

## THE INTERNET TRENDS AND EXPERIENCE: THE CASE OF GHANA

Adasa Nkrumah Kofi Frimpong  
Christ Apostolic University College, Kumasi-Ghana  
adasankrumahkofi@gmail.com

Carlo Vaccari  
University Of Camerino, Italy

### **Abstract:**

The paper was intended to find out the Internet experience among Ghanaian users. The motivation of the paper was compare the current Internet trends and experience in Ghana, a West African country, to the rest of the world. The research philosophy was based on the subjectivist view using the positivism philosophy. The survey method using online questionnaire was used. The respondents were from undergraduate students of the University of Education, Winneba – Ghana. Data collected was analysed and conclusions made. From the data analysis, the following findings and conclusions were made: There were more male online users than female users. Google, Facebook, Yahoo, Microsoft, and Wikipedia were still popular in Ghana. However, Apple and Amazon were less popular. Facebook was the most popular photo sharing platform in Ghana followed by Instagram, Flickr, and then Snapchat. The online Video portal: YouTube was popular and used to a large extent in Ghana. Facebook was the number one social media platform in Ghana and together with other social networks; they were used several times a day. The most used activity on social networks was reading such as reading posts, comments, tweets amongst others. Mobile phones were the most used device to access the web all the time in Ghana with Smartphone leading in the category of phones used. Samsung Smartphone were the most popular and used brand in Ghana. The most popular Smartphone operating system was Android. iPad was less popular with Samsung tablets more popular and the most used tablets in Ghana.

*Keywords: internet, Ghana, social media, innovation, information technology*

# 1. INTRODUCTION

International Telecommunication Union estimates that by the end of 2013, there will be an estimated 2.7 billion people using the Internet worldwide. This figure imply that 40 per cent of the world's population will be using the Internet by the end of 2013 against 35.57% for the year ending 2012 (ITU, 2013a). What it means is that the global use of the internet is growing at such an exponential rate.

Even though the lowest household Internet penetration is found in Africa and the developing world, there is still a relative increase in the use of Internet. In 2012 there were 24% of households with Internet access in the developing world. The figure shot up to 28% for the month ending September, 2013 (source: (ITU, 2013b). In 2010 there were 10.64% people with access to the Internet per 100 inhabitants in the Sub-Sahara African, and 15.35% in 2012.

The situation in Ghana, a developing country with a total population of 25, 546, 000, is no different. In 2008, there were 4.27% of people with access to the Internet per 100 inhabitants, 7.8% in 2010, and by the end of the year ending 2012 there were 17.11% higher than 15.27% average of Sub-Sahara Africa (ITU, 2013b). Internet is used extensively in Ghana for so many purposes; in education, entertainment, and business, among others. By far, the youth has the greatest Internet usage.

This research is intended to find out the current Internet trends and experience among Ghanaian users. The research is vital as existing literature on the topic was difficult to find if not lacking. The youth was focused because they were considered more Internet savvy and constitute a greater proportion of the Ghanaian population. The motivation of the research stems from a report published by Mary Meeker and Liang Wu (Meeker & Wu, 2013) at the Wall Street Journal's D: All Things Digital conference. This report was therefore used as a benchmark to ascertain the Internet trend situation from the Ghanaian perspective.

## 1.1. Problem statement

Even though Ghanaians have their own way of life regarding socialization, entertainment, trade, among others, the use of the Internet has become part of the socioeconomic development of the country. Prior to the introduction of the Internet, it was common for young children to gather at a common place to socialize and entertain themselves with a wide range of outdoor games. Perhaps the high temperatures characteristic of Ghana needed people to be outdoor to refresh themselves with cold/fresh outdoor air; they never needed Internet for entertainment.

The way of trading was the barter system where goods and services were exchanged. Socialization was mainly through such functions as religious gathering, marriages, and family meetings, among others. Marriages were contracted by or with the supreme consent of parents. Distant and unknown suitors were never accepted. Such activities as entertainment, education, finance and banking, communication, events, product information gathering, purchasing of goods, travel arrangements, among others were done differently with no reliance on the Internet. When Internet was introduced in Ghana, it was highly expensive and limited to Ghanaian institutions, large business, foreign companies, some universities, and a few rich families who could afford it. Internet in pre-tertiary educational institutions was uncommon.

The situation has tremendously changed over the years; Ghanaians are now of a generation who are Internet savvy. As explained by Kasule, (2013), Ghana, in 1999 had a total population of 18,599,549, out of this 20,000 people were internet users. According to Internet world Statistic, this number continued to rise from 2,085,501 internet users out of a population of 24,791,073 in 2011 to 3,568,757 internet users out of a population of 25,292,392 as at the month ending June 30<sup>th</sup> 2012. Children no longer gather in the evenings to engage in outdoor games, businesses and government institutions are now highly dependent on the Internet. It is common to see Internet connection in most educational institutions with strong emphasis on Internet related activities such as online payment and registration. The nature of entertainment has revolutionized; as outlined by Kasule (2013), being entertained in Ghana means engaging oneself in one form of online virtual activity or the other. Such things as music and video streaming, computer games, chatting on social networking, among others are all done in the comfort of one's home via the Internet.

The internet has come to replace the old traditional system of banking to new modern system of online banking. In decades ago, people had to contend with long queues at banking halls for transactions. This has given way to modern banking practices via the Internet where people no longer put monies in their mattresses but takes the advantages inherent in modern banking for deposits and withdrawals.

Internal and external communication before the introduction of the Internet was extremely difficult. People relied on the bus drivers to deliver message orally or in the form of written letters. Real time communication locally or abroad was uncommon; it was done through communication centers where messages were deposited for relations to arrive at a predefined time in order to communicate. However, the introduction of the Internet has come to change all these hurdle; Ghanaian's just like the rest of the world with access to the internet has a tremendous use of real time communications through the numerous social media platforms such as Facebook, Twitter, Whatsapp, Viber, BlackBerry Messenger, Instagram, Flickr and so many others. According to Kasule (2013) 33% of Ghanaians make use of online communication always, 25% made use of it frequently, with 30% using it occasionally.

Coupled with the increase in Internet spectrum and the numerous advantages inherent in the use of the Internet, the number of users is on the ascendancy, however little is known regarding the surfing behavior and experience of users. This research was therefore intended to bring to light the surfing experience of Internet users in the Ghana and to compare this experience with the best in class in the developed world.

## **1.2. About Ghana**

Ghana is officially called the Republic of Ghana. It is a country in West Africa. It borders Côte d'Ivoire to the west, Togo to the east, Burkina Faso to the north, and the Atlantic Ocean to the south. The capital city is known as Accra and it is the largest city with Kumasi as the second largest city. Ghana was the first black African country to obtain independence from colonial rule from the United Kingdom in 1957. Ghana is known for her supremacy in democracy and is often cradled as the hub of Democracy in Africa.

Ghana is one of the leading countries in West Africa, a member of the Sub-Saharan African (SSA) sub-region. West Africa is made up of 16 countries with a combined estimated population of 312 million. The largest countries are Nigeria and Ghana, accounting for 60% of total population in the sub-region. As at 2012, the total population of Ghana stood at 25,546,000. (ITU, 2013a).

The internet code of Ghana is .gh. According the Wikipedia encyclopedia (Wikipedia, 2013), Ghana was one of the first countries in Africa to achieve the connection to the World Wide Web. Again, Ghana has the 4th fastest Internet connection on the African continent and the 87th fastest internet connection in the world, out of 182 countries. The use of Internet was not predominant until in 2011 when Ghana's internet subscription rose sharply, and in 2010, there were 165 licensed internet service providers in Ghana with 29 running fiber optic. VSAT operators were 176, of which 57 functioned, and 99 internet operators were authorized to the public, and private data and packet-switched network operators were 25 (Source: Wikipedia, 2013).

According to Calandro, Stork, & Gillwald, (2012) there were less than a quarter of households having a computer and even fewer Internet access. They estimated that about 2.7% of households had a working Internet connection with 19.7%, the highest, in South Africa for the African sub region. Concerning Internet usage, Calandro et al., (2012) stated a 5.6% usage in Ghana. While the Frequency of Internet daily usage was at 32% at 2008, the figure rose to 43% as at the year ending 2012 (source: Calandro et al., 2012). For Calandro et al., 2012 paper, when respondent were asked on where they used the Internet in the last 12 months, 61% said they used mobile phones, 35% said they used it at work, 51% said they used it at place of education, while 58% said they used it at Internet Cafes. It is interesting to note that 81% of the respondent of Calandro et al., (2012) paper stated that they had signed up for social media networks.

ITU, (2013a) estimates that there are 77.7% penetration rate of households with Internet access in the developed world per 100 inhabitants as at June, 2013, 41.3% in the world as a whole, and 28% in the developing world. It is the later percentage that Ghana falls. Therefore by far the lowest household Internet penetration is found in Africa. The Internet worldstats estimates that, as at the year ending

2012, there was a total population of 1,073,380,925 in Africa. they state further that there are 167,335,676 Internet users currently in Africa from 4,514,400 users in the year 2000, representing 15.6 % of the total population and 3,606.7 % growth from the year 2000 to 2012 (Source:Internetworldstats, 2013).

## **2. RESEARCH DESIGN**

The Internet experience among Ghanaians is such an extensive research that care need to be taken when selecting a research design. A research in this area therefore requires a thorough understanding of the approach and a reliable method to address the research statement. Having chosen a quantitative methodology using the positivism philosophy, the next step was to choose the exact procedure for implementing it. There are several procedures; however, as a result of a number of considerations and the limitation therein, the survey method using online questionnaire was used.

The survey strategy, according to Saunders et al., (2009), is a good strategy to answer who, what, where, how much and how many type of questions which are characteristic of this research. It is also a good strategy for exploratory studies which forms the fulcrum of this research. Again, Surveys allow the collection of data from a sizeable population by taking a sample as a microcosm in a highly economical way which is easy to explain and to understand. This method helped the researcher to have access to respondent remotely since the researcher is undertaking the research far away from the respondents. The method is also ideal since the researcher have access to the respondents via the web. Also, the survey strategy allows the collection of quantitative data which can be analysed quantitatively using descriptive and inferential statistics (Saunders et al., 2009).

### **2.1. Population and sampling method**

The population of this research was all Internet users in Ghana. However, it was impracticable to survey the entire population as a result of budget constraints, and the time horizon. For this reason, a sample was needed. According to Saunders et al., (2009), Sampling also saves time, an important consideration when tight deadline is held. The organisation of data collection was more manageable as fewer people were involved. With fewer data to enter, the results will be available more quickly and therefore to meet the demand of the module.

The sample for the research was a purposive sample from undergraduate students of the University of Education, Winneba – Ghana. They were purposively selected because they are university students and were assumed to have a better Internet experience. Data collected was analyzed and conclusions made.

## **3. FINDINGS**

This section presents the findings of the survey from the point of view of the respondents. As mentioned earlier, the respondents were students of the University of Education, Winneba. The questionnaire was online as such the respondents were invited remotely via email and social media using Facebook. The survey was activated and data collected from 29th November, 2013 to the 29th December 2013. Most students of the University of Education, Winneba in Kumasi-Ghana were invited via email and social media to provide responds questions. With a total of one hundred and fifty students (150) invite, the target was 90% response, but this was not possible. Instead 61% was realized. Out of the 150 students invited, 92 completed the questions.

### **3.1. Age distribution of respondents**

42 respondents representing 46% of the total respondents were in the age group 26 – 30; they were the highest age group. 29 representing 32% were in the group 31 – 35 whilst 15% were in the 18-25 group with 5% in 36-40. The age distribution of Internet users in Ghana followed similar global trend as noted by Statista, (2013), that 26 percent of global internet users were between 25 and 34 years old. The Internet Society (InternetSociety, 2013) in their 2012 Global Internet User Survey also found that 70% and 61% of Internet users in the age group 30 – 34 in South Africa and India respectively use the Internet many times a day, 79% in the age group 25 – 29 in East Asia, same percentage for the same age group (25 – 29) in China. InternetSociety, (2013) further reported that the highest age group (42%) of Internet users in Kenya were in the group 35 – 39.

### **3.2. Sex distribution**

Similar to Seybert, (2011) and ITU's press release (ITU, 2013c) on 21 September, 2013 that globally there are currently 200 million fewer women online than men, there were more males online than females in the study. 73.91% were males while 26.09% were females. This result tends to depict the fact that there were more male online presence than females in Ghana. According the ITU's press release the global gap could grow to 350 million within the next three years if action is not taken. On the contrary to the dominance of male online, BurstMedia, (2013), reported that women lead men in social media in the US. The trend is similar in South Africa as InternetSociety, (2013) reported that there are 59% of male Internet users against 57% female users who are online many times a day. In India, there are 54% male users against 52% female users with 71% male users against 69% female users in East Asia many times a day. The situation in Kenya as reported by InternetSociety, (2013) was quite different as there were only 35% male users against 23% female users many times a day contrary to 77% and 75% male and females online users many times a day in China.

### **3.3. Educational level**

On the educational level of the respondents, most of the respondents were bachelor degree holders; 67 representing 73% had first degree (Bachelor), 18% were second degree holders, 4% were diploma holders, 2% HND holders. The rest were 1% certificate holders. The above result suggest that users in Ghana with higher education used Internet more than those with lower education which is similar to the research by Seybert, (2011) on the Internet use in households by European individuals in 2011; Europeans with higher education used the Internet more than those with low education.

### **3.4. Duration of internet use**

In order to find out the true Internet trend and experience of the respondents, there was the need to ascertain how long they have been using the Internet. The data collected, suggested that over 76% had used the Internet for more than five years. 16% had used it between 3-4 years with 2% between 2 ½-3 years, 4% between 6-12 months. Only one person representing 1% had used the Internet between 1-1 ½ years. This suggests that the respondents had quite a good experience of the Internet and were therefore in a better position for analysis.

### **3.5. Ranking frequently visited sites**

The respondents were asked to rank seven websites according to their most popular and most frequently used. This question was intended to ascertain whether the popularity of these sites were similar in Ghana. The table 1 shows the rankings from the perspective of the respondents on scale 1-7 according to the most frequently (1) used to the least (7). According to the web information company, Alexa, (Alexa, 2013a), google.com, facebook.com, youtube.com, yahoo.com, baidu.com, Wikipedia.com, qq.com, amazon.com, taobao.com, and live.com were the ten most favorite sites of the world. From table 1, it was deduced that there appeared similar trends in Ghana. From the data collected, the respondents ranked the stated sites from the most frequently visited to the least as in the order; Google.com, Facebook.com, Yahoo.com, Wikipedia.com, Microsoft.com, Amazon.com, and apple.com.

It is important to note that results here is similar to other researches on the top sites in Ghana, for instance, alexa list facebook.com as the most visited site in Ghana followed by google.com.gh, yahoo.com, google.com, youtube.com, ask.com, ghanaweb.com, live.com, wikipedia.org, and goal.com. Apart from the listed websites, other frequently visited websites as stated by the respondents included myjoyonline.com, Ghanaweb, youtube.com, twitter.com, LinkedIn, pinterest.com, and jobsinghana.com.

**Table 1:** Ranking of frequently visited sites in Ghana

Website	1st Ranking/%	2nd Ranking/%	3rd Ranking/%	4th Ranking/%	5th Ranking/%	6th Ranking/%	7th Ranking/%
Google	57	29	9	1	3	1	0
Microsoft	3	9	12	24	21	20	8
Facebook	28	36	17	9	7	2	1
Yahoo	12	19	38	16	14	1	0
Wikipedia	0	5	22	27	29	9	3
Amazon.com	0	1	1	11	13	42	23
Apple	0	1	1	9	8	16	55
Not displayed	0	0	0	3	5	9	10

Source: Survey data

Comparing the top visited websites in Ghana to the rest of the world revealed similar situation. For example, according to Alexa, (2013b)google.com, google.com.ng, facebook.com, yahoo.com, youtube.com, blogspot.com, nairaland.com, twitter.com, linkedin.com, wikipedia.org were the top visited websites in Nigeria. The situation was not different in South Africa as Alexa, (2013b) ranked google.co.za, google.com, facebook.com, youtube.com, yahoo.com, linkedin.com, gumtree.co.za, wikipedia.org, news24.com, fnb.co.za as the top websites; twitter was ranked at 11. In Kenya, linkedin seemed less popular as it was ranked by Alexa at number 11; the most visited websites were google.com, facebook.com, youtube.com, yahoo.com, google.co.ke, standardmedia.co.ke, twitter.com, wikipedia.org, nation.co.ke, blogspot.com.

### 3.6. Extent of photo sharing

This question was intended to find out the extent of use of photos sharing in Ghana. 10% of the respondents used Flickr, 5% for Snapchat and 25 % for Instagram. It appeared that Facebook was the most popular photo sharing site in Ghana; out of the 92 people 84 representing 91% used Facebook. This result further buttresses the global lead and use of facebook.It appeared that contrary to the claim that the amount of photos shared through Snapchat outnumber photos shared on Facebook and Instagram put together (TechCrunch, 2013), Ghanaians were quite unpopular with Snapchat.

### 3.7. Extent of use of online video portal: YouTube

This question was intended to find out the extent of use of the online video portal, YouTube, in Ghana. 26% of the respondents said they used YouTube to a large extent, 33%used it to some extent, 9%to quite a small extent, and 15% to a small extent. 9% stated that they had never used YouTube while 9% provided no answer.The above results depicts that YouTube is quite popular in Ghana similar to the global statistics by YouTube. According to YouTube,( 2013), more than 1 billion unique users visit YouTube each month, over 6 billion hours of video are watched each month on YouTube—that's almost an hour for every person on Earth, and 50% more than last year, 100 hours of video are uploaded to YouTube every minute, 80% of YouTube traffic comes from outside the US, millions of subscriptions happen each day. The number of people subscribing daily is up more than 3x since last year, and the number of daily subscriptions is up more than 4x since last year.

### 3.8. Extent of social media use

This question was intended to find out which social media platforms were used mostly by the respondents in the quest to compare the situation in Ghana. From the data analysed, it was found that most of the respondents used by far Facebook. 74 out of the 92 respondents representing 80% said they used Facebook. They went on to say that it was their number one social media platform. This is suggestive that Facebook was the most popular social media platform in Ghana today. Comparing Facebook to other social media platforms revealed that the respondents ranked YouTube as their second used social media platform followed by Twitter, Google+, LinkedIn, MySpace, Instagram, Pinterest, Tumblr, and foursquare. This result reflect the results the survey by Frank N. Magid cited in Meeker & Wu, (2013) based on a study of 2K social media users aged 12-64, who asked respondents which social media they used.

### **3.9. Frequency of visits to social networks**

After finding out the extent of social media use in Ghana, there was the need to find out how often respondents visited social media sites. The data analysis revealed that 65 out of the 92 respondents representing 71% said they visited social networks several times a day. 10% said once a day, 12% visited several times a week, while 1% said once a week. None of the respondents stated visiting social networks several times a month while 1% said once a month. 1% however visited several times a year with 4% visiting less often. Even though the number of hours spent by Ghanaians was not measured, the result was quite reflective of the global average as well the time spent by Americans; the average American spends over 3 hours per day on social networks, with usage trending higher among females, under-35s, business owners, and executives (Vivion, 2013).

### **3.10. Activity with social media networks**

Furthermore, respondents were asked to state how often they actively used social media networks. 63% stated that they actively use and partake in such things as comment, posts, tweets, amongst others with social media networks several times a day, 11% used them once a day, 11% said several times a week, 4% did so once a week with 1% using them several times a month. 1% went on to affirm that they actively used social media networks once every month with no respondent using it several times a year. However, 8% said they used them less often.

### **3.11. Ranking of activities with social media networks**

Respondents were asked to list their activities on social media and rank them according to the most used to the least used such as: reading as in the reading of posts, comments and tweets; sharing as in the sharing of posts and contributions; commenting as in commenting on contributions; and contribution as in tweets/posts. Majority of the respondents (71%) ranked reading on social media as their number one and most used activity, 21% stated that sharing was their number one activity, 5% went for commenting with 3% choosing contribution. It can be concluded from these responses that the majority of Ghanaians on social media were more involved in such activities as reading posts, comments and tweets.

### **3.12. Most often used device to access the web**

One of the global trends on the Internet and hence the web is the drift from desktop PCs to handheld devices. This question was intended to find out the situation in Ghana. The global trend of mobile phone dominance seemed to be similar in Ghana. 50% of the respondents said they used mobile phones to access the web all the time, 17% used desktop, 22% used notebook, while 11% used tablets. According to Meeker & Wu, (2013) the total mobile Internet traffic went up to 15% of global internet traffic in May 2013, up from 10% the same time in 2012, and 6% in May 2011. The trend is similar in China where the total number of mobile phone users on the web surpassed the desktop PC user. As reported by Meeker & Wu, (2013) 75% of web users used mobile with 71% using desktop PCs as the year ending 2012.

From the above analysis, the result of this study clearly followed similar trend. The point is that the web access by means of devices is no different in Ghana, 34% of the respondents said they used desktop to access the web very often, 28% used mobile phones very often, 25% used notebook, while 13% used tablets. 35% of the respondents said they sometimes used desktop to access the web, 20% sometimes used mobile phones, 34% for tablets, while 12% used notebook. Again, 36% said they rarely used desktop to access the web, 10% rarely used mobile phones, 33% used tablets, while 22% used notebook.

All these responses indicated that many individuals in Ghana were drifting from the usage of desktop in accessing the web than any of the other devices used for the study. 22% of the respondents said they never used desktop to access the web, 9% never used mobile phones, 32% never used tablets, while 38% said they never used notebook. This result is quite similar to previous analysis and deepens the fact that desktop PCs are fading out. However, the factors leading to the inadequate use of tablets and notebooks needs to be explored further. This is not covered in this paper and therefore a suggestion for future research.

### **3.13. Percentage of Smart phone users vs. Mobile phone**

The responses above made it clear that majority of web users in Ghana used mobile phones. In the coming discussion, the percentage of Smart phone user's as compared to Mobile phone users is explored. The percentage of Smart phone users was by far more than those with mobile phone. 75% of the respondents used Smart phones while 25% used mobile phone to access the web.

### **3.14. Smartphone market share**

According to Mobilestatistics, (2013) 156,186,000 pieces of Android phones, representing 76% of market share, were sold as the first quarter of the year 2013. 38,331,800 pieces of apple phones, representing 18%, 5,989,200 pieces of windows phones, representing 3%, with the same number and percentage for BlackBerry phones. In this paper, respondents were asked as to what brand of smart phone they used. The analysis showed that 12% used Apple, 39% used Samsung, 3.26% for BlackBerry, 13.04% used HTC, and 15.22% used Nokia, 1.09% for LG and 1.09% for Sony Ericsson. None of the respondents used Motorola. 15.22% however used none of the brands stated, with 31% using different brands. The Samsung brand seemed to be the most popularly brand in Ghana. This finding was however similar to the global Smartphone market share.

The dominance of Android as a Smartphone operating system was similar in Ghana. Android was by far the Smartphone operating system of choice in Ghana. 53% of the respondents used Android, 8% used iOS and Windows, 3% used BlackBerry OS, while 4% used Nokia Symbian. 18% of the respondents did not know the type of operating system suggesting the fact that some of the respondents used unknown brands whose operating system may be difficult to know.

Comparing the above to the tablets brands of choice by the respondents revealed that, Samsung was more popular among the respondents; 27% used Samsung, 18 % used iPad, with 2% using Asus. Again the popularity of mobile phones was emphasised here as 54% of the respondents said they used none of the tablets.

## **4. CONCLUSION AND RECOMMENDATION**

The research was carried out to assess the current Internet trends and experience in Ghana and to compare this with the global trend and experience. During the literature review it was found that little of such assessment was done in Ghana. The main point of focus was to survey and probe into these trends and experience among the Ghanaian youth through a purposive sampling. Taking into consideration both the results of the research and the data analysis therein, the implemented online questionnaire was able to answer the research questions as follows:

1. There were more male online users than female users.
2. Google, Facebook, Yahoo, Microsoft, and Wikipedia were still popular in Ghana. However, Apple and Amazon were less popular. This was quite understandable because Apple brands were not highly used in Ghana and again Amazon was an American international electronic commerce company with headquarters in Seattle, Washington, United States and as an online retailer it is quite expensive to ship goods from America to Ghana and therefore not patronized in Ghana.
3. Facebook was the most popular photo sharing platform in Ghana followed by Instagram, Flickr, and then Snapchat.
4. The online Video portal: YouTube was popular and used to a large extent in Ghana.
5. Facebook was the number one social media platform in Ghana and together with other social networks; they were used several times a day.
6. The most used activity on social networks was reading such as reading posts, comments, tweets amongst others.
7. Mobile phones were the most used device to access the web all the time in Ghana with Smart phones leading in the category of phones used.
8. Samsung Smartphone were the most popular and used brand in Ghana.
9. The most popular Smartphone operating system in Ghana was Android.
10. iPad was less popular with Samsung tablets more popular and the most used tablets in Ghana.



### Recommendation

It is recommended that the scope of the paper is increased to vividly cover the topic. This was not possible taking into consideration the short duration of the survey. It is highly recommended that future research should consider increasing the time frame and scope of the research.

### REFERENCE LIST

1. Alexa. (2013a). *Top Sites*. Retrieved December 18, 2013, from <http://www.alexa.com/topsites/global>
2. Alexa. (2013b). Top Sites in Nigeria. *Alexa.com*. Retrieved March 11, 2014, from <http://www.alexa.com/topsites/countries/NG>
3. BurstMedia. (2013). Online Insights. *Leveraging Social media for brand interaction*. Retrieved December 30, 2013, from [http://burstmedia.com/pdf/burst\\_media\\_online\\_insights\\_2013\\_04.pdf](http://burstmedia.com/pdf/burst_media_online_insights_2013_04.pdf)
4. Calandro, E., Stork, C., & Gillwald, A. (2012). *Internet Going Mobile: Internet access and usage in eleven African countries*, 5–7. Retrieved from [http://www.researchictafrica.net/presentations/Presentations/2012 Calandro Stork Gillwald - Internet Going Mobile- Internet access and usage in eleven African countries .pdf](http://www.researchictafrica.net/presentations/Presentations/2012%20Calandro%20Stork%20Gillwald%20-%20Internet%20Going%20Mobile-Internet%20access%20and%20usage%20in%20eleven%20African%20countries.pdf)
5. InternetSociety. (2013). Global Internet User Survey 2012. *Internet Society*. Retrieved March 09, 2014, from <http://www.internetsociety.org/surveyexplorer/general-internet-usage/on-average-how-often-do-you-access-the-internet-13/>
6. Internetworldstats. (2013). World Internet Users and Population Stats. *The Internet Big Picture*. Retrieved December 14, 2013, from <http://www.internetworldstats.com/stats.htm>
7. ITU. (2013a). *Measuring the Information Society*. Geneva. Retrieved from <http://www.itu.int/en/ITU-D/Statistics/Pages/publications/mis2013.aspx>
8. ITU. (2013b). ICT Facts and Figures 2013. Retrieved November 21, 2013, from <http://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx>
9. ITU. (2013c). Press Release. Retrieved December 30, 2013, from [http://www.itu.int/net/pressoffice/press\\_releases/2013/37.aspx#.UsIMPPsk\\_Dk](http://www.itu.int/net/pressoffice/press_releases/2013/37.aspx#.UsIMPPsk_Dk)
10. Kasule, M. Y. (2013). Increase of internet usage in Ghana and its implications. *Business Ghana News*. Retrieved November 21, 2013, from <http://www.ghanabusinessnews.com/2013/09/19/increase-of-internet-usage-in-ghana-and-its-implications/>
11. Meeker, M., & Wu, L. (2013). 2013 Internet Trends. *KPCB*. Retrieved November 21, 2013, from <http://www.kpcb.com/insights/2013-internet-trends>
12. Mobilestatistics. (2013). Quarterly Device Sales In 2013. Retrieved December 19, 2013, from <http://www.mobilestatistics.com/mobile-sources>
13. Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students* (Fifth Edit.). Essex: Financial Times/ Prentice Hall. Retrieved from [www.pearsoned.co.uk](http://www.pearsoned.co.uk)
14. Seybert, H. (2011). Internet use in households and by individuals in 2011 Two. *Eurostat*. Retrieved from [http://epp.eurostat.ec.europa.eu/cache/ITY\\_OFFPUB/KS-SF-11-066/EN/KS-SF-11-066-EN.PDF](http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-SF-11-066/EN/KS-SF-11-066-EN.PDF)
15. Statista. (2013). Age distribution of internet users worldwide as of September 2013. Retrieved December 30, 2013, from <http://www.statista.com/statistics/272365/age-distribution-of-internet-users-worldwide/>
16. TechCrunch. (2013). Snapchat usage now bigger than Facebook and Instagram combined. *battenhall*. Retrieved December 31, 2013, from <http://battenhall.net/blog/snapchat-usage-now-bigger-facebook-instagram-combined/>
17. Vivion, N. (2013). Social media demographics in 2012. *Tnooz*. Retrieved December 31, 2013, from <http://www.tnooz.com/article/social-media-demographics-in-2012-research/>
18. Wikipedia. (2013). Telecommunications in Ghana. Retrieved December 13, 2013, from [http://en.wikipedia.org/wiki/Telecommunications\\_in\\_Ghana](http://en.wikipedia.org/wiki/Telecommunications_in_Ghana)
19. YouTube. (2013). *Statistics*. Retrieved December 31, 2013, from <http://www.youtube.com/yt/press/statistics.html>