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Consumers‘ Intention to Adopt Mobile Marketing in Rural Areas-The Case of South Region in Unguja

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Abstract

The explosive use of mobile phones facilitates the introduction of different mobile app services which become an essential part of daily life. This forces the business vendors to place individually targeted marketing messages through mobile phones to ensure easy access to the service since the mobile phone is in the hands of owner all the day long. Most of the studies in mobile marketing adoption focused on urban and university consumers. This study aims to investigate the perception of consumers in rural areas on their intention to adopt mobile phone applications such as mobile marketing. A cross-sectional survey was conducted to collect data through self-administered questionnaires to consumers in two villages in the South district of Unguja. Confirmatory factor analysis and Structural Equation modeling were used to test the relationship of the constructs on the extended TAM model. The results show that perceived usefulness, perceived ease of use, and facilitating conditions were the significant determinants of behavioral intention to adopt mobile marketing to consumers of rural areas. The Implications and limitations of the research were discussed.

Keywords: Mobile marketing, adoption, TAM, SEM, rural areas

Introduction

The Communication revolution from landline to mobile phone technology led to changes in lifestyle, which initially was not based on technology. Nearly everyone is aware of the mobile phone nowadays and is highly adopted for social and business use. From a business perspective, the use of mobile phones has increased its popularity owing to marketers' recognition of incremental value to the customers and shareholders. Globally, the number of mobile phone subscribers has continued to increase at an alarming rate as reported to reach 8.6 billion in 2022 (Statista, 2023). The situation has prompted the innovation of mobile marketing communication channels. Mobile marketing provides consumers with the ability to receive or search brands and product information from any place and at any time based on his/her convenience.

Unlike traditional marketing, the innovative mobile marketing strategy facilitate the interaction of consumers and sellers also the personalization of advertising message to the targeted consumers, the service contrary (Hall, 2018). The personalization of mobile marketing communication based on customers' search history and buying nature hence vendors ensure the frequent pop up of emails, SMS and MMS. The Statista Research Group (2023) reported the growing trend of mobile marketing since its inception in 2022 accounted to 327 billion US $ globally and expected to reach US $ 400billion by 2024. In some of African countries such as Nigeria, South Africa and Kenya (Nyarusanda and Mollel, 2020) consumers also realize the ubiquitous of purchasing products and services through mobile phones, as mobile marketing reached 5.7 billion US $ in 2017 and was expected to increase as the number of internet users across Africa would continue to increase (Africa in Focus Report, 2019). However, in most of East African countries such as Uganda, Tanzania, Burundi, and Rwanda the consumers' adoption of mobile marketing are still low (Engotoit et al., 2016; Chille et al., 2021; Nyatsambo, 2021; Uwamariya, 2021). Therefore, there is a need to understand mobile marketing consumer perceptions and intentions to adopt such technology. Mobile marketing regarded to be more beneficial to its users for its convenience, competitive prices, wider selection, rich product information (Nabot, Omar, and Almousa, 2019) and besides reach to consumers' place. Consequently, the continued advancement of mobile phone technology with internet service facilitate mobile shopping, mobile money and mobile banking which lead to change in people's lifestyle though the use of mobile phone. In Tanzania, it is reported there is an increase in mobile money adoption after cash (Kombe et al., 2020; Abdinoor and Ulingeta, 2017). Report of Finscope (July 2023) also showed that 72 percent of population used mobile money in Tanzania. Studies in mobile marketing adoption in Tanzania focused in major cities in

Tanzania, Dar es salaam (Chille, et al., 2021; Abraham, 2018; Ndyali, 2014) Iringa (Sabokwigina, Mpogole and Malima, 2013) Morogogo (Msavange, 2012) Zanzibar (Maisara, 2022; Omar, Hamad and Yussuf, 2022). There is a gap of knowledge on the research question of which factors affect rural consumers' intention to adopt mobile marketing as this group has been poorly represented in the previous studies conducted in the region, as most of the studies were conducted in the main cities of Tanzania.

In studying consumer adoption of technology, many studies used the Technology Acceptance Theory (TAM) and Diffusion of Innovation theory (DOI). TAM is the most popular model used in addressing consumer adoption of different technologies (Choudrie, et al, 2018). However, the TAM model has been criticized for its weaknesses of inadequacy in explaining consumer behavior such as that of the aging population. This study opts to extend TAM model with the UTAUT 2 theory, by adding a facilitating condition construct based on the fact that, in rural areas most of service are not adequately obtained compared to urban areas and major cities of the country. The study adds to the body of knowledge related to the information technology research field, with high adoption of mobile phone technology, by explaining factors affecting consumers' perception in adopting mobile marketing. This study aims to investigate motivation factors affecting the perceptions of rural consumers in adopting mobile marketing technology. The study will provide in-depth insight into identifying the factors affecting rural consumers' decision to adopt mobile marketing technology through their mobile phone by employing TAM and UTAUT 2 as basic models. The proposed model in this study will help to understand the factors affecting rural consumers perception of mobile marketing and provide futuristic research ideas and expansions in this scope.

The study begins firstly with reviewing the available literature related to consumer intention toward adoption of mobile marketing, and secondly will explain the TAM theory to see the influential factors enforced to extend the TAM model with new factors from UTAUT 2 theory. The remaining part is structured as follows: Begin with a review of the literature on investigating consumer perceptions together with an understanding of their attitude toward mobile marketing adoption, research hypothesis will be presented. The methodology used to achieve the study objective and finally, the results and discussion and conclusion of the study will be presented.

Review of literature

Tanakinjal et al, (2011) state that intention to adopt mobile marketing is the mental process through which a person passes from first learning about an innovation to final decision of mobile marketing adoption through consideration of factors such as; trust, risk and permission. The notion of

mobile marketing is defined by Iqbal, Malik and Hassan, (2019) as "a marketing practice that takes place via mobile phones and may include promotional messages sent through text messages, mobile telemarketing, viral marketing, geo-targeting and mobile broadcast advertising". Mobile marketing is a used tool of promotion strategy for the organization. It is an interactive communication process that combines push, pull, and dialogue marketing form. According to prior researchers Huang., (2012); Riquelme et al., (2011) Tanakinjal., and Tanakinjal (2008) mobile marketing is the sole medium that achieves greater consumer responses than other media of promotion, while permission and acceptance play a vital role in obtaining the consumer responses and interaction for the efficiency of this channel in communication. Mobile marketing is still at an early stage (Oscar et al., 2017; Chille, et al.,2021). A few countries Finland, USA, Spain, Japan, Ecuador New Zealand, China, and India embarked to mobile marketing and got much acceptance of this medium as a marketing communication channel. However, in developing countries (Indonesia) the notion is in a growing trend and in many African countries mobile marketing invention is still at introduction stage (Engotoit et al., 2016; Uwamaiya, 2021). Through mobile marketing buyers access the seller through search engines or are contacted by push mobile messages based on the previous visit, payment is made through online transfer, thus the transaction cost is minimized. This led to customer satisfaction, loyal to the organization as well as Business to Customer relationships (Chille et al., 2021; Yousif, 2012).

TAM and UTAUT2

The theory was developed by Davis (1989), and it examines how users come to accept and use a technology based on the perception or belief behind that particular technology. Consequently, if the system is recognized to make the task easier to perform, this increases the probability of the system being accepted as being useful (Ajibade, 2018). TAM is an extension of Ajzen and Fishbein's theory of reasoned action (TRA), which hold that social behavior is motivated by an individual attitude which then tends to predict technology use (Lin, Shih and Sheh, 2007). The notion holds true for the technology of personal use, as one would be convinced by social peers like family and colleagues or experts' recommendation through advertisements to adopt the technology (Ajibade, 2018). However, Davis (1989) replaced many of TRA's attitude measures with the two technology acceptance measures; perceived ease of use (PEOU), and perceived usefulness (PU). External variables affect attitude toward (ATT) using the technology and behavior intention (BI) through PEOU and PU, which affect the actual use (AU) of the technology.

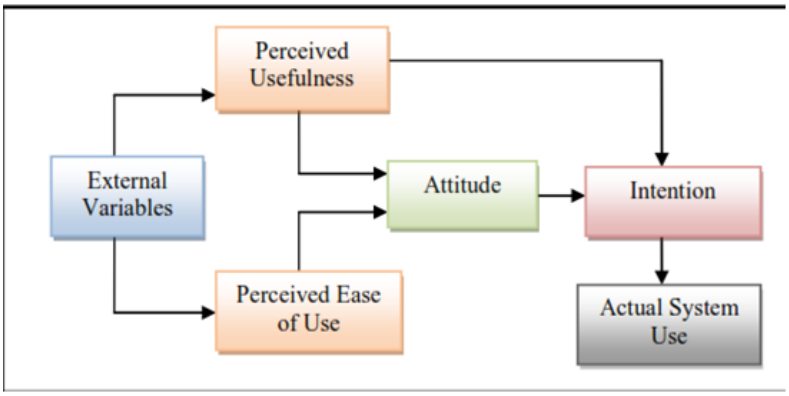


Figure 1. Technology Acceptance Model
Source: Adopted from Davis, Bagozi & Warsaw, (1989)

TAM assumed the success of new technology adoption based on positive attitudes towards two measures. These are PU which means whether or not someone perceives that technology to be useful for what they want to do, and PEOU means if the technology is easy to use, then the barriers are controlled. If it's not easy to use and the interface is complicated, no one has a positive attitude towards it. Thus, these two perceptions create a favorable Behavioral Intention (BI) toward using innovation that consequently affects its self-reported implementation (Davis et al., 1989).

Despite of TAM being highly adapted in technology adoption however, the theory does not reflect the variety of user task environments and constraints (Olushola and Abiola, 2017). Despite of TAM model being tested widely and proven to be valid and reliable with different samples and situations, but TAM assesses the increase in demand for technology usability, and therefore lack emphasis of the essential measures relating to users' perception on the usability of the technology and the system characteristics which might affect users' intention to adopt the IS (Holden and Rada, 2011). TAM model was basically designed to Western culture, where people use "a rational cause and effect paradigm to create perceptions" (Anandarajan et al, 2005, p51). Therefore, TAM constructs do not fully show the influence of technological adoption in countries such as Tanzania as Lwoga and Lwoga, (2017) find most of the people have less experience in technology use. From that point, TAM hypothesis on understanding human behavior through empirical settings is not reliable. Therefore, the TAM model needs to be extended to include other psychological or physical constructs such as; hedonic motivation and facilitating conditions to effectively predict technology acceptance and use. This will raise the robustness of TAM since individuals might have enforced or tempted by other factors rather than perception toward the technology on their intention to learn new technology.

Unified Theory of Adoption of Unified Technology (UTAUT 2)

The theory extended by Venatakesh et al (2012) from the original theory UTAUT (Ventakeshet al 2003) concerning the user intentions to adopt the technology innovation and their intention to continuous usage behavior. Ventakesh et al (2003) mentioned four key attributes that affect the individual decision to adoption and usage behavior; performance expectancy, effort expectancy, social influence, and facilitating conditions. UTAUT (Venkatesh et al., 2003) tested and found to have an R^2 of 70%, implies model explains 70% of variance in individual adoption intentions in order to use information technology. Thus, Ventakesh et al (2012) extended UTAUT2 has seven attributes that were measured together with demographic as a control variable; these attributes are performance expectancy, effort expectancy, social norms, facilitating condition, experience and habit, hedonic motivation and price value. to UTAUT2 incorporating hedonic motivation, price value, habit and demographic variables, the model empirically proved to explain 74% of the variance.

Hence this study adapts TAM theory as a guiding model and UTAUT 2 as a supplement to increase the explaining power of the TAM theory. The review of literatures on intention to adopt mobile marketing revealed the vitality of Perceived Usefulness as the main construct of TAM (Riantinia et al, 2021; Chimborazo et al, 2021; Chille et al, 2021; Nabot et al, 2020). The main advantage of mobile marketing via mobile phone over e-marketing via PC is always powered on and on the hand of the owner, which enable ubiquitous reach, personalization and instant interaction between marketer and mobile phone owner. Therefore, researchers argued that consumers will only use mobile marketing if they enjoy shopping through mobile phone device. PU to be strongly influence the consumers' intention to participate in mobile marketing in Netherlands and Portugal (Plasse ,2017) Kenya (Bosire, 2021) and Dar es salaam (Tanzania) (Chille et al., 2021). Therefore, the following hypothesis formulated

H1; *Perceived Usefulness has significant influence on consumers' intention to adopt mobile marketing technology in rural areas.*

Perceived Ease of Use (PEOU) concerned with the learning process involved in the system or application of the innovation to free from complications and trouble of the process involved. Studies showed PEOU is an essential construct affecting consumers' intention to adopt mobile marketing since they need to gain confidence in using the application (Chimborazo et al, 2021; Chivizhe, 2019). Therefore, if they face difficulties in using the application, eventually cause an obstacle on intention. Consumers' intention to adopt mobile marketing increased if they perceive easiest in the web search, collect information, and execute transaction via mobile phone. From this review we postulate the following hypothesis;

H2; *Perceived Ease of Use has significant influence on consumers' intention to adopt mobile marketing technology in rural areas*

The Mediating Role of Attitude on Intention to Adopt Mobile Marketing

Attitude has a great role in consumers' decision to adopt or not to adopt the mobile marketing since it is the cognitive process which depicts the positivity or negativity thinking of the innovation. Globally the role of attitude found vague due to differences in culture and perception toward the technology innovated. Putra in Indonesia found PU and PEOU did not influence the adoption directly though affect indirectly through attitude., while While, Haq and Ghouri (2018) found the PEOU has insignificant indirect influence on attitude toward m-advertising in Pakistan. In Africa, the effect of PEOU on attitude toward intention to adopt mobile marketing is scarcely investigated. Maduku et al, (2016) found PEOU has no effect on SMEs attitude toward adoption of mobile marketing in South Africa. From this review we postulate the following hypotheses;

H3a; *Attitude has significant influence on aging population intention to adopt mobile marketing technology in rural areas.*

H3$_b$*; Attitude mediates the relationship of perceived usefulness and perceived ease of use with consumer intention to adopt mobile marketing technology in rural areas.*

Facilitating Condition (FC)

Venkatesh et al (2003) explained the facilitating condition as the degree to which an individual believes that an organizational and technical infrastructure exists to support the use of the system. It reveals the user's knowledge of the new technology, ability to perform the marketing communication as other means of promotion and financial resources that incurred on the execution. Literature adopting UTAUT model shows that there is a significant effect of the facilitating condition to the behavioral intention to adopt the technology such as mobile marketing. The studies of Shareef et al (2017), Nysveen and Pedersen (2016), Wong et al (2015), Oliveira et al (2014) support that when consumers have favorable technology infrastructure tend to be more willing to adopt the mobile marketing than other medium. Therefore, we postulate the following hypothesis;

H4; *Facilitating condition has significant influence on consumers' intention to adopt mobile marketing technology in rural areas.*

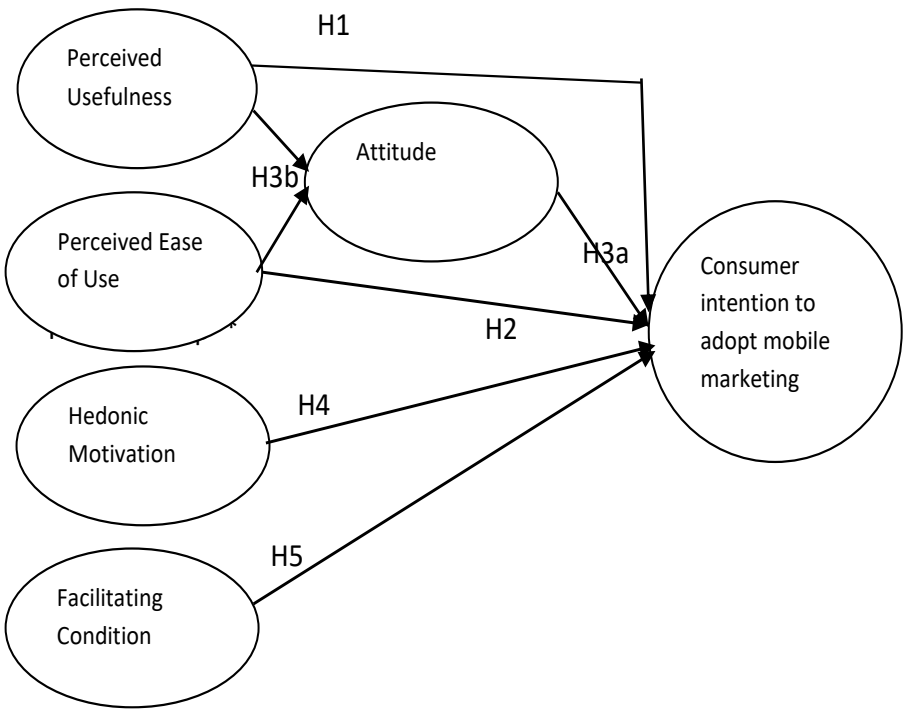
Hedonic motivation

It is the pleasure or enjoyment individuals derive from utilizing a particular technology (Tamilmani, Rana and Dwivedi, 2019). Hedonic and utilitarian motivations regarded fundamental in investigating consumer

behavior as individual behavior differed on each other as either problem solvers or fun and enjoyment seekers (Zefreh, Edrie and Esztegar, 2023) According to UTAUT 2 consumer gratification of using technology is crucial as the individual intention to technology adoption is self-determination. According to Ventakesh et al., (2012) hedonic motivation has a strong correlation with behavioral intention toward technology adoption. In mobile marketing the adoption enforced by the intrinsic motivation to seek for enjoyment, pleasure (Eneizan, Mohammed, and Eneizan, 2019; Madav and Yadav, 2018) and recognition that one cope with fashion and style of the technology environment (Nyvseen et al 2005). Thus, hedonic motivation concluded that a consumer who perceive enjoyment while using a mobile phone for marketing purpose will be more engaged in the activity and, therefore, more likely to use their mobile phone for marketing.

H5; *Perceived consumers' hedonic motivation has a significant effect on organization adoption of mobile marketing.*

From the review of literature, the proposed research model and hypothesis development presented in Figure 2. Suggesting that the intention to adopt mobile marketing depends on perceived usefulness, perceived ease of use, facilitating conditions and hedonic motivation.



Research Methodology

It is the explanatory research aim to find the causal link among the variables relating to the objective of the study as suggested by Bhattacheree, (2012), The study opted the positivist paradigm to study the reality that can be measured quantitatively through the set of hypothesis and statistically analyzed to be well understood. This study adopted a cross-sectional design to collect data from South district of Unguja in Paje and Kizimkazi villages from June to August 2023. These villages were selected because expected to have high economic condition compared to neighboring villages such as kitogani, Makunduchi and Bwejuu due to a higher concentration of hotels and higher tourism-related business thus people in these villages expected to have high number of mobile phone users which is the base for mobile marketing adoption.

The constructs under the study were adapted from the existing literature concerning mobile commerce and mobile marketing so that to guarantee content validity. All questionnaire items measured using a 5-point Likert-type scales, where 1 = "strongly disagree" and 5 = "strongly agree". The questionnaire instrument was initially piloted by university students in State University of Zanzibar. From the pilot study, minor modification was done to the pre-determined set of questions. This is performed so that to increase the response rate and accuracy of responses as recommended by Gyankovandar, (2022). The sample size was estimated based on N;Q rule (Jackson 2003) where the Ideal sample size to parameter ratio, while the items measured was 25 hence the required sample for this study was a minimum of 10*25=250 while maximum to be 20*25=500.

A total of 500 questionnaires were distributed to consumers, 425 valid respondents were obtained and 14 responses were incomplete and thus ignored from the analysis. Therefore, a total of 411 which exceed the minimum sample size according to this N: q rule for the Structural analysis method were considered for further analysis. 54.8% of respondents were males and 43.2% were females. The age of participants was from 18 years to 60, youth from 18-29 were 180 (43.8%), Adults 30-49 were 150 (36.5%) and seniors from the age of 50-59 were 81 (19.7%). Of which 138 (33.6%) were female and 273 (66.4) were male.

Results

Measurement Model, the reliability of the model is measured through confirmatory factor analysis (CFA). The Second-order CFA model fitted the data well as X^2 / df of 2.5, RMSEA of 0.057, TLI of 0.932, GFI of 0.91, CFI of 0.944 and RMR of 0.03. Therefore, based on Hair et al., (2013) and Hu and Bentler (1995) For the GFI value of above 0.90, an RMSEA value of less than 0.06, RMR value should be smaller than 0.05, and a Normed Chi-

square value should be below 3 indicates a good fit of the model to the data. Convergent validity and discriminant validity were assessedand revealed composite reliability (CR) values ranging between 0.87 to 0.95. the average variance extracted (AVE) values of 0.63 to 0.78 as shown in Table 1 below, therefore the convergent validity met according to Fornell and Larcker (1981). Besides the construct and discriminant validity maintained as the value of AVE appeared to be greater than the squared correlation coefficient as depicted in Table 2 (Fornell and Larcker, 1981).

Table 1. Results of the Measurement Model

Variable	Question	Crobanch Alpha	Standar dized loading	Average Variance Extraxted (AVE)	Composite Reliability (CR)
FAC	The existence of Interoperable network infrastructure is appropriate for all mobile phone users to receive marketing message	0.93	0.924	0.78	0.95
	High penetration of mobile phone usage in the country is appropriate for us to share our marketing message with our friends.		0.907		
	I have a mobile phone which is appropriate to receive our marketing message at their convenience.		0.897		
	I have the knowledge and the resources to interact with mobile marketing messages		0.887		
	I will not look into mobile marketing messages because it will cost me		0.809		
PERUSEF	Marketing messages received on my mobile phone will help me make better shopping decisions.	0.90	0.918	0.75	0.92
	Marketing messages received on my mobile phone will help me to reduce the time I take to search for products and services		0.877		
	Marketing messages		0.851		

	received on my mobile phone will help to improve my shopping efficiency, especially when I am in a hurry or in a new city				
	I think marketing messages received on my mobile phone will save me money.		0.818		
PEOU	I believe purchasing via mobile phone is very easy	0.91	0.931	0.66	0.9
	WI believe receiving marketing ads through mobile phone is very effortless.		0.911		
	The searching of marketing messages via mobile phone is very simple		0.756		
	The task of interacting with marketing messages via mobile phone is very simple		0.733		
	It would be easy for me to become skillful in using mobile marketing		0.700		
				0.63	0.87
CID	Given the chance I intend to use mobile marketing	0.82	0.816		
	I intend to buy products and services via my mobile phone		0.815		
	I expect to continue with mobile marketing in the future		0.811		
	I would respond to a coupon offer for a product or service on my mobile phone.		0.743		
ATT	It just makes sense to use mobile marketing to the familiarity of the mobile technology now days	0.85	0.846	0.67	0.89
	Mobile marketing is so interesting, that you just want to learn more about it		0.826		

	If someone taught me how to use mobile marketing, I would continue to use it		0.810		
	Other people should use mobile marketing		0.791		
HM	Mobile marketing would be compatible with mobile lifestyle	0.86	0.880		
	Mobile marketing would be appropriate for me to express my personality and status		0.828	0.7	0.88
	Mobile marketing would be much more pleasant and entertaining to me		0.810		

Table 2. Discriminant Validity; Correlation Matrix and AVE Values

FACTOR	PEOU	CIA	FAC	PU	ATT	HD	Square of AVE
PEOU	**1**						**0.812**
CIA	0.349	**1**					**0.793**
FAC	0.377	0.385	**1**				**0.883**
PU	0.405	0.305	0.317	**1**			**0.866**
ATT	0.370	0.352	0.401	0.546	**1**		**0.818**
HM	0.587	0.350	0.354	0.315	0.426	**1**	**0.836**

Note: CIA: Consumer Intention to adopt Mobile Marketing, HD: Hedonic Motivation, FC: Facilitating Condition, PU; Perceived Usefulness, PEOU; Perceived Ease of Use. ATT; Attitude.

Latent model

The latent model was analyzed through structural equation modeling (SEM) to test the hypothesis. The model fit indices are analyzed on the structural path and revealed to meet the accepted fit for the data in the hypothesized model. $\chi 2$ =1015.238, df=393, p=.00, χ^2/df is 2.5 which is satisfactory for the sample of N>200, RMR=.05, RMSEA values 0.06 which indicates of good fit between the hypothesized model and the observed data (Byrne, Barbara p101; Hu and Bentler,1999). the NFI = 0.9 acceptable cutoff (Byrne 1998), CFI value 0. 927 meets the cutoff criteria based on Hu and Bentler (1999) the result caused by the low observed correlations for most of the variables in the study.

Among the hypotheses, perceived usefulness was found to have significant positive effects on the consumer intention to adopt mobile marketing (B= 0.166 p<0.05) and perceived usefulness also have a positive significant effect on consumer intention to adopt mobile marketing (B=0.263 p<0.05), facilitating condition also has a positive significant effect on consumer intention to adopt mobile marketing in rural areas (B=0.291 p<0.000), therefore H1; H2 and H5 were accepted. The unexpected result appeared as that Attitude did not affect consumers' intention to adopt mobile marketing (B=0.096p>0.05), thus $H3_a$ was rejected. Hedonic motivation did not have an effect on consumers' intention to adopt mobile marketing (B=0.166 p>0.05) and therefore H4 rejected. The structure model of the extended TAM framework is presented in figure 2 below

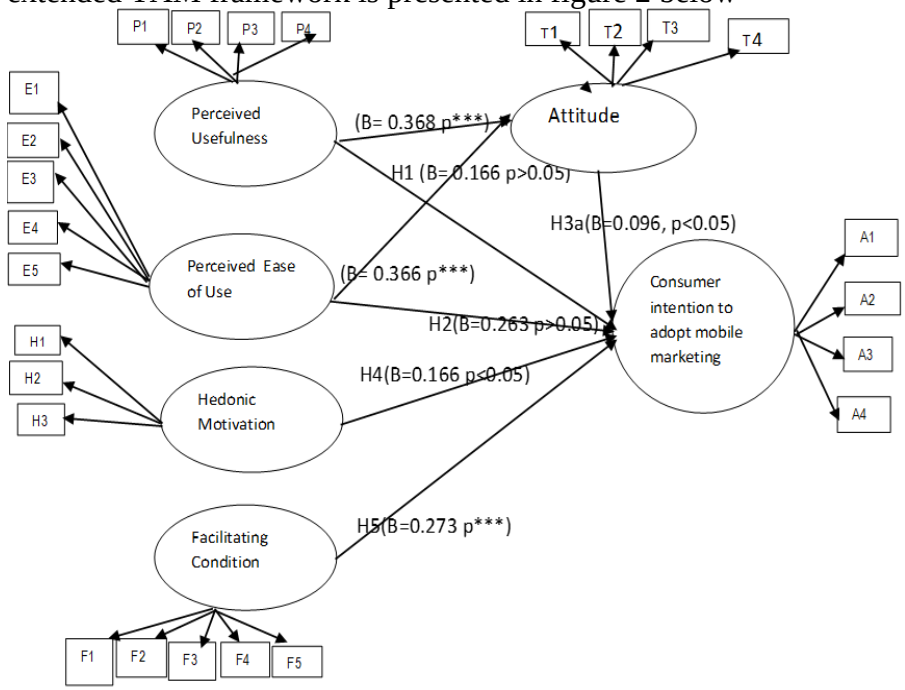


Figure 2. SEM results. (source; Authors data, 2023)

Mediation

The mediation effect of attitude toward the relationship between PU, PEOU and consumer intention to adopt mobile marketing is shown in Table 2. The Hayes Macro is used to analyze the mediating effect of attitude on consumer intention. The results revealed significant mediating effect of ATT on the relationship between PU and CIA (β=368, Boot-LLCI=0.0212, ULCI-0.1810, p=.000). The mediating effect of attitude on the relationship between

PEOU and CIA was (β=.0. 0.3663, p=.000) together providing sufficient evidence of mediating effect and enforced to support the hypothesis H3b.

Table 3. Mediation

Relationship	Total Effect	Direct Effect	Indirect Effect	Confidence interval		T statistics	Conclusion	Label
				Lower bound	Higher bound			
PU->ATT->CIA	0.368 (0.000)	0.272 (0.05)	0.096	0.0212	0.1810	3.7900	Partial Mediation	Supported
PEOU->ATT->CIA	0.3663 (0.000)	0.315 (0.000)	0.0560	0.0174	0.0966	5.9915	Partial Mediation	Supported

Discussion

The purpose of this study was to explore consumers' intention to adopt mobile shopping among rural consumers in the South district of Unguja and the mediating effects of attitude toward behavioral intention in relation to perception of usefulness and ease of use. With respect to TAM, the obtained results of this study provide evidence that attitude mediates the relationship between PEOU, PU and BI. This infers that if mobile marketing is perceived to be easy on use, has no complexity encountered in getting knowledge and is expected to be compatible and useful to them, creates a positive attitude toward the intention to adopt mobile marketing.

Perceived usefulness was found to be associated with consumers' intention to adopt mobile marketing in rural areas. Mobile marketing platforms with a user-friendly interface will increase consumers' intention to adopt such particular innovations. The design interface quality will affect the traffic of consumers while information quality will raise the consumers' intention to purchase through mobile phones (Sun and Chi, 2018). Consumers in rural areas will feel positive toward mobile marketing if they can easily access brands by browsing their mobile phones, and thus minimize their shopping time. According to Ghazali et al. (2018) the vital characteristics of mobile marketing technology is the personalization and interactivity offering consumers the ability to interact and communicate directly with retailers with the flexibility features of this chanel increase the usefulness of the mobile marketing technology hence becoming the driving factor of consumer behavioral intention toward mobile marketing adoption. The finding is in relation with Chille et al., (2021) and Haq and Ghouri (2018)

PEOU have a significant effect at $p<0.05$ (in the research model) on consumer intention as stipulated in TAM theory (Davis et al., 1989). Consumers in rural areas will be more likely to adopt the innovative

technology when they perceive the mobile marketing technology as easier to learn no much effort needed to study and be able to use in an efficient manner. Thus, the complexity of the mobile marketing technology affects their intention and will diminish the propensity to adopt such technology. Since the study was based in rural areas, consumers have little or no technical skills that could help them execute mobile applications effectively, thus the perception of less technical complexity to grasp the expertise on the application did influence their adoption decision.

This result was deemed relevant in the prior scholars related to mobile marketing adoption in different contexts. The study of Chille et al., (2021), Ghazali (2018), and Chan et al., (2022) concomitantly suggest that consumers tend to adopt technology when they believe the mobile marketing innovation will be free of effort to learn and to use, hence directly could improve their intention toward adoption of the innovative technology. Based on this study sample most of the respondents were youth aged from 18 to 29 years regarded as the early majority in the adoption of innovation specifically on mobile phone technology (Kharono et al., 2022, Arora, Malik and Chawla, 2020) become keen to find the awareness on how to use the innovation, the perception of less complexity is the main determinants of their decision to adoption as stipulated by Rogers (2003).

The study, however, is contrary to the findings of previous researchers who found the perceived ease of use to have no significant effect on the adoption. Ismail (2015), and Elizavita and Jean-Paul (2012) found the insignificant effect of complexity to technology adoption. This could be attributed to the familiarity with the use of such technology as expected to reduce the anxiety of complexity as revealed by Maduku et al., (2016).

Hedonic motivation as an extended construct in TAM model was found to have an insignificant effect on consumers of rural areas to propel their intention to adopt mobile marketing. The expected consumers' hedonic motivation obtained from using mobile marketing such as consumers' enjoyment, personality, and social status did not influence consumers in rural areas. They just consider the usefulness such as interactivity and ubiquity of the mobile marketing channel rather than luxury and enjoyment purposes. Therefore, consumers in rural areas appear to be less concerned about the leisure and gratification obtained when it comes to adopting mobile marketing. The hedonic motivation is also not significant in the adoption of mobile applications such as mobile banking (Oliveira, Thomas, Baptista and Compos, 2016) and Slade, Williams, Dwivedi and Piercy, 2015), however contend with Jordanian consumers as confirmed that perceived enjoyment to be the most influential factor of intention to adopt mobile marketing Eneizan et al., (2019).

Facilitating condition

The study shows the significant effect of facilitating conditions to facilitate the consumer intention to adopt mobile marketing in rural areas. Since the study was conducted to consumers living in rural areas, their expertise in performing technical functions in the mobile phone is not adequate at large. They need technical support to facilitate easy and efficient utilization of the channel. The prevailing facilitating conditions such as interoperable network, low cost of internet service, availability of toll-free numbers and live chart box to communicate with suppliers found to significantly affect consumer intention to adopt mobile marketing. Consumers mainly consider the availability of vendors whenever needed to interact in entering into business agreements. The availability of an interoperable network environment also influences the adoption of mobile marketing. In addition to that in conducting mobile marketing the products need to be sent to the consumer at their place, thus is the most considered aspect in consumers' intention to adopt this channel in rural areas. Since the infrastructures in most of rural areas are not well established transportation is difficult to enable mobile marketing operations. The finding is relevant in the adoption of other mobile business applications as Lin, Lin and Deng (2022) and Alm, Chotiyaputta and Bejrakashem (2022) revealed in the adoption of mobile payment in different contexts. and contradict the finding of Hakimian (2017) in the adoption of mobile marketing in Malaysia.

Mediating effect

The results showed the partial mediation effect of attitude on the relationship between PU, PEOU and CIA. This implied that PU is the intrinsic factor influencing on aging population's attitude which subsequently drives their behavior intention on technology. This infers that, if the consumer has a positive attitude toward the intention to adopt mobile marketing technology, would perceive mobile marketing as beneficial and easy to use to enable their shopping effectively. Thus, emphasis on the improvement of the positive attitude on the consumers' mindset could be attributed to making the mobile application simpler

This result is consistent with that of Riantini et al., (2021), Gbongli et al., (2019), and Lopez and Bonilla (2017) which confirmed that PU had indirectly a great impact on user desired emotional attitude toward the intention to adopt the technology. Kumar et al (2020), Haq and Ghour (2018) and Verma et al., (2017) asserted on the significant effect of mediation of attitude on the relationship between PEOU and consumer intention to adopt mobile technology. However, the results were contrary to other studies which found out insignificant mediation effect of attitude Chauhan (2015), Tobbin (2014) and Ajibade (2018) insisted that in the workplace, the system

could be adopted due to the perceived relative advantage irrespective of attitudinal influence to the use of such system.

Implication

Mobile marketing has become the core business strategy now days thus it is unavoidable trend in any organization wishes to compete in the marketplace. The current study presented significant theoretical and practical implications for mobile marketing vendors, to propose opportunity that allowing them to promote their marketing strategies through consumers' hand via mobile phone device. The strategy that could benefit both vendors and consumers. The obtained results provide a roadmap for a better understanding on the factors that shape consumers in rural areas their intention to adopt mobile marketing, thus practitioners and researchers in this domain could be beneficial. Theoretically, this study proved the significance of TAM model as crucial factors for consumers' behavioral intention that afterward reflect intention for adoption of mobile marketing in their daily business transactions. In addition, mobile marketing vendors can design and develop more innovative user-friendly interface, and improve service delivery to maximize consumer perceptions on value and satisfaction so that consumer intention to adopt mobile marketing could be maximized. From the practical viewpoint, with the rapid increase of mobile phone ownership and internet subscriptions facilitating easy access of consumers through mobile phones, there is a need to extend coverage to rural areas since mobile marketing enables the ubiquitous reach of marketing messages to the target consumers thus, the study provides an opportunity to vendors to extend market coverage and competitive advantage.

Notwithstanding, mobile marketing vendors need to be aware of the strong effect of PU, PEOU, FC and mediation of attitude. From the extensive use of mobile phone service consumers nowadays especially youth intend to adopt mobile applications such as mobile money, mobile banking, mobile gaming and mobile marketing since the youth become mobile savvy. If the mobile service is frequently unreliable or inaccessible, consumers will hesitate or quit browsing the mobile applications and might lose interest on adopting the mobile channel for marketing and other services as well.

Limitations and Future Studies

The study has some limitations. Firstly, the study used data from two villages in the south district, thus limiting the generalization of the findings to the consumers in rural areas. Future studies should extend the sample to include more villages from south regions so as to acquire an in-depth understanding of the position of consumers in south regions in relation to the intention to adopt mobile marketing. Secondly, the current study extends

only two constructs from UTAUT2 to evaluate the proposed conceptual model. Future studies recommended extending the TAM model with more constructs from UTAUT2 such as price value, habit, and its moderating constructs to gain a more comprehensive understanding of consumers' behavioral intention to adopt mobile marketing.

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