Marketing on Consumers' Hand. Determinants of Mobile Marketing Adoption Among Aging Population in Tanzania (The Case of Unguja)

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Abstract

The communication revolution has changed the way of life people used to live in. However, youth become mobile savvier than others in social and business activities. Thus, business opt for mobile channel to communicate marketing strategy to the consumers through their hand. Studies investigated the user adoption of mobile channel in marketing communication focused on youth and adult while there is limited knowledge on factors affecting aging population intention to adopt mobile marketing. Through TAM model extended to incorporate technology anxiety as the additional perception affecting behavioral intention to adopt technology innovation. The cross-sectional survey was used to collect data from 384 retired pensioners in Unguja, Tanzania then analyzed through SEM methods. Results shows all variables have direct effect to aging population intention except attitude, although provide partial mediation role between aging population perceptions and behavioral intention. From the results it was suggested that business should focus on technology anxiety such that to provide necessary information for the predetermined risk, and not necessarily to build positive attitude of the channel. These findings have paramount implications and values for the mobile marketing vendors to prepare marketing strategies to win bigger market share.

Keywords: Aging Population; Intention; Adoption; Mobile Marketing Tanzania

Introduction

The emergence of mobile phone communication from landline communication made communication to be more ubiquitous throughout the globe. The use of mobile phones has continued to increase at an alarming rate reported to reach 8.6 billion subscriptions in 2022 (Statista, 2023). Mobile phone communication enforce business to communicate with customers through their mobile phone

unlike traditional means of marketing communication through media and face to face communication. The marketing communication through mobile phone become the ideal medium for business owing to the recognition of incremental value from adopting it (Bauer et al., 2005). This situation has prompted the innovation of mobile marketing communication channels which facilitates a competitive advantage in the marketplace. The mobile marketing channel involves personalized interaction between consumers and vendors contrary to traditional marketing (Hall, 2018). However, the mix of traditional and mobile marketing is highly recommended to increase the value of the marketing message as well as to increase the market share of the business entity (Tong et al., 2020; Sultan and Rohm 2005).

The term mobile marketing has been gaining increasing attention in the literature of information communication technology. Studies in mobile marketing evolved recently and have examined the perception of mobile marketing, attitude, acceptance and continuous usage, and continue to be a vital issue. A major reason for gaining momentum has been the increasing evidence that mobile marketing continued to grow tremendously as in 2022 reported to reach 327 billion US $ globally and is expected to hit to US $ 400 billion by 2024 (Statista Research Group 2023). This was contributed by the continuing development of mobile marketing sites and platforms such as Alibaba, Amazon. Travel.com, Trip Advisor, Zudua, and Kikuu for national and international level. Although many studies have been conducted to identify consumer s' perception of mobile marketing and attitude toward mobile marketing adoption, just a few have assessed aging population perception in mobile marketing. To date little research has assessed the aging population perception on mobile marketing and their attitudes toward the intention to adopt mobile marketing. Aging population must perceive mobile marketing in general positive term to sustain growth of mobile marketing. In this context, relationship between aging population perception and intention to adopt mobile marketing need to be understood, yet the area not well investigated.

Currently, there is limited understanding of aging population intention to adopt mobile marketing. The lack of such studies limits the current research on understanding the aging population perception on mobile marketing. Most of the research in mobile marketing conducted on youth (Maseke, 2020; Abraham, 2018) these studies investigated the antecedents of attitude toward acceptance and usage specifically to students and other groups of youth (Agbasimelo, 2023; Donga and Kadyamatimba, 2020; Bakare, 2017; Donga et al., 2018) and less participation of aging population (Maisara et al., 2022; Maduku, 2015, Chille et al., 2021). According to Unal, et al (2011) the behavior in technology adoption varied significantly between youth and adult generation. Because of the diversity on attitude based on education, age, gender, anxiety, social, economic and cultural uptake. Therefore, this heterogeneity presents the need to be assessed on their factors driving intention to adopt mobile marketing. The purpose of this study is to assess factors that affect intention to adopt mobile marketing technology among aging population in Unguja, Zanzibar,

Literature Review

Mobile marketing is defined by Iqbal et al, (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. Nowadays mobile marketing is used as the main promotion strategy for organizations to achieve greater consumer responses than other mediums of promotion (Huang., 2012; Riquelme et al., 2011; Tanakinjal., 2008). Thus, we can say that mobile marketing enables creation of value to customers as well as improving the company's brand image. Since the channel facilitates interactivity in such a way reaches the consumers at any place they are and at any time, allows responses at consumers' convenience, personalized and customized marketing messages to the targeted group rather than traditional means of sending marketing messages to a wide mass of audience.

Influence of TAM Model on Intention to Adopt Mobile Marketing.

On assessing relevant predictors of technology adoption to aging population, scholars have applied various technology acceptance theories such as, Technology Acceptance Model (TAM). Because of the simple nature of TAM theory (Ajibade, 2018), though studies applied TAM theory on aging population adoption of technology have not been in consensus. Heinz (2013) found TAM variables positively associated with technology adoption in US except perceived ease of use, besides young adults were more likely to adopt the technology. Abraham (2018) found out TAM has affected adoption of digital marketing in Tanzania commercial banks on younger but had no effect on aging population

The extensive review of literature revealed the vitality of perceived usefulness (PU) on intention to adopt mobile marketing (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. Tanzania in particular the effect of PU on mobile marketing adoption explained by Chille et al, (2021), who despite of this study to reveal the great value of PU on influencing adoption of mobile marketing, but the effect could not be generalized to the whole population. Because it was mainly focused on young and adult while aging population were marginal. In addition, the study looked at actual usage and found the adoption of mobile marketing in Tanzania is still limited. Little is known on the strength of TAM variables to affect the aging population.

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. Chan et al, (2022) studied the intention to adopt mobile shopping during the COVID-19 lockdown in Malaysia, found PEOU as a vital construct affecting intention to adopt mobile marketing. However, the result might be due to condition of lock down, which enforce the use of mobile phone for most of human activities including shopping. Bamoriya and Singh, (2019) in India found PEOU affect indirectly or non-at all on adoption even to experienced. South Africa, Chivizhe (2019) showed that PEOU was among factors that hinder the mobile marketing adoption. This study was purely qualitative in nature and the sample was too small to be representative, which limit the power to test the significant influence.

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. Although Haq and Ghouri (2018) found insignificant mediation of attitude toward m-advertising. Rohm et al., (2012): Putra (2018) confirms the significant mediating role of attitude in the relationship between consumers' perception and mobile marketing adoption. These studies collected data from university students who might not be sufficient representation of the population as a whole. Unal et al, (2011) suggested a need to investigate the attitudes of youth and aging population towards mobile advertising because youth perceive irritating than adults did. The findings from the literature form the basis for proposing hypothesis;

H1; Perceived Usefulness has positive and significant influence on aging population intention to adopt mobile marketing technology.

H2; Perceived Ease of Use has positive and significant influence on aging population intention to adopt mobile marketing technology.

H3a: Attitude has positive and significant influence on aging population intention to adopt mobile marketing technology

H3b: Attitude positively mediates the relationship of perceived usefulness and perceived ease of use with aging population intention to adopt mobile marketing technology.

Influence of Technology Anxiety on Intention to Adopt Mobile Marketing

Although TAM is the most popular model used in technology adoption however, has been found to have weaknesses due to inadequacy in explaining consumer behavior such as those of aging population (Choudrie, et al, 2018). This study opts to extend TAM model to include technology anxiety based on the fact that, this segment differed in characteristics from younger population, example, attitudes, anxiety and experience of using technology. Anxiety is mostly assessed in other types of technology adoption such as; cardiac warming system (Tsai, Lin, Chang and Lee, 2020), technophobia for digital living (Giacomo et al., 2019), healthcare system (Riboni et al., 2020), and little is known concerning the influence of anxiety in aging population adoption of mobile marketing.

Anxiety is a function of the confidence with which individuals approach activities and task, thus, believe to be incapable of handling possibly detrimental event which eventually decreases achievement (Mills et al., 2006). Studies referred anxiety as an inhibitor in conducting mobile transaction than tradition e-commerce (Saprikis &Avlogiaris, 2021). Anxiety affects indirectly through PEOU. Saprikis and Avlogiaris (2021), and Roy (2017) found youth had more anxiety in conducting mobile transaction. These results could not be generalized to the population, since Lee (2010) previously found youth were more anxious than aging population in adoption of mobile technology due to their experience in using technology they have. Little is known in aging population mostly have tertiary education with less experience as depicted by Lwoga and Lwoga, (2017). From the review of literature, the following hypothesis has been proposed

H4: Technology Anxiety has a positive and significant influence on the aging population intention to adopt mobile marketing technology
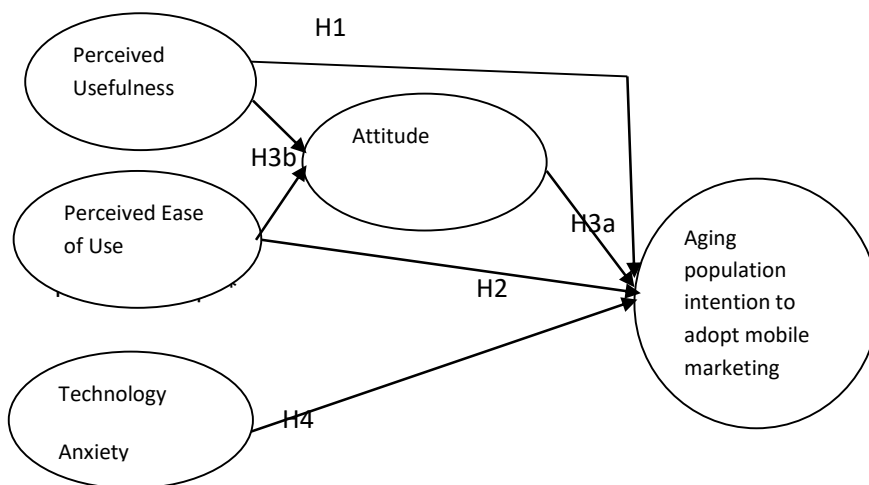

Figure 1; Conceptual Framework

Conceptual framework represents TAM theory of Davis (1989) but only on behavioral intention. Because this study did not reflect on actual usage as proposed by Davis, (1989), instead aim to investigate the intention of aging population toward adoption of new innovation which is not experienced in Tanzania. Actual usage dropped from the conceptual framework since Turner et al, (2010) declared that the actual usage measured when the technology was previously introduced and tested. Therefore, this

conceptual framework assumes behavioral intention to adopt mobile marketing as the outcome variable as previous researchers Chille et al, (2021) and Heinz (2013) used the same approach and concluding that behavioral intention to adopt mobile marketing as the outcome variable.

Methodology

The designing of questionnaire for collecting data for this study arises from previous studies Chan et al, (2022); Plasse (2017): Haq and Ghouri,(2018) and Tsai et al, (2020) related to mobile technology adoption and tailored to respondent's language so as to be well understood. For this study, simple direct translation was used in a sense that the translation was done directly from the English version adapted on its original authors to Swahili language which could be well understood by the study respondents. A pilot study conducted to retirees who visit at Pension Fund office in Zanzibarbefore the data collection process, so as to determine both the content validity and credibility of the guide. Respondents asked to suggest the appropriateness of wordings, structures and suggestions for improving the questionnaire as recommended by Gyankovandar, (2022). From the pilot study, the substantive changes were made to the pre-determined set of questions. All items measured at 5 Likert-scale (1 strongly disagree to 5 strongly agree. The sample size was estimated based on Yamane (1967) method in which the estimate based on the size of the population of the study and level of accuracy which set to be 0.05 for a confidence level of 95%. Hence based on the number of pensioners in Zanzibar Social Security Fund, the sample comprised of 385.

Findings and Discussion

Empirical Results

The data obtained from survey questionnaire conducted during the period of Pensioners' verification season of July 2023 at three Pension Fund offices in Unguja. Twelve university students were taken as enumerators received training related to standard procedures on data collection and explained the aim of the research before start asking questions from the questionnaire. These enumerators were scattered to different locations within three districts of Unguja and collected data from the aging population with the assistance of the district officers. so that to be accepted in the field. 390 questionnaires distributed to the aging population during the period, and 382 obtained for further analysis after scrutinizing them on the validity of questionnaires.

From the respondents 185(48%) were male and 197(52%) were female, and most of them were on age of 60 years to 70 years were (222)58.2%, aged 71years to 81 years (99) 25.9%, those aged from 82 years to 92 years (50) 13.1% and those from and above the age of 93 were 11 (2.9%). Among these retired pensioners some of them were investors which accounted to 65 (17%), some 111 (29%) were employed in contract basis and others 206 (54%) were non-employed nor investor. Studies showed a correlation between experience levels and the mobile marketing technology for experience of using similar technology, the study categorized the levels of experience of the respondents based on years, in order to facilitate answering the studied objectives. Among respondents 119 (31%) participants had experience of 1 year. 106 (28%) used the mobile phones within one to four years, while 157 (41%) had experience of more than four years.

The study used KMO and Bartlett's test of Sphericity to measure the sample adequacy so as to assess if the data are enough and suitable for factor analysis. Table 1 showed the KMO- Measure of Sampling Adequacy test was 0.9 which denoted good according to Bagby, Parker and Taylor (1994), the Bartlett's test was also tested, to check for the existence of adequate correlation among variables, and the value obtained was highly significant (p < .001). Therefore, there was evidence that there was sufficient correlation of the variables in a proposed model

Table1: KMO and Bartlett's Test

Kaiser-Meyer-Olkin measure of Sampling Adequacy		0.909
Bartlett's test of Sphericity respectively	Approx. Chi-Square	6996.537
	Df	325
	Sig	0.000

The Composite Reliability value of each latent variable was higher than average variance extracted (AVE) value of the same latent variable, rendering the assumptions of convergent validity of the measurement model. Besides the Maxr (H) value was higher than the composite reliability (CR) value for each latent variable, thus the measurement met the divergent reliability, hence the measurement model was reliable and performed well for next stage analysis (Chan et al., 2022). Discriminant validity was also measured to test as recommended by Fornell and Larcker, (1981), thus the Square Root of AVE scores for all the constructs in the model were greater than the correlation coefficient value of the two constructs in the same row and column as shown diagonal of Table 2.

TABLE 2: Validity and Reliability of the Model

FACTOR	CR	AVE	MSV	MaxR(H)	AMM	PU	PEOU	TANX	ATT
AMM	0.851	0.588	0.181	0.868	**0.766**				
PU	0.935	0.708	0.336	0.955	0.209	**0.841**			
PEOU	0.908	0.624	0.170	0.920	0.323	0.386	**0.789**		
TANX	0.932	0.735	0.181	0.938	0.566	0.209	0.393	**0.857**	
ATT	0.858	0.548	0.336	0.861	0.281	0.398	0.373	0.279	**0.740**

In addition, the confirmatory measurement model achieved fit threshold (Hu and Bentlers 1999) as χ^2/df 2.000, SRMR 0.037, RMSEA 0.051, TLI 0.953, CFI 0.958 and RMR 0.026. Besides, the CFA proves the discriminant validity and reliability. For reliability all factors loading from 0.59 to 0.93, as the rule of thumb recommended by Hair et al., (2014), the factor loading should be greater than or equal to +-0.5to be maintained for further analysis, hence the items scale proved the reliability thus, none of the item from this study were dropped.

The integrated structural modelling revealed an adequate fit to the data on aging population intention to adopt mobile marketing. χ^2/df is 2.3 < 3, SRMR 0.032, RMSEA 0.059, NFI = 0.919 CFI 0.958 which was an indication of good fit (Byrne, 1998). Table 3 summarizes the path coefficient of all five hypothesized path in the model. Table 4 shows the mediation analysis results. The direct and mediation path shown in Figure 2.

Table 3: Direct Path Analysis

Hypothesis				Path coefficient	T statistic (C.R.)	P value	Label
H1	AMM	<---	PU	0.181	2.065	0.039	Supported
H2	AMM	<---	PEOU	0.163	3.361	***	Supported
H3	AMM	<---	ATT	0.110	1.144	0.253	Not supported
H4	AMM	<---	TANX	0.290	5.592	***	Supported

Table 4: Mediation Effect Assessment

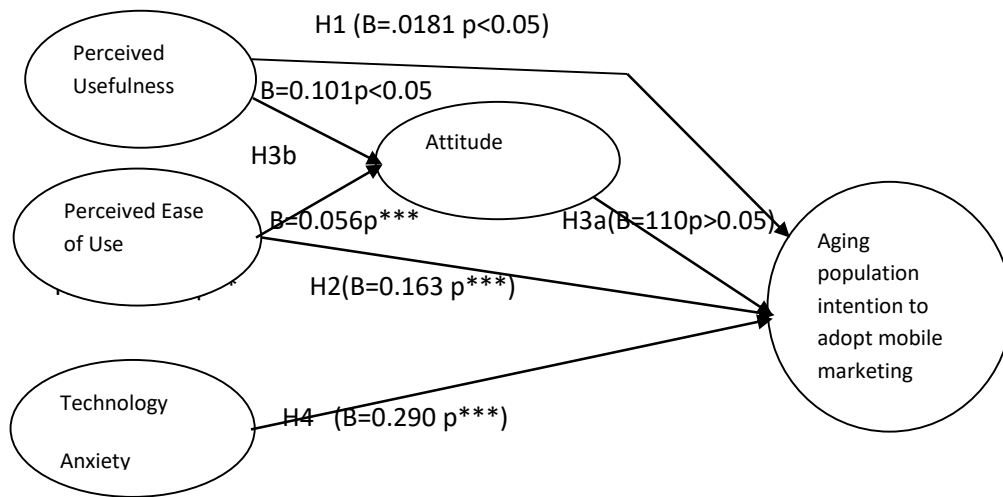| Relationship	Total Effect	Direct Effect	Indirect Effect	Confidence Interval		T statistics	Conclusion	Label
				Lower bound	Higher bound			
PU->ATT->AMM	0.3469 (0.000)	0.2451 (0.05)	0.1017	0.0264	0.1841	5.487	Partial Mediation	Supported
PEOU->ATT->AMM	0.3663 (0.000)	0.3098 (0.000)	0.0565	0.0155	0.0981	5.673	Partial Mediation	Supported

Figure 2: Structural Path Results (Source; Author Data 2023)

In Structural Path analysis shows all variables were significant except attitude toward the intention to adopt mobile marketing, the path analysis of Perceived usefulness showed the P value was below 0.05 (p=0.039) at 5% confidence level. Therefore, hypothesis H1is accepted, that there was a significant influence of perceived usefulness on aging population intention to adopt mobile marketing technology. Perceived Ease of Use showed the P value was below 0.001 (p=0.000) at 5% confidence level, hence the hypothesis H2 is accepted. That Perceived Ease of Use had positive and significant influence on aging population intention to adopt mobile marketing technology. Anxiety had the P value below 0.01 (p=0.000) at 5% confidence level. Therefore, the hypothesis H4 is accepted. That Technology Anxiety has positive influence on aging population intention to adopt mobile marketing technology. Only attitude had a P value above 0.05 (p=0.254) at 5% confidence level. Therefore, hypothesis $H3_a$ is rejected. That Attitude had no significant influence on aging population intention to adopt mobile marketing technology.

The significance of mediation effect of attitude on the relationship between latent and observed variables measured through Hayes Process Macro with application of SPSS statistics. The total effect was significant at p<0.01, B=0.3469, R^2 = 9%, t (5.4873). The direct effects of Perceived Usefulness, on the presence of the Attitude mediator were also significant at p<0.01, B=0.254, R^2 = 28%, t (3.315). The indirect effect of PU to explain the mediator was significant the Bootstrapping intervals does not include zero (B= 0.1018, BootLLCI = 0.0264, BootULCI = 0.1841).

The mediating effect of Attitude on the relationship between PEOU and intention to Adopt Mobile Marketing revealed the total effect was significant at p<0.01, B=0.3469, R^2 = 9%, t (5.4873). The direct effects of PEOU, on the presence of the Attitude mediator were significant at p<0.01, B=0.3663, R^2 = 14%, t (7.1604). The indirect effect of PEOU to explain the mediator was also significant the intervals does not include zero (B= 0.0565, BootLLCI = 0.0155, BootULCI = 0.0981). However, the analysis results revealed the significant partial mediating effect of Attitude on both relationship between PU and intention to Adopt Mobile Marketing together with the relationship between PEOU and intention to Adopt Mobile Marketing thus providing evidence to support the hypothesis as depicted in the table 4

Discussion and Conclusion

The main objective of the study was to assess factors affecting intention to adopt mobile marketing technology on aging population in Unguja. The study extended the validated TAM framework to include technology anxiety from Social Cognitive Theory and used it as a guiding model. The obtained results provided an optimistic view of the adoption on mobile marketing among aging population. The majority of respondents (157)41% had used mobile phone for more than four years and 106 of respondents (28%) used the mobile phones within one to four years. Thus, make a total of 263(69%) who had more experience in using mobile phone, therefore, more than half of respondents were more experienced in using mobile phones.This showed a promising future for the adoption of mobile marketing technology among aging population. However, to attain this situation, it is important to know what influence aging population on intention to adopt mobile marketing technology which was the heart of this study.

The unexpected result was that aging population did not place much importance directly on attitude except for mediation of this model. This construct adds to the variations on the influence of TAM direct effect variables on behavioral intention for aging population that many prior studies depicted. This evidenced that importance of variables depends on the respondents' context.

The first objective investigated the influence of PU on intention to adopt mobile marketing technology among aging population in Unguja. This result is the alarming call for the mobile marketing vendors to ensure they communicate the usefulness of the shopping through mobile phone for adult population in Tanzania as the channel is more ubiquitous, interactive and is more compatible with mobile lifestyle which they live now. According to Sun and Chi, (2018) the design interface quality affects the traffic of consumers while information quality will raise the consumers' intention to adopt mobile marketing. The finding is in consistence with Chan et al., 2022, Chille et al., (2021) and Haq and Ghouri (2018) while other such as Chimbarazo et al., (2021) found PU did not influence their intention to use mobile commerce in Ecuador because of mobile life style they live in this mobile communication era.

The second objective investigated the influence of perceived ease of use on intention to adopt mobile marketing technology among aging population in Unguja. This is the second more influential variable, thus implied that aging population consider more on complexity of the technology in emerging of new innovation. The finding revealed that many of the respondents 59% had one to four years' experience on using mobile phone, thus might have little or no technical skills that could help them to perform online marketing. Therefore, the perception of complexity to grasp the expertise on mobile marketing technology did influence their intention to adoption. The result is in relation with aging population on intention to adopt the technology (Liesa-Orus et al., 2023; Yap et al., 2022).

The third objective investigated the influence of technology anxiety on intention to adopt mobile marketing technology among aging population in Unguja. Mobile marketing technology evolved to be a vital channel for marketing activities which involved web browsing, SMS marketing, mobile advertisement, affiliated marketing and multimedia message service. Technology anxiety is the strongest

predictor among the tested variables in the model. Thus, aging population intention to adopt mobile marketing was highly motivated by technology anxiety. Though people had anxiety on mobile phone products, there was an increase in adoption of the mobile phone products/ service like mobile payment (Kombe et al., 2020; Mbamba and Uligeta, 2017). Report of Finscope (July 2023) showed that 72 percent of adult population used mobile money because of the experience and trust on mobile services. This result was consistent with previous studies such as; Adikoweswanto et al., (2022), Kimiloglu et al., (2017) who asserted that sometimes anxiety did not cause a negative influence that affected the intention to use the technology. So even on the existence of anxiety people were ready to adopt such technology.

Attitude by itself confirmed to be insignificant to influence behavioral intention as depicted by Ventakesh et al., (2003); Putra, (2018) and Riantini et al (2021). Thus, aging population might have no intention to use mobile marketing despite of having a favorable attitude towards mobile phone technology use. This result might be associated with the perception the aging population toward the mobile marketing since the attitude is strongly influenced by internal aspects of individual such as perception of usefulness (Putra, 2018) and the experience on the traditional marketing channel they were used to. The aging population seem to have no enough knowledge to make an informed judgment on the use of mobile marketing technology, hence the attitude appears insignificant to influence their intention to adopt such technology. These findings emphasize the necessity of acquiring some knowledge based on technology innovation to induce the favorable attitude toward the intention to adopt innovated technology as depicted by Zulqarnain et al., (2020). The study findings were consistent with prior studies George et al., (2022) and Teo (2009) concomitantly who vowed that the effect of attitude was not directly associated with the intention to use the technology.

The last objective assessed the role of attitude in mediating the influence of PU and PEOU on intention to adopt mobile marketing technology among aging population in Unguja. The researcher needed to get insight of the attitude mediated perception of usefulness and perceived ease of use on intention to adopt mobile marketing technology. If the aging population have positive attitude toward the intention to adopt mobile marketing technology, would perceive that the mobile marketing as benefited and less complex to be used by aging population. The study results are steady with Kumar et al (2020), Haq and Ghour (2018) and Verma et al., (2017) who confirmed on the mediating role of attitude toward behavioral intention to adopt technology, and emphasized on the improvement of the positive attitude on the consumers' perception which could be attributed by making the mobile application simpler and benefited to consumers.

The study results contend with prior studies Ventakesh and Davis (2000); Chauhan (2015) and Tobbin (2014) who viewed attitude to have no role in mediating the consumers' perception with behavioral intention.

Due to the believed notion that attitude mediate perception of usefulness and perceived ease of use in TAM model, hence the researcher aimed to assess the validity of the notion on aging population intention to adopt mobile marketing in Tanzania. However, the effect of attitude in TAM model seemed to be partially mediated the relationship of both PU and PEOU on intention to adopt mobile marketing. The results consistent with Davis (1989) notion in the development of TAM theory as attitude play a vital role in influencing technology adoption in individual basis. Thus, mobile service providers should focus on the features that aging population find useful with less effort to understand so at to build favorable attitude toward behavioral intention. Since most of these respondents have less experience in using mobile phone as this technology is still new in Tanzania.

Theoretical Implication

The study contributes to the extension of TAM model. Since TAM solely could not be efficient to explain the aging population intention to adopt technology as the model lacks specific attention related to aging population. This is because there were scarcely empirical studies so far on intention and most basically concerned with actual use (Nunan and Domenico, 2020; Jingqi et al.,2016). To add on empirical literature, the conceptual TAM model extended with the proposed technology anxiety for the first time in the mobile marketing technology specifically to aging population. However, the results based on TAM model found out somewhat to disperse with those of previous studies. Hence, the external validity of the TAM model should be studied again in the mobile marketing environment, taking aging population segment into account. Thus, this study presents to the academic community a thorough approach of the mobile marketing via the suggested model.

Furthermore, this study contributed to the field of literature by adding a new important investigation from Social Cognitive Theory which is anxiety to the TAM model which expects future intention of consumers to adopt mobile services. To the best of our knowledge, the effect of technology anxiety has been never supported to directly affect aging population intention in the context of mobile marketing. Previously, consumer studies have regarded technology anxiety as an obstacle variable to understand current behaviors (Gunasighe and Nanayakkara, 2021; Sahin and Sahin, 2022 and Kummer et al., 2017). Therefore, this finding could be the roadmap for other researchers in the related field. In addition, the outcomes showed a new insight on mobile marketing adoption as the research was carried out in a country where the aging population has never been solely explored despite of being highly mobile phone users.

Further, contribution to the academic literature was made by providing an overview from Tanzanian aging populations' perception on mobile marketing. The findings of insignificant influence of attitude construct on behavioral intention directly provided evidence that the proposed model suits the data entirely. Thus, this study serves as foundation to other researchers on investigation of the same scientific field, or intends to refine this model and findings with other variables and further examination of the topic. For instance, the confirmation of significant or non -significant effects of the variables in this proposed model to other social and cultural context, or with additional variables would ultimately provide a more holistic approach in the context of mobile marketing technology.

Furthermore, although consumers' intention based on TAM model had been much explored, however the results were limited to the context of Tanzania in comparison with those studies in developed countries. Hence, an important implication is that technology anxiety become a significant predictor of users' intention rather than TAM variables on mobile marketing. This imply that the importance of the constructs to influence intention to adopt largely affected by country's context.

Practical Implication

This study identified the perceived ease of use and technology anxiety as the most variables which business practitioners should focus on to influence aging population as among the mobile marketing potential consumers to have the intention to adopt mobile marketing technology to be their marketing channel.

Since PEOU is the variable with a substantial influence on the intention to adopt mobile marketing, mobile companies should put much efforts on developing users' friendly interface with a clear view of products and services, too fast in downloading the photograph and readable by aging population. The designers and developers should also provide a visual tutorial through mobile phone and other means such as television so that to help customers such as aging population to learn how to utilize when they

intend to adopt mobile marketing technology for the first time. This would facilitate aging population to PEOU on the mobile marketing technology.

Mobile marketing vendors should engage more directly with the anxiety- driven perception such as trustworthy, safety, ubiquity and customers' satisfaction so that to bear a pleasing and motivating sensations during early stages of mobile marketing technology introduction. Timely information related to the mobile service will help to increase intention to adopt mobile service despite of the existence of anxiety on the use of mobile technology.

Study Limitation and Recommendation

The current study focused solely on addressing the factors affecting intention of aging population in adoption of mobile marketing specifically in Unguja. This limits the generalization of the study findings to other areas. Therefore, further studies could be conducted in other districts in Tanzania so that to increase demographic representation of the population. The study adopts a cross-sectional and quantitative approach in collecting the data. Therefore, the results established by inferential analysis and implicit proof. Further studies recommended to be in longitudinal research design in order to have more explicit proof on factors affecting aging population intention to adopt mobile marketing technology in Unguja. The longitudinal research is recommended since the diffusion of innovation occurs over time. Lastly, this study sampled was more biased to pensioners only, since respondents had diversity in demographic traits which could affect the validity of the sample taken. Therefore, further studies recommended to test the conceptual model in other group of aging population so that to identify factors affecting intention to adopt mobile marketing technology to aging population of other groups as well as in other countries.

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