Tanzanians Online – Current Trends 2016

Eliamani Sedoyeka[11]

Abstract

Tanzanians like any other nationals are increasingly going online to access, use, generate and share information. With the increase of a number of technologies, applications and people online, the usage trends are ought to change day by day. This paper presents the findings of a study that aimed at learning the current usage, activities, quality perception and other issues that internet users find important.

Apart from the available data from public domains, the study used questionnaires that were distributed online into all districts and small towns of Tanzania using social media. The findings show that the use of Internet for business is still low while most use internet for personal communication via email, chatting and other social media tools. While coverage and quality experienced is viewed as satisfactory, service cost poses a challenge and most Tanzanian turn into buying bundles to fuel their connectivity requirements.

Data has also shown a strong competition among networks indicating power shift in the top four telecom companies. Despite the availability of online entertainment services, Tanzanians are yet to use internet for office operations and still slow into making use of online entertainments such as video games, online TV and Radios. The study has also found a huge gender gap in the online community with fewer women than expected. The findings are useful to regulators, telecom industry, internet service providers, academicians and the public.

11 Author's Address: Eliamani Sedoyeka. Faculty of Mathematics, Computing and Information System
The Institute of Finance Management, Dar es Salaam, Tanzania., *amani@rightclick.co.tz*

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INTRODUCTION

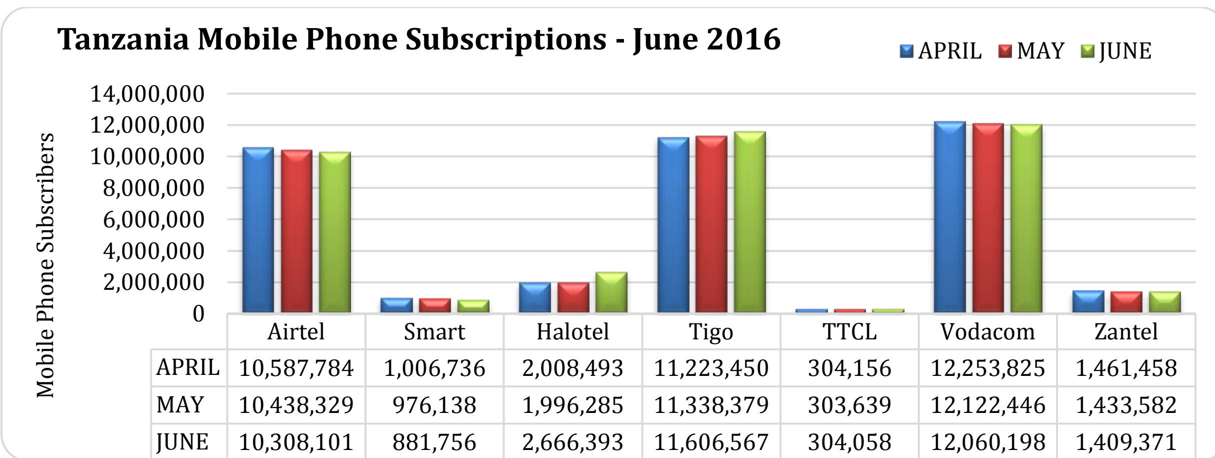
Tanzania like any other developing country, has witnessed unprecedented increase on the number of mobile users. With the change on technologies and mobile phone capabilities, functionalities and capacity, the increase number of mobile phone users corresponds to the increase number of internet users [Meeker and Wu, 2013]. The global nature of the industry means strong competition among telecom companies and hence a number of options and in some cases low internet cost for users [ITU, 2014].

This increase of internet users has also brought about a number of challenges to the industry. One of these is the slow speed in which internet local contents are created and as a results, most Tanzanians access foreign domains for basic information [Pejovic et.al, 2012]. Another challenge is directed to the Internet Service Providers (ISP) on the internet demands which has resulted into fluctuations of pricing structures. The changes of technologies, from second generation (2G) to third generation (3G) to now fourth generation (4G) has also meant that users might get access to different speeds. From scholarly point of view, there is no enough literature that highlights these trends, looking into what Tanzanians are doing online, their perceptions on quality, cost and overall experience.

This paper presents the findings of a research designed to study a currently Tanzania online trends by number of activities conducted by Tanzanians online. Specifically, the study wanted to know user's profiles in terms of age, gender, locations, income range and profession. The study also wanted to establish the frequency of internet use, how users are connected (network) and their price and quality perceptions. Furthermore, the study wanted to find out, among other things, what exactly do Tanzanians do when they are online. Having aimed at knowing the online activities, the research targeted those already using the Internet, via social media.

Tanzania is an East African country located at the east coast of Africa, bordering Indian ocean. With a population of over 48 million, Tanzania has experienced a steady economic growth of around 6.5% for over 10 years. Telecom sector has constantly contributed over 8% of national GDP and is considered one of the pillars of Tanzania economy. With the rise of mobile money usage, Telecom sector has rivaled banking sector on volumes of money transfer and has now became a reliable means of money transfer to most part of Tanzania, including areas with no electricity or banks.

According to TCRA, Tanzania has over 39 million subscribers by June 2016, with Vodacom leading the way with over 12 million subscribers, while Tigo catching up fast with over 11.6 million subscribers (fig. 1). The country has over 17 million registered mobile money users with Vodacom's M-Pesa leading the way while Tigo's TigoPesa coming second (fig 2).



	Airtel	Smart	Halotel	Tigo	TTCL	Vodacom	Zantel
APRIL	10,587,784	1,006,736	2,008,493	11,223,450	304,156	12,253,825	1,461,458
MAY	10,438,329	976,138	1,996,285	11,338,379	303,639	12,122,446	1,433,582
JUNE	10,308,101	881,756	2,666,393	11,606,567	304,058	12,060,198	1,409,371

Figure 1: Tanzania Mobile Phone Subscription by June 2016, TCRA [2016].

	Airtel Money	Tigo Pesa	M - Pesa	Ezy Pesa
APRIL	4,026,631	4,997,672	6,950,240	324,897
MAY	3,955,223	5,200,858	6,904,002	340,094
JUNE	3,964,029	5,584,052	7,467,346	322,783

Figure 2: Tanzania Mobile Money Subscriptions by June 2016, TCRA [2016].

After the introduction, the relevant literature is presented in the next section in which more relevant data are also presented followed by the methodology. The main section of this paper, findings and analysis will follow, in which data collected and analyzed will be presented. This paper's conclusion will be presented after the analysis.

LITERATURE REVIEW

Being connected or being online is rapidly becoming one of the key requirement for most of global citizens especially those living in urban or semi urban areas. Since the arrival of mobile technologies, more people are being connected via their mobile devices [Meeker 2015]. In Tanzania for example, the trend is the same with over 38 million registered mobile phone users that comes with over 17 million internet users [TCRA 2016]. The rise of mobile technologies and mobile phone has pushed the global internet use to over 3 billion users while introducing a number of services such as mobile apps, bill payment and location services [IS, 2015]. These numbers however, leaves over 53% of world’s population unconnected [ITU 2016].

These numbers show that Internet is changing the way we live, communicate relate, acquire knowledge and importantly, conduct business. For example, Cuomo and Lian [2015] observed a decline in the traditional marketing methods in pharmaceutical industry caused by the increase in digital marketing that is directly targeting the consumer, who are now increasingly using mobile devices. It has also been observed that the health sector has witnessed a huge change with consumer having access to information and therefore access to accurate information is of high importance [Mandy et.al, 2014]. With the rise of internet access and trend in digital marketing, online business has constantly been on the rise as organizations are looking to improve buyers' online shopping experience by looking into factors that motivate web users to shop online [Pavur et.al, 2016]. These constant improvement has boosted entertainment and related sectors by creating convenient and practical way of purchasing or accessing online service [Hiller and Kim 2014].

On the challenging side, access to internet can create problems in society. For example, studies point out that internet addiction is now becoming a concern with a number of people being unable to be disconnected for even short periods [Pointers et.al, 2015, Lee et.al, 2015]. On the other hand, online harassment especially among youth and university students is considered on the rise and hence deserves attention from policy makers, academia and regulators [Lindsay and Krysik, 2012]. Since what we do online might contribute to who we meet, relate, work with and sometimes become [Pointers 2015], the increase in online harassment is likely to be caused by how these young generation uses the internet [Jones et.al, 2013].

Internet connectivity has also connected activists in different geographical locations. After witnessing how it was used during the Arab Spring, online access has created a new and effective democracy platform [Wiss 2014]. The use of social media in promoting personal opinion, sharing thoughts or conduction discussion has often posed a dilemma of whether or not can social media be relied on and hence the future of social media in democracy is questioned [Gayo-Avello 2015]. Although viewing global democracy from USA and EU perspectives might neglect local and traditional norms, Internet can still be a tool to bypass the ruling elites that rules many developing areas for their benefits [Omalicheva 2015].

Online access has also created new trends in education. With the use of online videos, lectures are becoming more flexible whilst simplifying leaning and enhancing learning and knowledge acquisition [Lopes and Soares 2016]. Apart from using internet as a teaching tool, many institutions are offering online education for years. While this has been the positive move with increase in the development of online courses, completion rate of these courses is still low [Jordan 2014]. Other professionals in education and research have been taking advantage of these online trends by making use of smartphones to conduct online surveys. Since a good number of internet users are using smartphones, online questionnaires have become a regular tool for surveys [Buskirk and Andrus 2012].

Globally, internet is becoming one of the cornerstone of our lives, workplace, business, healthcare to name the few. Among other things, the dynamic business world has a shift towards outsourcing to small companies and freelance contractors [Beerepoot and Lambregts 2015]. According to ITU [2016], although 3.9 billion people are still not connected to the internet, over 95% (seven billion) of global citizens live in area covered by mobile network with over 4 billion people inside Long Term Evolution (LTE) coverage. On the other hand, mobile penetration is forecasted to reach at least 71% by 2019 [IS, 2015]. With these numbers, the global trends are shifting towards online life with businesses increasing online activities. For example, global public internet companies as ranked by their market capitalization shows their total market cap rose from $17 billion in 1995 to $2.4 trillion in 2015 [Meeker 2015]. This shows, with the projected connectivity and internet penetration growth, more business is going to be conducted online. This means other sectors will also have to adopt and therefore understanding society's online trends will assist these sectors into acting accordingly.

METHODOLOGY

The study whose results are being presented in this paper used quantitative approach in which online questionnaire was distributed via social media. After creating the questionnaire, researcher used Google Forms to create an online questionnaire. The online questionnaire was then distributed using social media, mainly WhatsApp for the first week and Facebook for four following weeks.

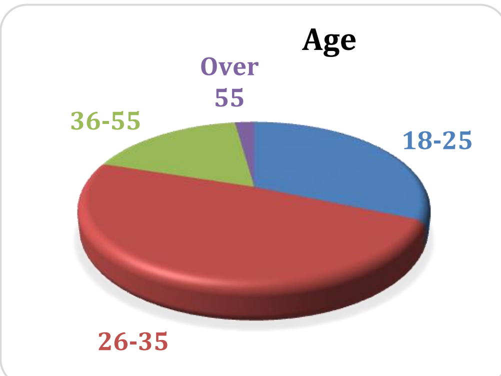
The questionnaire was designed in 5 main parts. The first part aimed at users's profiles, asking about their age group, gender, location, current occupation etc. The aim was to understand whether there is any relationship between these data and their experience online. The second part focused on internet usage experience in terms of service availability, the network used and users' perception about the quality. The third part looked into costing issues, users' feelings about cost and different payment experiences such as in internet cafe. The fourth part looked into the actual activities online and users' behavior such as the frequency of using social media, email and key activities, in which participants were asked to choose six activities (out of twenty) mostly conducted online. The final part looked into the non technical quality of service issues, also known as Quality of Experience (QoE) such as helpdesk availability and usefulness of the purchased service (internet connection).

Due to the fact that the research was aiming at understanding the online trends, this work targeted all Tanzanians regardless of the age, gender, or geographical location because for someone to use social media means that they are already connected. Data were automatically collected into tabular spreadsheet from, a data management standard for Google Forms. From there, data was transferred into Microsoft Spreadsheet and analysis task began.

A total of 2304 questionnaire were filled from all regions and districts of Tanzania. It was observed that some of the participants had filled over one form and therefore it was imperative that data had to be cleaned. After removing the uncompleted and repeated records, a total of 1931 records were left, which was viewed as sufficient for the study.

FINDINGS AND DISCUSSION

The internet use in Tanzania appears to be rising over the years reflecting data provided by ITU. Of the 1931 participants almost half (49%) being of mid age 26-35 followed by 18-25 age group (students) with 31% (fig 1). It was expected however that the students' group would dominate considering the fact that the research used social network especially Facebook to conduct the study. The gap between male to female was also surprisingly big with 89% male and 11% female. Although using technology has been viewed to learn more towards male population, the findings show a huge indication of a gender digital divide. The research has also seen the relationship of education and the use of social media with over 38% of the participants having a degree or more and over 20% being in college while only 4% with primary school education (fig. 2).



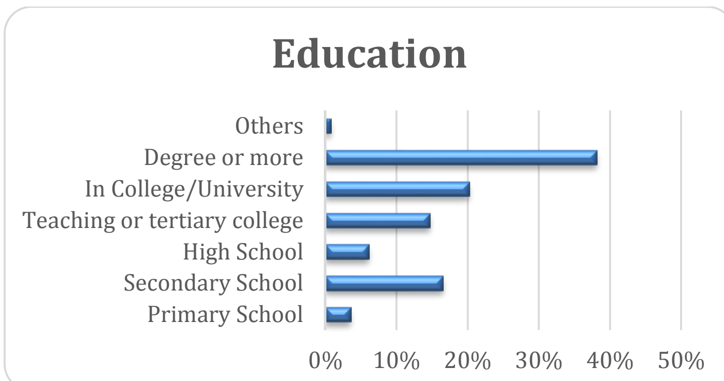


Fig 1. Age of the participants

Fig 2. Education of the participants

It should be noted however that since it was clear that this is the research, many social media users chose to ignore or participate and their education background might have weighed in their decision to participate or not. Another notable data is that of the income in which the leading group is the lower middle class of TZS 150,000 – TZS 500,000, relating to students in colleges followed by upper middle class of TZS 500-TZS 1,200,000 (fig 3).

Fig. 3 – Income of the participants.

Furthermore, the study reached out to all regions of Tanzania with Dar es Salaam, Mbeya and Arusha leading the way (fig 4). It should be noted however that Dar es salaam has a relatively high population density.

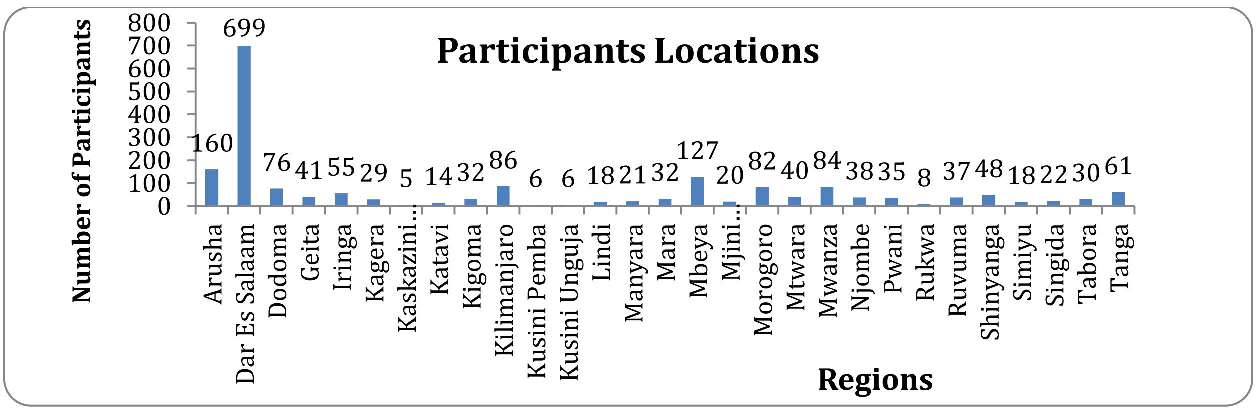


Fig. 4 – Locations of the participants, totaling 1931.

Internet Connectivity

Most participants either access internet everyday (68%) and every hour (24%) (fig 4). Although these numbers were expected due to the methodology of the study, it is evident that being connected to the internet is becoming the basic need. When asked about which network they use to get access to the internet, most participants indicated that they use more than one network. Figure 5 shows Vodacom leading the way, followed closely by Tigo and Halotel. It should be noted however that most participants are using cellular network to get connected via their mobile devices.

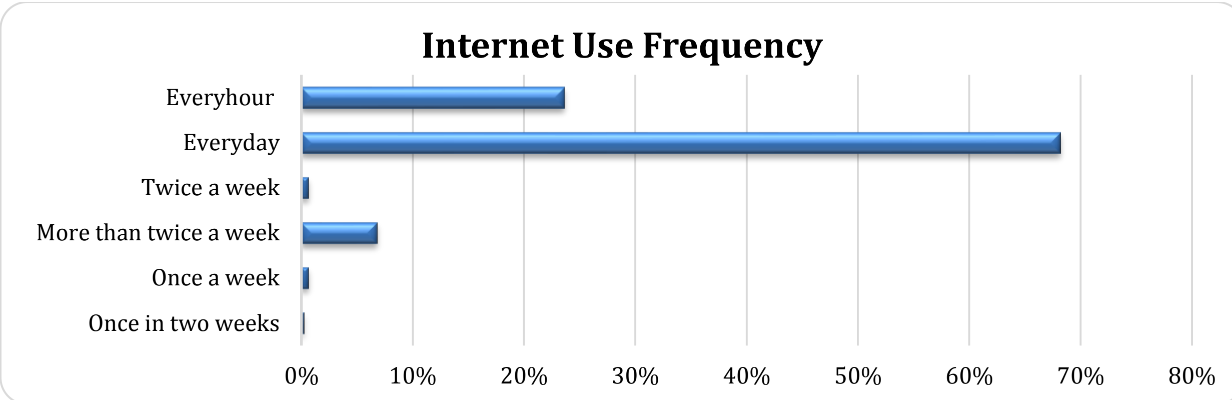
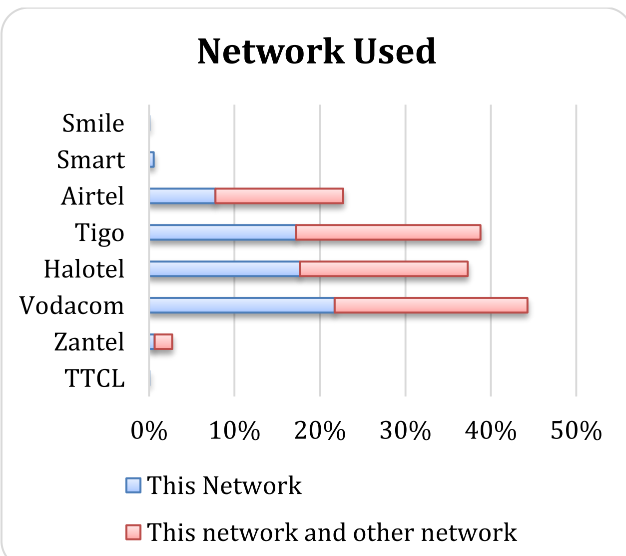


Fig 4 – Frequency of internet use

Of all the telecom companies, Halotel has shown huge expansion in the two years of operation, surpassing Airtel.



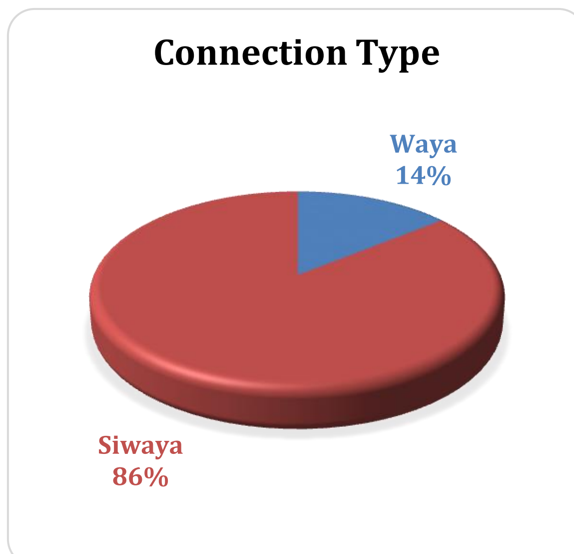
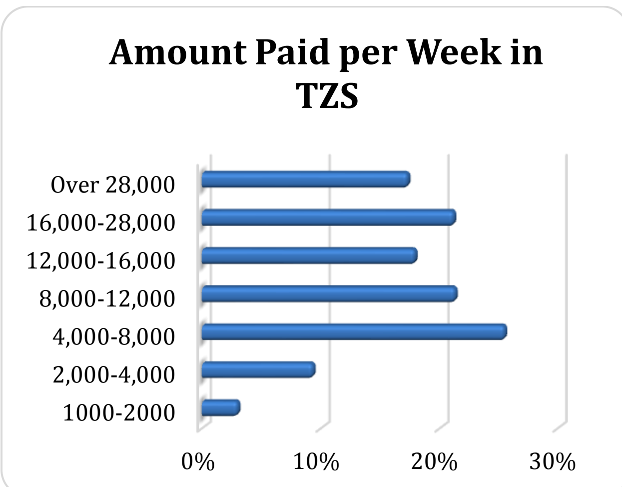


Fig. 5 – Networks mostly used to access the internet from mobile phones and modems.

Fig. 6 – Connection Type.

Connectivity Cost

The study also wanted to find out the views and perception of the users about the cost of being connected. As it can be seen (fig. 7), more than 58% are spending over TZS 12,000/- (US $6) per week and over TZS 48,000 per month. Furthermore, most users prefer using bundles over pay as you go (credit top up) as shown in figure 8 with almost 80% going for weekly bundles (fig. 8).



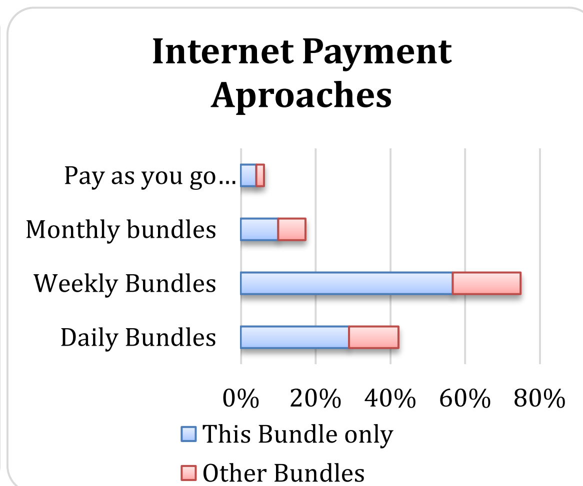


Fig. 7 – Weekly spending o Internet

Fig. 8 – Preferred bundles.

When asked about their views about the price, majority (55%) said it was either expensive or very expensive while the rest said it was good or average (fig. 9).

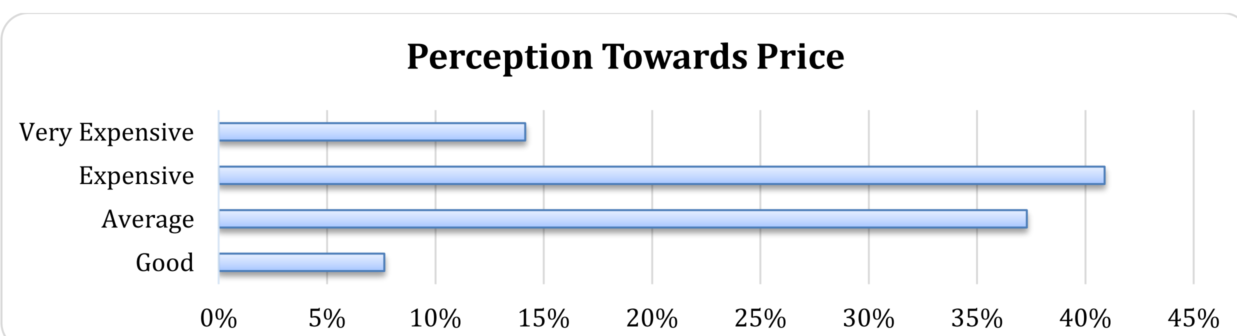


Fig. 9 – Participants views towards prices they are paying to access internet.

Some of the participants uses internet café to access internet. When asked about the cost, results were not much different from those accessing internet from phones or modems with 62% indicating that they find cost either expensive or very expensive (fig. 10 & 11).

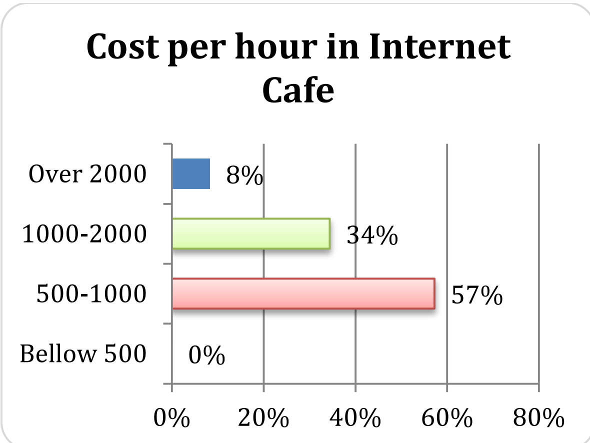


Fig. 10 – Cost of using Internet Café.

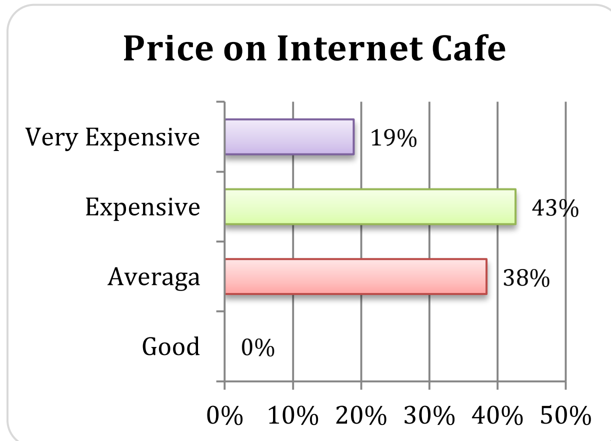


Fig. 11 – Internet Café price perception.

Although the use of internet cafes is constantly in the decline as many customers have moved into mobile devices, participants still find these facilities as useful for use such as university or job application, where one has to fill long forms or attach files, tasks that cannot be performed on mobile phones.

Online Activities

Being connected is becoming a fundamental necessity for modern world as many governments turns into online services to send public services closer to citizens. This means the quality of the service offered must be reasonable, meeting the minimum standard to support basic applications [Sedoyeka et.al, 2009). When asked their views about quality, most seems to be satisfied with the quality they are receivingwith 50% saying either good or very good with over 42% saying the network is average (fig. 12). As indicated in the fig. 4, many participants get online every day and over a quarter of them, every hour with over 51% said they cannot stay away from their phone for over one hour and over 67% within six hours (fig. 13). When asked about emails, over 45% said they cannot go over six hours without checking their email while 69% said the maximum time they can go is one day (fig. 14).

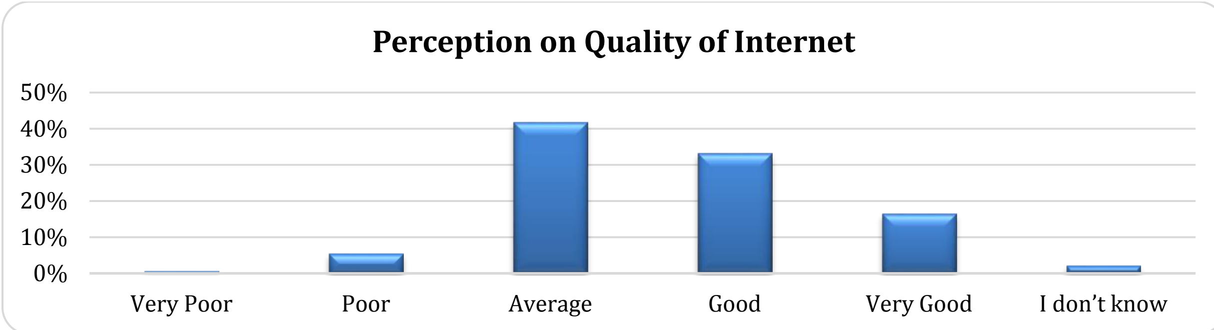
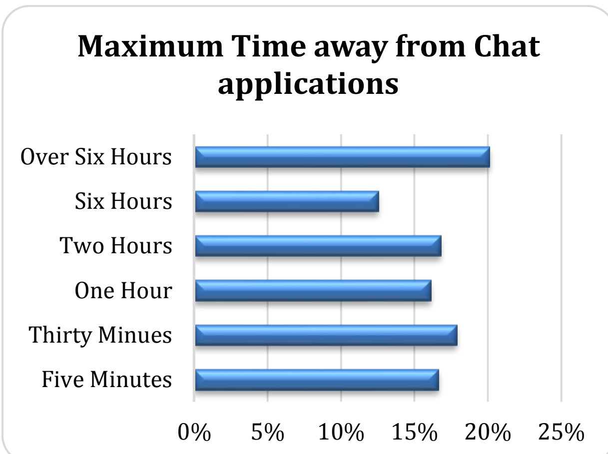


Fig. 12 – QoS Perception.



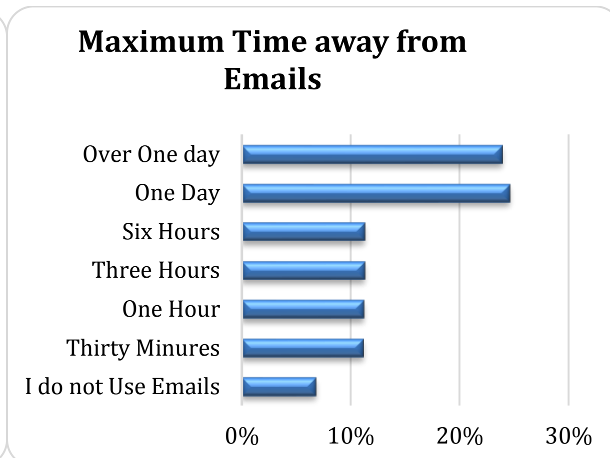


Fig. 13 – Maximum time away from mobile device chat applications.

Fig. 14 – Maximum time away from Emails.

The core of the study was to establish the activities performed by Tanzanian online. When asked about their time online, in which participants were asked to choose six most activities they each do the most online, many indicated that acquiring knowledge in education and research (83%)and social networking (81%) being the leading activities (fig. 15). Communicating or keeping up with friends via emails (68%) or chatting (63%) is pointed to be important as well. On the lower end, video conferencing, online TV, online gaming is still low.

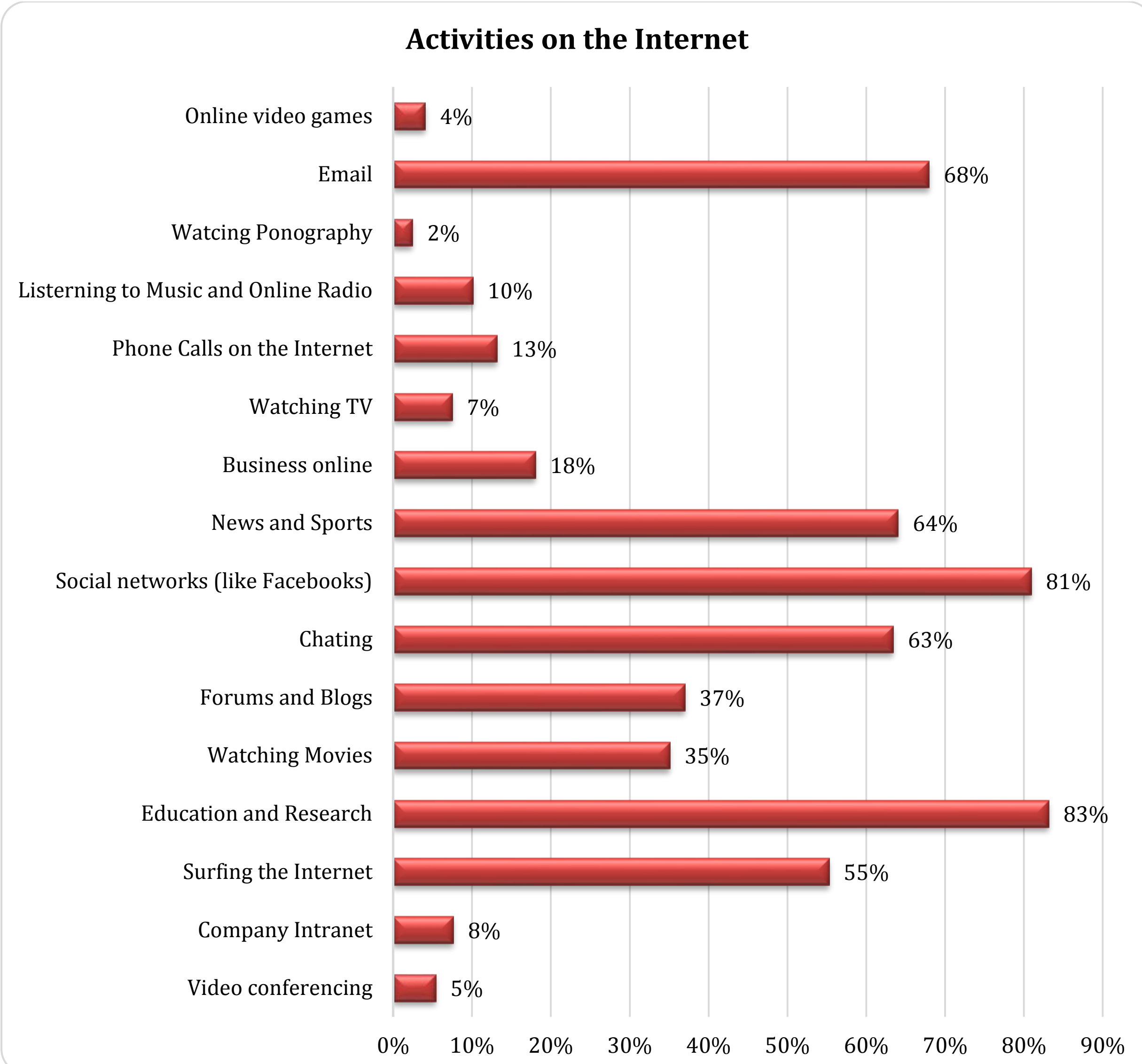


Fig. 15 – Main Activities performed by Tanzanians online by 2016.

Trends and Notables

Internet use for business is still low – Although email usage is on the high, using internet for business is still a challenge. Business tools such as video conferencing are still underutilized with only 5% of the participants using it while only 8% use company's intranet. Online business is low as only 18% use it.

Personal communication is on high – With email and social media leading the way utilizing chatting applications to network and keeping in touch, Tanzanians are making a good use of internet for communicating. With the rise of smartphones, over 50% cannot stay away from their phones for over one hour.

Education and Knowledge seeking is on the high – With over 83% using internet for education, 64% for news and 55% for general internet surfing, positive use of internet is noted. This might not represent the true picture due to the nature of the study, using social media as a data collection tool in which the over 58% of the responders has a degree or are in college.

Quality of Service (QoS) is acceptable – QoS from users' perspective is perceived to be good and acceptable with 50% saying is either good or very good and 42% saying QoS is average. Further scrutiny on QoE is needed.

Prices are affordable but expensive – Many participants perceive the prices as expensive (41%) and very expensive (14%) and most turned into weekly bundles in which they also get calls and texts while most networks offer special bundles for social media. On the other hand, most networks allow their subscribers to access Facebook for free.

Big Companies vs Small Companies – Over the past two years, Tigo and now Halotel have challenged the traditionally big companies, Vodacom and Airtel in providing internet connectivity. With a small margin, Vodacom is leading while Tigo has moved to number two followed by Halotel in three and Airtel is now fourth.

Internet café are no longer the way to get online – Digital devices and cellular data connectivity has brought connectivity into users' hands.

Online entertainment is on the low – Online gaming (4%), Online TV (7%), Online movies, Online music and radio (10%) are all in the low. Despite the availability of these applications, Tanzanians are yet to turn online for entertainment.

Generally, the industry trends globally and locally are showing positive signs. In Tanzania, internet penetration and coverage growth is in the right direction as witnessed by this study where each part of Tanzania was reached. The online activities and trends indicates a vibrant online community that is well connected to the global flow of information. With over 39 million subscribers and over 17 million mobile money registered accounts and over 17 million internet users [TCRA 2016], Tanzania connectivity and penetration is growing fast. However, there is still a gender imbalance with only 11% of women participants, painting a general picture of Tanzanian online community. While this gender digital divide is being witnessed, there are those that are not even connected with cellular coverage. To resolve this, Tanzania government has established Universal Communications Service Access Fund [UCSAF 2016] to work with the existing telecom companies, mostly through subsidization, into reaching rural areas originally considered as unfeasible for business.

CONCLUSION

This paper has presented findings of the study that aimed at understating the current online activities and trends done by Tanzanians. This was conducted in order to establish the key industrial trends locally and data about users' trends, their QoS and price perception which prints a picture of what Tanzanians are doing online and its implications going forward. To accomplish this, online questionnaire was distributed to users within Tanzania via social networks especially WhatsApp, Facebook and emails, in which a total of 1931 good questionnaires were keyed in.

Tanzanians are found to use internet mostly for personal communication and educational purposes. A small number of users were found to use internet for business purposes. While QoS is perceived as acceptable, many find price of connectivity as high and most have turned into buying low cost bundles. This way, many Tanzanians are now moving away from internet café and rely on their personal mobile devices to access the internet. Although there is a number of available online entertainment such as online radio, TV and movies, a small number of Tanzanians are turning online for entertainment.

Of the key notable industrial trend is the growth of Tigo into the powerhouse challenging Airtel and Vodacom and the exponential growth of Halotel, a two-year company that has surpass Airtel in the number of internet users by jumping into number 3 spot. With over 38 million cellular subscribers and over 17 million internet users, there are positive signs that Tanzania is moving into the right direction with network such as Halotel putting emphasis in rural connectivity.

The study has also seen a relationship between education and use of internet use, which seems to be the trend globally. There also seems to be a huge gender digital divide. Although this study did not focus on digital divide, the nature and methodology used to conduct this study has automatically exposed the divide with a small number of female users responding to the study. Further research into the subject is will be beneficial to the industry.

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