

Online Television Subscription in Tanzania: Examination of the Influence of Information Quality, Video quality and technology ease of use

Juma James Masele¹ and Debora Mwita²

Abstract

The internet-based broadcasting has led to emergency of a great number of broadcasting channels that offer subscribers with more choices ubiquitously. Understanding of the determinants for customers' subscription to a particular broadcasting channel becomes important. This study analyzed factors influencing online Television (TV) Subscription in Tanzania. Specifically, the study assessed the influence of information quality, video quality and online TV technology ease of use on online TV subscription in Tanzania. A questionnaire was used to collect data from 241 online TV subscribers in Dar es Salaam. A multiple regression analysis of the data collected revealed that, information quality and online TV technology ease of use influence significantly online TV subscription in Tanzania. However, the findings of the study established that video quality influence Online TV subscription insignificantly. This implies that, the video quality did not matter most for online TV subscription. The study recommends that, Online TV service providers should focus on improving content quality of the information shared. The platforms for accessing Online TVs should be ease to use including making it easy to access and use online TV programs in a more cost effective manner. Besides, subscribers should be easily enabled to access and view TV programs and/or recorded videos faster than it is with traditional TVs. Doing that would attract more subscribers and hence generating more revenue through subscription-based and ad-supported models.

Key words: Online TV subscription; Information quality; Video quality; Ease of Use.

Introduction

The role which the advances in Internet technology, enabled by Web 2.0, are changing the television (TV) broadcasting models is enormous (Arat & Şimşe, 2021). In particular, the advances have enabled for a ubiquitous access to a broadcaster anytime, anywhere even with the use of simple mobile devices (Aggarwal et al., 2016). In particular, the digital transformation of the TV sector has led to a significant increase in the number of TV channels and a wider variety of content options available to audiences (Etayo et al., 2021). This transformation has been driven by various technological advancements and changes in how content is produced, distributed, and consumed (Etayo et al., 2021). Consequently, this transformation has significantly enriched the TV landscape, offering viewers more choices than ever before (Schauerte et al., 2019). It has also posed challenges for content creators, providers, and regulators in terms of maintaining quality, diversity, and accessibility in this increasingly digital and globalized environment (OECD, 2017). Unlike in the past, where by providers used to influence viewers to choose what and when to watch on the mainstream TV (Aggarwal et al.,

¹University of Dar es Salaam, Business School (UDBS), Dar es Salaam, Tanzania
Email: maselej@gmail.com

²Free Pentecostal Church of Tanzania (FPCT), Inclusive Education Project Department, Dodoma, Tanzania

2016), today a viewer has a control over viewing whereby a viewer can watch broadcast anytime without depending on programming schedules (Waterman et al, 2012).

The technology development has also changed the TV broadcasting industry business model from advertising as a primary source of revenue to direct pay revenue model through both subscription-based and ad-supported offerings (Waterman et al., 2012; Shafer et al., 2023). Engdahl (2018) posits three revenue models with which online TVs do business: the subscription video on demand, pay per view model, and the advertisement-supported video on demand. The subscription video on demand is where users subscribe once any duration and they choose what to watch from listed videos and are free to cancel their subscription (Kim, 2021; Colbjørnsen et al., 2022). According to Colbjørnsen et al. (2022), the subscriber pays a fee in advance, typically monthly, to gain access; and the price charged represents an offer at the level of the bundle or certain predefined package. Essentially, you pay for all or nothing at all (Colbjørnsen et al., 2022). Another monetization model is pay per view where one can download a video and watch it after paying a fixed amount per video (Sammonds, 2012). The advertisement-supported video on demand model is where content is viewed free of charge but there are advertisements pop-up during viewing which generate income to the provider from the advertisers (Wayne, 2018). YouTube is a good example of revenue model with which a number of potential viewers attract advertisers (Engdahl, 2018).

Evidence indicates that internet-based broadcasting has led to a greater number of broadcasting channels than in the analogue era of broadcasting (Paul & Yang, 2019). This is the case because online / internet TVs are considered more effective than traditional media and operate at a lower cost (Blackburn et al., 2019). Therefore, viewers are exposed to varieties of online TV every day. Quail (2012) shows that online TVs have a higher level of viewing and viewer activity than the traditional one. This is due to the fact that online TV offers flexibility in selecting or watching TV shows than traditional TV (Latiff et al., 2016; Globerman, 2016). TV consumers may watch TV at almost ubiquitous rate wherever they are as opposed to the traditional TV era. While there was only one TV station in Tanzania by 1970s; -the Zanzibar Television–TVZ based in Zanzibar, and another one in Tanzania mainland by 1994 (the Coastal TV Network – CTN) and later on the Independent TV (ITV) (Sturmer,1998; Lwoga & Matovelo, 2010), years later, a larger number of TV stations were established in the country but in analogue technology (TCRA, 2013). The introduction of digital TV in the country was done in phases; in Dar es Salaam (December 2012), Dodoma and Tanga (January, 2013), Mwanza (February, 2013), Arusha and Moshi (March, 2013), and Mbeya (April, 2013). By November 2018, Tanzania had 34 licensed traditional TV stations (TCRA, 2020).

Apart from the growth of traditional media, Tanzania is consequently witnessing a paradigm shift in the internet space which contributes positively to the consumption of media contents since people can easily access content through their mobile devices (Katunzi & Spurk, 2018). The number of internet users in Tanzania as of March 2022, was 29.9 million out of a total of 61.7 million people equivalent to 48.4 percent internet penetration rate (Statista, 2023). To exploit the opportunities available from digital development, some TV stations and individuals introduced online TV operations (Masele & Joseph, 2023). The set-ups were officially made operational by the Government through the Electronic and Postal Communications (Online content) Regulations in 2018 under The Electronic and Postal

Communications Act of 2010 (MCT, 2019). According to TCRA (2018), there were 91 local licensed online TV channels in Tanzania by October 2018, the number attained in only six months. By 2020 the number of licensed online TVs increased to 352 (TCRA, 2020). According to the Media Council of Tanzania (MCT) report of 2019, the owners of these online TVs include individuals, print media companies, Government agencies, faith ministries and broadcasting companies (MCT, 2019).

Majority of online TVs in Tanzania operate over the YouTube platform through advertisement-supported revenue model (MCT, 2019). Nevertheless, the effectiveness and efficiency that online TVs offer as compared to that of traditional media has made this increase possible (Blackburn et al., 2019; Colbjørnsen et al., 2022). Yet, despite the potentials offered by online TVs platforms, the market share each online TVs enjoys varies considerably; with few receiving huge subscriptions number and others very few. According to Marvin (2019), the increasing number of online videos options available to consumers, has stiffened the rivalry in the online TV business. Yet, it is unclear what factors influence such differences in subscription levels to different online TVs. Unless online TV media are informed on what influences subscription to a particular online TV, they will remain competitively disadvantaged in the market. Thus, a need emerges to research on the factors influencing customers to subscribe to particular online channels and not others. Evidence indicates that, from the 352 licensed local online TVs which offer variety of content only 5 online TVs had more than one million subscribers by September 2020; the top in the list is Ayo TV with 2.96 million subscribers followed by global TV with 2.61 million subscribers. Other 57 online TVs had between 800,000 and 100,000 subscribers and the rest had between 90,000 and 10 subscribers (Social blade, 2020). According to Speak (2023), the most subscribed TV Channels in Tanzania by 2023 were Ayo TV (5 million), Global TV online (4 million), Wasafi Media (4 million), Azam TV (2 million), Cloudsmedia (1 million), Habari Digital (1 million), EastAfrica TV (884,000), Mwananchi Digital (849,000), Darlivetv (504,000) with other online TVs enjoying few subscribers below 500,000 subscribers.

While there are existing studies on factors that influence consumer's subscription to online TV, evidences are limited to developed countries which are contextually different from Tanzania. For instance, the study conducted by Kang et al. (2014) in South Korea shows that the willingness to subscribe to a new broadcasting medium is influenced by information quality, service quality, and video quality. The study conducted by Krishnan and Sitaraman (2012). shows that viewership reduced if the viewer's experience video freezing and when they experience any failures in the same website. Moreover, studies (such as Frogner and Bennhult, 2021; Gutzeit et al., 2021) suggest that although content is the factor which drives overall value in the eyes of the subscriber but video quality matters as it means favored content is easily accessible. However, authors such as (Vira, 2019; Camilleri & Falzon, 2021) suggest that technology ease of use with user interface that allows subscribers to navigate and view TV programs and/or recorded videos faster than it is with traditional TVs are significant factors influencing the choice of online for streaming.

Tanzania like other developing countries is characterized by poor data infrastructure in terms of internet connectivity, affordability to internet bundles, reliable power supply, and access to other required ICT infrastructures (Yonah, 2017; World Bank, 2021). While there are previous studies on TV industry in Tanzania, they do not focus on factors that determine online TVs

subscription. Some of these studies focused on the challenges associated with online TV, and the factors for choosing traditional TV in Tanzania. Eliah (2021) conducted a study on predictors of TV programs quality in Tanzania by analyzing stakeholders' perspective. The study found out that the term quality in the context of TV production is erratic due to absence of specific standards for measuring it. The study recommended the government to establish the quality control boards in order to spearheading standards in TV production.

Another study done by MCT (2016) based on the quality of the media from the public including online TV but it did not focus on the factors influencing subscriptions to online TV as a business. However, due to the rapidly growing number of online TVs in Tanzania, this study, therefore intended to establish what influences consumers to subscribe to online TVs. The current study assesses factors consumers consider when selecting an online TV content service provider for subscription in Tanzania context. The reviewed studies indicated a need to investigate on information quality, video quality and online TV technology ease of use and their influence on online TV subscription. The analysis of this study will help to reveal which factors are most important when consumers want to make subscriptions. The rest of the article is structured as follows: It starts with a critical review of key theories that were drawn from relevant technology acceptance, adoption and use. This is followed by empirical literature review on the relationship between study variables, which is followed by the conceptual framework and then the hypotheses for this research are stated. Subsequently, the methodology adopted to collect the data from the respondents is presented. Later on, the findings and respective discussion are presented. The final part of the article is the conclusion which includes study's theoretical, practical and policy implications followed by research limitations and areas for further research.

Literature review

Information System Success Model

The information systems success model (ISSM) was formulated by DeLone and McLean in 1992 and was modified by DeLone and McLean in 2003 (DeLone & McLean, 2003). This theory explains relationship of six variables of information system success. These variables are system quality, information quality, service quality, information system use, user satisfaction and net benefits (Yu & Qian, 2018). System quality is the desirable characteristics of an information system that influence an individual to use the system; this involves flexibility and reliability of a system as well as ease of learning (Delone & McLean, 2016). Information quality refers to the individual judgement on the effectiveness of a system to meet his needs; it can be determined by timeliness, accuracy, completeness and believability (Park, Lee & Han, 2007). Service quality measure the degree to which a customer is satisfied with the service delivered and the service quality element involves availability, reliability, integrity, functionality and efficiency (Zaied, 2012). User satisfaction measure overall user fulfilment with the system (Ojo, 2017).

While the study found this theory useful in explaining the phenomenon under this study, the theory was found not self-satisfactory to stand alone for the study. Thus, another theory was deemed important to explain aspects related to technology ease of navigation and its influence to explain user intentions to use an information system (such as online TV in this case) and

subsequent usage behavior. The second theory that was reviewed is the Technology Acceptance Model (TAM).

Technology Acceptance Model (TAM)

According to Technology Acceptance Model (TAM) by Davis et al. (1989), there are two major determinants for adoption of a particular technology; perceived usefulness and perceived ease of use are postulated to affect technology use intention and eventually actual usage. TAM suggests that the individual perceived usefulness and perceived ease of use of a certain technology predict their intentions to use that technology (Marikyan & Papagiannidis, 2023; Scherer et al., 2019; Munoz-Leiva et al., 2017). By perceived usefulness (PU) it refers to the degree to which an individual believes that using a particular system would enhance his or her job performance (Davis et al., 1989). In other words, the technology will be perceived useful only if it is considered beneficial for what a person wants to accomplish. Perceived ease of use refers to the degree to which a person believes that using a particular system would be free from effort (Davis et al., 1989). Available studies indicate that there is a positive relationship between perceived usefulness and perceived ease of use (Nagy, 2018; Tefertiller, 2020; Camilleri & Falzon, 2021).

The TAM has been widely applied to study number of technologies adoption (Al-Azawei et al., 2017; Legramante et al., 2023) including computer usage (Davis et al., 1989); adults' intention to use new technology (Braun, 2013); Mobile Technology usage (Fatoki, 2020); Ecommerce adoption (Ruiz-Herrera et al., 2023), Moodle and other e-learning management systems adoption and use (Legramante et al., 2023) and many other technological context adoption studies. For example, Roca et al. (2006) proposed a decomposed model of TAM in the context of an e-learning service and perceived performance was decomposed into perceived quality and perceived usability. In the context of online TV subscription Camilleri and Falzon (2021) suggest that the individuals' motivations to use online streaming technologies to watch live TV channels and/or recorded videos would have a positive and significant effect on their acceptance of the technologies, and on their intentions to continue using them. In other words, individuals will use online streaming services if they only perceive them useful but also if they are easy to use. The vice versa is true, if the technologies are perceived complex, complicated or difficult to use (Davis et al., 1989). According to Laudon and Traver (2016), a media that offers its users content or services and that is perceived as of high value added, premium neither not readily available elsewhere nor easily replicated will reap enormous gain. In this case the user will perceive the streaming media and online TV useful and potentially will subscribe to the video and information content he/she perceives to be useful. Yet, since perceived ease of use is a precursor for perceived usefulness (Legramante et al., (2023) the media must be perceived ease to use to increase the number of subscription. This study considered the TAM as useful in supplementing the ISSM.

Empirical Literature Review

Information quality and Online TV Subscription

A number of studies have investigated the influence of information quality on online TV Subscription. A study conducted by Nielsen (2019) in the United States revealed that 66% of video streaming users were influenced by familiar information content, previously watched in traditional media and now they access them on online TV. A study by Statista (2018) conducted

in Australia to 200 respondents above 18 years old revealed that content quality influences most of the people when choosing a live video streaming source followed by other factors including internet connectivity speed. Vira (2019) analyzing factors influencing consumers' choice of digital platforms for streaming sports (Hot Star and Sonny Live) in Mumbai India through questionnaire to 210 respondents revealed that content customization and accessibility across devices and user interface were significant enough to influence a consumer's choice of digital platform to stream sports.

Prince and Greenstein (2018) conducted a study to 10,000 Americans from 2007 to 2009 using rich data set by forester research to examine if original content drive subscription of online video. The findings show that original information content attracted subscriptions to online TV. Sruoginis (2018) conducted a study on a global perspective of live streaming video focusing on consumer experiences and attitudes. The study was carried out in 21 countries including Australia, China Germany, Hungary, Ireland, Italy, Russia, South Africa, Sweden, Switzerland, Turkey, United Kingdom Saudi Arabia (KSA), United Arab Emirates (UAE), Canada, Mexico, United States Brazil, Chile, Colombia and Peru The study used a sample of 200 respondents from each country showed that high information content quality influence on user choice of live content in all countries covered. Another study by Frogner and Bennhult (2021) conducted in Sweden revealed that satisfactory content provision is assumed to be the most influential aspect for not switching subscription video on demand service providers. They suggest that content is the factor which influence user's satisfaction and decision making. Apart from that, Jensen (2012) conducted a study using interviews from six members of management organizations in New Zealand to analyze key criteria for information quality in the use of online social media for emergency management. The study found that key criteria for information quality in the use of social media is verified information, validated information and timely information and it can be achieved by engaging with followers.

Video Quality and Online TV Subscription

Dobrian, et al (2011) conducted a study in the USA on the influence of video quality on user engagement in USA, using unique dataset covering different content from popular online content providers. They measured quality metrics such as the join time, buffering ratio, average bitrate, tendering quality and rate of buffering events. The findings show that the percentage of time spent in buffering has the largest impact on the user engagement across all type of contents. However, the study shows that video quality influenced by live content mostly while user engagement can be reduced by increase of buffering ratio. In addition, a study done by Purchon (2014) to measure the influence of video quality on viewers' engagement suggested that video quality matters depending on the content type and length of the video. However, the study by the Krishnan and Sitaraman (2012) at Amherst to analyze the influence of online video streaming on viewer behavior using 6.7 million unique viewers from different parts of the world who in aggregate watched 23 million videos for 216 million minutes over a period of 10 days. This study found that viewership reduced if the viewer's experience video freezing and when they experience any failures in the same website. Therefore, it shows that video quality influences viewer behavior in using video streaming.

Darukmall and Baraki (2014) carried out a study to 45 people from different countries to assess video content based on four perceptual quality indicators (PQI) namely, technical video quality,

technical audio quality, video content and audio content, focusing on a popularity predictor model for YouTube videos, by using subjective quality test. When the respondents were given a chance to watch video clips and asked to rank them, the findings showed that video quality could be predicted from the consistency of a certain number of viewers using the PQI categories then can use the result to predict the acceptance of video before shared on YouTube. The findings added that audio and video have a very influential role in the quality rankings; therefore, audio should not be neglected.

According to the experiment conducted by YouTube in 2018 to assess the effect of video quality on users' engagement validated that just using a fixed low-quality resolution had a significant knock-on effect to end user engagement (Cluff, 2018). The results showed that video quality doesn't influence end user engagement. A study by Kortum and Sullivan (2010) examined the effect of video content on viewers' perception of the picture and sound quality of the content. The data of the study was collected from 100 participants who viewed video clips of 2 minutes at five different rates. The study showed that desirability of the content plays a significant role in a viewers' subjective. The study also found out that sound and picture quality of highly desirable content played a significant role in viewers' subjective ratings. However, most of the available studies testing influence of video quality on online TV subscription are from developed countries. As such, studies from developing countries like Tanzania are missing. Yet, this study hypothesizes that the video quality has influence on online TV subscription in Tanzania.

Online TV technology ease of use and Online TV Subscription

Perceived ease of use as defined by Davis (1989), is the degree to which a person believes that using a particular system, technology, or innovation would be free from effort (Davis, 1989). Several studies (Venkatesh & Davis, 2000; Igbaria et al., 1997) have shown the perceived level of easiness or difficulty of a particular technology to affect decision to adopt such technology. Perceived ease of use has been demonstrated to be a useful predictor of technology adoption intention in a number of already conducted studies including consumers' acceptance and continuance usage of IT (Davis et al., 1989), e-portfolios (Abdullah et al., 2016), web-based learning platforms usage (Roca et al., 2006; Legramante et al., 2023); mobile technology usage (Joo & Sang, 2013; Fatoki, 2020); Ecommerce adoption (Ruiz-Herrera et al., 2023), continuance usage of a fitness app (Beldad & Hegner, 2018), and continuance IT usage (Thong et al., 2006). Besides, various researchers have reported a positive relationship between the perceived ease of use and the perceived usefulness of a technology (Nagy, 2018; Munoz-Leiva et al., 2017; Niehaves & Plattfaut, 2014; Davis et al., 1989). Thus, although the technology may be perceived useful, if it is complicated it may be hardly accepted and adopted for use. A study by Meyer and Mont'Alverne (2020) on the Virtual Learning Environment (VLE) for example revealed that, the ease of using ICT and the development of VLE contributed to its growth. In the context of online streaming media, studies (such as Tefertiller, 2020; Yang & Lee, 2018) revealed that the perceived advantages of online streaming media were also influenced by the perceived ease of use of the technology. The study by Basuki et al., (2022) revealed that perceived ease of use positively affects the perceived usefulness, perceived enjoyment, and intention to watch movies online. Conversely, if the technologies are complex, complicated or difficult to use and navigate, they would not be perceived as useful, enjoyable and there would be no intentions to watch such movies online.

Study Conceptual Model

Based on the review, the conceptual model represented the relationship between predictor variables (information quality, video quality and technology ease of use) on Online TV subscription is presented in Figure 1.

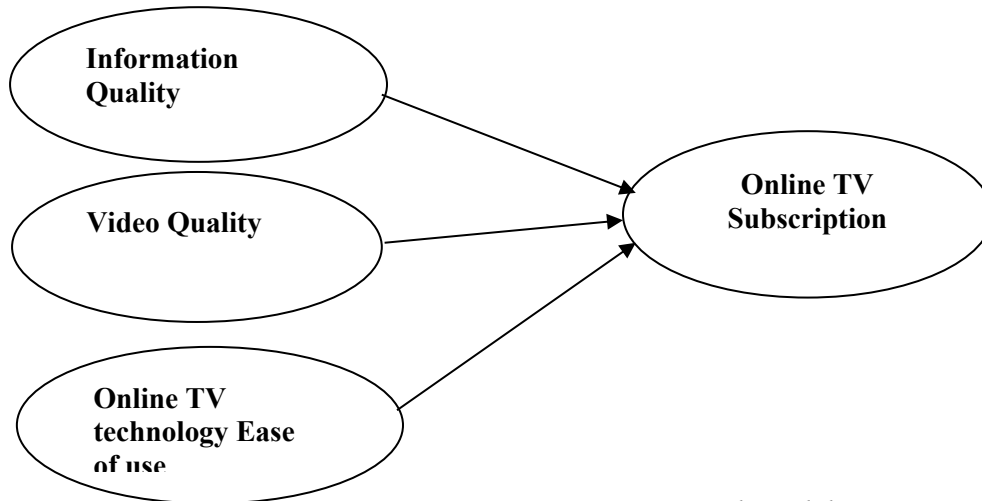


Figure 1: Conceptual Model

Hypotheses formulation

Information Quality and Online TV Subscription

Many studies have confirmed the influence of information quality on online TV subscription (Nielsen, 2019; Statista, 2018; Vira, 2019; Prince & Greenstein, 2018). Therefore, the following hypothesis was formulated.

H1: Information quality has influence on subscription to online TV in Tanzania.

Video Quality and Online TV subscription

Some reviewed studies confirm negative relationship between video quality and subscription to online TV whereby they argue that that the extent to which video quality matters depending on other factors such as content. (Punchon, 2014; Cluff, 2018) Therefore the following hypothesis was formulated.

H2: Video quality has influence on subscription to online TV in Tanzania.

Online TV technology Ease of use and Online TV Subscription

Numerous studies confirm relationship between ease of use and subscription to online TV (Marikyan & Papagiannidis, 2023; Camilleri & Falzon, 2020; Scherer et al., 2019; Lee et al., 2018; Munoz-Leiva et al., 2017; Keogh & colleagues, 2001). Keogh et al. (2001) found that one barrier of adoption to media streaming capabilities could be its perceived or experienced “ease of use”. Conversely, if the technologies are complex, complicated or difficult to use, they would

not be perceived useful (Camilleri & Falzon, 2021). Hence, the following hypothesis was formulated.

H3: Online TV technology Ease of use has influence on subscription to online TV in Tanzania

Methodology

This study was conducted in Dar es Salaam City, the country's largest commercial city and the most populated city in the country with 5,383,728 people (URT Census, 2022). Dar es Salaam is thus an economic hub of Tanzania. This study adopted a cross sectional explanatory research design in order to examine the factors influencing online TV subscription in Tanzania. The study used convenience sampling where by members of the target population that met the criteria, easily accessible and willingly to participate were included as respondents of the study (Etikan, 2016). A five-point Lickert scale questionnaire was distributed to 384 internet users with subscription to online TVs, located in Dar es Salaam city. Since the population of online TV subscribers could not be easily established, the sample size was determined using Cochran

$$\frac{Z^2 pq}{e^2}$$

formula, $n = \frac{Z^2 pq}{e^2}$, whereby Z= the selected critical value of desired confidence level (1.96 for 95% confidence level), P= the estimated proportion of an attribute present in the population (Cochran, 1977). However, from the 384 distributed online questionnaires to respondents, only 250 questionnaires were returned and only 241 questionnaires were correctly filled, a response rate of 63%. According to Fincham (2008), the survey response rate of 50% or higher is excellent in most circumstances. A multiple linear regression analysis was used to analyze the influence of hypothesized independent variables on dependent variable. Before that, a multicollinearity test revealed a Variance Inflation Factor (VIF) value between 1.575 and 2.170 and tolerance values ranging between 0.470 and 0.776 thus proving data to have no multicollinearity problem. Three independent variables - information quality, video quality, and online TV technology ease of use were regressed to a dependent variable- online TV subscription. A Kolmogorov–Smirnov test was used. A $p < 0.001$ was obtained, thus a null hypothesis was accepted to confirm that the sample was normally distributed.

To test for validity, the instrument was pilot tested before using it to an actual survey. This also ensured reliability of the instrument. Besides, the measurement indicators used were adapted from previous validated indicator items. For example, measurements/indicators for information quality were accuracy, relevancy, timeliness, believability, completeness (Emamjome et al., 2013; Liu et al., 2022), while video quality was measured using indicators items- joint time, buffering periods (freeze), audio quality and picture quality (Dobrian et al., 2011; Kang et al., 2014). Online TV technology ease of use was measured using indicators items- easy to learn to use; easy to become skilful at using the technology; easy to get hardware and software for use, easy to navigate, easy to subscribe; easy to view TV programs, easy to record videos, (Venkatesh et al., 2003; Camilleri & Falzon, 2020). The outcome variable online TV Subscription was measured using indicator items: loyalty in video viewing, engagement (following. viewing and sharing) [Zanatta, 2017; Camilleri & Falzon, 2020). A Cronbach's Alpha value for information quality, video quality, online TV technology ease of use, online TV subscription was 0.782, 0.871, 0.852, and 0.818 respectively which each was more than 0.7, indicating that the instrument used was reliable (see also Hair et al., 2017).

Findings

Demographic Profile of Respondents

The demographic information of the respondents in terms of age and gender were considered for the purpose of understanding the nature of the respondents. The findings on Table 1, indicate that gender wise, 128 (53.1%) respondents were male and 113 (46.9%) were female. This indicates that gender distribution among respondents was proportionally represented, thus providing credibility to the study as it considered inclusiveness of opinion from both gender categories. Regarding age, Table 1, establishes that respondents between the ages of 18-29 years were 117 (48.5%), whereas age group of 30-40 had 28 respondents (44.4%). More so age group of 41-60 had 17 respondents (7.1%). This shows that majority of respondents were youth below 40 years. Andrews and Herzog (1986) suggest that data from youth respondents tend to provide more precise indication of the attitude, behavior or other characteristics being measured than data from older respondents.

Table 1: Demographic Information basing on Response Rate

Demographic variable	Attributes	Frequency	Percent
Gender	Males	128	53.1
	Females	113	46.9
	Total	241	100.0
Age	18-29 years	117	48.5
	30-40 years	107	44.4
	41-60 years	17	7.1
	Total	241	100.0

Regression Results

In order to establish the influence of hypothesized independent variables (Information quality, Video quality and online TV technology ease of use) over dependent variable (online TV subscription in Tanzania), a multiple regression analysis was conducted. The multiple regression analysis results are as presented in Table 2.

Table 2: Multiple Regression Analysis Results

Variables	β	Std. Error.	t	p-value
(Constant)	1.364	.357	3.820	.000
Information Quality	.169	.094	1.796	.014
Video Quality	.057	.089	.647	.518
Online TV technology Ease of use	.334	.079	4.235	.000

R-Square (R²) = 0.714; Adjusted R Square = 0.692; F = 12.063 ; p<= 0.001

From Table 2, the value of R square (R²) was 0.714. This finding signifies that 71.4% change in subscription to online TV is predicted by three independent variables used in the study while the remaining 28.6% are explained by other factors which were not included in this study. According to Zygmunt and Smith (2014), a model summary having a variation above 60% signifies a logical model in predicting the independent variables. Therefore, the results in the model summary clearly presents significance of all values at $p \leq 0.001$ which signify a logical basis of the study. The ANOVA statistics of the regression data at 5% significance level as

presented in Table 3 indicates $p\text{-value} \leq 0.05$ implying that the model is significant in predicting the dependent variable (McLeod, 2019). Besides, the F value of 12.063 being greater than the F-Critical of 3.782 further establishes that relationship between independent and dependent variables is significant.

Table 3 Analysis of Variance (ANOVA)

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	23.05	3	7.685	12.063	.000b
Residual	150.980	237	.637		
Total	174.035	240			

The regression analysis results indicate that information quality and online TV technology ease of use were significant in predicting the online TV subscription since $p\text{-value} < 0.05$. However, video quality was insignificant in predicting the online TV subscription as the $p\text{-value} > 0.05$. The findings imply that, a unit increase in information quality would result to an increase in online TV subscription decision by 0.169. A unit increase in a unit of video quality would lead to a corresponding increase in online TV subscription by only 0.057 standard deviation. More so, an increase in a unit of online TV technology ease of use would lead to a corresponding increase in subscription to online TV by 0.334.

Regarding the first objective, the study confirms based on the results ($\beta=0.169$, $p=0.014$) that information quality has positive influence on online TV subscription. The results provide evidence to support the hypothesis that information quality has a significant influence on subscription to online TV in Tanzania. Based on the second objective, the results ($\beta=0.057$, $p=0.518$) of the study rejects the hypothesis that video quality has a significant influence on subscription to online TV in favor of null hypothesis that video quality has insignificant influence on subscription to online TV in Tanzania. Lastly, based on the third objective, the results ($\beta=0.334$ $p \leq 0.001$) the study accepts the hypothesis that online TV technology ease of use has significant influence on subscription to online TV in Tanzania.

Discussion of Findings

Influence of Information Quality on Subscription to Online TV

The findings of the study establish that information quality in terms of accuracy, timeliness, believability and completeness is a decisive factor when a consumer is making a choice of subscribing to online TV. The findings are in line with authors (Sruoginis, 2018; Frogner & Bennhult, 2021; Gutzeit et al., 2021) who suggest that information content is the factor to drive overall value in the eyes of the subscriber decision-making process around new video service subscriptions. The findings are also in line with information success model theory which explains that users' satisfactions and intention to use can be impacted by information quality. According to findings by Jensen (2012) study on social media, the key criteria for information quality is to make sure that information is verified and validated because users consider unverified information as risky to those who potentially depend on it. Timeliness is also important information quality factor because of the pace of communication in the digital era and to keep the user up to date (Jensen 2012). According to Liu (2022), most online content consumers are willing to subscribe to an online TV that involve credible, timely or current and believable sources of information. Accordingly, Prince and Greenstein (2018), if online

streaming services providers want to attract subscribers, they should offer original content in order to differentiate their online video service and offerings from competitors. In other words, online TV services providers should not rely on content from other TV channels if they are to be perceived by subscribers as of high value added, premium neither not readily available elsewhere nor easily replicated. Yet, unlike the past studies (Jensen, 2012; Sruoginis, 2018; Prince & Greenstein, 2018; Gutzeit et al., 2021; Liu et al, 2022) that were conducted in developed countries, this study adds value by bringing in evidences from context of Tanzania representing most of developing countries. The developing countries Tanzania included are resource constrained in terms of ICT infrastructure, internet connectivity, costly bundles, user skills and others can hamper subscription decision to online TVs they regard to have poor information quality.

Influence of Online TV technology Ease of use and Online TV Subscription

The findings show that technology ease of use has a significant influence on subscription to online TV in Tanzania. Thus, it is expected that where online TV technologies are ease to use, an attempt to subscribe and use is free from effort, users would easily subscribe. Ease of use can directly reduce the subscribers need to expend efforts in accessing a particular online TV. According to Venkatesh et al. (2003) technologies that are simpler to understand and navigate with little efforts are adopted more rapidly than innovations that require a consumer to develop new skills and understanding. The findings are in line with Igarria et al., (1997) and Davis et al. (1989) who asserts that perceived ease of use is a dominant factor in explaining technology acceptance as it influences perceived usefulness which both impact users' behavioral intention to use certain technology, which result to actual system use directly. The findings show that where users don't require extra effort in terms of new skills, costs, and bother to subscribe to online TV they can easily subscribe to the media and the vice versa is true. Efforts, bother and costs including having inadequate access to internet, YouTube app, affordable internet bundles, requirement for new skills to use a technology, instruction on subscription being complicated all can render it difficult and costly to subscribe to online TVs. This is typical to Tanzanian and majority of other developing countries setting where many potential subscribers are constrained by inadequate skills, financial and ICT infrastructure.

Influence of Video Quality on Subscription to Online TV

The findings show that, although video quality has positive influence on online TV subscription in Tanzania, its influence was insignificant. The results concur with previous findings such as Dobrian et al. (2011), Purchon (2014), Darukmall & Baraki (2014) who assert that video quality matters in determining user online TV subscriptions as they play influential role in the quality rankings. The findings, however, contradict Kortum and Sullivan (2010) findings that sound and picture quality of highly desirable content played a significant role in viewers' subjective ratings. Yet as opposed to previous findings, its influence was insignificant in this study. The findings indicating insignificance influence are in line with Cluff (2018) where in his experiment using YouTube to assess the effect of video quality on users' engagement revealed that video quality does not influence end user engagement. Besides, most of the studies referred are from developed countries, so studies from developing countries like Tanzania are missing. The study thus offers important contribution to the body of knowledge related to online TV subscription.

Conclusion and implications to the study

The findings have shown that while all the hypothesized variables positively influenced online TV subscription, only two variables “information quality” and “online TV technology ease of use” had statistical significant influences on online TV subscription. The results further indicate that video quality had no significant influence on online TV subscription. The findings have a number of practical, theoretical, and policy implications. Practically, the findings are useful to online TV providers to make their online TVs more competitive in a rapidly growing competition of online TV subscription business in the country by not only improving content quality but also enhancing ease of navigation. In addition, improving both information/content quality and making the technology behind it easy to use will attract more subscribers to online TV media. Online TV providers should also make instruction easy to enhance access and use of online platforms such as YouTube, at a cost effective manner. This will encourage more subscription and improve online TV service business. Although video quality was found insignificant, it still matters to be considered as it was found to have positive influence on online TV subscription. Online TV Providers will need to ensure that they offer competitive information quality over other providers in terms of uniqueness, up-to-datedness, comprehensiveness, relevancy and accuracy of content.

Theoretically, the study asserts that online TV subscription is a function of information quality and platform’s ease of navigation. This is in line with TAM as well as ISSM that a subscriber will only do so if the content provided is perceived usefulness (information/content quality) and provided in a platform perceived ease of use (platform ease of navigation). The findings are useful to policy makers such as the government and regulatory authorities such as TCRA in establishing policies to improve the capacity of online TVs services by enabling provision of such services to a larger audience than it is with traditional TVs. Policies should enforce issues related to ethics in information provided and those that ease access and use of Online TVs. Measures to be thought may include subsidizing and incenting of affordable internet services, training on emerging electronic related skills, and related cybersecurity aspects.

Limitations and Areas for Further Research

This study focused on only three factors that were postulated to influence user subscription. Since these factors have been able to explain the variance by only 0.714, other factors comprising of 28.6% should also be analyzed. Besides, a larger sample should be considered to paint a more accurate picture. Finally, this study picked only subscribers of at least one online TV, leaving out non-subscribers. Future research may consider researching on non-subscribers to add more knowledge on the phenomenon.

References

- Aggarwal, N., Arthofer, F., Rose, J., Rosenzweig, J., & Stephan, J. (2016). The digital revolution is disrupting the TV industry. BCG. Retrieved from <https://www.bcg.com/publications/2016/media-entertainment-digital-revolution-disrupting-tv-industry>, on 13th October 2022.
- Abdullah, F., Ward, R., Ahmed, E. (2016). Investigating the influence of the most commonly used external variables of TAM on students’ Perceived Ease of Use (PEOU) and Perceived Usefulness (PU) of e-portfolios. *Computers in Human Behavior*, 63, (2016), 75-90.

- Al-Azawei, A., Parslow, P. and Lundqvist, K. (2017). Investigating the effect of learning styles in a blended e-learning system: an extension of the technology acceptance model (TAM)", *Australasian Journal of Educational Technology*, 33 (2), 1-23, doi: 10.14742/ajet.2741.
- Arat, T., & Şimşe, S. (2021). Development of Internet TV broadcasting and satisfaction in Internet Broadcasting. *AVANCA | CINEMA*. DOI: 10.37390/avancacinema.2020.a187.
- Basuki, R. Tarigan, Z.J.H., Siagian, H. Limanta, L.S. Setiawan, D. & Mochtar, J. (2022). The effects of perceived ease of use, usefulness, enjoyment and intention to use online platformson behavioral intention in online movie watching during the pandemic era, *International Journal of Data and Network Science*, 6 (2022) 253–262.
- Beldad, A. & Hegner, S. (2018). Determinants of fair trade product purchase intention of Dutch consumers according to the extended Theory of Planned Behaviour: The moderating role of gender, *Journal of Consumer Policy*, 41(6), 191-202. DOI: 10.1007/s10603-018-9384-1.
- Blackburn, D., Eisenach, J.A., Soria, B. (2019). *The Impact of Online Video Distribution on the Global Market for Digital Content*, Insights in Economics, NERA Economic consultants.Retrieved from <https://www.nera.com/content/dam/nera/publications/2019/NERA-The-Impact-of-Online-Video-Distribution.pdf>.
- Bowmans (2021). Tanzania: Overview of data infrastructure in East Africa, <https://bowmanslaw.com/insights/technology-media-and-telecommunications/overview-of-data-infrastructure-in-east-africa-tanzania/>. Accessed on 13th November 2021.
- Braun M.T. (2013). Obstacles to social networking website use among older adults. *Computers in Human Behavior*, 29, 673–680. <https://doi.org/10.1016/j.chb.2012.12.004>.
- Camilleri, M.A. & Falzon, L. (2021). Understanding motivations to use online streaming services: integrating the technology acceptance model (TAM) and the uses and gratifications theory (UGT), *Spanish Journal of Marketing –ESIC*, 25 (2), 216-236. DOI 10.1108/SJME-04-2020-0074.
- Cluff, P. (2018). 90% of you tube viewers don't care about video quality (Paper presentation) Demux conference, San Francisco, October 30. Retrieved from <https://www.mux.com/blog/youtube-viewers-dont-care-about-video-quality> on 3rd January 2023.
- Cochran, W.G., (1977). *Sampling Techniques*, 3rd ed. John Wiley and Sons, New York.
- Colbjørnsen, T., Hui, A. & Solstad, B. (2022) What do you pay for all you can eat? Pricing practices and strategies in streaming media services, *Journal of Media Business Studies*, 19:3, 147-167, DOI: 10.1080/16522354.2021.1949568.
- Dai, B., Laryno, E., Tetteh, E. A., Aboagye, A. K., &Mussah, A. I. (2019). Factors Affecting Caregivers' Acceptance of the Use of Wearable Devices by Patients with Dementia: An Extension of the Unified Theory of Acceptance and Use of Technology Model. *American Journal of Alzheimer's Disease& Other Dementias*, 35, 1-11.
- Darukumall S & Baraki Y.T (2014) Video Content Assessment Based on Perceptual Quality Indicators; A popularity Predictor Model for YouTube Videos. Master Thesis, Electrical Engineering. Blekinge Institute of Technology, SE-371 79 Karlskrona Sweden.
- Davis, F.D., Bagozzi, R.P. and Warshaw, P.R. (1989). User Acceptance of Computer

- Technology: A Comparison of Two Theoretical Models, *Management Science*, 35 (8), 982-1003.
- DeLone, W. H., & McLean, E. R. (1992) Information Systems Success: The Quest for the Dependent Variable, *Journal of Management Information Systems* 3(4),60-95.
- DeLone, W. H., & McLean, E. R. (2003) DeLone and Mclean model of information system success:A ten-year update, *Journal of management information system* 19(4:),9-30.
- DeLone, W. H., & McLean, E. R. (2016). Information Systems Success Measurement. *Foundations and Trends in Information Systems*,2(1), 1–116.
- Discovery Digital Networks (2020) The power of captions for YouTube video viewership <https://www.3playmedia.com/why-3play/case-studies/discovery-digital-networks/>
- Dobrian, F., Sekar, V., Awan, A., Stoica, I., Joseph, D., Ganjam, A., & Zhan, J. (2011). Understanding the impact of video quality on user engagement. *ACM SIGCOMM*, 41(4), 362–373.
- Elijah V. (2021) Predictors of TV programmes quality in Tanzania: Analysis of stakeholder’s perspective, *University of Dar es Salaam Library Journal*, 16 (2), 186-201.
- Engdahl, F. (2018). Show me the money SVOD or AVOD for monetizing OTT? medium. <https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx>.
- Etayo, C. Bayo-Moriones, A. & Sánchez-Tabernero, A. (2021). The Growth of the offer and the Perceptions of TV Content Quality, *Journal of Media Business Studies*, DOI: 10.1080/16522354.2021.1984159.
- Etikan, I. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, 5, 1-4. <https://doi.org/10.11648/j.ajtas.20160501.11>
- Fatoki, O. (2020). University Students Intention to Use Mobile Technology for Grocery Shopping: An Application of Technology Acceptance Model, *Academy of Strategic Management Journal*, 19 (3), 1-9.
- Fincham, J.E (2008) Response Rate and Responsiveness for surveys, standards and the Journal: *American journal of Pharmaceutical Education*, 72(2), 43. DOI: 10.5688/aj720243.
- Frogner, H. & Bennhult, L. (2021). What keeps customers subscribing to streaming services? A Quantitative Study of E-Loyalty towards Subscription Video on Demand Services in Sweden. IBAM Thesis, Department of Business Studies, Uppsala University.
- Globerman, S. (2016). *Technological change and its implications for regulating Canada’s TV broadcasting sect.* Fraser Institute. Retrieved from <https://www.fraserinstitute.org/studies/technological-change-and-its-implications-for-regulating-canadas-television-broadcasting-sector>, on 12th August 2021.
- Gutzeit, J.; Dorsch, I.; Stock, W.G. (2021). Information Behavior on Video on Demand Services: User Motives and Their Selection Criteria for Content. *Information* 12 (2021), 173. <https://doi.org/10.3390/info12040173>.
- Hair, J.F., Hult, G.T.M., Ringle, C.M. and Sarstedt, M. (2017), *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)* 2nd Edition, Sage Publications Inc., Thousand Oaks, CA.
- Igbaria, M., Zinatelli, N., Cragg, P. and Cavaye, A.L. (1997). Personal computing acceptance Factors in Small Firms: A structural equation model, *MIS Quarterly*, 21, 279-305. <http://dx.doi.org/10.2307/249498>.
- Jensen. G.E (2012). Key criteria for information quality in the use of online social media for

- emergency management in New Zealand Master of Information Management Thesis, Victoria University of Wellington.
- Joo, J., & Sang, Y. (2013). Exploring Koreans' smartphone usage: An integrated model of the technology acceptance model and uses and gratifications theory. *Computers in Human Behavior*, 29(6), 2512–2518. <https://doi.org/10.1016/j.chb.2013.06.002>.
- Kang, S., Park, S., & Lee, S. (2014). Factors Influencing New Media Subscription Based on Multigroup Analysis of IPTV and DCTV. *Etri journal*, 36 (6), 1041-1050.
- Katunzi, A., & Spurk, C. (2018). Yearbook on Media Quality in Tanzania 2017 report. Academia.
- Keogh, E., Davidoff, J., Lessiter, J., & Freeman, J. (2001). A cross-media presence questionnaire: The ITC-sense of presence inventory. *Presence: Teleoperators and Virtual Environments*, 10(3), 282-297.
- Kim, S. (2003). Research paradigms in organizational learning and performance: Competing modes of inquiry. *Information Technology, Learning, and Performance Journal*, 21(1), 9–18.
- Kim, T. (2021). Critical Interpretations of Global-Local Co-Productions in Subscription Video-On-Demand Platforms: A Case Study of Netflix's YG Future Strategy Office. *TV & New Media*, 23(4), 405–421, <https://doi.org/10.1177/15274764219994>.
- Kortum P.T & Sullivan M (2010) The effect of content desirability on subjective video quality ratings: *The Journal of Human Factors and Ergonomics Society* 52 (1), 105-118.
- Krishnan, S.S. & Sitaraman, R.K. (2012). Video Stream Quality Impacts Viewer Behavior: Inferring, IMC'12, November 14–16, 2012, Boston, Massachusetts, USA.
- Latiff, D.I.A., Ridzuan, A.R., Mohideen, R.S., Anuar, N.K.K., Shukri, N.A.M. (2016). A Study of usage patterns and TV shows analysis on Internet TV, *Journal of Education and Social Sciences*, 3, https://www.jesoc.com/wp-content/uploads/2016/03/KC3_90.pdf
- Laudon, K. & Traver, C. (2006). *E-commerce: Business, Technology, Society (12Ed.)*. NJ Global Edition.
- Lee, C.C., Nagpal, P., Ruane, S.G., Lim, H.S. (2018). Factors Affecting Online Streaming Subscriptions, *Communications of the IIMA*, 16 (1), 2. DOI: <https://doi.org/10.58729/1941-6687.1394>
- Legramante, D., Azevedo, A. and Azevedo, J.M. (2023). Integration of the technology acceptance model and the information systems success model in the analysis of Moodle's satisfaction and continuity of use. *International Journal of Information and Learning Technology*, <https://doi.org/10.1108/IJILT-12-2022-0231>,
- Liu, Q. Fenga, G. Zhenga, W. Tian, J. (2022). Managing data quality of cooperative information systems: Model and algorithm, *Expert Systems with Applications*, 189, (1), 116074. <https://doi.org/10.1016/j.eswa.2021.116074>.
- Lwoga, E. T., & Matovelo, D. S. (2010). An Assessment of the role of TV broadcasting in dissemination of health information in Tanzania, *Tanzania Journal of Health Research*, 7(2), 98-103.
- Malewar. S & Bajaj S. (2020) Acceptance of OTT video streaming platforms in India during COVID-19: Extending UTAUT2 with content availability, *Journal of Content, Community & Communication*, 12 (2020), 86-106. DOI: 10.31620/JCCC.12.20/09.
- Marikyan, D. & Papagiannidis, S. (2023). Technology Acceptance Model: A review. In S. Papagiannidis (Ed), *TheoryHub Book*. Available at <http://open.ncl.ac.uk> / ISBN: 9781739604400

- Marvin, R. (2019). The Most Important Buying Factors for Video-Streaming Services. PCmag. Retrieved from <https://www.pcmag.com/news/the-most-important-buying-factors-for-video-streaming-services>, on 2nd June 2022.
- Masele, J.J. & Joseph, R. (2023): Media firms' preparedness and coping strategies in the emergence of social media: a case of Tanzania, *Journal of Media Business Studies*, 20 (4), 339-363. DOI: 10.1080/16522354.2022.2163794.
- McLeod, S. A. (2019). Sampling methods. Simply Psychology. <https://www.simplypsychology.org/sampling.html>. Retrieved on 25th June 2022.
- Media Council of Tanzania (2016). State of the Media, Dar es Salaam. <https://mct.or.tz/wp-content/uploads/2019/05/State-of-the-Media-Report-2016.pdf>
- Media Council of Tanzania (2017). State of The Media 2016, <https://mct.or.tz/wp-content/uploads/2019/05/State-of-the-Media-Report-2016.pdf>.
- Media Council of Tanzania (2019). State of The Media in Tanzania 2017-2018.
- Meyer, A.I.da S. and Mont'Alverne, C.R.da S.A. (2020). Os acontecimentos que marcaram a evolução da Educação a Distância no Mundo e no Brasil. *ID on line Revista de psicologia*, 14 (51), 380-392, doi: 10.14295/online.v14i51.2593.
- Munoz-Leiva, F., Climent-Climent, S. and Liébana-Cabanillas, F. (2017). Determinants of intention to use the mobile banking apps: an extension of the classic TAM model, *Spanish Journal of Marketing – ESIC*, 21 (1), 25-38.
- Nagy, J.T. (2018). Evaluation of online video usage and learning satisfaction: an extension of the technology acceptance model, *International Review of Research in Open and Distributed Learning*, 19 (1), 160-184.
- Nielsen. (2019). Play back time: Which consumer's attitudes will shape the streaming wars? Nielsen.
- Niehaves, B. & Plattfaut, R. (2014). Internet adoption by the elderly: employing IS technology acceptance theories for understanding the age-related digital divide, *European Journal of Information Systems*, 23(6), 708-726, November. DOI: 10.1057/ejis.2013.19.
- OECD (2017). Key issues for digital transformation in the G20. Report prepared for a joint G20 German Presidency/ OECD conference, Berlin, Germany, 12 January 2017.
- Ojo, A. I. (2017). Validation of the DeLone and McLean Information Systems Success Model. *Healthcare Informatics Research*, 23(1), 60-66.
- Park D.H, Lee., & Han. L (2007) The effect of on-line consumer services on consumer purchasing intention: The moderating role involvement. *International Journal of Electronic Commerce*, 11(4), 125-148.
- Paul, Y., & YANG, S.-L. (2019). A Review of the Transition Form Analog to Digital TV Broadcasting in Ghana. *DEStech Transactions on Social Science, Education and Human Science*, icssm.
- Prince.J & Greenstein. S (2018). Does original content help streaming services attract more subscribers? <https://hbr.org/2018/04/does-original-content-help-streaming-services-attract-more-subscribers>.
- Purchon C. (2014) Does video Quality matter? <https://sproutvideo.com/blog/does-video-quality-impact-viewer-engagement.html>.
- Quail, C. (2012). TV Goes Online: Myths and Realities in the Contemporary Context. *Global Media Journal*, 12 (20), 3.
- Roca, J.C., Chiu, C.-M. and Martínez, F.J. (2006). Understanding e-learning continuance intention: an extension of the Technology Acceptance Model, *International Journal of*

- Human-Computer Studies*, 64 (8), 683-696.
- Ruiz-Herrera, L. G., Valencia-Arias, A., Gallegos, A., Benjumea-Arias, M. Flores-Siapo, E. (2023). Technology acceptance factors of e-commerce among young people: An integration of the technology acceptance model and theory of planned behavior, *Heliyon* 9 (2023), e16418. <https://doi.org/10.1016/j.heliyon.2023.e16418>.
- Sammonds, L. I. (2012). Sustainable Collections: The Pay-Per-View Model, *The Serials Librarian*, 63(2), 173–177.
- Schauerte, R., Feiereisen, S., Malter, A.J. (2009). What does it take to survive in a digital world? Resource-based theory and strategic change in the TV Industry, *Journal of Cultural Economics* 45(2021), 263–293. <https://doi.org/10.1007/s10824-020-09389-x>.
- Scherer, R., Siddiq, F. and Tondeur, J. (2019). The technology acceptance model (TAM): a metaanalytic structural equation modeling approach to explaining teachers' adoption of digital technology in education, *Computers and Education*, 128, 13-35.
- Shafer, S., Robson, S., Fletcher, J., Nielson, J., Holden, W., Leitzinger, P. (2023). *Streaming video revolution: Traditional media adapts to a digital shift*. S& P. Global Market Intelligence. <https://www.spglobal.com/marketintelligence/en/index>
- Social blade. (2020). *Top youtubers in Tanzania*. Social Blade.
- Speak, R.J. (2023). Top 100 Influential YouTube Channels in Tanzania, Retrieved from <https://www.speakrj.com/audit/top/youtube/tz>, on 5th July, 2022.
- Sruoginis, K. (2018). Live Video Streaming – A Global Perspective. IAB.
- Statista (2018). Factors influencing the sources used for live video streaming in Australia in 2018, by type. Statista. Retrieved from <https://www.statista.com/statistics/896107/australia-factors-influencing-live-video-streaming-sources/>, on 28th March 2021.
- Statista (2023). Number of internet users in Tanzania from 2015 to 2022, <https://www.statista.com/statistics/1225895/number-of-internet-users-in-tanzania/>
- Sturmer, M. (1998). *The Media history of Tanzania*, Ndanda Mission Press, Ndanda,
- TCRA (2013). *Assessment Report on Migration from Analogue to Digital Broadcasting and Analogue Switch-Off Processes in Tanzania*. Tanzania Communications Regulatory Authority.
- TCRA. (2018). *Licensed online content service providers*. Tanzania Communication Regulatory Authority, Dar es salaam.
- TCRA. (2020). *Licensed online content service providers*. Tanzania Communication Regulatory Authority. Dar es Salaam.
- Tefertiller, A. (2020). Cable cord-cutting and streaming adoption: advertising avoidance and technology acceptance in television innovation, *Telematics and Informatics*, 51, doi: 10.1016/j.tele.2020.101416.
- Thong, J.Y.L., Hong, S.-J. and Tam, K.Y. (2006). The effects of post-adoption beliefs on the expectation confirmation model for information technology continuance. *International Journal of Human-Computer Studies*, 64(9), 799-810.
- URT Census (2022). *Census Tanzania National Bureau of Statistics: Statistics for Development* [online] <https://www.nbs.go.tz/index.php/en/> (accessed 2 July 2021).
- URT. (2015). *The Cybercrimes Act, 2015*. United republic of Tanzania. (0856). -0331X. Government Printer, Dar es Salaam by Order of Government.
- Venkatesh, V., Moriss, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3), 425–478.

- Vira, K. (2019). Study on factors influencing consumers' choice of digital platforms for streaming sports in Mumbai. *International Journal of Physiology, Nutrition and Physical Education*, 4(1S), 72–74.
- Waterman, D., Sherman, R., & Ji, S. W. (2012). The Economics of Online TV: Revenue Models, Aggregation, and “TV Everywhere. SSRN electronic journal.
- Wayne, M.L. (2018) Netflix, Amazon, and Branded Television Content in Subscription Video on-demand Portals, *Media, Culture and Society*, 40 (5), 725-741. <https://doi.org/10.1177/0163443717736118>.
- World Bank (2021). Tanzania-Digital-Tanzania-Project. <https://documents1.worldbank.org/curated/en/485771622426544909/pdf/Tanzania-Digital-Tanzania-Project.pdf>.
- Yang, H. & Lee, H. (2018). Hwansoo Lee Exploring user acceptance of streaming media devices: an extended perspective of flow theory. *Information Systems and e-Business Management* 16(4), 1-27. DOI: 10.1007/s10257-017-0339-x.
- Yonah, Z.O. Simba, F. & Trojer, L. (2017). Overview of Broadband Connectivity for Rural Areas-Tanzania as a Case Study. *International Journal of Computer Science and Information Security*, 15(4), 312-320.
- Yu, P., & Qian, S. (2018). Developing a theoretical model and questionnaire survey instrument to measure the success of electronic health records in residential aged care. Faculty of Engineering and Information Sciences - Papers: Part B. 1073.
- Zaied, H. (2012). An Integrated Success Model for Evaluating Information System in Public Sectors. *Journal of Emerging Trends in Computing and Information Science*, 3(6), 814–825.
- Zanatta, J. (2017). Understanding YouTube culture and how it effects today's media. Thesis. Dominican University of California.
- Zygmunt, C.S., & Smith, M.R. (2014). Robust factor analysis in the presence of normality violations. missing data and outliers: Empirical questions and possible solutions. *The Quantitative Methods for Psychology*, 10 (1), 40-55.