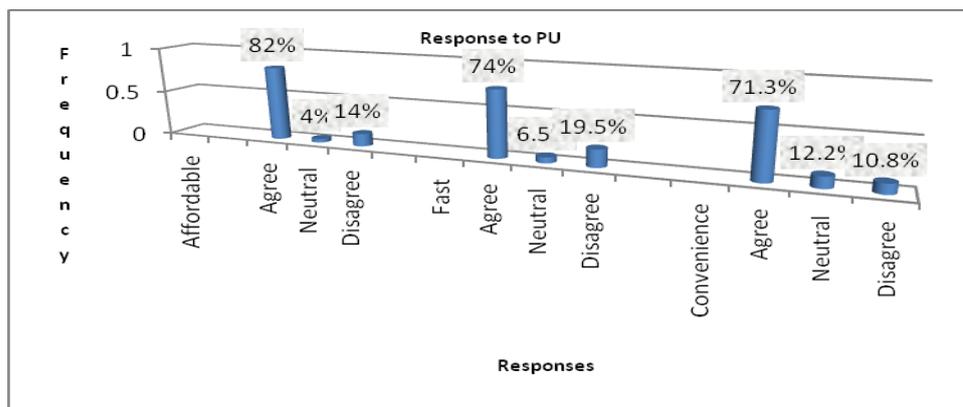


Fig. 6: Responses: Perceived Usefulness (PEOU)

Source: Field Survey, 2012

### 3.3 Attitudes towards SMS advertisementss

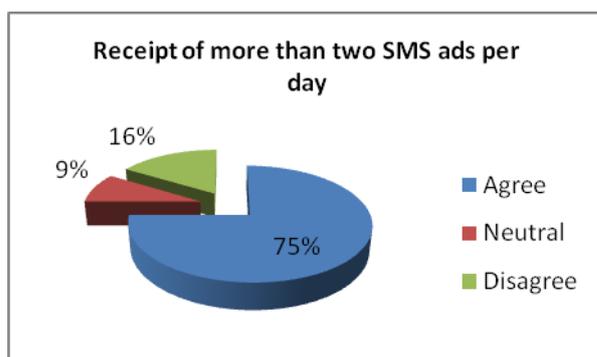
Most of the respondents (75%) revealed that on the average they receive more than two SMS advertisements from the operator per day; 16% and 9% of the respondents however, respectively disagreed and remained neutral on the issue as shown in fig.7. The attitudes of the respondents towards SMS advertising are shown in fig 8 and presented as follows:

Most of the respondents (58.1%) found the SMS advertisements they received as very

informative (of products and services on offer). On the contrary, 10.8% and 31% respondents were indifferent and showed disagreement respectively on the issue.

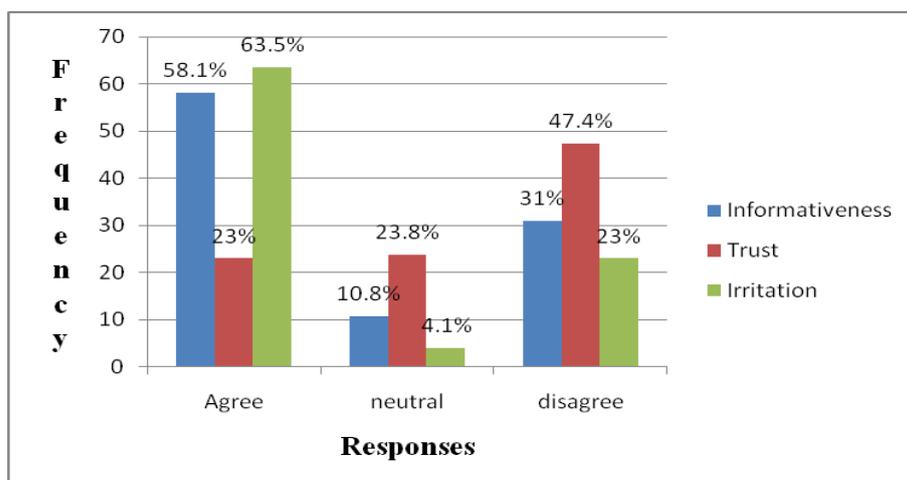
In spite of it being informative, the respondents do not trust SMS advertisements because of hidden terms and conditions usually employed by the advertiser or operator. Findings from the study show that 47.4% respondents disagreed they trusted SMS advertising, while 23% held a contrary view. 23.8% of the respondents were also indifferent.

Also most of the respondents (53.5%) found the SMS advertisements they received very irritating based on two grounds; lack of user permission to receive the advertisement and opt out, and frequency of the advertisements receive. 23% however receipt of SMS advertisements is irritating; 23.8% respondents neither agreed nor disagreed.



**Fig.7: No. of respondents who received more than two SMS ads per day from Vodafone**

Source: Field Survey,2012



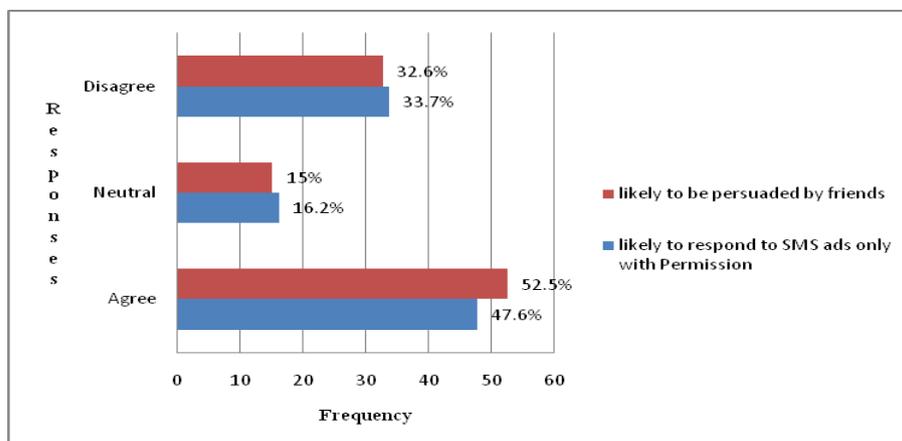
**Fig.8: Measurement of the various attitudes**

Source: Field Survey, 2012

### 3.4 Factors:purchase behaviour of young people

The study also measured the effect of user permission and persuasion by friends on the purchase behaviour of young people (refer to fig.9). 52.5% respondents opined that they were more likely to respond to SMS advertisements if they were recommended by their friends; 32.6% and 15% of the respondents however respectively disagreed and remained neutral in their responses.

Additionally, permission from the user to opt in and out of SMS advertising also increases the acceptance and responses to the advertisements as findings from the study show that 47.6% agree that they were more likely to respond to SMS advertisement only with their permission. On the other hand, 33.7% respondents disagreed their permission was unimportant while 16.2% respondents were neutral.



**Fig. 9: Responses on factors that influence purchase behaviour**

Source: Field Survey, 2012

### 3.5 Gender over all purchase behaviour

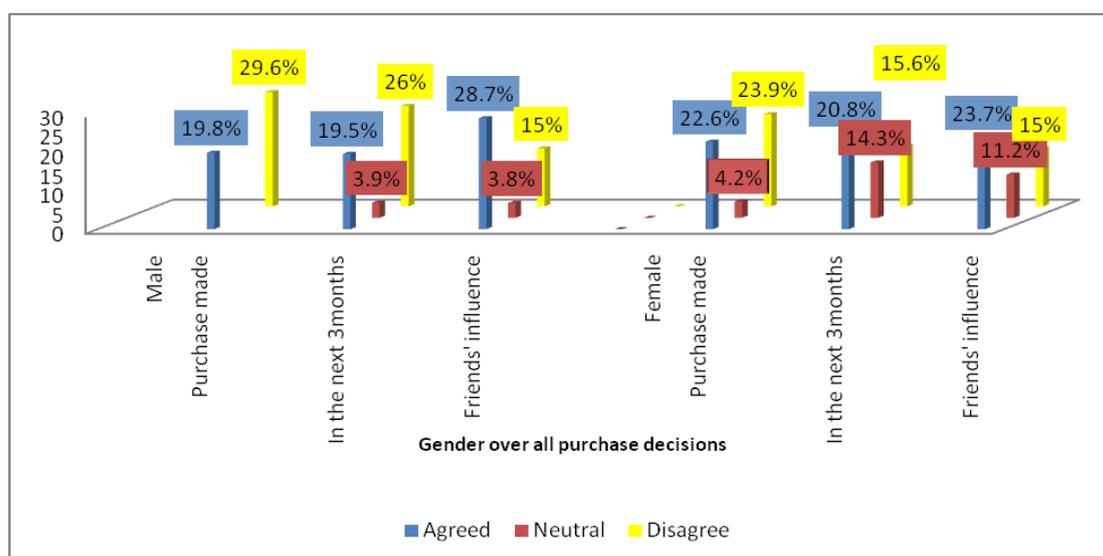
Both male and female respond to SMS advertising differently, probably as a result of cultural differences (Okazaki,2007). Findings from the study indicate that more female consumers had made purchases ( 22.6%) and were more likely to make purchases in the next three (3) months (20.8%) than male consumers who made purchases(19.8%) and had the intention of making purchases in the next three (3) months(19.5%).

Particularly in terms of future decisions, 28.7% males than 23.7% female respondents agreed that they were likely to make purchases if it was recommended by friends. To buttress this view, 15% males as compared to 17.4% female respondents disagreed their purchase behaviour will be affected by friends' recommendation. Those who

expressed neutral views comprised of 3.8% male and 11.2% female respondents.

The findings suggest that young male consumers than females are more likely to be influenced by friends in their purchase decisions. This is in sharp contrast with previous studies (Garbarino and Strahilevitz ,2004; Okazaki, 2007) which found women to be more willing to make a purchase if a friend recommended it to them. This is because they (women) seem more susceptible to the effects of interpersonal and interdependent relationships [than men] (Okazaki, 2007).

The above findings and analyses are shown in fig.10 below:



**Fig.10: Gender over all purchase decisions**

Source: Field Survey, 2012

#### 4. CONCLUSION

Based on the finding above, the following conclusions have been drawn:

Young consumers in Ghana are major users of SMS, because they perceive the use of SMS to be free of effort and useful to their lives. SMS is a target medium for marketers.

Except informativeness, irritation and trust negatively had an influence on the purchase behaviour of young consumers. However, reference group and consumer s' permission play a vital role in the acceptance of SMS advertisements and purchase behaviour;

Both young male and female consumers perceive SMS advertising differently; female consumers are more likely to make purchases initially and in the future following

frequent exposure to SMS advertising. Men also rely on their friends to make purchase decision contrary to the view by Okazaki (2007) that women seem more susceptible to the effects of interpersonal and interdependent relationships.

## 5. RECOMMENDATIONS

Based on the results, discussions and conclusions, the following recommendations are made. The operator should integrate permission marketing in its strategies to increase response rate to SMS advertisements. Secondly, it should employ campaigns that are devoid of complicated terms and conditions in order to restore consumers' trust of the its brand.

In order to ensure a successful viral marketing, the operator is advised to introduce incentives to encourage recipients of advertisements to forward messages to others. Additionally, the operator should integrate social media in its marketing strategies to target consumers, especially the younger generation.

## 6. DIRECTION FOR FUTURE RESEARCH

Future researchers could use a bigger sample of respondents and/or a different research instrument to determine how consumers of different ages, class or culture (relevant demographic variables) differ in their attitudes and purchase behaviour towards SMS advertisements.

Future research should also incorporate a study on all the competing mobile operators. Future research should also explore how the use of social media and other mobile marketing strategies like MMS and location-based SMS advertising influence the purchase behaviour of consumers.

## ACKNOWLEDGEMENTS

The researchers wish to say a special thank you to the following people for their guidance, prayers and support for making this masterpiece a reality: Prof. Reynolds Okai(Koforidua Polytechnic), Dr. George Afrane (University of Ghana,Accra,Ghana), Dr.(Mrs.) Smile Dzisi (Koforidua Polytechnic,Ghana) and Madam Lynette Ametewee(Graduate School of Governance and Leadership, Ghana); Parents (Kwaku Ansong, Victoria Fosuah, Samuel Asomani, Maxwell Ansong) and siblings(Yaw Mereku, Eunice Ansomah, Emmanuel Osei,Stephanie Fosuah).

## REFERENCES

- [1] Abernethy, A. M. (1991). *Physical and Mechanical Avoidance of Television Commercials: An Exploratory Study of Zipping Zapping and Leaving*, in

Holman, R. (ed.) 'Proceedings of the American Academy of Advertising',  
Reno NV.

- [2] Ajzen, I. and Fishbein, M. (1980). *Understanding Attitudes and Predicting Social Behavior*. Prentice Hall, Englewood Cliffs, NJ.
- [3] Alba, J., Lynch, J., Weitz, B., Janiszewski, C., Lutz, R., Sawyer, A. and Wood, S. (1997). Interactive Home Shopping: Incentives for Consumers, Retailers, and Manufacturers to Participate in Electronic Marketplaces. *Journal of Marketing*, Vol. 61 ,No. 3,pp. 38–53.
- [4] Allport, G.W.(1975). *Handbook for Social Psychology*, Worcester,Mass:Clark University Press, cited in Cannon, T.(2003). *Marketing: Principles and Practice*,(5<sup>th</sup> Edn).Thompson Learning, UK.
- [5] Aphrodite, T. and Evaggelia,P. (2001). Business Models and Transactions in Mobile Electronic Commerce: Requirements and Properties. *Computer Networks*, Issue 37, pp.221-236. Elsevier.
- [6] Astrid, D., Parissa, H., Jamie, M. and Arno, S.(2004). An Investigation and Conceptual Model of SMS Marketing. *Proceedings of the 37th Hawaii International Conference on System Sciences*, Hawaii.
- [7] Barwise, P. and Strong, C. (2002).Permission Based Mobile Advertising. *Journal of Interactive Marketing*, Vol.16, pp.14- 24.
- [8] Bauer, H. H., Reichardt, T., Barnes, S. J. and Neumann, M. M. (2005). Driving Consumer Acceptance of Mobile Marketing: A Theoretical Framework and Empirical Study, *Journal of Electronic Commerce Research*, Vol. 6, pp. 181-192.
- [9] Bauer, R. A. and Greyser, S. A. (1968). *Advertising in America: The Consumer View*. HarvardUniversity Publishing, Boston, MA.
- [10] Blumberg, B., Cooper, D. R. and Schindler, P. S. (2008). *Business Research*, (2<sup>nd</sup> Edn.). McGraw-Hill, London.
- [11] Boonlert, W.(2011). Determinants of Students' Intentions to Use a Mobile

Messaging Service in Educational Institutions: a Theoretical Model. *World Academy of Science, Engineering and Technology*, Issue 73, pp.313-318.

- [12] Boslaugh, S. (2007). *Secondary Data Sources for Public Health: A Practical Guide*. Cambridge University Press,UK.
- [13] Brackett L.K. and Carr,B.N. (2001). Cyberspace Advertising Vs. Other Media: Consumer Vs. Mature Student Attitudes. *Journal of Advertising Research*,Vol. 41,No.5,pp. 23-32.
- [14] Brengman, M., Cauberghe V. and Thielemans, E. (2007). *SMS-marketing, Is de Vlaming erklaar voor?*, in “Can We Compare SMS Marketing to Traditional Marketing Communications” by Irene, R. and Emilie, G.(2008). HUB Research Paper,Belgium.
- [15] Business & Financial Times Newspaper (2012). *Special Report: Beyond the Numbers*. (Online Edition).Available at:<http://www.thebftonline.com/index.php/news/55-special-report>. Accessed on 21/05/2012.
- [16] Carroll,A., Barnes, S. J., Scornavacca E. and Fletcher, K.( 2007) .Consumers Perceptions and Attitudes Towards SMS Advertising: Recent Evidence from New Zealand. *International Journal of Advertising*, Vol.26 , No.1, pp. 79-98.
- [17] Choi, S. M. and Rifon, N.J. (2002). Antecedents and Consequences of Web Advertising Credibility: A Study of Consumer Response to Banner Advertisements. *Journal of Interactive Advertising*, Vol,3, No.1.
- [18] Chowdhury, H., Parvin, N., Weitenberner, C. and Becker, M. (2006). Consumer Attitude Toward Mobile Advertising In An Emerging Market: An Empirical Study. *International Journal of Mobile Marketing*, Vol.1, No.2, pp.33-42.
- [19] Clawson, C.(1971). How Useful are 90-day Purchase Probabilities? *Journal of Marketing Research*,Vol. 35,No. 4, pp.43–47.
- [20] Clow, E. K. and Baack, D.(2004 ). *Integrated Advertising, Promotion and Marketing Communication*,(2<sup>nd</sup> Edn). Prentice Hall, New Jersey.
- [21] Commonwealth Secretariat: <http://www.thecommonwealth.org>

- [22] David, S.(2002). *Marketing*,(3<sup>rd</sup> Edn).Thompson Learning, UK.
- [23] Davis, F.D. (1989). Perceived Usefulness, Perceived Ease of Use and User Acceptance of Information Technology. *MIS Quarterly*,Vol. 13, pp. 319–340.
- [24] Davis, F.D. (1993). User Acceptance of Information Technology: System Characteristics, User Perceptions and Behavioral Impacts. *International Journal of Man–Machine Studies*, Vol. 38,pp. 475–487.
- [25] De Reyck B., and Degraeve, Z. (2003). Broadcast Scheduling for Mobile Advertising. *Operational Research*, Vol. 51, No.4,pp. 509-517.
- [26] Dimitris, D., Geroge, M. G., George, L., Flora, K., Maria, G. S. (2007).Determinants of Effective SMS Advertising: An Experimental Study. *Journal of Interactive Advertising*, Vol.7, No.2.(ISSN:1525-2019).
- [27] Ducoffe, R. H. (1996). Advertising Value and Advertising on the Web. *Journal of Advertising Research*, Vol. 36, pp. 21 - 36.
- [28] Faraz, S. and Seyedreza, S.(2011). Attitude Toward Advertising: Mobile Advertising Vs Advertising-in-General.European. *Journal of Economics, Finance and Administrative Sciences*,Issue 28, ISSN 1450-2275.
- [29] Fishbein, M. and Ajzen, I. (1975). *Brief, Attitude, Intention, and Behavior*. Addison-Wesley, Boston.
- [30] Garbarino, E., and Strahilevitz, M. (2004). Gender Differences in the Perceived Risk of Buying Online and the Effects of Receiving a Site Recommendation. *Journal of Business Research*, Vol.57, pp.768–775.
- [31] Gauzente, C. (2007).*Mobile Marketing: a Qualitative and Quantitative Exploratory Study of Consumers' Perceptions*, 7<sup>th</sup> Congress for Marketing Trends, Paris.
- [32] Groupe Speciale Mobile Association (GSMA)Africa Observatory Report (2011). *Driving Economic and Social Development through Mobile*

*Services.UK.*

- [33] Gupta,A., Su, B. C And Walter, Z.(2004). An Empirical Study of Consumer Switching from Traditional to Electronic Channels: A Purchase-Decision Process Perspective. *International Journal of Electronic Commerce*, Vol. 8, No. 3, pp. 131–161.
- [34] Henderson, R. and Divett, M. J. (2003). Perceived Usefulness, Ease of Use and Electronic Supermarket Use. *International Journal of Human-Computer Studies* , Vol.59, pp.383–395.
- [35] Igarria, M. (1993). User Acceptance of Microcomputer Technology: An Empirical Test. *Omega*, Vol. 21, pp. 73-90.
- [36] Ines, T. and Kaouther, S.B.R. (2010). Teenagers Reaction Towards Mobile Advertising: Role of Permission Marketing Concept. *Journal of Mobile Technologies, Knowledge and Society*. Available at: <http://www.ibimapublishing.com/journals/JMTKS/2010/166310/166310.html>. Accessed on 16/05/2012.
- [37] International Telecommunications Union (ITU), (2011). *The World in 2011: ICT Facts and Figures*,Geneva, Switzerland.
- [38] International Fund for Agricultural Development(IFAD,2012). *Republic of Ghana Country Programme Evaluation*, on May 2012, Report No. 2433-GH, Independent Office of Evaluation, Accra, Ghana.
- [39] InvolveMobile,(2010).*Mobile Marketing How to Guide: Everything You Need to Know to Get Started in Mobile Marketing*. Available at: [www.involvemobile.com/how\\_to\\_guide.pdf](http://www.involvemobile.com/how_to_guide.pdf) - United States. Accessed on 15/06/12.
- [40] Jaccard, J. and Becker, M.A.(1990). *Statistics for the Behavioral Sciences*,(2<sup>nd</sup> Edn.). Wadsworth Publisher Company, Belmont, U.S.A.
- [41] Jamieson, L. and Bass, F.(1989). Adjusting Stated Intention Measures to Predict Trial Purchase of New Products: A comparison of Models and Methods. *Journal of Marketing Research*, Vol.26, No.3, pp.336–345.

- [42] Kaarina, H. and Petteri,R.(2005). The Use of Mobile Services in Finland: Adoption Challenges Diffusion Theory. *GESTS International Trans. Computer Science and Engineering*, Vol. 20, No.1,pp.166-178.
- [43] Kalakota, R. and Robinson, M. (2002). *M-Business: The Race to Mobility*. McGraw-Hill, New York.
- [44] Kavassalis, P., Spyropoulou, N., Drossos, D., Mitrokostas, E., Gikas, G., and Hatzistamatiou, A. (2003). Mobile Permission Marketing: Framing the Market Inquiry. *International Journal of Electronic Commerce*, Vol. 8, No. 1,pp. 55-79
- [45] Kotler, P. and Keller, K. L. (2006). *Marketing Management*, (12th edn.). Prentice Hall,New Delhi.
- [46] Kotler,P.(1999). *Kotler on Marketing: How to Create, Win and Dominate Markets*. Simon and Schuster, U.K.
- [47] Lee, R. and Murphy, J.(2006). The Consumption of Mobile Services by Australian University Students. *International Journal of Mobile Marketing*, Vol. 1, Issue 1, p13.
- [48] Ling, R..(2001). We Release Them Little by Little: Maturation and Gender Identity as Seen in the Use of Mobile Telephony. *Personal and Ubiquitous Computing*, Issue 5, pp. 123 – 136.
- [49] MacKenzie, S.B. and Lutz R..J. (1989). An Empirical Examination of the Structural Antecedents of Attitude Toward the Ad in an Advertising Pretesting Context. *Journal of Marketing*, Vol.53, No.2,pp. 48-65.
- [50] Magic Software (2000): *Mobile eBusiness*, [online] Available at: <http://www.magic-sw.com>. Accessed on 27/05/2012.
- [51] Malterud, K. (2001). The Art and Science of Clinical Knowledge: Evidence Beyond Measures and Numbers. *The Lancet*, Vol.358, Issue 9279, pp.397 – 400.

- [52] Manisha, D.(2010).*Consumers' Buying Behavior of Bottled Water in Suriname:A Study on the Relation Between Demographic & Psychological Factors and Bottled Water Buying Behavior*. MBA 5 Thesis, FHR Lim A Po Institute for Social Studies, Suriname.
- [53] Marko,M., Sami, K., Heikki, K., Ville, V., Sami, S., Mika, R. and Matti, L.(2007).An Empirical Study of the Drivers of Consumer Acceptance of Mobile Advertising. *Journal of Interactive Advertising*, Vol 7, No 2.
- [54] Mesenbourg, T. L. (2001). *Measuring Electronic Business*, [Online] Available: <http://www.census.gov/econ/estats/papers/msrebus.pdf>. Accessed on 27/05/2012.
- [55] Milne, G. and Gordon, M. E. (1993). Direct Mail Privacy - Efficiency Trade-Offs Within an Implied Social Contract Framework. *Journal of Public Policy and Marketing*, Vol.12,No.2, pp.206 - 216.
- [56] Mirza,H.H., Mostafa, G., Ali, N. and Mahdi, G. and AmirHossein, N.M.(2011). *Marketing Without Wires: Survey of Factors Affecting Mobile Advertising Effectiveness in Iran*. '2010 International Conference on Business and Economics Research', Vol. 1,pp.261-266. IACSIT Press, Kuala Lumpur, Malaysia.
- [57] Nana Yaa, D. O., Gloria, K.Q. A. and Kwamena, M. N. (2011).The Effect of Marketing Communications on the Sales of Ghana Telecom(Vodafone,Ghana). *International Journal of Marketing*, Vol.3, No.4.
- [58] Nattharika, R., Jedsada W., Patchrabbhon ,L. and Nathadej, L.(2009). Consumers' Perception of the Effectiveness of Short Message Service (SMS) and Multimedia Message Service (MMS) as Marketing Tools. *World Academy of Science, Engineering and Technology*, Issue 53,pp.815-821.
- [59] New Zealand Government Web Standards (2012). *Government Use of Short Message Services (SMS)*. Available at: <http://webstandards.govt.nz/guides/strategy-and-operations/government-use-of-sms/>. Accessed on 15/05/2012.
- [60] Nysveen, H., Pedersen, P. E. and Thorbjørnsen, H. (2005). Explaining Intention

to Use Mobile Chat Services: Moderating Effects of Gender. *Journal of Consumer Marketing*, Vol.22, pp.247–256.

- [61] Okazaki, S. and Taylor, C.R. (2008). What is SMS Advertising and Why Do Multinationals Adopt It? Answers from an empirical study in European market. *Journal of Business Research*, Vol.61, pp.4–12.
- [62] Ovum (2012). *MWC 2012: Operators Face SMS Revenue Decline as IP Messaging Trend Bites*. Available at: <http://ovum.com/2012/02/27/mwc-2012-operators-face-sms-revenue-decline-as-ip-messaging-trend-bites/>. Accessed on 20/05/2012.
- [63] Ozhan, D. A. (2004). The Symbolic Use of Mobile Technology Among Turkish Consumers. *Journal of Euro-Marketing*, Vol. 2, No.3, pp. 143 - 162.
- [64] Palmer, A. (2005). *Principles of service marketing*, (4th edn.). McGraw-Hill Education, Berkshire.
- [65] Paul P. J. and Olson, J. C. (2008). *Consumer Behavior and Marketing Strategy*, (8<sup>th</sup> Edn). McGraw-Hill Companies, New York, Chapter 1, pp 2-17.
- [66] Philbin, T. (2000). *Old-Line to Online: Association Management*. ASAE, The Center for Association Leadership, Baltimore.
- [67] Portio Research (2011). Mobile Messaging Futures 2011-2015. *Research and Markets, Ireland*, pp.398. Available at: [http://www.researchandmarkets.com/reports/1539182/mobile\\_messaging\\_futures\\_2011\\_2015](http://www.researchandmarkets.com/reports/1539182/mobile_messaging_futures_2011_2015). Accessed on 22/05/2012.
- [68] Purinton, F. E., Rosen, D. E. and Schroeder, J.E. (1998). Marketing High Tech Products: Lessons in Customer Focus from the Marketplace *Academy of Marketing Science Review*, No.6, pp.1-17.
- [69] Rajnish, T. and Stephan, B. (2007). *The Mobile Commerce Prospects: A Strategic Analysis of Opportunities in the Banking Sector*. Hamburg University Press, Hamburg, Germany.
- [70] Rettie, R., Grandcolas, U. and Deakins B. (2005). Text Message Advertising: Response Rates and Branding Effects. *Journal of Targeting, Measurement and Analysis for Marketing*, Vol. 13, No. 4, pp. 304–312.

- [71] Robins, F. (2003). The Marketing of 3G. *Marketing Intelligence and Planning*, Vol.21, No.6, pp. 370- 378.
- [72] Samuel, N.N.D. (2012). *Telcos Want Government/Regulators to Push Mobile Money*. Adom News, Available at: <http://business.myjoyonline.com/pages/news/201211/97327.php>. Accessed on 13/01/2013.
- [73] Sandeep, K.(2000). Permission Marketing: Turning Strangers into Friends, and Friends into Customers.*Journal of Marketing Research*, Vol. 27, No. 4.
- [74] Saunders, M., Lewis, P. and Thornhill, A.(2009). *Research Methods for Business Studies*, (5<sup>th</sup> Edn). Prentice Hall, London .
- [75] Scharl, A., Dickinger, A. and Murphy, J.(2005). *Diffusion and Success Factors of Mobile Marketing*. Available at: <http://0-web.biz.uwa.edu.za:80/staff/Murphy/ECRA-2005.pdf>. Accessed on 16/04/12.
- [76] Shank, G. (2002). *Qualitative Research: A Personal Skills Approach*. Merrill Prentice
- [77] Hall, New Jersey. Shavitt, S., Lowrey,P. and Haefner, J. (1998). Public Attitudes Towards Advertising: More Favourable Than You Might Think. *Journal of Advertising Research*, Vol. 38, No.4,pp. 7 - 22.
- [78] Smith, J., Thomas,H. and Mark, M. (2005).European Mobile Marketing Forecast, 2005 to 2010. *European Marketing and Advertising*, Vol 4. pp.1-5.
- [79] Stewart, D. W. and Pavlou, P. A. (2002). From Consumer Response to Active Consumer: Measuring the Effectiveness of Interactive Media. *Journal of the Academy of Marketing Science*, Vol.30, No.4, pp. 376 -396.
- [80] Tekelec.com. [online article]: *Future SMS, written by Roland, J.D.L and Alan, P.* Available at: <http://www.tekelec.com/FutureSMS>. Accessed on 19/05/2012.
- [81] Trefor,J.(2004). *Decisions*, In “Business Economics and Managerial

Decisions”, pp.67. John Wiley and Sons Ltd, England.

- [82] Tsang, M. M., Ho, S.C. and Liang, T.P. (2004). Consumer Attitudes Toward Mobile Advertising: An Empirical Study. *International Journal of Electronic Commerce*, Vol. 8, No.3, pp. 65-78.
- [83] United Nations Conference on Trade and Development-UNCTAD, (2002). *E-Commerce and Development Report*. Available at: <http://www.unctad.org/ecommerce/> .Accessed on 18/04/2012.
- [84] United Nations Educational, Scientific, and Cultural Organization(UNESCO): [www.unesco.org](http://www.unesco.org)
- [85] Upstream/YouGov. (2011). *Mobile Market Marketing Consumer Attitudes Report*. Available at: [corp.upstreamsystems.com/.../...](http://corp.upstreamsystems.com/.../...) Accessed on 14/02/2012.
- [86] Van der Waldt,D.L.R, Rebello ,T. M. and Brown, W. J. (2009). Attitudes of Young Consumers Towards SMS Advertising. *African Journal of Business Management*, Vol.3 (9), pp. 444-452. Available at:[www.academicjournals.org/ajbm/pdf/pdf2009/.../Waldt%20et%20al...](http://www.academicjournals.org/ajbm/pdf/pdf2009/.../Waldt%20et%20al...) Accessed on 4/04/12.
- [87] Voss, T. (2001). *Game Theoretical Perspectives on the Emergence of Social Norms*, In “Social Norms”, Hetcher, M. and Opp, K.D., eds., pp. 105–138.
- [88] Wanmo Koo, B.S.(2010). *Generation Y Attitudes Toward Mobile Advertising: Impacts Of Modality And Culture*. Master of Science Thesis, University Of North Texas(Unpublished). Available at: [digital.library.unt.edu/ark:/67531/.../m2/.../thesis.pdf](http://digital.library.unt.edu/ark:/67531/.../m2/.../thesis.pdf) - United States.Accessed on 16/06/2012.
- [89] Warshaw, P.R.(1980). Predicting Purchase and other Behavior from General and Contextually Specific Intentions. *Journal of Marketing Research*, Vol.17,No. 1,pp. 26–33.
- [90] Weijun, T.(2008).*Research Methods for Business Students*. Shanghai Jiao Tong University. Available

at: [site.iugaza.edu.ps/walhabil/files/2010/02/Chapter\\_7.pdf](http://site.iugaza.edu.ps/walhabil/files/2010/02/Chapter_7.pdf). Accessed on 6/06/2012.

- [91] Wells, W. and Mithun, R.(2003). The Importance of External Validity. *Market Research*, Vol. 15, No.2,pp.45.
- [92] Wolin, L. D. and Korgaonkar, P. (2003b). Web Advertising: Gender Differences in Beliefs, Attitudes and Behavior. *Internet Research: Electronic Networking Applications and Policy*, Vol.13, pp. 375–385.
- [93] Wolin, L. D. and Korgaonkar, P. (2003b). Web Advertising: Gender Differences in Beliefs, Attitudes and Behavior. *Internet Research: Electronic Networking Applications and Policy*, Vol.13, pp. 375–385.
- [94] Zyman ,S. and Brott, A. (2002). *The End of Advertising As We Know It*. John Wiley, New Jersey.