

**A CRITICAL ANALYSIS OF FACTORS AFFECTING DIGITAL
MIGRATION AND ITS UPTAKE WITHIN NAIROBI**

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DECLARATION

Student's Declaration

This research project is my original work and has never been presented in any university for a ward of degree or Certificate.

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Supervisor's Declaration

This project has been presented for examination with my approval as the University Supervisor.

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DEDICATION

I dedicate this research to my loving family, Mr. Stephen Githinji, Mrs. Grace Githinji and my brother Kamau Kanaiya Githinji who supported and encouraged me while doing my project.

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ABSTRACT

This study critically interrogates factors affecting digital migration and its uptake in Nairobi. The digital migration is meant to enrich consumer experience, and improve on the quantity and quality of programmes. The digital transition in broadcasting is a global process involving the switch from analogue to digital broadcasting signals. A number of countries have completed this transition. Most are, however, still making the transition. Even though the International Telecommunications Unions set 2015 as the deadline for digital migration, the Kenya government initially set its own as 2012. It is yet to transit to transit to digital broadcasting two years later in 2014. It is thus abundantly clear that the transition from analogue to digital in Kenya has experienced numerous challenges. Among the challenges include the fact that few television consumers and understand the importance of digital migration and are thus not convinced that they need to invest in digital equipment necessary for them to enjoy the benefits of digitisation, including clearer signals and quality programming. The fact that many people live in poverty, and can hardly afford to migrate, has not helped government efforts to effect the migration. Besides, media companies and TV channels are seemingly not yet ready for the migration given that they have often blocked attempts to switch off the analogue signals. In essence, this research concludes that notwithstanding the deadline, the activities to effect the migration and promises for more and better quality programming, the country and its citizens are not yet ready for digitisation

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CHAPTER 1: INTRODUCTION

1.1 Background of the Study

The television's services availability and provision to the citizens of any nation is a factor, which is important in the disseminating of information, education, entertainment and creation of transparency and openness. The analogue and digital technologies are two forms of broadcasting. The digital technology of broadcast is superior to the broadcasting technology, which is analogue, and it is slowly being phased out globally.

There is a global trend of the digital migration to digital broadcast technologies from analogue meaning that both the broadcasting infrastructure and the telecommunications are used in the accomplishing of the countrywide coverage for the broadcasting services. The main purpose of the digital migration is ensuring that the broadcasting services are delivered through analogue technologies. They are fully replicated on the technologies of digital broadcasting with the objectives of switching off the analogue broadcasting services in a specific time (Digital Migration Policy for Television Broadcasting in Uganda, 2011).

The movement to digital migration from analogue broadcast is a global affair. There are countries which the switch-off of the analogue television has already taken place such as Finland and Mauritius (Brand, 2011).

During the conclusion of the Regional Radio communication conference in Geneva in 2006, the issue of the digital migration arose from the plan of digital broadcasting for Middle East, Europe, Iran and Africa.

The smooth transition to digital broadcasting in Kenya involved the Ministry of Information and Communication establishing a task force on the digital migration from a task force on the digital migration from analogue to digital broadcasting. In The 14th March 2004, the Minister of Information and Communications launched the task force. The taskforce included:

1. Media Council of Kenya
2. ICT Consultants
3. Communications Authority of Kenya
4. Media Owners Association
5. Kenya Broadcasting Corporation
6. Association of Practitioners in Advertising
7. National Communications Secretariat
8. Ministry of Information and Communication

The task force was charged with developing a national strategy for the switchover from analog to digital (Report of the Task Force on Migration of Terrestrial Television from Analogue to Digital Broadcasting in Kenya, 2007). The digital television has many TV channels placed into the exact same frequency space, which is commonly known as bandwidth. Thus the consumer will be exposed to a variety of television channels to watch as compared to the analog broadcast. As for the broadcasters, numerous soundtracks and subtitling of languages will be introduced as part of a video channel on digital TV.

The research for factors affecting digital migration and its uptake was conducted within Makadara constituency. Makadara is a constituency located in Nairobi County. Makadara comprises of Lumumba, Harambee and Hamza sub locations. It is a business and residential region for residents living in Nairobi and the business people. There are a large number of small-scale business enterprises that thrive in Makadara. It is a cosmopolitan constituency that is made up of diverse ethnic groups, which include the Luo, Luhya and Kikuyu inhabitants who are strong prevalently.

The main problems that the constituency faces are: high level of unemployment especially among the youth estates that are run down and lacking recreational amenities.

1.1.2 Digital Migration in Kenya

54 television licences were recorded in Kenya in 2007. Currently, there are about 108 TV broadcast licences, which have been issued, and they are from 46 companies. As the quality of broadcast improves so is the likelihood of the television stations increasing. A digital signal allows about ten television channels, which are broadcasted, as for the analogue channel, it basically requires the whole frequency.

Exchequer funded the digital migration project of the government. The ministry of Information and Communication is basically responsible for the management of the project. The project started by the supplying and planning of the migration to digital broadcasting from analogue broadcasting that was for the preparation for the country's technological shift (Nyabuga and Booker 2013:33).

1.2 Statement of the Problem

Most African countries have started digital migration, yet there are countries, which have completed the migration. The factors that hinder the migration in most African countries vary from Kenya. Kenya has to overcome the barriers in order to be able to migrate swiftly.

Most of the countries in continents such as Europe has completed the migration. Germany transition was completed on 26th November 2008, having started on 1st November 2002. Switzerland took two years for the conversion process from 1st June 2006 to 1st January 2008. On 1st December 2006, Netherlands completed the switch, and On 1st December 2009 Norway completed the switch to digital broadcasting.

The High Court on the 23rd December 2013, gave an order for the continuance of the migration, which led to seize to most television stations. Before the process could continue, reprieve albeit was handed to the media houses, the CAK (Communications Authority of Kenya) had to stop the transition of digital migration. The transition from analogue to digital

broadcast was halted for 45 days until 6th February 2014, by the presiding judge Kihara Kariuki on behalf of three judges the bench lawyer of the media houses (Royal Media, The Standard Group and Nation Media), Mr. Paul Muite stated that if the media houses were not able to reach the deadline of 2015, they could an extension of five years (Sato, 2014).

Though, there are countries whose deadline for migration is 2018, such as as Brazil which its switch over commences by 1st January 2015. Is it possible for Kenya to get an extension? Time was called by COFEK to allow for the purchasing of the set-top boxes, because a majority of the people may not be able to pay for the boxes since most of them were focused in the paying of school fees. Most of them cost ksh 3,499 and ksh 5,000 which are considered too high for most of the Kenyan people. CAK made demand that the public channel on pay-TV services must have been unlimited free –to-air channel's (Sato,2014).

The Broadcast Signal Distribution license for the Pan African Network Group was cancelled in April 2014; this was according to a directive made by the court of Appeal. The Court of Appeal discredited the fact that CAK issued the license is not an independent body established by the constitution promulgated in August 2010. Nation Media Group, Royal Media Services and the Standard group their content should not be aired by Star Times Media Limited, Signet Kenya Limited and GO TV Kenya Limited and Pan African Network Group without having received their consent; this was a directive from the Court of Appeal (Burrows, 2014).

The bid for the procurement of the third licence continued this is according to the decision made by the court of appeal. CAK was prohibited in going the switch off of any broadcast services or frequency of the three media firms which are currently determining the intended appeal (Musa, 2014).

1.3 Objectives of the Study

- i. The aim of the research is to study the uptake of digital television and factors affecting its uptake in Kenya.
- ii. To identify the level of understanding of Digital Migration in Kenya
- iii. To evaluate the role of the CAK in the digital migration process

1.4 Research Questions

- i. What factors affect digital uptake in Kenya?
- ii. What is the role of CAK in the digitization process?
- iii. Can Kenya successfully migrate to digital broadcasting by 2015 as planned?

1.5 Justification of the study

Digitization improves the quality of the broadcast, more channels are made available to consumers, and it also leads to enrichment of consumer experience in terms of content.

1.6 Scope of the Study

This study focused on and the factors that affect digital migration and its uptake within Makadara Constituency in Kenya as the target population.

1.7 Limitation

This research project relied on both primary and secondary sources of information. During the primary data collection method, there is a possibility that the respondents may be

unwilling to respond and demand payment before they can fill in the questionnaire. As for the in-depth interviews, the respondents may be afraid of answering the questions truthfully because it lacks confidentiality.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

Digital migration is switching off the digital television that is an analogue television that is an established global trend. The countries all over the world are set to switch especially the developed countries some of that have already switched. China that is a known growing developing country has a strategy of replacing analogue television transmission across all TV platforms into digital technology. The primary switchover has started in almost all developing countries. The political and economic factors play an important role in the digital uptake. In China the government is supporting the TV receiver manufacturing industry interests and improvement of the communication of information managed for the public of China.

Digital radio is the pure digital transmission medium that improves the sound quality of radio broadcasts, virtually eliminating static, hiss, pops and fades and offers data display capabilities on receivers and opens up opportunity for multicasting (Okpanachi, 2008). Digital technologies are changing the way services are delivered, leading to the blurring of boundaries among types of services and the means of delivery, and eroding the traditional distinctions between text, audio and video (Haggard and Mclachlan, 2008).

2.1 History of Digital Migration

In 2006, the International Telecommunication Union (ITU) that is an agency of the United Nations hosted delegates from 104 countries in Geneva, Switzerland. The countries in Africa, Europe and the Middle East met to make a grand plan for a switchover from analogue broadcasting to digital broadcasting in the countries represented without creation of air wave havoc. The technical plans of the digital terrestrial broadcasting introduction in Armenia are based on accords internationally as the Regional Agreement GE-06 (Geneva,

2006). The Regional Agreement is a treaty binding different countries and it was signed by the registered and national administrators with the United States. The Agreement is aimed at solving the adoption of the national policies that is involved in the switch-over to the digital migration in countries such as in Europe.

The Agreement is set on 17th June 2015 and at this time all the countries in Europe will not be able to protect the service of analogue broadcasting and it can commence the services of the assigned frequencies of the digital services. As much as the date has been set there is no guarantee that the analogue will have taken place in all the countries according to the agreed date.

For instance, Armenia is bound by the treaty and it has to follow the ITU plans aimed in fulfilling its accord. The ITU plan states that special attention must be paid to the organisations that are non-broadcasting and the spectrum that each use. The advantage of digitization will lead to the opening up of the possibilities of other services to come up. It can seem a challenge to some countries in migrating but it will be of much benefit to the countries later. The benefits cannot be as clear because they are still operating in analogue broadcasting.

The timetable of the ITU is parallel to the recommendation made by the EU, European Union. The European Union communicated that in May 2015, the commission recommended that the different states under the union phase out the analogue broadcasting by 2012. In 2010 about six countries in Europe converted to digital terrestrial television (DTT) services the countries include; Finland, Germany, Luxembourg, Sweden, Netherlands and Denmark. The switch-off has also taken place in UK, Australia, Italy, Belgium, France and Czech Republic. This is a great sign that the countries are actually abiding by the ITU treaty and the agreement made by the European Union.

This is in opposition to many countries in Africa that are facing challenges in the digital migration process. Whether Africa is ready for the switch or not it is something that has to take place. Technology is growing at a fast rate and it is up to us to either move at its pace or be left behind. The adoption of the innovation is mainly dependent on the receivers regardless of whether each one may overcome the different challenges to adopt digital broadcasting from analogue broadcasting. A country such as South Africa is an African country adopting and embracing the digital television. Change is inevitable and mass communication is a change bringing about improvement in technology (Mbatha, Ocholla & Le Roux, 2011; Mbatha, 2012).

The initiators of the race in making the transition from analogue broadcasting to digital broadcasting are facing various challenges. The challenges include; “How will the public afford to pay for the decoders?” “The signal carriers who will run it?” “The deadline whether each one is realistic?” “Who is explaining to the public the process?” (Zettl, 2011; Balancing Act, 2011). The governments are afraid that the switch will produce an effect on what their citizens are watching and they will lack control of what is going to be discussed (Balancing Act, 2011). The migration was never seen as something that should be simple for any African country and it is up to them to overcome the challenges and prove to the world that they themselves are ready for the migration (Balancing Act, 2011).

The world will not wait for any country to go digital. The digital television is an advanced technology which changes the delivery of services and it leads to an erosion of the distinction between the traditional analogue broadcasting and the digital broadcasting (Haggard & Mclachlan 2008).

Broadcasting digital migration is a compression that is advanced in encoding and transmission of video, audio and image signal that results in a bandwidth that is more efficient (Digital Migration Working Group Report, 2006:10).

2.2 Analogue versus Digital Broadcasting System

The digital terrestrial television (DTT) it is the use of digital technology to provide numerous channels, this is especially when using Standard Definition Television. The Digital Terrestrial Television is accompanied with better quality pictures. The HDTV also known as the high definition television or the Enhanced Digital Television use Dolby television it is through an aerial that is conventional instead of the use of the cable connection or the satellite dish (Digital Migration Working Group Report, 2006: 8).

In mid-2009 was the date set in the United States as deadline for the shutdown of analogue broadcasting. The deadline set for South Africa was 2012. Scholars who view the issue of the transition from analogue broadcasting to digital broadcasting stated the issues arising include interests of the industry and politics, hence it is not about the improvement of the citizens accessing the digital world easily without struggle (Ardizzone & Ferrari, 2010).

The difference between the satellite television and the terrestrial television is, analogue terrestrial requires a large amount of bandwidth. The bandwidth required is in large quantity of uncompressed signal in order to receive the analogue signal as opposed to the satellite that requires smaller bandwidth to accommodate the frequency. The digital signal is compressed and it creates an allowance for more channels in broadcasting in the same bandwidth, which is equal to one analogue signal in a bandwidth (Kruger & Guerrero, 2002).

The terrestrial television uses a transmitter that relays signals across the networks and it has a specific coverage area. The public who are able to receive the transmission have to be around the coverage of the transmission tower. The signal broadcasted is sent to the satellite

and the viewer receives it through the satellite dish. The viewer or the receiver of the signal is supposed to buy a DTT set top box that is aimed at receiving and decoding of the signal that is displayed on the television set. People are required to either buy new television aerial or adjust the current aerials that they own (South African Broadcasting Corporation, 2012).

Since 12th June 2009 the United States of America moved to digital broadcasting though a few remain behind using low-power analogue television. They have subscribed to the analogue cable or some are watching the analogue video sources such as the VHS. The analogue television has not lost its importance and it is still valued by some consumers.

The difference between digital television and analogue broadcasting is based on the root in which the signal is transferred from the source to the television set. The converter box is required when using the digital television to receive signal as opposed to the analogue television. The signal from the digital television is of high definition as opposed to the analogue television that is a standard definition. High definition means that the images received from the digital television are clearer and sharper as compared to the analogue television.

The transmission of information on digital television is transmitted in bits that are a form of data, this is the same case as the computer and it is written on a CD. In simple terms, the viewer when watching digital television sees an image or nothing at all. The analogue television images viewed at times can be blurry because the signal is not received well. As for the digital television, when the viewer or receiver is far from the transmitter the image will not be seen. The digital signal is ‘on’ or ‘off’.

The digital television is designed from the main factors which are of the television; colour, black and white and audio and it may be progressive or interlaced. Its results are greater flexibility and integrity of the content signal.

Digital broadcast has the ability to be in a 16*9 format that is a wide screen. The pictures viewed are more closely to the one of the movie screen shape and the viewer is able to see as intended by the filmmaker. For instance, when watching sports the viewers gets to see the game from different angles because of the camera shots. It makes the viewer feel the realness of watching the game like he almost being absorbed into the actions occurring.

2.3 Impact of Digital Migration

The nationwide switch from analogue broadcasting to digital broadcasting it is a move that has influence on many people and organizations both in a positive and negative way. The affected include; service providers, broadcasters, consumers and regulators. The digital migration will have both winners and losers. The move for the broadcasting is definite, but the digitisation for the radio is yet to be set by the ITU (Lugalambi, 2010).

The current trend involved in globalization has influenced the economic, social and the political framework of the worldwide national media (Ardizzone & Ferrari, 2010).

2.3.1 Broadcasters

The field of the media is focused on the globalization of a phenomenon that is greatly influenced by the reception and production of the media formats (Ardizzon& Ferrari, 2010).

2.3.2 Advertisers

The advertisers will be affected by the digital migration and it will cut their budget in advertising. The traditional media channels led to advertising being expensive. The transition from analogue broadcasting to digital broadcasting will lead to reduced advertising revenue. According to the HumanIPO reported in 13th March 2014, the firm researched and it showed that 71% of the Kenyans have not yet gone to purchase the digital set-top boxes that are

necessary for the digital migration and it is because they lack awareness and the process is costly.

The expenditure of advertising through the print media, radio and the television it has grown by an average 30-40 percent since 2010, it has reached to ksh 94 billion that is since the year 2013. According to Margaret Ireri, the managing director of the Ipsos Synovate, the analysis of the short term is based on the behaviour of the consumers after the migration. The advertisers had to contemplate through holding back, since January evaluated the impact that is now waiting the date to be effective.

The date for the migration had initially been set on December 2013, but it has been changed. According to Ipsos it states that the advertisers should lead to the slowdown of post-migration to assist in assessing the impact of the transition on the target of the audience behaviour.

2.3.3 Consumers

Digital migration assists in shaping of the economies, introduction of the digital technologies attributed to the globalization of media and the society diversification is an enacted process of the re-definition of local and national broadcasting (Ardizzone & Ferrari, 2010).

The residents of Nairobi city have had an experience by facing a scare of the analogue television in 2012 was switched off. The high court intervened and it was switched back on until the general elections which were on March 2013. It should have had a huge negative impact on Kenyans because they would not have been able to follow up on the elections. The Kenyan court asked CoFEK that is the Consumer Federation of Kenya and the CAK to sit and make a deliberation and agree on a date they find suitable for the switch off of the

analogue television. Though, each was told it is difficult because not all Kenyans are ready and some of them are not aware of digital migration.

Kenyans will never reach a time they are ready but several people who are buying the digital set top boxes is increasing.

2.4 Benefits of Digital Migration

The benefits of digital migration are for the consumers, broadcasters and service providers. The moving from analogue to digital broadcast system it means that less radio frequency will be used. The radio frequency occupy the additional and the delivery that is dedicated in the deliverance of the education, government information, health, delivery of the services by the government called the e-government, SMME programmes, creation of new jobs and new skills, the facilities of digital migration, new investment opportunities and e-government services delivery (Government Gazette, No. 31408 – Republic of South Africa, 2008).

The aim of digital migration is to enhance the life of Kenyans who may not be aware and assist in the bridging of the digital divide. Digital divide is the gap existing between people who may effectively access information and digital technology, and those who are limited to the access or do not access at all. It results to the redress of the acquisition of skills needed that is unequal and the best use of technology is made which leads to the improvement of the quality of life and increased knowledge.

The key role of digital migration is in the cultural development and the socio-economic aspect of development in South Africa. The basis of digital migration is the access of knowledge and information in regard to the societal and economic development. For instance, in South Africa the broadcast digital migration will lead to the building development of the information on the oriented society in accordance to the achievement of

South Africa's commitment in respect with the Society of the World Summit on Information (Government Gazette, No. 31408 – Republic of South Africa, 2008).

The amount of information being broadcasted, the digitization of TV makes it possible for its integration with other networks of communication. In an environment that is technical the television services can be supplied by alternative networks which include; Internet protocol used by high-speed network. Presentation of vast differentials are so technical that the limited terrestrial broadcasting is unable to propose: the users are allowed to choose the desired content, more flexibility, as well as a place and time of content use through the device of his or her choice for example a portable terminal, a computer or a television (OECD, 2004a).

2.5 Government Policy

The government of South Africa inclusive of other African countries approved the policy of Broadcasting Digital Migration for the conversion of the television signals. It also approved the manufacture of the local set-top conversion boxes also known as a digital set-top boxes.

The migration is of great importance as it leads to the development in the telecommunication technology and it enables the radio frequency use of the spectrum to be efficient. Though, it can take time for the local manufacturers to make the set-top conversion boxes. Once the migration commences, the users have to get involved in the purchasing of the set-top boxes manufactured locally that leads to the conversion of the digital signal for the use on TV sets that have the analogue signal.

The government is involved in the promotion of the locally manufactured digital set top boxes in large quantities. The policy set by the government through the local electronic manufacturing sector will grow and assist in adding jobs.

In countries such as the Uganda and South Africa the digital set-top boxes have been subsidized by their own government. In Kenya it is not the responsibility of the government in setting the prices. The main responsibility of the government is to make people aware of the set top boxes.

In February 2007, the South African government made an agreement that the digital signal should be switched on by 1st November 2008, and as for the analogue signal would be switched off by November 2011. The Communications Department has been keeping track of the digital signal from 1st November 2008, and it led to the provision of digital broadcasting and the mobile television by 2010.

Every government has a responsibility to educate its people on digital migration hence making the information accessible and how they are affected as a people. The benefit of the digital migration is it assists in multilingual and thus information is increased and viewers are accessed on screen. The feature assists the citizens by interacting with its people on e-government services and the digital networks. The set top boxes make the people able to access information from the government that is vital for its citizens because the government is there to serve its people.

In 2010 a survey was done in Tanzania and it was noted that 41% of 46 million being Tanzania's population watch the television on daily basis. This statistic is not at equilibrium with rural and urban population since, 24% of the population are the rural population who have access to the television. As for the radio it remains the most reliable media since 85% of the population both rural and urban are reached.

2.6 Conclusion

Countries that are using analogue broadcasting after the 17th of June 2015 set as the global deadline for migration, they will have no protection from the digital signals interference across their borders, this was made known at a conference in Dubai. The countries do not have to adopt Digital Terrestrial Transmission, they have a choice but it is a known fact that it will cost both the consumer and broadcasters. If a country does not make the switch by then (June 17, 2015), it'll have missed the train. There will be nobody to report to if digital signals from neighbouring countries interfere at its borders (Sieber, 2013).

Though, with the digital migration the challenging question that comes into mind is who is going to access the new channels that are created? It offers a moment to reflect on what public interest for African broadcasting might be and the models of business that can be used to underpin its public interest purposes (Digmig.apc.org, 2014). The creation of local content can be a major challenge or it can also be an opportunity to review the effectiveness of the local production quotas and the schemes of the Government that support the local production (Digmig.apc.org, 2014).

The telecommunication and broadcasting are in many countries, in Africa and each are treated as a separate vertical market. The digital convergence entails that the telecom operators will become more involved in broadcasting companies and broadcasting and looking at how they can deliver voice and internet services (Digmig.apc.org, 2014).

2.7 Theoretical framework

Technological acceptance Model, it is a theory based on the information systems it models how the users go through a stage of accepting and using technology. The model itself it suggests that when a user or a person is presented with an idea of new technology there are various factors that influence the decision making of how and when it will be used.

According to Fred Davis perceived usefulness is the degree in which an individual believes in using a particular system how it should lead into the enhancement of their job performance. As for perceived ease-of-use the person believes in using a particular mode of system which would be free from the effort itself.

Therefore the people in Makadara are learning to accept the idea of digital migration since each does not have much of a choice as of now. The date for the switch off is slowly nearing and it has been set for many countries all over the world. Though, it does pose a question as to whether people are actually accepting the digital migration or is it something being forced on them by the government?

CHAPTER 3: METHODOLOGY

3.1 Introduction

This chapter discusses the methods that were used for the analysis and collection of data to answer the secondary and primary questions of research in the study. It gives an explanation of the research design, sampling techniques and methods used in data collection; and description of how data collected from the research was analyzed. Both quantitative and qualitative research methods were used in carrying out of this research.

3.1.1 Qualitative Research

Quantitative research concerns counting. The Qualitative research does not pretend in solving the problem of quantitative research, it is not perceived as constrain. The research is meant to lead the researcher into unforeseen areas of discovery within the lives of the people she is investigating. It looks deeply into the specific behaviour of the social setting of Makadara rather than the broad population of Nairobi.

Qualitative research is multi-method in focus, involving an interpretive, naturalistic approach to its subject matter. This means that qualitative researchers study things in their natural settings, attempting to make sense of or interpret phenomena in terms of the meaning of what brings people together (Denzin and Lincoln, 1994).

Normative is the belief that the quantitative research the reality can be mastered by the right research. It mainly assists in the maintaining of a normality that can be fathomed, understood and mastered by experiments and statistics. The universe is organized in a way that it can become clear to scientists. Objective, the facts are revealed when the correct technique is used. The qualitative belief remains with an interpretative reality of the research

setting; people are mysterious and touched superficially by the research that tends to make sense.

3.1.2 Quantitative Research

It calculates occurrences across a large population. It makes use of replicability and statistics validating the generalization from experiments and survey samples. Contamination of social variables is reduced. The researcher has confidence in the established research instrument. There is conviction to be looked for. The research instruments are adequate which is not so problematic.

When starting this type of research the researcher must decide a research focus mostly based on a certain hypothesis. The research instrument is devised, then approach the Makadara residents.

The application disciplined to an established rules for statistics, experiments and research design.

3.2 Research Design

In the research there is conviction of what is important to look for that will emerge. There is confidence in the ability in devising research procedures that are meant to fit in the situation and the people's nature in it, as they are revealed. In order to go about the research the researcher decided the population of Makadara as the target population. Devising research instruments is key for the research process.

The development for the principle for the research design suits the scenario being studied. It leads to representation of a wide range of data leading to the understanding of human affairs that are insufficient when relying on quantitative survey and statistics. Though, it is necessary instead in delving deep into the subject of qualities which govern behaviour.

Data collection and Analysis

- a. Observational techniques
- b. Interviews
- c. Content Analysis
- d. Semiotic Analysis

Qualitative Data

When most people including many researchers think about the data they tend to think within the quantitative paradigm. The conceptual break from the quantitative research sees data as a number of items. Many qualitative researchers consider descriptions using the researchers own words that are less important than the verbatim record in preserving the original.

Ethnographers advise researchers should begin by taking broad focus through surveying the setting before making a decision on where to focus closely. The researcher uses that at times to begin to see where the connection plan and strategies lies on following such connections.

This research relies on both quantitative and qualitative method of data collection.

Shank (2002) defines qualitative research as “a form of systematic empirical inquiry into meaning” (p. 5). By *systematic* he means “planned, ordered and public”, following rules agreed upon by members of the qualitative research community. By *empirical*, he means that this type of inquiry is grounded in the world of experience. *Inquiry into meaning* says researchers try to understand how others make sense of their experience.

3.3 Target Groups

3.3.1 Introduction

The main focus of this study was digital migration and factors affecting its uptake in Nairobi.

The following measures were used in choosing the respondents for the survey and interview.

1. Youths from Makadara Division - Questionnaires and Focus group discussions
2. Key informants from the CAK – In-depth interviews
3. Suppliers – In depth interview
4. Broadcasters and Filmmakers - Questionnaire

Target Population

The definition should include the geographical area (country, region, town, etc.) covered by the target population, gender and age group. It is also important to specify without leaving out of any population subgroups, such as non-citizens, certain ethnic groups or those who do not speak some major languages of the country.

The target population for this study was people in Nairobi living in Makadara. The population of Nairobi is estimated at 3 million people. It is estimated that there are over 16 million internet users in the country and people who are aware of the digital media, though the exact number of users in Nairobi is unknown (Gichane, 2013).

Before the sample survey was conducted, a concise and clear description of the target population was required. The short form of target population is population and it may not refer to the people. In this case the target population must explicitly identify the individuals always participating in research and it includes certain criteria for determining whether they qualify as the target population.

3.3.2 Youths from Makadara Division

The youths were around 18 years and above including male and female. The questionnaires were submitted to them. There were 100 respondents to establish their understanding of digital migration and their perception of the factors that are affecting its uptake.

3.3.3 The CAK - Communications Authority of Kenya

Interviewing members of the CAK the researcher got a deeper view on their understanding of digital migration. It was a carefully planned discussion that was designed in obtaining perceptions in an area that is defined of interest in a environment that is permissive and nonthreatening.

3.3.4 Key informants from the CAK

In depth interview was conducted about the digital migration policy. This was in order to have a deeper understanding of digital migration and factors affecting its uptake.

3.4 Sampling Technique

Purposive sampling is one of the most common sampling strategies, group participants according to preselected criteria relevant to a particular research question. The sample sizes, which may or may not be fixed prior to collection of data, it may depend on the time available and the resources, as well as the objectives of the study.

Homogeneous sampling method was be used in this study. It is a purposive sampling technique aimed at achieving a homogeneous sample, a sample with units (people) sharing the same traits or characteristics (a group of people that is similar in terms of the use of the social media). The use of this method is justified by the fact that the research question being addressed is particular to the characteristics of the specific group of interest. The sample was

examined in more detail. The researcher purposely chose participants who were similar in terms of the identified characteristic (Patton, 2001).

3.5 Data collection Methods

3.5.1 Questionnaires

Questionnaires are a written out set of questions and they are given to people for a researcher to collect the opinions or facts about something. The set of questions are assist in obtaining statistical data that is analyzed to benefit a research. The questionnaire is defined as tests, forms, inventories, scales, checklist, schedules, opinionnaires and surveys (Aiken and Aiken. 1997).

Questionnaires administered with questions were designed and circulated to 100 respondents to establish their understanding of digital migration and their perception of the factors that are affecting its uptake. The respondents were selected using purposive sampling from Makadara Division all 18 years and above.

To enhance ease of answering the multiple-choice questions, the questionnaire was designed in a form format. The form format helped in avoiding the respondents from losing interest, missing data, and low response rate, the questions are short, understandable and clear.

3.5.2 Focus Group Discussions

A focus group discussion is a discussion group that gathers together people from experiences and backgrounds that are similar to discuss a topic of specific interest to the research. A group facilitator or moderator guides the group participants. The aim of the facilitator is to introduce the topics meant for discussion and helps the participants of the group to be lively and have a natural discussion amongst themselves (Fischer, 2011).

There were focus group discussions with 8-10 members from Makadara to get a deeper view on their understanding of digital migration. It was a carefully planned discussion designed in obtaining perceptions in an area that is of interest in a permissive and nonthreatening environment.

The qualitative method helps in understanding in depth the perception, opinions and ways in which people make meaning of a variety of aspects of their lives. A focus group brings eight to ten qualified people for a discussion that is face-to-face on a particular topic (Edmunds, 1999).

3.5.3 In-depth interviews

An interview in qualitative research is semi-structured because it carries traces invariably of the power that holds things in place and it reveals an interviewee's co-researcher's creative ability to resist or refuse what the researcher may want to happen. The task of the researcher is radical in making the interviewer encounter leads revealing patterns of power and creative refusal of a set research agenda (Klenke, 2008).

It is an intensive research technique and it involves conduction of intensive individual interviews with a small number of respondents in order to explore their perspective on a particular program, situation or idea.

A qualitative approach was adopted by conducting in-depth interviews so as to connect and summarize the different perceptions of the target population. Unstructured face to face interviews was conducted with 10 key informant persons of the CAK to establish their knowledge and perception of digital migration and factors affecting its uptake in Nairobi. The interviews provided the respondents with a chance to contribute and echo on their understanding of digital migration.

3.6 Issues relating to Data Quality

3.6.1 Reliability

In order to sustain reliability in the study, the research consisted of both the qualitative and quantitative method of data collection. The data collected was reliable because of the different people that were interviewed to get different perceptions on the subject being discussed. The statistical research from quantitative method derived important facts from the data collected; this included differences between the groups that were answering the questionnaires. The data provided was descriptive and interpretation a process done easily.

The assumption when doing research was that all the respondents had the same interpretation of the questions that was a risk if wrongly misinterpreted; however, the researcher made sure that all the questions were constructed in the English language to be easily understood and read by all subjects.

3.6.2 Flexibility

The quantitative data collection method is flexible and the questions asked can be based on the response of the participant. The flexibility in the research design and the application of the data collection methods, it allows integrative designs and new methods that are to be tailored to the study of consequence and cause. Flexibility is a common feature in data collection approach and it is employed to advance the substantive aims of specific studies. The flexibility is imbedded in the method that is described to make them ideal for the recombination in meeting specific goals (Axinn and Pearce, 2006).

3.6.3 Validity

Taole (2008) and Gray (2004), a device is valid measuring what was intended to measure and covers all research issues both in terms of content and detail. The research tools have been designed to obtain both validity and reliability, using the following steps:

- The researcher made an extensive analysis of the literature and research with emphasis required to address the issues of digital migration and its uptake in Nairobi in this research
- The use of in-depth interviews, focus group discussions and questionnaires provides greater confidence in the findings by combining the strength of different data collection methods and sources.
- The research tools was pre-tested using a sample of respondents to make sure that they cover the research questions in terms of details and content (Taole, 2008).
- The questionnaire, focus group discussions and interview were clear and concise to increase the response rate, and to avoid waste of respondents' time and ambiguity.
- Awareness about the research and its goals were made known to the respondents

3.7 Data Analysis and Interpretation

Data is what the researcher hears and sees which is recorded or collected. The raw data formed is first collected then recorded. Data analysis is the process of making sense of sifting, organizing, cataloguing, and selecting in determination of themes processing data.

Data is the evidence that mainly support the arguments that are extracted from the deployed and corpus strategically. The arguments presented by the researcher summarises the overall research results of the project.

The method used in data analysis was descriptive statistics. Percentages and frequencies were derived using SPSS. The results were presented in form of graphs. Conclusions were made in relation to the effectiveness digital migration.

Data analysis is the process of thorough interpretation and examination; a process of data resolution into its essential components, to make known its characteristic elements and arrangement. The study collected both qualitative and quantitative data, and therefore, data was analyzed according to its type.

CHAPTER 4: RESEARCH FINDINGS AND DISCUSSIONS

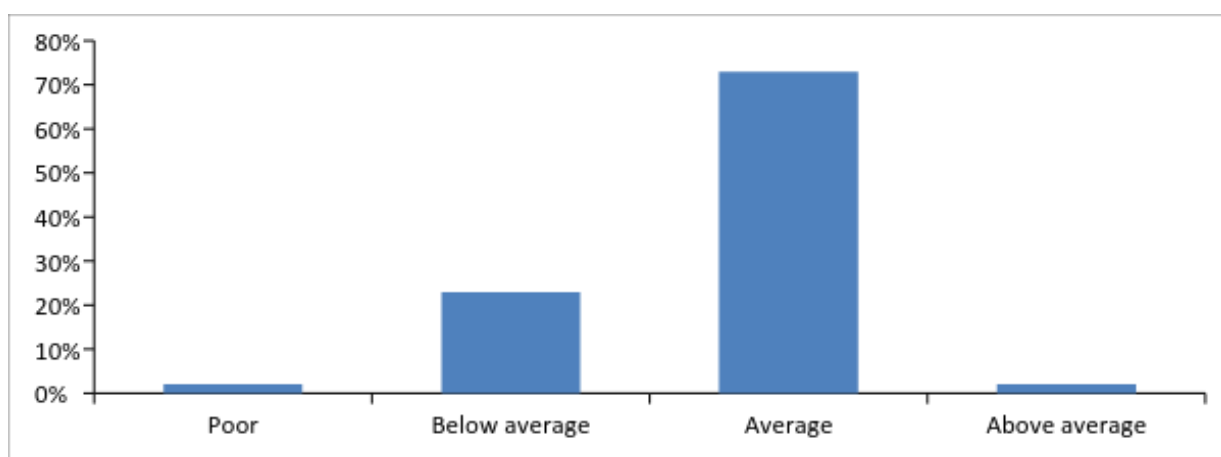
The findings of the research is under the following headings; Quantitative Analysis Research; Questionnaires and Qualitative Analysis Research; Interviews and Focus Group Discussions.

4.1 Quantitative analysis research

4.1.1 Questionnaires

The quantitative research method focused on Makadara Division with 100 people responding to the questionnaire. The people interviewed were 60% male and 40% female. The main reason for the unevenness of the respondents is because most women were not very familiar with term digital migration and they found the questions too technical to respond. Secondly, the time the questionnaires were being given to different people most ladies or women were busy as compared to the men. Hence, it was difficult to get 50% male and female respondents for my research.

Figure 4.1: Economic Status

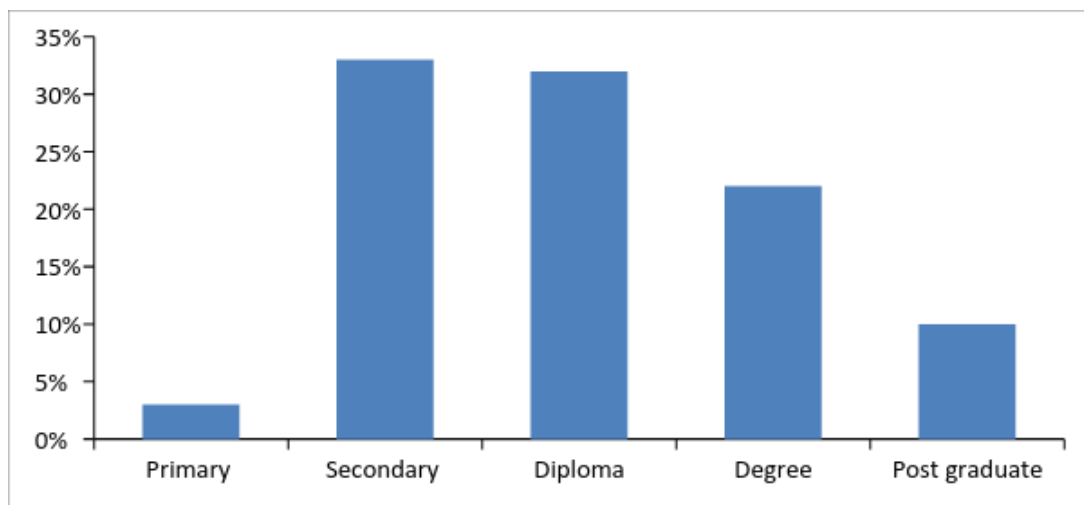


Source; Researcher, 2014

Data presented in the study revealed that a majority (73%) of the people living in Makadara live an average lifestyle and 23 % are below average. According to my research

2% of the respondents were poor and the above average. Poor is a state that is considered as one who lacks sufficient money to have a living standard considered normal or comfortable in the very society we live in. The individuals whose economic status is below average they tend to get by and they are able to provide for basic needs for their family but with a struggle. The average economic status is able to get the basic needs but it may be a challenge for some families to see, for instance the television as a basic need. Above average that is 2% they do not struggle in getting basic needs and they also have money for entertainment without a struggle.

Figure 4.2: Education Level

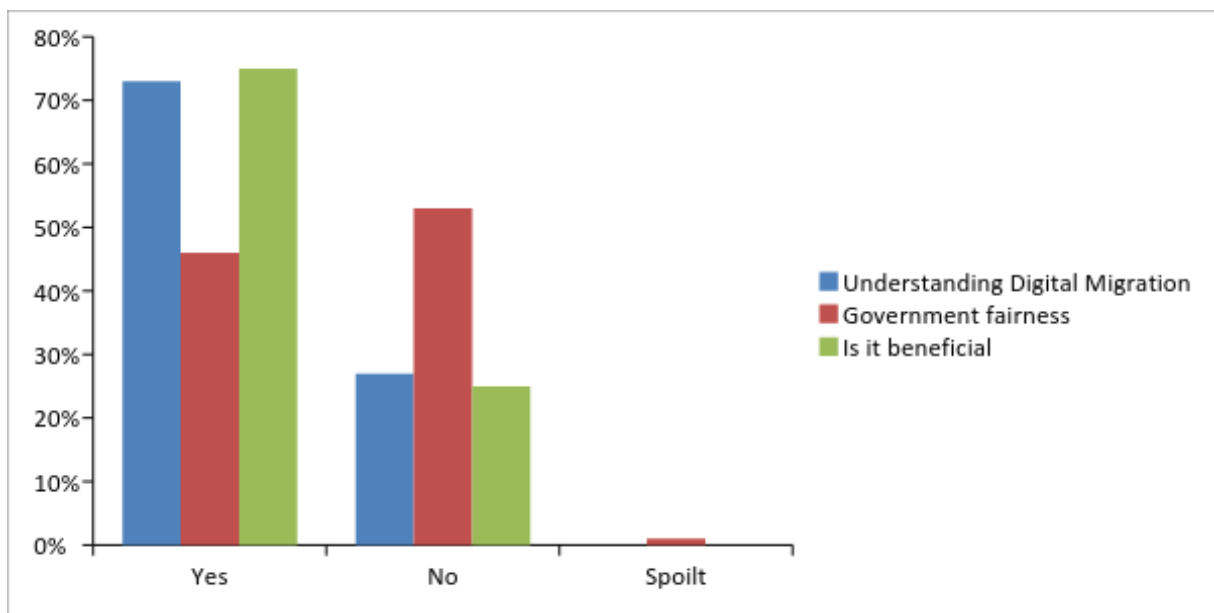


Source; Researcher, 2014

The research was not limited to people of a specific type of educational background. 3% of the respondents reached primary school education and from my experience they asked for more elaboration of the questions before responding. The highest percentages of the respondents have a secondary certificate that is 33%. 32% of the respondents have acquired a diploma or certificate and these are the two highest percentages. Less than 50 % of the

respondents had achieved secondary certificate or a diploma and it may be due to the economic status. Education itself is expensive but because of the free primary education in Kenya, the level of literacy is expected to increase. The level of degree graduates in Makadara from the respondents is 22% and the post graduate is 10%.

Figure 4.3: Digital Migration Awareness



Source; Researcher, 2014

Results from the study revealed that 73% answered yes and 27 % responded they did not understand digital migration. For the people who responded yes and understand what digital migration only 67.12%, actually gave the definition of digital migration. Some of the responses include:

- *It is the migration of the television broadcasting from digital to analogue*
- *It is the switch from analogue form of broadcasting to a digital system*
- *Analogue to Digital*
- *Moving from analogue to digital for clarity purposes*

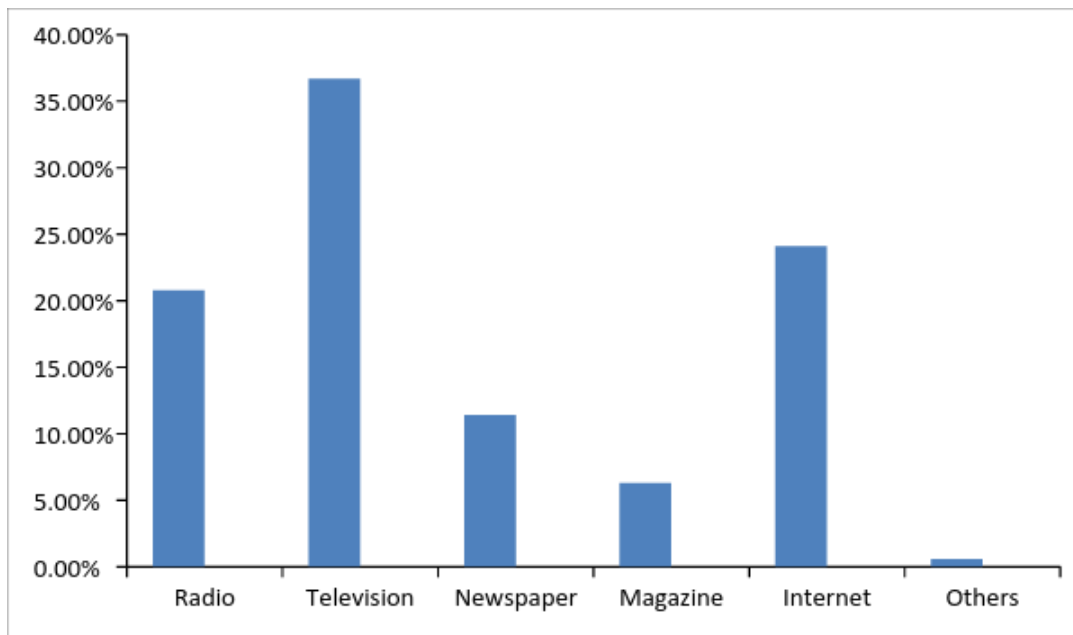
- *Shift from analogue television signal to make clear and high frequency digital signal*
- *To shift the analogue platform to the digital platform*
- *Moving from analogue to the new era of the information technology*
- *The era of moving from analogue to digital usage of technology all over the world*
- *To stop using current sets of television to a digital format.*
- *Digital migration is the advanced standard of living with newly advanced technology status*

The government being fair in setting the deadline for the switch this question is basically used to analyze whether the respondents are aware that the digital migration is a global issue and not a country issue. 46% of the respondents said they think that the Government is fair having set a deadline for the migration as for 53% opposed the fact that the Government set a deadline. As for 1% were not sure how to respond to this question.

The question on whether digital migration is beneficial it looks at the issue as to whether the respondents actually understand the importance of digital migration and its benefits. 75% of the respondents said that digital migration is beneficial as for 25% said that it is not beneficial. From the 25% it is clear that they do not understand the importance and benefits of digital migration.

The media frequently used include; radio, television, newspaper, magazine, the internet and the television is the most viewed according to the research.

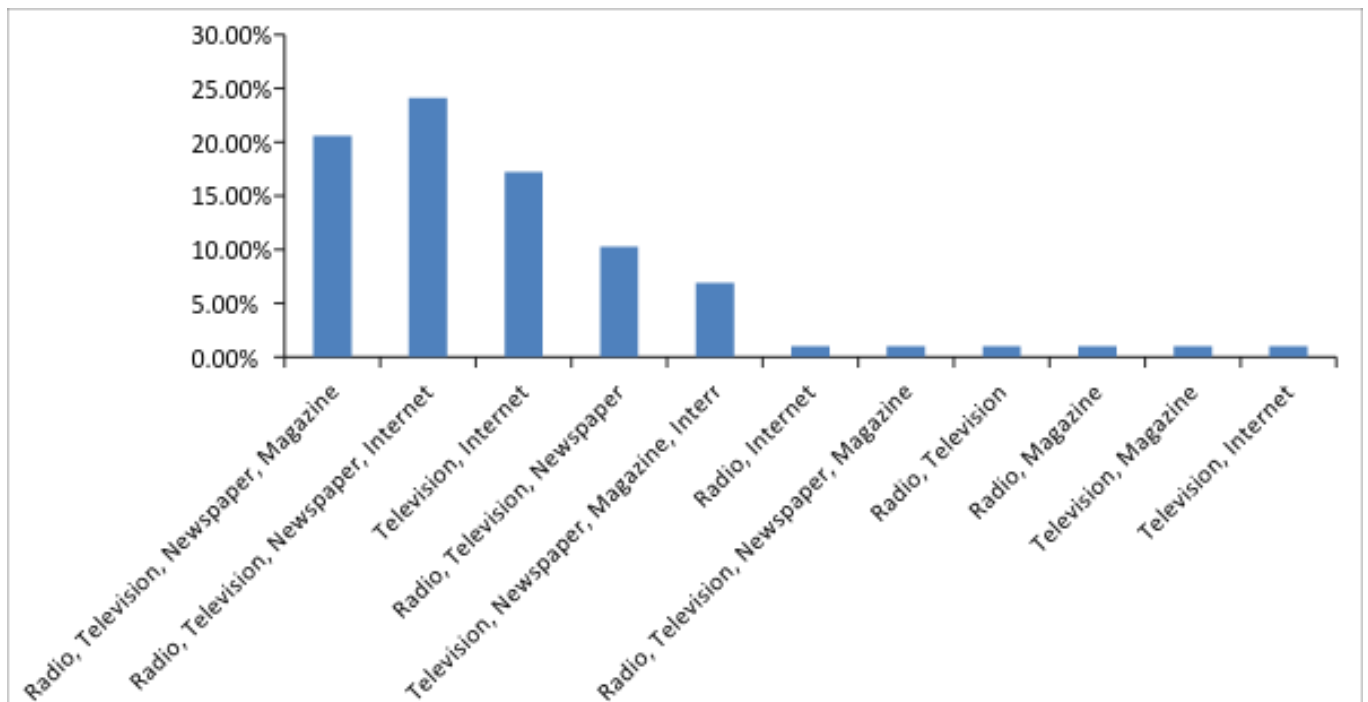
Figure 4.4: Popular source of media



Source; Researcher, 2014

From the above figure the television is most watched media in Makadara. Below is a combination of the media which are most watched by people living in Makadara constituency. 58% of the people who are in Makadara watch television and it is followed by the internet used as a source of information, entertainment and educational purposes. The least source of media used as source of information or entertainment is magazine that is 10%. It is quite clear that the magazines is not used as a source of information or entertainment it can be for two basic reasons; the magazines are expensive and the most people do not like reading. Though, it has been stated that the Kenyan youth have a poor reading culture and if a person wants to hide information they should put it in a book.

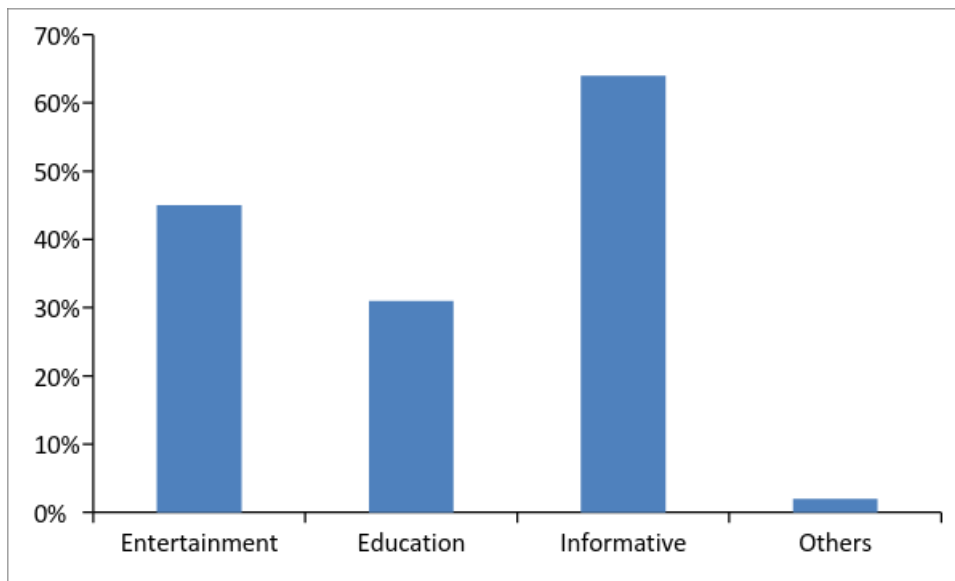
Figure 4.5: Combination of popular media



Source; Researcher, 2014

Television is frequently watched and the most common medium. The people mostly dependent on the television as a source of media may have to either get the set top boxes or find an alternative source of media. Hence, it is also proof that for those people who do not get digital set top boxes use the radio as a source of media.

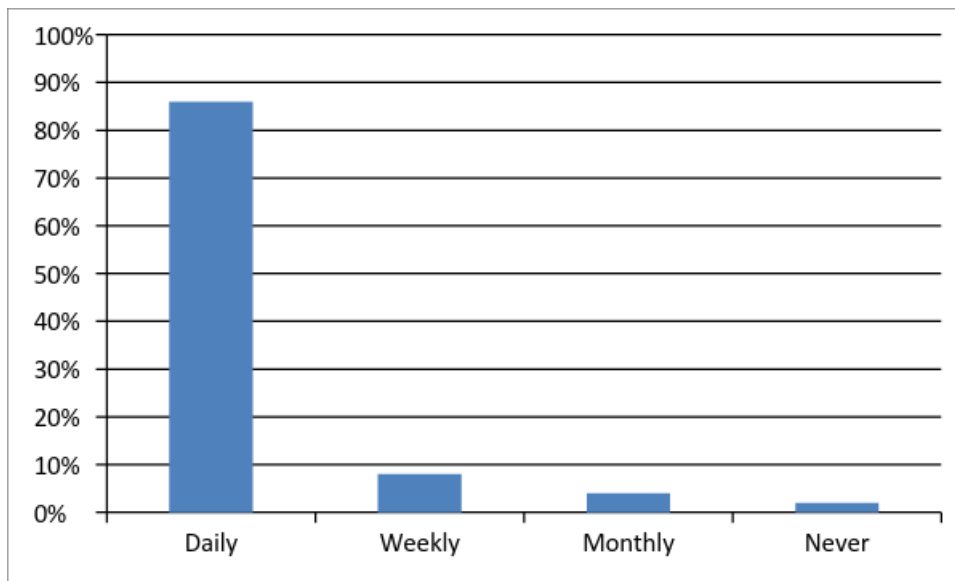
Figure 4. 6: Reasons for watching television



Source; Researcher, 2014

There are many reasons people watch the television 45% watch for entertainment purposes. The highest percentage of the people who watch the television is 64% who depend on it for informative purposes. Finally 31% of the respondents watch the television for educational purpose. They depend on other forms of media for educational purposes. 74% watch the television for entertainment, educational and informative purposes. 21.4% watch the television for entertainment and a source of information. The movement from analogue to digital migration for people who are not ready it means that they will have to depend on other sources of media especially in getting information.

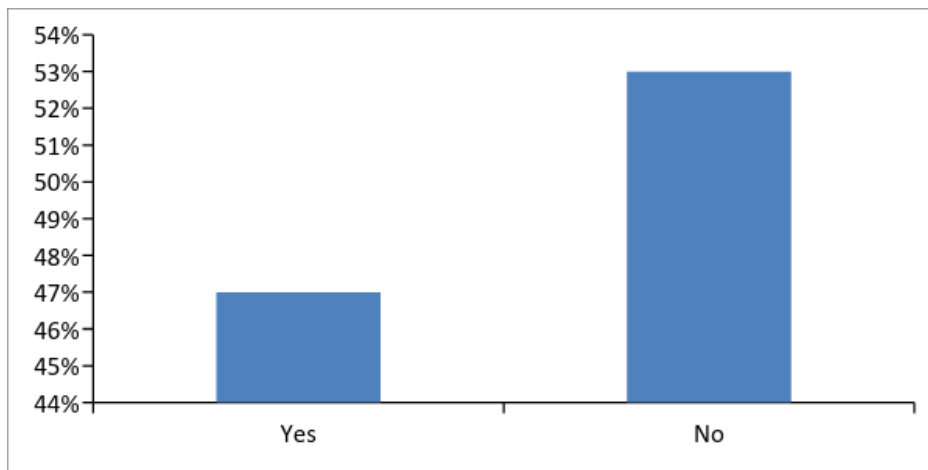
Figure 4.7: People frequenting the television



Source; Researcher, 2014

The television seems to be viewed daily according to the respondents living in Makadara and 86% watch daily. The highest percentage of the people watching is the youths who are jobless because they do not have much work on their hands. The percentage that frequents weekly 8%, monthly 4% and 2% never since they are busy and they rarely have time to watch the television. The time they have it is spent on putting food on the table. Most residents or families rarely have house helps and one finds that it is either the woman who does the cooking having come from work or the children themselves do the cooking.

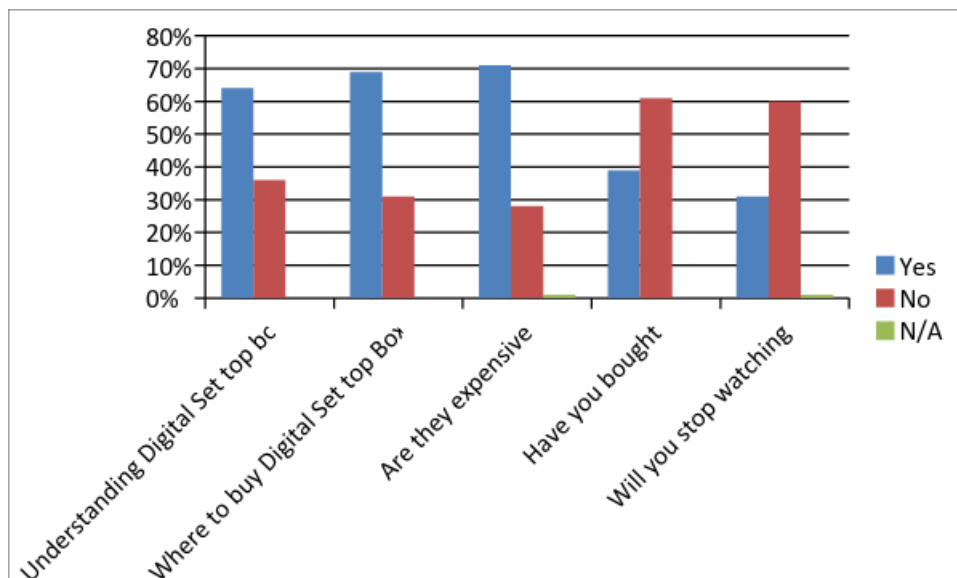
Figure 4.8: People who can do without television



Source; Researcher, 2014

According to the research 53% of the people stated that they can do without the television as for 47% stated they cannot do without the television. The people who are confident that they can do without television is because they have other sources of media.

Figure 4. 9: Awareness of Digital Set top boxes



Source; Researcher, 2014

64% of the respondents were aware of digital set top boxes and 85.9% of the 64% could explain as for the rest they found it difficult to explain their understanding of digital set top boxes. The government itself has not done enough in educating people on the digital set top boxes because according to my research 31% are not aware of digital set top boxes. Most of the respondents 71% thought that the digital set top boxes are expensive and the government should reduce the prices. Though, this is not the responsibility of the government but of the service providers of the gadgets. It is sad to know only 39% of the respondents have bought the digital set boxes because some reasoned that they are not financially ready to buy the boxes while others are waiting for the deadline in order to buy. People believe that at some point the prices for the boxes will reduce to a point that they themselves are comfortable buying. Some respondents said the Government is not serious about the switching off of the analogue broadcast. The government had said they would do it before and they have not yet succeeded in it. Most of the respondents stated that the government should be involved in the reduction of the prices for the digital boxes.

Qualitative research

4.2.1 Interview with Supplier of GO TV, ZUKU, DSTV AND Star Times

Digital set top boxes

The world is a global village and it was known from before that things would go digital. Things have to be on real time. Digital migration is not something that is being forced into people's throats, but it is something that is being globally enforced.

Star Times

It came from China and it has been there for over 20 years ago. Star Times in China is doing what Zuku is doing here with Internet and digital broadcast. Star Times wanted to

come in because Zuku and Dstv are for the high market. The upper class and the middle class can afford, but mostly it's targeted for the upper class. The middle class could struggle to afford Zuku, they call it triple play; cable, phone and internet.

Star Times came in and realized the weakness of the market. They realized since the deadline for the migration is almost, it's a world migration deadline not a Kenyan deadline. The Chinese company decided to target people below the poverty line. Not lower class or middle class but Kenyans who are able to afford the decoders for the common *mwananchi*.

That is why their price has gone down. There are two types of decoders; Free to Air and the star times pay which has a monthly subscription. FTA also known as the Free to Air is like what you watch on analogue. It is a decoder which you don't pay for the stations that you are watching. There are 13 channels which one watches for free. The Star Times Pay is for rich people. When you buy a decoder for Ksh. 2000 the lowest amount of pay per month is Ksh. 500.

Go Tv and Zuku

Go Tv is a decoder that people think is Dstv. Multichoice did a tender that they could supply decoders for Go Tv. Though, it is not as digital as Star Times in terms of clarity. Being a speciality in Digital television, the supplier states that Go Tv gets its signal from a satellite dish. The only two suppliers whose clarity is pure HD are Zuku and Star Times.

Go Tv have Free to Air and a monthly subscription which if you do not pay they switch off the channel. The highest is ksh 849 and the lowest is ksh 600. If you are buying Dstv Premier, Compact, Access or Family, it is not digital television, but a Cable TV.

Cable television is a common broadcasting television system in the western world. The television programming is basically payment done leading to subscription through the

radio frequency. The coaxial cable transmits the radio frequency and through the fibre optic cable by use of light pulses. DSTV is an example of cable television in Kenya.

Informative ability of Digital Migration

It is a shared responsibility to let people know about the digital set top boxes. Some people are aware of digital migration but they are not aware about the Free to Air or the monthly subscriptions. The government is playing politics with this thing, they know about next year if they do not school citizens their television sets will be switched off.

There are challenges that will be faced; the coming of digital migration will deny the government revenue since every media has its fun base and pay the government. Sooner or later people have to migrate because it is not a Kenyan thing, but a global issue.

Knowledge of the Digital Set Top Boxes

There are people who have knowledge of the digital set top boxes. For the family set ups the only people who are pushing their parents to buy the boxes are the children. Parents are used to analogue so their children are schooling them. The person who comes alone to buy is one who is well informed and has young children who are around 2 to 4 years.

When the government said that they would switch off the television in December 2013, the places that decoders are sold was jam packed the people realized it was a serious thing. In one day the Free to Air they sold 12 of them, the ones that cost Ksh. 5,000. They were going to sell 4 more the following day, but when the government postponed the switch off, people no longer went to buy.

Some consumers and ask for difference in prices, content and services between the different products. They always ask about the local channels. Between price and content,

people ask about the content. The government does not have a hand in setting the prices for the digital set top boxes; it's the suppliers who decide the prices to be set.

Kenyans with their politics they will always lag behind. If the politics is removed then Kenyans will be ready to move. This is a simple thing and the Star Times have at least tried to make their prices affordable to the common *mwananchi*. It was first Ksh. 6,000 then they split to the monthly payment and the Free to Air. A decoder is now Ksh. 1,999, and Star Times seems to care about people.

Dealers have development managers who deal with the sales and marketing. Star Times sales people go around to sub-dealers to educate them on what to give the subscribers such as promotional materials. They have shows to educate them. The government is supposed to educate people on digital migration not the supplier or individual companies because they are business people. The government educates the masses and that is where the government has failed.

Zuku is mostly for businessmen, offices, homes and students because of the internet. Go Tv and Star Times is mainly for entertainment.

4.2.2 Focus group discussion

The rates being offered for the digital set top boxes are fair. The youths I interviewed are from YMCA Makadara. I mentioned how the people in Makadara wanted the prices to be lowered because they put basic needs first and they do not consider the television as a basic need.

Some of the issues that arose from the discussion are:

They felt Kenya is not ready for the migration. There is limited information when the migration happens because the government won't control information. What about the rural

areas who is educating them? They felt if the awareness in Nairobi (urban) areas and how much more the rural areas?

Kenyans are known to be last minute buyers, but it is a culture that has been cultivated worldwide. Poverty is not the reason why people should not buy the digital set top boxes. The parents living in Makadara most of them said that they prefer not buying the boxes, because the media is corrupting the minds of their children. The youth said that the corruption of the morals can be done through access to the internet which is through the mobile phone that most youths have access to compared to the television.

Some parents are interested in buying. They have bought the boxes. Some unfortunately did not know about the Free To Air hence they pay for the monthly subscription. Analyzing from the discussion it is no doubt that digital migration is important and they are ready to shift. As for others they lack knowledge as to where to buy the boxes.

Kenya is not ready yet and the digital migration is very important for the development of this country. Parents play an important role as to what their children watch. The good thing about the boxes they have Parental control.

Digital migration leads to convergence and the choices of the station are wide.

Observations

- People are open-minded, they argued proving they were quite knowledgeable in the area of study.
- Some people did not know about the Free To Air for Star Time and Go Tv that means they have not been educated on such issues.

4.2.3 Interview with broadcasters

I conducted an interview with several broadcasters working in media houses and one broadcaster from a digital television station known as Elimu TV in Go Tv.

- **What is digital migration?**

Yes, it is the migration from analogue to digital TV broadcasting.

It is moving from analogue to digital mode of transmission. This will allow a frequency segment used by one channel accommodate many channels and also the signal will be more clearly

- **Do you think the government is fair in setting deadlines for the digital migration?**

Yes because the deadline of migrating by the international telecommunication union is 2015

Yes it is. We should have migrated to the worldwide broadcasting class years ago.

- **The broadcaster will benefit;**

More channels for the broadcaster since the digital signal takes very little bandwidth. Also we are able to cater to individual demographics with content catered specifically to them. E.g. An agricultural show/channel just for the farmers and entrepreneurs.

We now get more channels to advertise on especially when they are demographic specific. It will make it so much easier for the advertisers as well.

The quality of the signal has been upgraded

The number of channels we can start on one band width is unlimited

- **Are you ready for the digital migration**

KBC - I am ready since we are already transmitting one channel "Heritage channel" on digital

- **Challenges you are currently facing as a broadcaster;**

Working for government owned KBC; the biggest challenge is lack of funds to roll out the service in the whole country.

Lack of funds to produce enough content to serve KBC channel 1 and The Heritage Channel

It might take a while for many Kenyans to join in the switch so that means lost market and revenue generation till they can finally catch up.

- **Understanding of the digital set top boxes?**

Yes. They are devices that turn a source signal into a form that can be displayed on a TV

Yes it is the facility that will capture the signal and offload to the television set.

- **What should the government do about the provision of digital set top boxes?**

The government should waive taxes on the set top boxes.

Subsidize the digital boxes and also manage the distribution of those set boxes. There are too many unscrupulous dealers making a killing at the expense of struggling Kenyans.

Are Kenyans ready for the switch?

No. The problem mainly lies in the lack of information. Most don't see why they need to pay money for a set top box. Others are not too happy with the idea of monthly payments and don't know about the Free-to-air boxes that are available. Above all, they don't really get what digital migration is all about. Plus Kenyans are naturally resistant to change.

Kenyans are ready because they will get a clear signal. They do not have a choice because even if the date of switch over is changed the international deadline will come to pass.

4.2.4 Interview with filmmakers

- **Understanding of Digital Migration?**

I understand it to mean that all broadcasting will now be done using a digital as opposed to analogue system.

It is the switch from analogue system of broadcasting where frequencies are offered depending on the geographical location to digital broadcasting where the signals are compressed and broadcast via satellite.

This is the switch off of analogue transmission signals to digital transmission which allows more channels and better broadcast quality

The switch from analogue to digital in terms of TV broadcast.

- **The government is fair in setting deadlines for the digital migration?**

Yes because this is a worldwide thing – we cannot avoid it.

We need no more delays; we need to move with the world.

Setting deadlines isn't about fairness. The whole world is migrating; the neighbouring countries have migrated already. The govt just needs to implement the policy and people will follow up later. It is fair.

I do everything digital and in the highest possible quality – so, I am more confident that when my material is reproduced, it will match closer to the quality I intended.

- **Does digital migration benefit you as a filmmaker?**

It will result in many more channels and that means, as film makers we could have one or benefit from the increased demand that will occur when we go digital.

As a filmmaker, I will no longer have to beg to have my content aired by select channels. The demand for content will go high with lots of channels to choose from.

Having more channels provides a bigger platform for me to air my productions and variety to compete with.

I do everything digital and in the highest possible quality – so, I am more confident that when my material is reproduced, it will match closer to the quality I intended.

- **Understand what the digital top boxes are?**

Yes they are used to allow TV's that are not digital compatible to still be used.

Yes, they are decoders designed to help one use an analogue TV set to receive digital signals.

Yes, a decoding device that enables televisions not manufactured with digital receivers to receive digital signals.

Yes – they are a box that converts the digital signal for analogue TV sets.

- **Challenges or benefits are you currently facing as a filmmaker because of the digital migration?**

None at the moment.

As a result of digital migration I have experienced more enthusiasm as far as content buying is concerned. I need to produce more because the market is becoming wider.

The increase of local stations has led to airing of low quality films which compromise the quality, of professional works.

No challenges, as I've been operating this way since 2007. A benefit is that everything I have produced since starting is still compliant with the digital migration standards.

- **Are Kenyans ready for the switch? Give a reason for your answer.**

No we are not ready. A majority of our population will not be able to afford them and have acquired set top boxes ready to receive the digital signals.

I believe they are. Majority have already bought set top boxes.

Yes I believe so. We don't live in isolated societies anymore. The Internet has brought the world together, and that is very obvious in Kenya. The western media/society/culture has found its way into Kenya. Because of this – Kenyans want the quality that they see when they travel to Europe or the US. Also because of this – filmmakers want the quality that they see, and they are producing content with such standards. They want their work represented accurately. Kenyans are ready – have been for a long time.

- **Should the government do about the provision of digital set top boxes?**

I think they should be sold at a minimum cost not exceeding 500/=

Subsidise the price to help as many people as possible to acquire them.

Subscription charges should be user friendly

Set the standards high for broadcast and make no exceptions. If you raise the standards and keep them there – you lift up a country. I believe if they want to see TV programs developed here in Kenya – they should invest in production companies via grants or government loans to enable the content to be produced.

I do not believe they should be required to provide digital boxes for everyone. Watching TV is a choice. If you choose to watch, it's your responsibility as an individual to acquire the box.

- **Benefits of digital broadcasting over analogue broadcasting?**

It has clearer broadcasting and reception.

The content is still not enough

Digital broadcast gives clearer and more stations on a single channel

International content is easier to access

Clearer picture, cleaner workflow and consistent qualities are a few benefits. But the greatest benefit is that it forces worldwide compatibility so that the programs can be shown anywhere in the world. Who decided that only African based shows should be shown in Africa. We here in Africa watch all the European and American shows – shouldn't we be producing content that is good enough for them?

CHAPTER 5: SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Summary

From the beginning of the research digital migration seemed like a great topic to tackle. It is an area that has not been explored immensely. Secondly, Kenya and many of the countries globally are either; undergoing digital migration or they have completed the process.

Digital migration is a term that may seem simple, but to many they understand but cannot define. According to my research, the government has failed greatly in this uphill task of education people and making them aware of digital migration.

Digital migration is switching off the digital television from an established global trend. The countries all over the world are set to switch especially the developed countries some of which have already switched. China that is a known growing developing country has a strategy of replacing its analogue television transmission across all TV platforms into digital technology. The primary switchover is an activity being done in most developing countries. The political and economic factors play an important role in the digital uptake. Most countries are aimed at re-using analogue to apply or design, yet in China it has a different motive of the government supporting the TV receiver manufacturing industry interest and improvement of the communication of information managed to the people of China.

For instance the treaty binds a country such as Armenia and it has to follow the ITU plans and aimed in fulfilling its accord. The ITU plan states that special attention must be paid to the organisations which non-broadcasting and the spectrum that they use. The advantage of digitization it will open up the possibilities of other services to come up. It may seem a challenge to some countries in migrating but it will be of much benefit to the

countries later. The benefits may not be as clear while they are still operating in analogue broadcasting.

Digital terrestrial television is a form of digital format which in many countries the terrestrial broadcasting is currently on analogue format. The difference between the satellite television and the terrestrial television is the analogue terrestrial requires a large amount of bandwidth. The bandwidth required is large in amount in order to receive the analogue signal as opposed to the satellite which requires smaller bandwidth to accommodate the frequency. The digital signal is compressed and it creates an allowance for more channels in broadcasting in the same bandwidth, which is equal to one analogue signal in a bandwidth.

The different methods that I used in the research process proved beneficial. The questionnaires that targeted 100 respondents were well answered. I had to get involved in the exercise rather than hiring someone, because I also wanted to observe the people who were responding. In the process of doing this exercise, I had a conversation with different individuals. Not everyone was willing to respond to the questionnaire, this was especially people who were 40 years and above.

To make the collection of data easier I went with a resident from Makadara that led to the quickening of the process. Many knew the resident, leading to most people accepting to participate in the exercise. I made sure that people understood the questions, without trying to lead them into answering certain questions.

5.2 Conclusion

The main focus of the study is looking at digital migration and identifying factors affecting its uptake. It is important to note that during the digital migration or the switch from analogue to digital broadcast system has arrived. It is already a process that is already taking place whether a country is ready or not it is something that has to take place. Countries

such as South Africa have embraced and moved into the major steps of moving to digital broadcast. As much as digital broadcast is important to the future of the broadcast industry both locally and internationally, but it has its challenges. According to my research, the challenges faced by different countries adopting the digital broadcast system vary depending on several factors. Some of the factors include; government policy in which the government can have policies that can either make the migration easier or harder. For instance, Uganda the government has decided to subsidize the price for the digital set top boxes to make it affordable for the local market. Unlike in Kenya the government but the suppliers of the digital set top boxes do not set up the prices.

The digital migration is an expensive process and that could be the reason why some of the countries are having challenges to convert to digital broadcast. The migration will have a great impact on the economic system. Some of the challenges that the countries had to face is bridging the digital divide and the information gap. The benefits include; creation of employment and the poverty eradication. The bridging of the information gap and the digital divide is based on the economy status. The more an individual or a community is informed the more the digital divide or the information gap is closed.

The digital broadcasting potential it mainly leads to the contribution of dealing with various challenges to be addressed to. For a country to develop it has to put digital migration as a priority before the set deadline in 2015. The digital migration process is successful in South Africa and other African countries. The critical co-operation is of the stakeholders. The future development of the media industry globally it's led to the impact through the digitization process and the communication technologies convergence. The pressure of having to move from analogue to digital migration has an impact on the broadcasting networks both locally and globally. The benefits of digital migration are more than the challenges.

The benefits of digital migration are people have more television stations. The additional channels sports and entertainment program, information, cultural and educational programs. The migration will assist the economic growth by accelerating it and assist in the goals and achievements of the country involved.

5.3 Recommendation

The government should take the process of educating people on digital migration more seriously. More research should be done concerning the impact of digital migration on broadcasters and the stakeholders of the government. The research done represents Makadara Division it does not mean it represents the whole of Nairobi county or the country. Hence if I had more time and financial support I would like to do impact of digital migration on different counties.

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APPENDIX I: QUESTIONNAIRE FOR SURVEY PARTICIPANTS

I am currently a Masters student at the University of Nairobi researching digital migration in Kenya and factors affecting its uptake. This questionnaire and its responses are meant to inform the findings of this important research. I would appreciate if you would take a few moments to fill in this questionnaire. You are assured of complete anonymity and this will be used exclusively for academic purposes only. Your cooperation is highly appreciated. If you would like to confirm the authenticity of this research please get in touch with the Director, School of Journalism and Mass Communication at the University of Nairobi via email director-soj@uonbi.ac.ke or phone 0203318262.

Thank you in advance for your cooperation and assistance.

SECTION A: PERSONAL INFORMATION

This section of the questionnaire refers to background information. Although I am aware of the sensitivity of the questions in this section, the information will allow me to compare groups of respondents.

1. Age (tick (√) one that applies)
 - a) 18 - 22 years
 - b) 23 – 27 years
 - c) 28- 32 years
 - d) 33 - 37 years
2. Gender (tick (√) one that applies)

- a) Male
 - b) Female
3. How would you describe your economic status? (tick (√) one that applies)
- a) Poor
 - b) Below average
 - c) Average
 - d) Above average
4. Your highest education qualification? (tick (√) one that applies)
- a) Primary School
 - b) Secondary School
 - c) Diploma/ Certificate
 - d) Degree
 - e) Post Graduate Degree(s)

SECTION B: DIGITAL MIGRATION AND FACTORS AFFECTING ITS UPTAKE

This section of the questionnaire explores your understanding, with regard to digital uptake in Kenya. It is divided into 3 parts; kindly respond to each of the questions by following the instructions given.

Part 1: Digital Migration Awareness

1. Do you understand the meaning of digital migration? (tick (√) one that applies)
- a) Yes
 - b) No

If yes, explain

2. Do you think the government is fair in setting deadlines for the digital migration? (tick

(√) one that applies)

a) Yes

b) No

3. Is digital migration beneficial? (tick (√) one that applies)

a) Yes

b) No

Part 2: Media and Digital Migration Issues

1. Which media do you frequently use?(tick (√) as many)

a) Radio

b) Television

c) Newspapers

d) Magazine

e) Internet

f) Other _____

2. Why do you watch television? (tick (√) as many)

a) Entertainment

b) Education

c) Informative

d) Other _____

3. Can you do without the television? (tick (✓) one that applies)

a) Yes

b) No

4. How frequently do you watch TV? (tick (✓) one that applies)

a) Daily

b) Weekly

c) Monthly

d) Never

Part 3: Digital Set top Boxes

1. Do you understand what the digital top boxes are? (tick (✓) one that applies)

a) Yes

b) No

2. If yes to question 1 above, what is the source of your information?

3. Are you aware you can buy the boxes? (tick (✓) one that applies)

a) Yes

b) No

4. If yes to question 3 above, where?

5. Do you think the digital set top boxes are expensive?

a) Yes

b) No

6. Have you bought a digital set top box?

a) Yes

b) No

7. If no to question 6 above, why?

8. Will you stop watching television once the migration has occurred if you do not have the digital set top boxes?

a) Yes

b) No

9. What should the government do about the provision of digital set top boxes?

Digital Migration

10. Do you understand the meaning of digital migration? (If yes explain)
11. Do you think the government is fair in setting deadlines for the digital migration?
12. How will the digital migration benefit you as a filmmaker?
13. Are you ready for the digital migration? If no why?
14. What challenges or benefits are you currently facing as a filmmaker because of the digital migration?
15. Do you understand what the digital top boxes are? (if yes explain)
16. Are you aware you can buy the boxes?
17. Do you think the digital set top boxes are expensive?
- a) Yes
- b) No
18. Have you bought a digital set top box?
- a) Yes
- b) No
19. If no to question 9 above, why?
20. What should the government do about the provision of digital set top boxes?

21. Are Kenyans ready for the switch? Give a reason for your answer.

22. Do filmmakers have enough content for the market as the switch takes place?

23. What are benefits of digital broadcasting over analogue broadcasting?