

European Journal of Business and Management ISSN 2222-1905 (Paper) ISSN 2222-2839 (Online) Vol.10, No.5, 2018



Ubiquitous Advertising in Emerging Market, An Empirical Study on the Adoption and Continuous Usage of SMS Advertising in Tanzania

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Abstract

The ubiquity characteristic of SMS message persuade the marketers to extend market coverage through the adoption of mobile advertisiment. SMS became the new innovated opportunity of marketing communication, which is the easier method in delivery of advertising messages. This opportunity cannot be granted without the consumer's willingness to adopt this new media to be their marketing communication channel. This article determine the behavior intention to adopt SMS advertising among mobile phone users in Tanzania. Applying the extended UTAUT2 model extending with content design to explore the motivating factors on adoption intention. Linear Regression analysis and Structural Equation Model in Amos LISREAL method version21 used. Results statistically confirms performance expectancy, effort expectancy, social norms, content design and hedonic motivation have effect on behavior intention to adopt the SMS advertising. Uses of the phone (text message) significantly affected by performance expectancy in predicting the continuous usage of SMS ad. Facilitating condition reveled no effect on the adoption of SMS ad. Adoption of SMS ad significantly moderated by age and education, while gender has no effect. The study provide insight in proper segmentation of the market, designing relevant content that are user friendly and gratify the consumers' goal oriented before embarking to new innovated SMS advertisement channel. Limitation has been cited and proposed for further research.

Keywords: Ubiquity, SMS advertising, Adoption.

1. Introduction

1.1 Background information

In this technological era, the efficient use of mobile communication spontaneously acknowledged not only as a means of communication but incredibly as a way of life. Globally mobile phone market grown rapidly accompanied with the innovation of mobile communication for socialization and business purposes. Most of the mobile communication used is the SMS messages due to its low cost per use and its ubiquity to virtually all operator networks and to every mobile phone in the world. The mobile phone usage has grown much in the developed countries (T.T.C. Lin, F. Paragas, D. Goh and J. Bautista; 2016) as well as in developing countries such as Tanzania, where the number of mobile phone subscribers hit 40 million subscribers in December 2016 (TCRA; 2016) outpacing the land line users, the sector becoming the greatest source of GDP. Sending and receiving of the message become the most usage cellphone among users in Tanzania, the situation promising to the mobile marketing opportunity. SMS messages unique characteristics such as ubiquity, content relevance, personalization, interactivity and location based lead to greater attention of marketers to include the SMS in business marketing strategies. In this article SMS is taken as a major mobile advertising that its innovation to emerging market will increase the advertisement coverage and ease the marketing practices and ultimately will improve sales volume. The adoption of SMS advertising is a promising venture in the emerging market since the delivery of promotional advertising is somewhat difficult to reach the mass, the use of traditional means such as Television, radio, internet or direct email face the difficulties of reaching limited audiences, those who have access of that mediums, while most consumer did not have time to open television, listed to the radio due to busy life style of people now days (L. De Marez, P. Vyncke, K. Berte, D. Schurman ...2007) and limited to the availability of network that become a barrier to open email. Thus the innovation of SMS advertising would enable the efficiency of marketing communication between business and consumer in the emerging market as it was successfully adopted in the countries such as South Korea, EU, Singapore, US and China as evidenced in the studies of Rohm et al., (2012), H. Xue, H. Teo, H. Wang., (2002), Ozaki and Taylor., (2008). SMS advertising said to be the easy method of marketing communication with less cost and higher measurable return in money and goodwill (Duzgun. F and Yamamoto. GT., 2017), but the efficiency requires prior understanding of the consumer's behavioral intention on adoption and continuous usage of the medium as a means of B2C communication to proper segment the market.

Consumers adoption of mobile marketing gained much attention of the researchers in mobile marketing, they were much concerned on customers' adoption, attitude and behavioral intention and consumer acceptance of mobile marketing (Duzgun and Yamamoto., 2017, Wu and Chen, 2016. Choy-H. Wong, Garry W. H. Tan, Boon I. Tan and Keng B. Ooi., 2015, R. Ström, M. Vendel and J. Bredican, 2014, W. Jian, S. Abdul, S. Sood, P.



Lee, M. Hsu, C. Ho, Y. Li and H. Wen 2012).

1.2 Problem statement

The ubiquity and other SMS unique features facilitate the consumer's decision to adoption of SMS advertisement in many countries such as US, China, South Korea, Japan, India and so on. Consumers perception of mobile marketing benefits such as performance, effort expected, interactivity, personalization and its cost play a major role in influencing the adoption decision of the SMS advertising (Tekkanat and Topaloglu; 2016, A.Scharl, Dickinger and Murphy; 2005).

In Tanzania though the country emerged to lead the Africa and the world in mobile financial services (World Bank report; 2015) there is high mobile service transaction such as mobile money transfer and mobile banking. But the adoption of mobile advertising is still low, few companies has embark to the execution of SMS marketing through push type campaign. They send push advertising message or direct calling to the mobile phone users. Response rate is still low, consumers has overall negative attitude toward the mobile advertising as revealed in the study of Deo Sabokwigina, Gabriel Malima and Hosea Mpogole.,(2013) and Lyta Ndyali; (2014). Those studies conducted in mobile marketing adoption in Tanzania have focus on attitudinal perception on its effect to adoption behavior, there is a need to study on the motivating factors that will influence the decision to adopt and continuous usage of the SMS advertising as a medium of marketing communication, since the people nowadays confronted with busy life style. This study aims to explore the factors that will motivate consumer's intention to adoption and continuous usage of SMS advertising through their mobile phone in Tanzania context.

1.3 Research objective

The main objective of this research is to explore the factors that will influence the adoption and continuous usage of SMS advertising in Tanzania. The study utilize the unified theory of acceptance and use of technology (UTAUT2) to test the motivating attributes for adoption

Other specific objective;

- Empirically investigate the factors relevant to the adoption of SMS ad.
- To investigate the utility factors that will motivate the continuous usage of SMS ad

1.4 Research question

- 1. What are the relevant factors for consumer's adoption of SMS advertising?
- 2. What factors will influence the continuous usage of SMS advertising?
- 3. Does age, gender and experience in technology use has impact on consumers' adoption?

1.5 Research significance

This study will add to the body of marketing knowledge. The study will provide knowledge on the motivating factors facilitating the consumers decision in adoption of technology as from the different cultural background, where most of the study were conducted in Europe, US, and Asian countries (S.Okazaki and C. Taylor., 2008, T. Gao F. Sultan A. Rohm.,2010). The study provides the useful insight to the national and international organization (business, Government and NGO's) expecting to provide advertisement messages or services through mobile phone, to consider the motivating factors in efficient delivery and response from the target consumers in the emerging market. This research will provide insight on the determinants enhancing the continuous usage behavior of SMS advertising since no previous research has focus on continuous usage determinant in mobile advertising. The extended UTAUT2 model to incorporate other variables such as content design and expressiveness, will provide useful contribution on prediction of motivating factors for consumer to adoption and continuous usage of SMS advertising, as well as insight for the future of SMS content design campaign in mobile marketing literature. Therefore, this study will provide the essentials to consider before embarking to SMS advertising in emerging market such as Tanzania where the mobile advertising is on innovation stage.

2. LITERATURE REVIEW

In order to gain the great knowledge on the adoption of mobile advertising several studies relating to the adoption of technology innovation, adoption of SMS advertising, acceptance of SMS advertising as well as mobile marketing acceptance were reviewed. The following was the summary of the reviewed literatures.



Table 1

Table 1	Dagaarah	Country	Research variables	Research Results
Author	Research Focus	Country of respondents	Research variables	Research Results
M.A.Shareef et al; (2017)	Content design of SMS advertisement for consumer exposure UTAUT2 extended to UTAUT- CEMM	Bangladesh	Dep; SMS ad content Indp; Social influence, self-concept, facilitating condition, performance expectancy, effort expectancy, personalization, trust, price value, and habit,	Self-concept, facilitating condition, performance expectancy, effort expectancy, personalization, trust and hedonic motivation together have strong effect on consumer exposure to SMS ad content.
Dix et,al; (2016)	Drivers of acceptance of SMS advertising TAM model	Australia	Dep; consumer acceptance Ind; Attitude, Utility, Context, trust, permission And sacrifice.	Attitude strong effect of acceptance. Utility, Context and Sacrifice are significant. Control and Trust not significant in acceptance of SMS advertising.
B.Wu, X. Chen (2017)	Investigate continuous intention to use online course TAM and TIF model	China	Perceived usefulness, perceived easy of use, task technology fit, reputation, social recognition, social influence.	Perceived usefulness strong mediator of perceived easy of use. Task technology fit, reputation, social recognition, and social influence significantly predict continuous intention. Perceive easy of use and social norm does not affect attitude.
Nysveen and Pedersen (2016)	Consumer adoption of RFID-enabled services. extended UTAUT model	Norway	Dep; intention to use Indp; performance expectancy, effort expectancy and technology anxiety	performance expectancy, effort expectancy and technology anxiety on attitude to adopt the service facilitating conditions and attitude have significant influences on intention to use the services
CH. Wong et al., (2015) Mobile advertising the changing landscape of the advertising industry	To explore factors that influence consumers behavioral intention (BI) to use m-advertising	Questionnaire Partial least square-SEM	Dep; behavioral intention Ind; Performance expectancy (PE) Effort expectancy (EE) Social influence Facilitating condition Personal innovativeness Perceived enjoyment (PEJ) Mobile skillfulness	UTAUT variables has positive effect to BI. Mobile skillfulness has significant effect to PE, EE and PEJ Demographic variable has no effect to BI
Wen-Shan Jin et al; (2012)	Factors influencing consumer adoption	Taiwan	Dep; adoption Ind; social norms, Usage intention and perceived usefulness, perceived ease of use, security and privacy, Computer self-efficacy	social norms, Usage intention and perceived usefulness are mostly affecting adoption Age affect directly usage intention or indirect via ease of use. Education effect is indirect via ease of use



Author	Research Focus	Country of respondents	Research variables	Research Results
Nysveen et al (2005)	Explore consumers' intention to use mobile service TAM model	Norway		Motivational, attitude, normative pressure, and perceived control have strong influence. goal-directed and experiential services have moderated effect on usage intention
Gemma Roach (2009)	consumer perceptions of mobile phone marketing	Australia	Dep; Adoption; Ind; Complexity, product involvement relative advantage and compatibility	relative advantage and compatibility are significantly associated with adoption, but consumer's level of involvement with their mobile phone has weak relation to adoption
Lyta Ndyali (2014)	consumers perception and attitude on mobile phone market DOI Model	Tanzania	Mobile phone marketing Ind; compatibility, relative advantage, complexity, adaptation and product involvement	Relative advantage, compatibility and adaptation has strong support to mobile marketing, while product involvement has weak influence and complexity has no impact on the mobile marketing
Persaud and Azhar (2012)	Innovative mobile marketing via smartphone	Canada	Mobile marketing acceptance Ind; perceived value, shopping style, brand trust, age and gender	Perceived value and brand trust are positively significant while age, gender and shopping style have negative influence to acceptance
Mohammad and Razil (2011)	Predicting Consumers' Acceptance of Mobile Marketing	Malaysia	Dep; Intention To Use Ind; attitude, subjective norm, perceived behavioural control and perceived risk	attitude, subjective norm, perceived behavioural control and perceived risk have statistical significance to the intention to use mobile marketing
Laetitia Rader et al; (2010)	Antecedents of South African high school pupils acceptance of universities SMS advertising	South Africa	Dep; SMS acceptance Ind; attitude, social norms, behavioral intention	Attitude and social norms strongly significant to SMS advertising acceptance, while behavioral intention has weak and indirect relation. Perceived risk has no influence on the acceptance of SMS ads
Phau and Teah (2009)	Young consumers' motives for using SMS and perceptions towards SMS advertising	Australia	Dep; SMS usage Ind; convenience, social involvement, economic, personal communication, escape, enjoyment	Convenience and social involvement positive significant to influence SMS usage frequency. Economic reasons negatively but significant. SMS usage and attitudes no significant relationship



Author	Research	Country of	Research variables	Research Results
	Focus	respondents		
Bauer et al;	Driving		acceptance of mobile	entertainment and
(2005)	consumer		marketing	informativeness are significant
	acceptance of			to the acceptance
	mobile		Attitude , Social norms	Social norms strongly
	marketing: a		Innovativeness	significant mediated by
	theoretical		Knowledge Information	personal attitude towards
	framework		seeker Perceived	acceptance. risk perception has
	and empirical		information utility	negatively influence on attitude
	study		Perceived maintenance	demographic characteristic has
			utility Perceived social	no impact
	TAM model		utility	
			Perceived utility	
			Perceived risk	

2.1 Theoretical Model of Consumer adoption of technology

According to Rogers (2003), adoption is a decision of "full use of an innovation as the best course of action available" and rejection is a decision "not to adopt an innovation" (p. 177). Diffusion involves the process of communicating the innovation among the people within a society (p.5). Based on the theory, Roger has suggested four main elements that stimulates the spread of a new idea, these are the innovation itself, communication channels, time, and a social system, depending on the human capital. The theory has been adopted by many researchers in studying the adoption behavior (Lyta Ndyali; 2014, W. Jian et al: 2012, L. Radder, J. Pietersen, H.Wang and X. Han., 2010, L. Marez et al; 2007, Sahin; 2006), however the factors of adoption has varied based on the behavior characteristics of studying respondents and variables to be adopted. Innovation adoption of SMS marketing is said to be high in the high concentrated population with homogenous national characteristics (Dekimpe, M. Parker, P. & Sarvary M.,2000)

2.2 Unified theory of acceptance and use of technology (UTAUT2)

The theory developed by V. Venkatesh, J. Thong, X. Xu., (2012), concerning the user intentions to use technology and continuous usage behavior. The theory remark the seven key factors that will influence the adoption behavior; performance expectancy, effort expectancy, social influence, and facilitating conditions, hedonic motivation, habit and price value.

This theory is rich in exploring the behavior intention to adopt or accept the technology as it was developed to the extension of UTAUT model (Ventakesh et al;2003) that was a review and consolidation of eight models constructs, such as theory of reasoned action, technology acceptance model, motivational model, theory of planned behavior, a combined theory of planned behavior/technology acceptance model, model of personal computer use, diffusion of innovations theory, and social cognitive theory. These theories assess the degree of acceptance of the use of information technology and user's ability to use the technology. The UTAUT2 found to have an R2 of 74%, indicating that the model explains 74% of the variance in user behavioral intentions in the use of information technology. Hence seem to be useful in this study to adopt the UTAUT2 model in extensive mode. Since UTAUT can be extended if survey conducted to study behavioral intention of new population or new cultural setting (V. Ventakesh et al., 2012), and evidenced in the studies of M. A. Shareef, Y. K. Dwivedi, V. Kumar and U. Kumar (2017), C.-H. Wong et al; (2015), Nysveen and Pedersen; (2014), W. Jian et al; (2012) adopting the UTAUT2 model and extend based on the requirements of the study.

Therefore the researcher in this article opt to exclude the habit and price value from the model and integrate the content design as the relevance to motivate consumers adoption of SMS advertising.

Performance expectancy; It is the ability of the innovated technology to deliver the instrumental satisfaction. The new technology to meet goal expected by the adopters. The more the results of the use of the innovation are perceived to be visible to others, the more innovative it is. The perceived usefulness element is linked with various critical factors, namely effectiveness, performance and productivity. Performance expectancy perceived to be the extent to which the use of a system increases the communication effectiveness of a person and brings desired outcomes (Davis., 1989), since the use of SMS is for the communication purpose in the context of mobile communication. Performance expectancy has been allied with achieving valued goals instrumentally (Davis., 1989).

Performance expectancy has been validated to be the strongest predictor of intention to use any system and thus it asserts positive influence over intention to use SMS (Chan et al., 2008). As per Lu (2008) performance expectancy has positive relation to SMS usage behavior and it has also been the strong motivation for intention to use text messaging (H. Nysveen, H. Thorbjørnsen and P.Pedersen., 2005). The studies of W. Jian et al; (2012)



and Kim, GS, Park, SB and Oh, J., (2008) identified that performance expectancy has direct correlation with continued usage intention and actual user behavior. Hence we propose the following hypothesis

H1; performance expectancy has direct effect on intention to adopt SMS ad.

Content; refers to the wording, statement, language and presentation of the SMS promotional message. This is significant consideration to get consumers' exposure to bear the SMS instead of deleting it. Due to relevant content of SMS advertising the consumers tend to accept mobile ads as reviled in the studies based on behavior intention theories and SMS marketing (M.A.Shareef et al; 2017, R. Rettie, U. Grandcolas and B. Deakins., 2005), the SMS content is the significant driver of the SMS advertising adoption and usage that ultimately make the effort of sending SMS fruitfully.

According to L.F. Bright and T. Daugherty (2012), customization and personalization based of the SMS content allow consumers to experience high levels of control while being exposed to advertising in a relevant context advertising. Personalization should base on location, preference and local time (A.Scharl et al; 2005) Content reliability and quality has strong effect on adoption and acceptance of SMS ad, which ultimately enforce the intention to purchase. It is reported by A. Scharl et al; (2005) that the survey of one thousand mobile phone users in London, reveals that good SMS ad were short to the point 28%, funny and entertaining 26% relevant to the target 20%, eye catching 13% and informative on price and promotion 12%. So concluded that good SMS ad should attractive, concisely presented in a local language of the target audience.

Consumer expect the message to be tailored based on their requirements, considering their location. The amount of personalized services also has direct effect on user payoff. Usefulness is essential for mobile viral content and the behavioral intention of adopting mobile services. From the literature reviewed relevant to SMS ad content, we can propose the following hypothesis

The viral effect of SMS ad is higher than other advertising media as consumer themselves tend to forward the messages the attractive SMS voluntarily to peers and friends within the social circle (Dobele A. Toleman D. Beverland M., 2005). This create and strong influence to others and increase the multiplying effect on coverage of the message (A. Scharl et al; 2005) this tend to increase the adoption behavior and continuous usage of the SMS advertising. Prior studies (W. Hui, N. Haji, Y. Zhang., 2017) assume that subjective norm is associated with sharing content with peers and friends in the society. From the review we propose the following hypothesis

H2a; content relevance has positive relation to the intention to adopt SMS advertising.

H2b; sharing of the perceived content relevance has positive influence to social norms

Social norms; It is the reliance of other people's opinions on whether he or she should perform or not perform a particular behavior (Ajzen, 1991). Ventakesh et al (2012) define as "the extent to which consumers perceive that important others (e.g., family and friends) believe they should use a particular technology" it is a perceived pressure from the people who consumers think are important to them, they have strong opinion on others' decision making process on adoption of new technology. The usage intention can be changed by subjective norms so it is predicted to relate positively to behavioral intention.

In mobile marketing context, adoption intention based on the consumers' perception of behavior expected by the people whom consumers think is important to them in the society. There are consumers as opinion leaders who give permission to receive continuous updates from the marketers, mostly in collectivism cultural context, once received they share content with fellows hence they tend to be a social reference group to influence opinions of others (Kumar et al; 2016). Social norms has positive influence on adoption of new technology such as SMS advertising, as empirically evidence in the studies (Muk; 2014, Nwagwu and Famiyesin; 2016, L. Rader et al; 2010, Mohammad and Razil; 2011) depicting inconsistence of the effect. Social influence has positive influence to the American and South African consumers while no influence to Korean, and Nigerian consumers on the acceptance of SMS advertising. Therefore, we proposed the following hypothesis.

H3; social norms has positive effect to adoption of SMS advertising

Hedonic Motivation; This is the fun or pleasure derived from using a technology as defined by Ventakesh et al.,(2012). Adopters of mobile service seek to gratify the intrinsic motivation such as expressiveness rather than instrumental utility. Expressiveness is derived from hedonic motivation as the behavior driven from internal reward towards the use of an information system. The adoption of SMS advertising could be perceived to be pleasing and entertaining and expression of fashion, style and individual recognition (H.Nyvseen et al; 2005). Recognition give a reflective appreciation of person's self-confidence, respect and self-esteem (B. Wu, X. Chen; 2017). Satisfaction obtained on using mobile service are considered as the user cope with the fashion, this identify the status and sociability, as shown in the study of H. Nyvseen et al; (2005) that the use of mobile service may be the way to express personality, status and image in a public. According to H. Nyvseen et al; (2005), consumers who grade the value of their mobile phone (having latest model) expected to perceive mobile phone marketing to match with their lifestyle and preferences. Thus will influence their decision to adopt SMS marketing.

Based on motivation theory, consumers' decision to determine their media use is motivated by the need to fulfill certain needs (Phau and Teah; 2009, Peters et al; 2007). The choice of the mass media usage is determined



by the gratification consumer seeks to achieve, hence can be concluded that it is a goal oriented. The intrinsic gratification has greater effect on consumer's attitude toward mobile advertising (X. Feng, S. Fu and J. Chin; 2016). Intrinsic motivation is the expression of product value beyond instrumental utility, therefore is an important motivating factor to stimulate the adoption of SMS advertising. From the review we propose the following hypothesis.

H4a; Expressiveness has positive effect to adoption of SMS advertising.

H4b; Expressiveness has positive influence on social norms

H4c; Expressiveness has positive influence on effort expectancy.

Effort expectancy; it has been defined by Venkatesh et al. (2012) as "the degree of ease associated with consumers' use of technology". It is a subjective perception of user on how easy it is, to create and mastering the text message. Perceived Ease of Use refers to the inbuilt intricacy and complexity in the learning and use of a system. The degree of consumers' perception on the use of innovated technology determine the adoption behavior of the technology. More an innovation is perceived as relatively difficulty and complexity to understand and use, the less adoption behavior and usage it is.

Many studies and seminal paper (C. Wong et al; 2015, S. Afzal, G. Paras and S. Gangwani; 2015, C. Park, D. Kim and C. Kim 2013, Al-khunaizan and S. Love; 2013) indicated that when the technology is user friendly, less hesitation and barrier to use the innovated technology, hence increases the positive relation between the effort expectancy and adoption behavior of the technology.

H5; Effort expectancy has positive influence on intention to adopt SMS advertising.

Facilitating conditions: "The degree to which an individual believes that an organizational and technical infrastructure exists to support use of the system" (Venkatesh et al., p. 2003). In SMS advertising the time and location based service of the advertisement perceived as the relative advantages that facilitate the consumer motivation to adoption decision. SMS advertisement can be send at any time with location based advertisement, where the receiver can open, read and respond at their convenience, this facilitate the motivation to adopt the medium. SMS is relatively cheaper than other communicating services (Duzgun. F and Yamamoto. GT., 2017, A. Scharl et al; 2005).

H6; Facilitating condition has positive effect on the adoption of SMS ad

Continuous usage of the SMS advertising; This is measured based on the usage frequencies of the SMS by the consumer. The usage depends on the performance expectancy and the effort expectancy of the adopted technology. Continuous usage associated with the frequency of sending text messages at present and also in future. It is the intension to use SMS in future as well (S. Afzal et al; 2015). The extensive usage of the text message estimated to indirectly influence the adoption of the SMS advertising mediated by the performance expectancy and effort expectancy. Hence we propose the following hypothesis

H7a; Performance expectation has mediating effect on the cellphone usage and adoption/ continuous usage of SMS advertising

H7b; Effort expectancy has mediating effect on the cellphone usage and adoption/ continuous usage of SMS advertising

Moderating effect of demographic variables as demonstrated by the theory founder Ventakesh et al: (2003), the demographic variable of gender, age and experience has moderating influence the behavioral intention to adopt the new technology, hence the following hypothesis proposed.

H8a; There is a significant effect of gender on consumers' adoption of SMS adverting.

H8b; There is a significant effect of consumers' age on the adoption of SMS adverting

H8c; There is a significant relationship between consumers' level of education and the adoption of SMS adverting



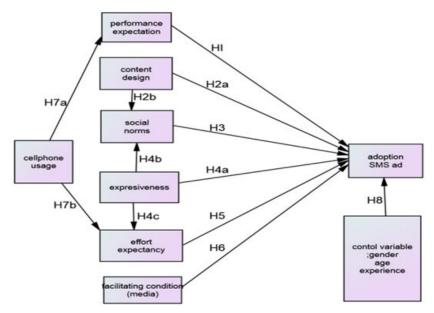


Fig 1; Conceptual model proposed by Author. Extension of UTAUT model

3. RESEARCH METHODOLOGY

This is the exploratory and cross-sectional research, aim to use the extended UTAUT2 to explore the motivating factors of adoption and facilitating to continuous usage of SMS advertising in emerging market such as Tanzania. Limited empirical research exists of this ground in the Tanzanian market, and therefore the results will offer new evidence about the adoption of SMS advertising (Persaud and Azhar; 2012).

Sampling Method and Data Collection

The survey taken place at Zanzibar University, Zanzibar Social Security Fund, Zanzibar Commission for Employment and hotels employees in Zanzibar. Thus the studying population of multi-racial and in different age groups, the respondents were students and employees in the specified organizations, interviewed through self-administered questionnaires.

Sample selection; Due to the high penetration of mobile phone usage every student and employee in the sample has cellphone, hence the selection criteria based on random sampling.

Instrumentation

A set of questions were obtained from the review of articles concerning the adoption of technology and mobile advertising specifically the studies adopted UTAUT and UTAUT2 model. The relevant questions that could assess the consumers' adoption of SMS advertising were used to develop questionnaire, which then tested to a sample of 25 respondents, students and employees to assess the content validity before distributing to the intended sample. The language modification done from English to Swahili language, so that the questions could be easy understood by the respondents. Proper understood of the question will lead to proper selection of points from the Likert scale. A final set of questions measured at 5 Likert scale 1 to 5, strongly disagree to strongly agree points, adopted from the studies of M. A. Shareef et al; (2016), Venkatesh et al;(2012), and Nysveen et al; (2005) attached in the appendix.

The data collected through online questionnaire and paper questionnaires in the month of June to August 2016. A total of 300 valid responses obtained after exclusion of incomplete responses.

4. DATA ANALYSIS

Respondents' Demographic Profiles

Total complete responses were 300 which was given the questionnaire in paper form. The survey was carried out in Zanzibar where the respondent group includes students and employees in different organizations. Table 2 summarizes the demographic responses.



Table 2;

	Variable	Frequency	Percentage
Gender	Male	187	62.3
	Female	113	37.7
Age	Young	134	44.7
	Adult	118	39.3
	Older	48	16
Education	Low educated	131	43.7
	Graduate	120	40
	High	49	16.3
Uses of the phone	Phone call	60	20
	Message	123	41
	Browsing internet	101	34
	Taking picture	16	5

Validating the Anticipated Model

The reliability scale was measured in Cronbach alpha to ensure the internal consistency of the items. Table 3 demonstrates the reliability statistics showing Cronbach's alpha coefficient value and standardized alpha value, which are higher than 0.6 which is the recommended value for Cronbach alpha, this indicate the very good internal consistency of the scale.

Table 3 Reliability Statistics

Cronbach's Alpha	Std Cronbach's Alpha	Number of Items
0.81	0.819	24

SPSS version 20 used to test the reliability of the data result are shown in Table 4, according to Kline (1999) the Cronbach's alpha value below 0.7 can be realistic due to the diversity of the construct measured. Confirmatory Factor Analysis (CFA) in the Maximum Likelihood (ML) estimation method used to evaluate the construct validity of a UTAUT2 theory and other two variable extended in the model in two-step procedure to validate the model, as recommended by J.Anderson and Gerbing (1988), under the Confirmatory Measurement Model all standardized factor loadings were above .50 level meaning that a strong relationship between construct and items measured.



Table 4; Exploratory Factor Analysis

Construct	Label	Factor loading	Crobanch α
Content	CONT1	0.856	
	CONT2	0.841	0.894
	CONT3	0.816	
	CONT4	0.760	
Media	MED 1	0.885	
	MED2	0.790	0.846
	MED3	0.682	
	MED4	0.677	
Social norms	SN1	0.904	0.784
	SN2	0.681	
	SN3	0.563	
Effort expectancy	EF1	0.838	
ı v	EF2	0.753	0.782
	EF3	0.685	
	EF4	0.631	
Performance expect	PE1	0.629	
•	PE2	0.611	0.723
	PE3	0.605	
Expressiveness	EXPR1	0.884	
-	EXPR2	0.769	0.756
	EXPR3	0.518	
Adoption Intention	BI1	0.805	
	BI2	0.776	0.744
	BI3	0.546	

Source: Authors' Estimation Table5; Correlation matrix

	1	2	3	4	5	6	7
Media	1						
Exprsiveness	.061	1					
Adoption Intention	.094	.041	1				
Content	.457**	.051	.08	1			
Snorm	.361**	.02	.046	.504**	1		
Ef, exp	.171**	.135*	.196*	.149**	.144*	1	
Per exp	.01	107	.031	082	029	.061	1

^{*}Correlation is significant at the 0.05 level (2- tailed)

List wise N=300

The model fit indices show that the model construct fit the data collected. The model goodness of fit indices obtained were; Chi-squire = 268.001, df=231 (p=0.048). RMSEA (0.023) NFI (0.91), CFI (0.99) and GFI (0.93) indicating the good fit of the model to the data collected.

Structural Equation Modelling

The latent factors from the confirmatory analyses were then analyzed to determine the fits of the model used, in structural model analysis to test the hypothesis in Structural Equation Model using SPSS Amos version 21 to test the hypothesis. Table 6; indicate a good fit indices between the observed data and the hypothesized model of UTAUT2 theory and extended variables according to Byrne and Barbara p 99, Bentler and Yuan (1999).

^{**} Correlation is significant at the 0.01 level (2-tailed)



Table 6; Structural Equation Model Fit

Fit indices	Recommended = Good Fit	Obtained indices
Chi-square		413.6
Degrees of freedom		243
Relative χ2 (χ2/df)	<3	2
RMSEA	0.03- 0.08	0.048
CFI	≥0.9	0.93
NFI	≥0.9	0.9
GFI	≥0.9	0.9
RMR		0.18

Source: Authors' Estimation

Table 7; summarize the results of hypothesis testing through the structural model with standardized estimate.

Table7: Structural Equation Model: Standardized Path Estimates

Hypothesis	Estimate	S.E	CR	P	hypothesis	Results
Adoption intention← performance expectancy	0.286	0.098	2.931	.003	H1	Supported
Adoption intention← Content	0.125	0.087	1.578	.029	H2a	Supported
Social norms ← content	0.928	0.100	9.31	.000	H2b	Supported
Adoption intention ← social norms	0.166	0.084	2.039	.041	Н3	Supported
Adoption intention ← expressiveness	0.198	0.61	2.390	.017	H4a	Supported
Social norms ← expressiveness	0.024	0.065	0.365	.715	H4b	Rejected
Effort expectancy ← expressiveness	0.135	0.066	2.047	.041	H4c	Supported
Adoption intention ←effort expectancy	0.204	0.076	2.692	.007	H5	Supported
Adoption intention ← media	0.011	0.035	0.316	.752	Н6	Rejected
ONE WAY ANOVA KRUSKAL-WALLIS TEST						
	χ^2	df		sig		
Performance expectancy ←usage behavior	2.947	3		0.007	H7a	Accepted
Effort expectancy ←usage behavior	12.146	3		0.400	H7b	Rejected
REGRESSION MODEL ESTIMATE						
Adoption intention ←Gender	.061			.274	H8a	Rejected
Adoption intention ←age	.539			.000	H8b	Accepted
Adoption intention ←education	.717			.000	H8c	Accepted

Source: Authors' Estimation

Moderating effect of demographic variables have analyzed in Regression analysis. Table 8 shows the age and education level has 4.3% variance on the adoption and continuous usage of SMS ad. Hence the moderating effect realized on demographic variables.

Table 8

Demographic	Standardized Beta	t- value	Sig
Gender	.061	1.095	.274
Age	.539	10.226	.000
Education	.717	12.665	.000
Adjusted R ²	4.3%		

Dependent variable; adoption of SMS advertising.

The analysis shows that gender has no significant effect on the behavior intention to adopt SMS ad. Hence we reject the hypothesis H8a; there is a significant effect of gender on consumers' adoption of SMS adverting, p > 0.05. Age and education have significant different in adoption intention and continuous usage of SMS ad. Therefore H8b and H8c accepted.

Stage three of the analysis carried through ANOVA analysis using Krusskal Walis test, to test the hypothesis H7a and b respectively.



Table 9; Ranks

	USephone	N	Mean Rank
	phone call	60	149.05
	text message	123	156.82
EFF EXP	internet	101	140.44
	taking picture	16	170.88
	Total	300	
	phone call	60	134.77
	text message	123	140.43
P	internet	101	174.50
	taking picture	16	135.38
	Total	300	

Test Statistics^{a,b}

	EFF EXP	P
Chi-Square	2.947	12.146
df	3	3
Asymp. Sig.	.400	.007

a. Kruskal Wallis Test

b. Grouping Variable: USephone

The results shows there is statistical significance of performance expectancy to the different uses of the phone, (phone n=60, text message n=123, internet n =101, taking picture n = 16) χ^2 (3, n= 300)= 12.15 p=0.007 the uses in text message recorded a higher median of 4 than other uses. This means the performance expectancy has an effect on the uses of the phone, hence hypothesis

H7a; Performance expectation has mediating effect on the cellphone usage and adoption continuous usage of SMS advertising . We accept this hypothesis.

Though the analysis reveals insignificant effect of effort expectancy and usage of the phone in adoption and continuous uses of SMS advertising,

(phone = 60, text message n =123, internet n =101, taking picture n = 16) χ^2 (3, n= 300) = 2.94 p=0.4, p> 0.05 H7b; Effort expectancy has mediating effect on the cellphone usage in adoption and continuous uses of SMS advertising, the hypothesis is rejected.

5. DISCUSSION AND MANAGERIAL IMPLICATIONS

The aim of this research was to examine the motivational factors of consumer adoption and those that will facilitate the continuous adoption SMS advertising. Short message service (SMS) is easy method of communication and convenient low cost and ubiquitous to its coverage (Duzgun F, Yamamoto GT; 2017), is growing in spite of being considered as a poor marketing communication medium in terms of message content richness and ease of delivery compared to E-mail ,mobile voice telephone services and other multimedia mobile data service applications (Afzal et al;2015).it has been applied in many countries (China, South Korea, US and Europe) and provide fruitful results.

Based on the adopted UTAUT2 theory of Ventakesh et al; (2012), the four factors has been cited to predict the consumer's adoption of technology. The structural path analysis on the Tanzania context indicate performance expectancy, effort expectancy and social norms are motivating determinant to adoption of SMS ad. Facilitating condition found to be insignificant factor to motivate the adoption of SMS ad. The facilitating condition of SMS ad such as time and location based advertisement did not motivate the consumer decision to adoption. The consumer can be sent with advertisement even not based on their nearest location, since the respondents of the study were Zanzibar residents, hence the location did not affect their decision. This result is inconsistence with previous studies of M.A. Shareef et al; (2017) where they found facilitating condition has significant effect for drawing consumer attention on content of SMS commercials. C.-H. Wong et al; (2015) found positive and significant effect of facilitating condition and behavioral intention to use mobile advertising. The study of Nysveen & Pedersen; (2014) has also found significant effect to the adoption of new technology. The reason for the discrepancy could be facilitated with nature of technology adopted and context of the study since Zanzibar is a small island so consumer can go everywhere whenever there is product promotion such as on sale price promotion, location based advertisement as the most motivating factors for customer in other country to adopt SMS advertisement did not induce the adoption decision.



Performance expectancy is a significant factor to bring the consumers' intention to adopt SMS ad. SMS advertisers should focus on sending the SMS that provide the relevant information based on consumer profile, preference, time and location based, so that SMS to perform beyond the other media of marketing and avoid the perception of SMS as annoying or intrusive. This will increase the adoption and continuous usage of SMS ad, it is empirically found that consumer use more SMS in communication due to the performance of the medium, it reaches everywhere, every time and to everyone with mobile phone regardless of the type of the device used by the consumer unlike other channel depend on access of internet that other devices does not support. Marketer should utilize the SMS medium channel to bring the changes in marketing communication. This result support the previous studies of Wu and Chen; (2017), M. A. Shareef et al; (2017) and Jian et al; (2012) and Nysveen et al; (2005) that users intend to adopt the innovation such as SMS advertising if they expect the uncertainty reduction from the adoption of innovated technology. Inversely result from the study of C.H.Wong et al; (2015) in the study of consumer adoption of technology found that Performance Expectancy is insignificant in influencing adoption behavior. Managerial implication on this finding could be the organization adopting the SMS advertisement communication should communicate the benefit (Farida Saleem; 2013) of using SMS ad in the mobile communication era, to eliminate the limit of possible to the consumers' mind, the possible interactivity, personalized and convenience reach and respond to the advertisement are among the SMS advertising could benefit them if they adopt SMS as the means of B2C communication.

Content; found to have significant and direct effect to the adoption of SMS advertisement. SMS content need to be clear and relevant to engage the consumer in a meaningful interaction. Marketers should design the text based advertising in terms of wording, language, presentation and structure that will draw higher consumers 'attention, interest, desire and action than other medium of advertising (M.A. Shareef et al; 2017, K. Su, P. Huang, P. Chen and Y. Li; 2016). The results confirm with the studies of Wu and Chen; (2017), M.A. Shareef et al; (2017) and Nysveen et al; (2014) relevant content of SMS perceives to be an effective delivery channel in India, however in US and Bangladesh differed in perception hence the relevance content depend on the culture of the target audience. Managers employing the SMS advertising has to consider the culture of the target market on location based advertisement, the text structure and language presentation to grasp the attention of consumer to read and respond to the SMS advertisement.

Expressiveness found to be significant determinant of SMS advertisement adoption. The adoption of SMS ad lead them to be recognized in their society (Wu and Chen; 2017). In Tanzania the increased in mobile phone usage and its application such as Facebook, WhatsApp and Instagram taken as coping with mobile technological advancement, feeling of prestige to gratify the hedonic motivation, as they are inclined with fashion and technology world, it infers the symbolic capital. This result is consistent with the study of Ventakesh et al; (2012) Nysveen; (2005) they highlighted that consumer adopt technology for both utilitarian features and hedonic features. Expressiveness influences consumers' intentions to use mobile services if there is intrinsic goal aimed to achieve (Nysveen; 2005). They sometimes adopt SMS ad for their intrinsic reason without regarding of its effectiveness or efficient outcome (O. Turel, A. Serenko and N. Bontis; 2007) nor influenced by peers in their society. Marketers should segment the market based on the consumers profile and age. The young consumer are mostly influenced by expressiveness in the adoption of SMS ad and their continuous usage. The benefits obtained from the use of mobile service facilitate the adoption and intention to continuous usage of the media to specific age groups, thus the marketers understanding of consumer's preference on mobile service such as time to receive the message, in case of the young student customers they would prefer to receive personalized SMS ad when on gathering with their peers, that symbolize their lifestyle in the technology era. Thus enable the tailoring of the SMS advertisement based on the preference, time, and content and localized to targeted customers.

Social norms has a direct effect to the adoption of SMS ad. this findings support the past studies of C.H. Wong et al; (2017), Muk and Chung; (2014), Saleem; (2013), Yang and Zhou; (2011), and L. Radder et al; (2010), the role of social influence is vital in enhancing the adoption of new technology than individual's attitude. The Tanzanian society has collective culture, thus the innovators and early adopter has influential power to persuade the others on the confirmation of the reduction of uncertainties on using the SMS advertisement. Though in Korean social influence has no effect on behavior intention on adoption of technology (Muk and Chung; 2014), Content has strong indirect effect to adoption and continuous usage through social norms, consumer now-days tend to share the relevance content to peer and friends as well as parents through SMS, WhatsApp and Wechat this multiply the effect of adoption to the society. The relevance message is shared among groups and have convincing power to influence behavior intention to the adoption of new technology. The results unreliable with Chinese youth as reviled in the study of Gao et at; (2010) that sharing content has insignificant relation on mobile marketing acceptance. Marketers should provide awareness knowledge to earlier adopter category on the technology know-how, the benefit associated with SMS advertising such as location based ad, time, interactivity and personalized characteristics than other medium of promotion communication. Earlier adopter have viral effect on communicating the awareness knowledge to the society hence will influence the adoption to the late adopters, who relied on the opinion leader to suggestion on their adoption decision.



Effort expectancy found to be significant determinant of adoption. It is the perceived ease of use, consumer's perception on the effort need to grasp the knowledge on applying the interactive SMS advertisement. Tanzanian customers since they have much skills in SMS communication, they found no difficult to have interactive communication with brand owners, thus the effort expected did not hinder the adoption of SMS advertisement. This result is consistent with studies of C.H.Wong et al; (2015), in consumer behavior to use mobile advertising Saleem; (2013) acceptance SMS advertising in Pakistan and Chong; (2013) in mobile commerce adoption. If the system is user friendly clear, easy to understand and use, the consumers become eager to adopt the new technology. Marketers should emphasis the easy method of communication and interactive with consumer, provide awareness knowledge on the easy interactivity to have efficient business communication and transaction though mobile phone. Awareness on how-to-knowledge that less effort to open, read and respond to the SMS advertisement, thus will be convenience to them than other means of marketing communication such as ample time in browsing the internet to get the advertising.

Demographic the study reveals that demographic factors such as age and education have significant effect on customers' adoption and usage of SMS advertising. Only gender is insignificant, this results consistent with E. Izogo, O. Nnaemeka, O. Onuoha, K. Ezema. (2012) in adoption of e-banking in Nigeria context, and Nysveen et al; (2005) in studying the intention to use mobile service in Norway. However other study of Nysveen and Pedersen; (2014) found gender and age have effect on adoption while education has no effect on adoption of technology in Norway. Venkatesh et al; (2012) also found no moderating effect on adoption. This provides evidence on impact of demographic variables on consumers' adoption. Marketers should bear in consideration the segmentation of the demographic features of the target market on delivering the SMS advertising. consumer's age determine the participating motivation in product launches campaign as young consumer tend to be much motivated to support the campaign, while in health service product older age customers are enthusiastic to adoption of the technology related to improve their health (W. Jian et al; 2012)

5.1 LIMITATIONS AND FUTURE RESEARCH

The study focus on the motivating determinant for consumer's adoption of SMS advertisement, the study ignore the irritation of the SMS ad, that could have effect on continuous usage of the SMS ad, also the role of culture has been overlooked in determining the adoption since Tanzania is a multi-racial context, the decision to adoption might be differ among the racial groups. In studying intention behavior the culture has its effect specifically social influence depend on the cultural background, as revealed in the study of Muk and Chung (2014) social influence have difference result in Korea and America, hence future study should incorporate the moderating effect of culture in adoption behavior.

5.2 CONCLUSION

This present study has identify the determinants that will facilitate the consumers to adopt and continuous intention to use SMS ad. The brand owner should emphasis on the unique characteristic of the SMS advertising that found to have impact on the consumer adoption, the performance expectancy, which the SMS advertisement could improve their living standard to abide with technology era, they could benefit from location based advertisement, that is relevant to their nearest location promotion available. They could have direct communication with marketers on product/ related information and purchase agreement. Also the advisement reach them where they are even at remote areas, hence keep in touch with current product information and offers. Convincing them on the minimal effort to open the SMS to read the advertisement and response. No wastage of time they can read the message at their convenience, and sometimes shares the advertisement content to the family and friends when they found relevant.

The greater emphasis on the content design as found to have significant effect to grasp the consumer's attention on the SMS advertisement. As the content design of the SMS advertisement expected to influence consumer interest and desire on the product or service advertised, to achieve the promotion objective that is to induce consumer's purchase intention. Proper segmentation of the market, will facilitate proper design of the SMS ad relevant to the target group, to avoid the unsolicited message and induce their acceptance and continuous usage of the SMS ad as their best marketing communication channel.

This study focus on the causal relationship of the UTAUT2 model extended to incorporate content design. The model is sufficiently predict the adoption of SMS advertising to the new market population. The significant effect of performance expectancy, effort expectancy, social norms, hedonic motivation and moderating effect of demographic variables, validate the model to the adoption of SMS advertisement ground.

Acknowledgment

This work has been partially supported by the grants from the National Natural Science Foundation of China (71672026, 71272050)



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Appendix: The survey instrument developed for the study.

Measure	Source
Expressiveness	Nysveen et al; (2005)
EXPRE1; I often talk to others about "service"	1,15,10011 00 41, (2000)
EXPRE2; Using "service" is part of how I express my personality	
EXPRE3;Other people are often impressed by the way I use "service	
Effort expectancy	
EF1; Learning to use "service" is easy to me	
EF2;It is easy to make "service" do what I want it to.	
EF3;My interaction with "service" is clear and understandable	
EF4;It is easy to use "service	
Performance expectancy	
PE1;Using "service" makes me save time	
PE2;Using "service" improves my efficiency	
PE3;"Service" is useful to me	
Social Norms	
SN1;People important to me think I should use "service"	
SN2;It is expected that people like me use "service	
SN3;People I look up to expect me to use "service	
Facilitating condition	Venkatesh et al. (2012)
MED1;I have the resources necessary to use mobile advertising for purchasing	
MED2;I have the knowledge necessary to use mobile advertising for purchasing	
MED3;I can get help from others when I have difficulties using mobile	
advertising for purchasing	
MED4;The service is available 24/7 from anywhere through my mobile	M.A.Shareef et al; (2016)
device/phone	
Behavior intention	Venkatesh et al;(2012)
BI1;I will always try to use mobile advertising for purchasing in my daily life	
BI2;I plan to continue to use mobile advertising for purchasing frequently	
BI3;I aim to use mobile advertising for purchasing instead of the traditional ones	
Content	M.A.Shareef et at; (2016)
CONT1; The subject of message through SMS of mobile phone is appropriate	
and necessary to fulfill needs.	
CONT2; The subject of message through SMS of mobile phone is prepared	
appropriately to facilitate needs.	
CONT3; The subject of message through SMS of mobile phone can draw	
consumer's exposure and attention.	
CONT4; The language of message through SMS of mobile phone can draw	
consumer's exposure and attention.	