

Digital Television Migration In Zambia: Who Are The Real Beneficiaries?

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Abstract- Analogue terrestrial television has been in existence since the 1940s but was rendered obsolete due to advancement in technology and its inefficient use of the frequency spectrum which is a limited resource. Analogue Terrestrial Television is said to use one frequency to carry one programme channel while Digital Terrestrial Television (DTT) can use one frequency to carry multiple programme channels. What this means is that Digital Terrestrial Television allows for transmission of many television programmes using one frequency channel and at lower cost. So what is Digital Broadcasting Migration? It is generally a process in which broadcasting services offered on the traditional analogue technology are replaced with digital networks over a specific period. The transition or switch from analogue television to digital television is referred to as the Digital Migration. This is a process that was started in phases and which Zambia was obliged to carry out after the International Telecommunications Union (ITU), a United Nations Agency, set 17th June, 2015 as the deadline for countries to switch over from Analogue to Digital Television Broadcasting. The migration is therefore a global agreement. Not having the technological know-how and the financial resources, the Zambian government entered into partnership with Star Times, a Chinese company that had the technology. This engagement resulted in the birth of a company called Top Star which entered into an agreement with Zambia National Broadcasting Corporation (ZNBC). In this agreement Top star has 60% shares while ZNBC has 40% shares. With that Top star started providing the resources needed for the digital migration and the Zambian government set October 1, 2017 as the date for a complete switchover to digital broadcasting from analogue television services along the line of rail. With just a few months remaining before hitting a five (5) year mark, it is necessary to take stock in terms of benefits among the stakeholders, namely; the Zambian people with the general television media landscape, some political figures in the Zambian government and Star times. Of these three camps, which camp has benefited the most? The real owners of ZNBC are the Zambians. Under normal circumstances the owner of any project benefits much more than the company hired to do the work. Is this the case in this project?

Index Terms- digital; migration; analogue; television; terrestrial; Star Times; Top Star; ZNBC

I. HISTORY OF TELEVISION IN ZAMBIA

According to the Zambia National Broadcasting Corporation Strategic Plan, the first television station in Zambia was set up in 1961 in Kitwe by Tiny Rowland's London Rhodesia Mining Company (Lonrho) and was known as Rhodesia Television Limited (RTL) (2015: 10-11). The television station was privately owned. When Zambia became independent in 1964, the government entered into a partnership with the owners of the television station and changed its name from Rhodesia Television Limited to Zambia Television Limited and the government appointed one person to sit on its board (ZNBC Strategic Plan 2015: 11).

1. In 1965, the Zambia Television Limited launched an experimental service in Lusaka operating from the Zambia Broadcasting Service premises (ZNBC Strategic Plan 2015: 11). In 1967, the government took over full ownership of the Kitwe studios under Zambia Broadcasting Service (ZBS) (ZNBC Strategic Plan 2015: 11). Colour transmission was launched in 1977, using modified monochrome or black and white studio equipment and transmitters (ZNBC Strategic Plan 2015: 11).
2. In 1987, through an Act of Parliament, ZBS became the current Zambia National Broadcasting Corporation (ZNBC) on 1st April, 1988. Though being parastatal, ZNBC was commercialised. Government funding became minimal. ZNBC had to sustain its operations through its commercial service (ZNBC Strategic Plan 2015: 11).
- 3.

II. ZNBC AND TOP STAR PARTNERSHIP IN SIGNAL DISTRIBUTION OF DIGITAL NETWORK FROM ANALOGUE

Analogue television is the original television technology that uses analogue signals to transmit video and audio (MIBS 2012: 6). All [broadcast television \(TV\) systems](#) preceding [digital transmission](#) of [digital television](#) (DTV) used analogue signals (Gupta 2006: 62). An analogue signal is a continuous signal which represents physical measurements, denoted by sine waves and uses continuous range of values to represent information (MIBS 2012: 6). Furthermore, terrestrial television is a type of television broadcasting in which the television signal is transmitted by radio waves from the terrestrial (earth based) transmitter of a television station to a television receiver having an antenna (MIBS 2012: 6). In other words, terrestrial television is a term which refers to modes of television broadcasting which do not involve satellite transmission. Analogue terrestrial television has been in existence since the 1940s.

Analogue television around the world has been in the process of shutting down since the late 2000s. The reason for migrating from analogue to digital TV was necessitated by the fact that analogue requires a lot of bandwidth frequency to transmit one channel. According to Armstrong and Collins, “digital systems encode (and decode) signals in a manner whereby inputs, whether sound or video, are converted into (and from) a single stream of zeros (0) and ones (1), or “ons” and “offs,” in the electrical current” (2004: 3). Since digital signals require less power to transmit, therefore, digital transmission allows approximately six – to – ten digital channels to be squeezed into any single spectrum which normally accommodate one analogue channel (Cave 2002: 162). The freed up frequency can also be used for a variety of communication functions including the provision of broadband function and other additional functions (MIBS 2014: 1).

In order to enable the world to move into the digital age, in 2004 and 2006, the International Telecommunication Union (ITU), a United Nations global telecommunications body, held two conferences dubbed the Regional Radio Communications (RRC -04 and RRC- 06) whose purpose was to develop a digital terrestrial broadcasting plan. During the last of these conferences (RRC-06) held in Geneva, Switzerland, an agreement (GE06) was reached which set June 2015 as the date for the switch over from analogue to digital. By this date, all countries party to this agreement (101 countries in Europe, Africa and the Middle East) had obliged to switch from analogue to digital broadcasting technology (ITU 2012: 11).

Zambia, like other members of ITU, became a signatory to a treaty with a resolution that all countries around the world were to migrate from analogue to digital services within six years from the conference. Following this ratification, ZNBC complied with the ultimatum and began the simulcast on the 17th June, 2015 along the line of rail from Chililabombwe to Livingstone as phase one of the transition process (ZNBC News, June 17, 2015). Installation of digital transmitters around the country was expected to be completed by June 2018. In the first phase, 10 digital transmitters were installed. In phases two and three of the transition process, 36 transmitters were going to be installed between June 2017 and September 2017. Aside from transmission and other attendant equipment being installed at the six provincial centres, there were also subsidiary transmission sites at 64 sites where small

transmitters have been erected to ensure total coverage of the entire country.

In areas where the landscape cannot allow for digital terrestrial television transmission, these are served by satellite.

Not having the technological know-how and the financial resources, the Zambian government entered into partnership with Star Times, a Chinese company that has the technology. Initially, Star Times was awarded the contract, but afterwards the tender for the digital migration was later cancelled due to irregularities. The Ministry of Information and Broadcasting Services cancelled a USD 220 million tender for the supply, delivery and commissioning of a national digital terrestrial television (DTT) broadcast network, awarded to the Star Times Group in May 2013 via its Star Software Technology subsidiary. The tender was cancelled following a recommendation from the Zambia Public Procurement Authority (ZPPA) which cited irregularities in both the original tender document and the award process following appeals from two of the four unsuccessful bidders – Huawei Technologies, ZTE Corporation, Gospel Digital Technology Company Limited, and King Tai investments Zambia Limited. After the cancellation of this tender, then Star Times and the Zambian Government created a special purpose investment vehicle called Top Star. This is how Top Star was born and bid for the tender and ultimately won the tender (Nextv News International, Zambia cancels Star Times DTT contract, 24/09/2013, <https://nextvnews.com/zambia-cancels-startimes-dtt-contract/>, viewed on 12/05/2020). In accordance with the wishes of government, Top Star then entered into an agreement with Zambia National Broadcasting Corporation (ZNBC). Through this venture the government now procured a loan of US\$273 million from China for the implementation of phases two and three of the Digital Migration programme. Furthermore, in this agreement Top Star became the majority shareholder at 60% shares while ZNBC got minority shares at 40%. With that, Top Star started providing the technology and the resources needed for the digital migration and the Zambian government set October 1, 2017 as the date for a complete switchover to digital broadcasting from analogue television services along the line of rail. Following this digital migration process from analogue to digital television broadcasting, ZNBC was part of the National Task Force Committee on digital migration and was given a role of a signal carrier and hence distributor responsible for rolling out the digital network infrastructure on behalf of broadcasters (MIBS 2014: 6).

III. STATEMENT OF THE PROBLEM

Access to information is a basic human right. Television, as a broadcast medium, is a cornerstone of modern democracy and cultural diversity, enhances people’s identity and capacity to live together and therefore contributes to social cohesion. In the digital era, with an unprecedented proliferation of sources of communication, most people still rely mainly on television broadcasting for information (Communication and society Journal 2011: 4).

In order to promote a more efficient utilisation of television broadcast, it has been found worthy to migrate from analogue to digital television broadcast. As mentioned already, there are several advantages for migrating to digital television such as: Better utilisation of frequencies; Better picture quality; More

access to channels; Better viewing pleasure; Outstanding services for the elderly and disabled; Audio descriptions for the visually impaired; Adjustable speaking speed; Participation in quizzes and questionnaires and Electronic Programme Guides (EPGs).

Looking at these advantages, migration from analogue to digital terrestrial television (DTT) was inevitable. The challenge for the Zambian Government was in terms of the technology and the financial resources. So in order to be able to implement the digital migration, the Zambian government entered into an agreement between the Zambia National Broadcasting Corporation (ZNBC) and the digital TV operator Star Times of China. This memorandum of understanding gave birth to Top Star company which is a joint venture company created by the Zambia National Broadcasting Corporation (ZNBC) and the digital TV operator Star Times of China. Top Star Communications is the only mandated public signal distributor operating in Zambia. Top Star Company has been given the full mandate to carry out the countrywide digital migration of television signal from the analogue to digital. According to this memorandum of understanding, it was agreed in this deal that ZNBC would get 40% shareholding, whereas Top Star would get 60%. The contract between Star Software Technologies and the Zambian government comprised of the supply, delivery, installation and commissioning of digital terrestrial broadcasting to cover the entire country and studio equipment for the national broadcaster, the Zambia National Broadcasting Corporation (ZNBC) - as well as for ten new provincial broadcasting stations that the government would like to establish. It also involves the construction of the national operating centre for the Public Signal Distributor and rehabilitation of ZNBC and Zambia News and Information Services (ZANIS) studios.

The Television digital migration has been implemented, no doubt about it. However, it is necessary now to take stock in terms of benefits between these three camps, namely; the Zambian people with the general television media landscape, the political figures in the Zambian government and Star Times. Of these three camps, which camp has benefited the most?

IV. OBJECTIVE OF THE RESEARCH STUDY

4.1. Main Objective of the Research Study

The main objective of this research study is to find out who has benefited most in this digital migration among the Zambian people with the general television media landscape, the political figures in the Zambian government and Star Times which is a Chinese company.

4.2. Specific Objectives of the Research Study

- i. To identify what the Zambians have benefitted from this deal and if they are the ones who have benefitted most.
- ii. To find out if the Zambian government figures have benefitted most from this deal.
- iii. To find out what Star Times, a Chinese company, has benefitted from this deal and if it is the one that has benefitted most.

V. THE THEORETICAL FRAMEWORK

In this research study, only one theory was used in guiding the researchers. This was the Technological Determinism theory.

5.1. Technological Determinism theory

This is the theory upon which this study is anchored. According to Griffin (2000: 313-325) the term 'technological determinism' was coined by Marshall McLuhan (1962) and this theory revolves around the proposition that technology in any given society defines its nature. Technology is viewed as the driving force of culture in a society and it determines its course of history.

The theory states that media technologies shape how individuals in society think, feel, act and how a society operates as it moves from one technological age to another (McLuhan, 1962: 77). This article is being supported with the technological determinism theory as advanced by Marshall McLuhan (1962: 78). This theory holds that media technology shapes how people move from one technological age to another. Technological determinism is a reductionist theory that aims to provide a relevant link between technology and a society's nature. It tries to explain as to whom or what could have a controlling power in human affairs. The theory questions the degree to which human thought or action is influenced by technological factors (McLuhan 1962: 78).

According to Karl Max (Griffin, 2000: 313-325), technological progress leads to newer ways of production in a society and this ultimately influences the cultural, political and economic aspects of a society, thereby inevitably changing society itself. He cited the example of how a feudal society that used a hand mill slowly changed into an industrial capitalist society with the introduction of the steam mill.

Technological determinism manifests itself at various levels. Initially it starts with the introduction of newer technologies, introduces various changes and at times these changes can also lead to a loss of existing knowledge as well. For example, the introduction of newer agricultural tools and methods has seen the gradual loss of knowledge of traditional means of farming. Therefore, technology is also influencing the level of knowledge in a society (Griffin 2000: 313-325).

History shows numerous examples to explain why technology is considered to be determining the society. The invention of the gun changed how disputes were sorted out and changed the face of combat. A gun required minimum effort and skill to be used successfully and could be used from a safe distance. Griffin explains that when this is compared to how earlier wars were fought with swords and archery, it led to a radical change in the weapons used in war (2000: 313-325). Today with the discovery of nuclear energy, future wars will be fought with nuclear arsenal. Each new discovery causes a transition to a different society. The discovery of steam power led to the development of the industrial society and the introduction of computers has led to the dawn of the information age. Equally the coming of the digital migration has led to better television usage. Changes in technology sometimes have unintended or unexpected results and effects as well. This phenomenon is referred to as 'technological drift' where people start drifting more and more among a sea of unpredictable and uncertain consequences. According to Langdon Winner, technology is not the slave of the

human being but rather humans are slaves to technology as they are forced to adapt to the technological environment that surrounds them (Littlejohn 1999: 329-330).

McLuhan explains that new media are not only an addition to existing media, they are also new technologies and therefore do have a deterministic factor as well (1962: 78). Marshall McLuhan made a famous statement that “the medium is the message.” This means that the medium used communicated and influenced the mind of the receiver. The introduction of news print, television and the internet have all shown how technological advances have an impact on the society. Today internet is the latest through which journalism thrives. Humans do not have much free will at all, at one point, letters were used for business communication, however this is history now as people can easily communicate by emails. Interpersonal (word of mouth) was equally used at one time, but with technological advancement, email took centre stage in business communication. People readily adapt to the medium they are using so that they can send and receive messages like everyone else (McLuhan (1962: 89).

Within journalism, technology and its deployment should be viewed as part of a complex social and institutional matrix which stretches across a wide range of social institutions (Marx 2010: 14). The lines separating different technologies from one another and from society should thus be seen as relative and contingent upon a prevailing social consensus (Marx 2010: 19). Consequently, it is important to view technologies as both ‘socially constituted and constituting’. This calls for a non-reductionist approach that is sensitive to the complex interplay between multiple elements. Such a ‘multiple-determinations’ approach, according to Dahlberg, recognises that each determining factor is itself embedded within and constituted by a system of interlinked constitutive processes (2001: 19). These processes and relationships are in no way linear or fixed, nor are they of equal influence.

At the end of the day, any technology worthy a pinch of salt increases the efficiency of the business process; performs more tasks in less time; is hassle free; is faster; is more efficient; is more agile; has more space for storage and sharing; has more mobility; has more remote connectivity; has more automation and communication and the clients have more benefits at a cost effective price. Simply put, there are more benefits with the introduction of a new technology. For example, with the coming of the digital television migration, there are several advantages such as Better utilisation of frequencies; Better picture quality; More access to channels; Better viewing pleasure; Outstanding services for the elderly and physically challenged; Audio descriptions for the visually impaired; Adjustable speaking speed; Participation in quizzes and questionnaires and Electronic Programme Guides (EPGs).

VI. LITERATURE REVIEW

Star Times has won tender awards in other countries in Africa for the digital migration. It is therefore, important to know and learn from those countries how things transpired.

6.1. Star Times and its digital migration deal in Ghana

In Ghana, Star Times in 2017 was engaged in litigation with that country’s government over a cancelled digital terrestrial television contract (<https://www.zambianobserver.com/top-star-in-more-controversy/>, viewed on 05/11/2018). It was discovered that the company was secretly taking a lion’s share going beyond what they had agreed upon in the contract and that people realised that the Chinese company was benefiting much more than the Ghanaians.

It is a normal practice in contracts that if the economy in the country wobbles, the contractor may adjust the cost, but in agreement with the other party. However, in this case, Star Times did not show reason why it was dubiously and discreetly getting more than they had agreed upon. Therefore, it could be learnt from Ghana that Star Times was not an honest company and wanted to gain much more than the Ghanaian people.

6.2. Star Times and its digital migration deal in Nigeria

In Nigeria, Parliament in December 2016 challenged Top Star’s joint venture with the Nigerian Television Authority signed in 2009 aimed at increasing content, building a terrestrial wireless, digital television system and operating a pay television service. The partnership saw Star Times gaining effective control of the entire Nigerian Television Authority infrastructure and a 70 percent shareholding in the joint venture, with the Nigerian telecaster getting 30 percent. Nigeria’s Parliament believed the deal was reached at fraudulently and members of Parliament called for the investigation of Star Times (<https://www.zambianobserver.com/top-star-in-more-controversy/>, viewed on 05/11/2018). It was discovered that the company was fraudulently awarded the tender taking a lion’s share to the detriment of the Nigerians thereby the Chinese company benefiting much more than the owners. Similar results can be seen here. Star Times got the contract fraudulently and wanted to gain much more than the Nigerians.

6.3. Star Times and its digital migration deal in the Democratic Republic of Congo

In the Democratic Republic of Congo (DRC), Star Times operating license was revoked after the company illegally used the public frequency for its telecasts (<https://www.zambianobserver.com/top-star-in-more-controversy/>, viewed on 05/11/2018). It was discovered that the company was secretly taking a lion’s share going beyond what they had agreed upon in the contract and that people realised that the Chinese company was benefiting much more than the Congolese themselves. The trend is the same here. Star Times wanted to benefit much more than the Congolese themselves.

6.4. Star Times and its digital migration deal in Uganda

Uganda had mid 2017 halted a tender given to Star Times to run the digital terrestrial television migration for the Uganda Broadcasting Corporation as the deal was giving it majority control of the country’s television space (<https://www.zambianobserver.com/top-star-in-more-controversy/>, viewed on 05/11/2018). Of what benefit is it that the owners of the project would benefit less as compared to those hired to implement it? This forced the Ugandans to halt the contract and revisit it for better gains for the Ugandans.

As can be observed from the literature reviewed in these five Sub Sahara African countries, Star Times seems to have a legacy of abnormalities shrouded in getting contracts through fraudulent means, being a bigger shareholder as compared to the owners of the project and getting more benefits as compared to the nationals. Such a deal stinks and can only be taken with a pinch of salt.

VII. RESEARCH METHODS

The researchers used a descriptive research design because of the descriptive and analytical nature of the study. As can be seen from the literature reviewed, the researchers have shown how the Star Times Chinese Company has not created an even media landscape while being involved in the digital migration in some sub Saharan African countries. Although in Zambia this Company has been welcomed by government, the researchers are interested in knowing whether there are no teething issues as compared to what happened in other sub Saharan African countries.

In researching on this topic, the researchers used Qualitative research methods. The researchers used qualitative research methods because the techniques used in data collection was literature review, interviews and observation of how this Star Times Chinese Company, the Zambian government, ZNBC, and the general (private, commercial and church) television broadcasting media landscape is operating in Zambia.

7.1. Data Collection Methods

In the data collection, the researchers collected the data in two ways, namely; primary data collection and secondary data collection methods.

7.2. Primary Data Collection

In the primary data collection, the researchers used qualitative methods. In the qualitative methods, the researchers used the Literature Review, Interviews and Observation methods because these were the best methods to achieve the required results. The researchers needed to review the literature in order to learn of what was going on in the governance of Zambia in terms of the television broadcasting media landscape, conduct interviews in the various television media houses so that they could get the views of the media houses on how they were being impacted after the television digital migration and also do their own observations to see whether the general television media landscape following the digital migration, had brought a lot of benefits to the Zambian public or not.

7.3. Secondary Data Collection

The researchers used some books, magazines, newspapers and the internet to beef up on the primary data that was collected. This is reflected in the section dealing with literature review across the breadth and length of Sub Saharan Africa. Document data collection is crucial for the purposes of reinforcing the primary data as well as the entire research so that there is more substance and evidence. This added up to the credibility of the research findings.

7.4. Sampling Technique

This research applied the purposeful/judgemental sampling technique because the researchers knew the target group which is the television media houses. Another sampling technique that was used was the expert sampling technique which meant surveying experts in the media field and get their views on this subject matter.

7.5. Data Analysis

In analysing the Literature Reviewed, the researchers focused on the actual content to determine whether in the implementation of the television digital migration by the Chinese Star Times Company which had been awarded the tender was doing it fairly, so that all the stakeholders could enjoy the benefits justly and fairly.

VIII. RESEARCH FINDINGS ABOUT THE REAL BENEFICIARIES IN THE DIGITAL TELEVISION MIGRATION IN ZAMBIA

The research findings are in two parts: the first part presents a scenario where the digital television migration has benefitted the Zambian television media landscape. The second part presents a scenario of the digital television migration has not benefitted the Zambian television media landscape. It instead shows other beneficiaries. At the end a conclusion will be drawn to see who the greatest beneficiaries in this project are.

8.1. Benefits of the digital television migration to the people of Zambia and the general television media landscape

Some of the benefits to the people of Zambia and the general television media landscape are as follows:

- i. **Better utilisation of frequencies:** A digital signal carries much more data than an analogue signal. Therefore, more than one channel of television programmes can be broadcast at the same time. This is known as multi-channeling. This efficient utilisation of channels reduces the number of frequencies required for the broadcasting sector (MIBS 2014: 3). The Digital Terrestrial Television (DTT) is able to reduce the use of spectrum and provides more capacity for transmitting more channels. This is what exactly has happened to the Zambian television media scenario. With the coming of the digital migration, there is better utilisation of frequencies such that now there are more channels of television programmes which are being offered by the television media houses. That means the Zambia Information and Communication Authority (ZICTA) has more frequencies to put at the disposal of the television media industry (Nkole Nkole, What digital television switch-over entails, 04/10/ 2017, <http://www.daily-mail.co.zm/what-digital-television-switch-over-entails/>, viewed on 08/11/2018). This is in line with the technological determinism theory which has improved the efficiency of the business process; performs more tasks in less time; is hassle free; is faster; is more efficient; is more agile; has more space for storage and sharing; has more mobility; has more remote

- connectivity; has more automation and communication and the clients have more benefits at a cost effective price. Simply put, there are more benefits with the introduction of a new technology.
- ii. **Better picture quality:** The Digital Television Broadcasting offers sharper; brighter picture, and reduced interference. Therefore, the Zambian viewers now enjoy sharper, brighter picture quality and reduced interference with improved sound quality (Balancing Act 2011: 1). This also is in line with the technological determinism theory has increased the efficiency of the business process; performs more tasks in less time; is hassle free; is faster; is more efficient; is more agile; has more space for storage and sharing; has more mobility; has more remote connectivity; has more automation and communication and the clients have more benefits at a cost effective price. Simply put, there are more benefits with the introduction of a new technology.
- iii. **More access:** When the Set Top Box (STB) receives the digital signal it also has the capability to interface with devices such as a cell phone, memory card or internet modem. This, therefore provides viewers with access to many more services and information (ITU 2012: 10). As can be observed, this is in line with the technological determinism theory which has increased the efficiency of the business process; performs more tasks in less time; is hassle free; is faster; is more efficient; is more agile; has more space for storage and sharing; has more mobility; has more remote connectivity; has more automation and communication and the clients have more benefits at a cost effective price. Simply put, there are more benefits with the introduction of a new technology.
- iv. **Better viewing pleasure:** With analogue, the viewers are only able to have standard definition television. With Digital Broadcasting, High Definition Television (HDTV) is the premium version of digital television, offering picture and sound quality which is much better than analogue television. This means that the benefits of HDTV are particularly noticeable on larger screen sets and when using projection equipment. HDTV is in widescreen format and provides cinema-quality viewing with Dolby surround sound (ITU 2014: 7). Thus the Zambian viewer is now able to enjoy better and higher picture and sound quality thereby having better viewing pleasure. As can be observed, this is in line with the technological determinism theory which says that any technology worthy a pinch of salt increases the efficiency of the business process; performs more tasks in less time; is hassle free; is faster; is more efficient; is more agile; has more space for storage and sharing; has more mobility; has more remote connectivity; has more automation and communication and the clients have more benefits at a cost effective price. Simply put, there are more benefits with the introduction of a new technology.
- v. **Outstanding services for the elderly and physically challenged:** Enjoy subtitled caption broadcasting. Captioning is a service that displays comments and dialogue as text at the bottom of the screen. In the case of terrestrial analogue TV broadcasts, a special adaptor was required, but with digital TV, captioning is offered as a standard function. Captioning is even available for some live broadcasts (Balance Act 2011: 1). As can be observed, this added advantage is in line with the technological determinism theory which could be summarised as saying any technology worthy a pinch of salt increases the efficiency of the business process; performs more tasks in less time; is hassle free; is faster; is more efficient; is more agile; has more space for storage and sharing; has more mobility; has more remote connectivity; has more automation and communication and the clients have more benefits at a cost effective price. Simply put, there are more benefits with the introduction of a new technology.
- vi. **Audio descriptions for the visually impaired:** Audio description of the plots in dramas and other programmes are available for visually impaired users (Armstrong and Collins 2010: 15). As can be observed, this added advantage is in line with the technological determinism theory which could be summarised as saying any technology worthy a pinch of salt increases the efficiency of the business process; performs more tasks in less time; is hassle free; is faster; is more efficient; is more agile; has more space for storage and sharing; has more mobility; has more remote connectivity; has more automation and communication and the clients have more benefits at a cost effective price. Simply put, there are more benefits with the introduction of a new technology.
- vii. **Adjustable speaking speed:** Some new digital TVs have an audio speed adjustment function that allows viewers to slow down the speed of an announcer's voice. It is very useful for the elderly and partially deaf people (Ocholi 2009: 3). As can be observed, this added advantage is in line with the technological determinism theory which could be summarised as saying any technology worthy a pinch of salt increases the efficiency of the business process; performs more tasks in less time; is hassle free; is faster; is more efficient; is more agile; has more space for storage and sharing; has more mobility; has more remote connectivity; has more automation and communication and the clients have more benefits at a cost effective price. Simply put, there are more benefits with the introduction of a new technology.
- viii. **Participation in quizzes and questionnaires:** Viewers can participate in interactive programmes by connecting the digital TV to the network via a phone line or Internet connection. Then, they can use their remote control to join in user participation programmes, such as quiz games or request

programmes (Flew 2003: 19). As can be observed, this added advantage is in line with the technological determinism theory which could be summarised as saying any technology worthy a pinch of salt increases the efficiency of the business process; performs more tasks in less time; is hassle free; is faster; is more efficient; is more agile; has more space for storage and sharing; has more mobility; has more remote connectivity; has more automation and communication and the clients have more benefits at a cost effective price. Simply put, there are more benefits with the introduction of a new technology.

ix. **Creation of job opportunities:** According to Top Star, “The DTT model of digital migration in Zambia can create huge job opportunities and economic growth. The PPP (Public-Private Partnership) model brings in capital, technology, management skills, talents, and training and cultivates a new industry, which involves realising national digitalisation on schedule, creating job opportunities and contributing to economic growth.” The migration has created jobs in the dealer network (Nkole Nkole, What digital television switch-over entails, 04/10/ 2017, <http://www.daily-mail.co.zm/what-digital-television-switch-over-entails/>, viewed on 08/11/2018). As can be observed, this added advantage is in line with the technological determinism theory which could be summarised as saying any technology worthy a pinch of salt increases the efficiency of the business process; performs more tasks in less time; is hassle free; is faster; is more efficient; is more agile; has more space for storage and sharing; has more mobility; has more remote connectivity; has more automation and communication and the clients have more benefits at a cost effective price. Simply put, there are more benefits with the introduction of a new technology.

x. **Electronic Programme Guides (EPGs):** Electronic Programme Guides (EPGs) are a feature of digital television broadcasting that comes fitted in the Set Top Box. An Electronic Programme Guide (EPGs) can be used by viewers to navigate between channels, identify the currently screening programme and the next programme ('now and next') on each channel. More sophisticated EPGs are being used to set reminders for programme viewing, provide a short synopsis of the content of programmes, identify programming in advance for several days, search for programmes by genre, and provide access to some enhancements among others (Crinon et al., 2006: 102-118). As can be observed, this added advantage is in line with the technological determinism theory which could be summarised as saying any technology worthy a pinch of salt increases the efficiency of the business process; performs more tasks in less time; is hassle free; is faster; is more efficient; is more agile; has more space for storage and sharing; has more mobility; has more remote connectivity; has more automation and

communication and the clients have more benefits at a cost effective price. Simply put, there are more benefits with the introduction of a new technology.

xi. **Affordability of STBs among low-income TV owning households:** According to the research findings done by Conceptor Ilinanga for her master's dissertation in the Department of Media and Communications Studies at the University of Zambia in 2017 (Ilinanga, 2017), the digitally integrated TV sets were costing not less than US\$300 (approximately K3, 000) which was costly and hence out of reach for many (Balancing Act 2011: 1). In order to ensure that the migration to digital terrestrial television (DTT) was successful, the free-to-air DTT set top box was the best alternative. In this regard, in the first phase of digital migration Zambia National Broadcasting Corporation (ZNBC), a public broadcaster, responsible for signal distribution and rolling out the digital network infrastructure on behalf of broadcasters, was selling the set-top-boxes via Zambia Postal Offices (ZAMPOST). The initial price was K800, but even before going to the market, the government subsidised the price. So the set top box was brought down to K130 and the antenna at K80 which came to a total of K210 (ZNBC News, June 17, 2015). Critical success factors identified by the European Union were the “low cost and widely available” set top boxes and audience awareness (Rosenberg 2013: 1).

All these benefits agree with the introduction of any technology. As mentioned already, any technology worthy a pinch of salt increases the efficiency of the business process; performs more tasks in less time; is hassle free; is faster; is more efficient; is more agile; has more space for storage and sharing; has more mobility; has more remote connectivity; has more automation and communication and the clients have more benefits at a cost effective price. The only problem where there is a bit of hitch is in terms of the cost effective price. In this technology, the price was not cost effective to the Zambian people.

8.2. Benefits of the digital television migration to Star Times

Some of the benefits to Star Times are as follows:

i. **ZNBC is both a signal carrier and a content provider:** The new global trends in digital terrestrial television broadcasting are that broadcasters are being unbundled into content service provisioning and signal distribution. No television broadcasters are allowed to own network and at the same time perform content service provisioning. However, this does not seem to apply to the Zambian digital television environment. Following the digital migration process from analogue to digital television broadcasting, Zambia National Broadcasting Corporation (ZNBC) in collaboration with Top Star (a subsidiary company of Africa's leading digital TV operator Star Times of China) have been given the

role of being a signal distributor responsible for rolling out the digital network infrastructure on behalf of broadcasters (MIBS 2014: 6). The company has been given the full mandate to carry out the countrywide digital migration of television signal from analogue to digital. Therefore, ZNBC is both a signal carrier and a content provider which is contrary to modern trends. The greediness of Star Times seen by other sub Saharan African countries reviewed can be observed here. For example, in Nigeria, the partnership saw Star Times gaining effective control of the entire Nigerian Television Authority infrastructure and a 70 percent shareholding in the joint venture, with the Nigerian telecaster getting 30 percent only (<https://www.zambianobserver.com/top-star-in-more-controversy/>, viewed on 05/11/2018). It was a similar case in Uganda whereby Star Times wanted to get majority control of the country's television space (<https://www.zambianobserver.com/top-star-in-more-controversy/>, viewed on 05/11/2018). Government was forced to cancel the deal. Star Times has taken a lion's share in this project. However, unlike other African countries reviewed here, when parliament noticed the discrepancy, they cried foul and were heard and the project was halted. In Zambia instead, even if parliament cries foul, government continues moving on the project. It does not respect the voice of the people.

- ii. **IBA lacking capability and legal framework to regulate ZNBC:** To regulate the broadcasting sector, Parliament passed a law "the Independent Broadcasting Authority (IBA) Act No. 17 of 2002", which provides for the registration of broadcasting stations and regulation of their content. The broadcasting licenses are issued under the IBA Act while the frequency licenses are issued by ZICTA under the Information and Communication Technologies (ICT) Act No. 15 of 2009. While it is the mandate of the Independent Broadcasting Authority to regulate the broadcast sector in Zambia, IBA has no capability and legal framework to regulate ZNBC, because it does not need a licence to operate. The mandate comes from Parliament. Hence IBA has no powers to stop ZNBC from operating. So no matter how ZNBC defaults, IBA is incapable of doing anything. This poses a lot of challenges knowing that ZNBC is the part owner of the infrastructure on which all other television stations subscribed to Top Star ride on.
- iii. **Signal distribution is undertaken by signal distributors:** These entities provide network infrastructure that receive content after aggregation from Content Providers for multiplexing and signal distribution and provide Subscriber Management System (SMS). The signal distributors are required to provide up to five (5) free-to-air programme channels for public service and are required to establish and operate help desks. Each signal

distributor is required to develop service level agreements with Content Service Providers which shall be non-discriminatory. Under this category the following licenses apply: a) **Public Signal Distributor** –The signal distributor shall be required to provide national-wide coverage and services to Content Service Providers (licensees) on a non-discriminatory basis in order to provide universal access. However, this has not been implemented. b) **Private Signal Distributor** – The Signal Distributor shall be required to provide national-wide coverage and service to Content Service Providers (licensees) on a competitive and non-discriminatory basis. The private signal distributor shall be established through competitive open tender. There is no private signal distributor currently operating in Zambia. This has also not been implemented. In short, all content providers are supposed to be given free to air licenses but under the current arrangement these stations are not free to air as the end user has to be subscribed to, and be given a package for them to view a station of their choice. The ugly head of the greediness of Star Times continues which was noticed and stopped in other countries can be observed here being played insidiously.

- iv. **TV revenue levy and subscriber fees taken by ZNBC alone:** Top Star Communications is the only mandated public signal distributor operating in Zambia. Top Star is a joint venture company created by the Zambian government between the Zambia National Broadcasting Corporation (ZNBC) and Star Times of China. The company has been given the mandate to carry out the countrywide digital migration of television signal from analogue to digital. It, therefore, implies that the revenue raised through Television Levy and subscriber fees should be shared with the other content providers. Unfortunately, this is not the case as ZNBC enjoys the national levy cake alone. It can be observed that just as it was noticed in other sub Saharan African countries which have been reviewed here that Star Times was getting a lion's share. In Ghana for example, it was discovered that the company was secretly taking a lion's share going beyond what they had agreed upon in the contract and that people realised that the Chinese company was benefiting much more than the Ghanaians digital terrestrial television contract. (<https://www.zambianobserver.com/top-star-in-more-controversy/>, viewed on 05/11/2018).
- v. **Top Star gets double pay by being both a signal distributor and a content provider through its own channels:** When Top Star came on board as a Public Signal Distributor, the expectations from all stakeholders were that they would stick to signal distribution as provided for in the legislation. Unfortunately, this is not the case at the moment. Top Star is a signal distributor and a content provider too. Top Star came with its own channels that have

narrowed the operational space for the available local channels. For example, in 2018, Kenmark Broadcasting Network (“KBN”), a Zambian owned independent broadcasting network, was licensed to provide various programmes of an entertainment, informative, educational and Christian nature. KBN was successfully granted a Content Service Provider Licence – Commercial Free to Air by the Independent Broadcasting Authority in January, 2017. Following this, KBN applied at that time to the Zambia National Broadcasting Corporation for a TV signal of which they were told to wait until the digital migration was done by 2018. On the strength of that pronouncement they went ahead and sourced and secured office space to commence preparations for broadcasting and started incurring operational costs since October, 2017. Some of the milestones achieved in preparation for commencing broadcasting include; contracting a consultant to get the studio and control rooms ready, procurement of a loan to fund the purchase of high quality studio and broadcasting equipment, commencement of filming and production of a number of shows in readiness for broadcasting, employment of a multi-skilled team of 16 young talented Zambians comprising of journalists, camera operators, video editors, marketing staff, transmission controllers, graphics designers and other support staff among others. To demonstrate the channel’s readiness, live Facebook broadcasts for news at 19:00hrs and a breakfast show every morning from Monday to Friday were started. KBN had no alternative other than to suspend these trial broadcasts due to cash flow constraints arising from the network having not commenced commercial broadcasting. All the operating expenses including salaries were funded from resources of the local promoters and directors of the company. Above all, even inspectors from IBA, Top Star and ZICTA went and conducted inspection and confirmed the technical readiness of KBN to commence broadcasting. After meeting all these benchmarks Top Star refused to carry them under the disguise of not having sufficient bandwidth to accommodate them. The real reason was that Top Star had filled the available bandwidth with their own Asian content (Natalie Ngosa, KBN writes Lungu over Chinese Top star’s digital migration handling, The Mast newspaper, <https://www.themastonline.com/2018/07/20/kbn-writes-lungu-over-chinese-topstars-digital-migration-handling/>, viewed on 07/05/2020. This shows clearly how Top Star had gone beyond its mandate of being just a national signal distributor. It had also assumed the role of a content provider as well. It cannot be both. As things stand, it is playing both roles of being a signal carrier as well as a content provider. This clearly has an adverse impact on competition and is depriving Zambian investors of the chance to enter the market and compete

favourably (Natalie Ngosa, KBN writes Lungu over Chinese Top star’s digital migration handling, The Mast newspaper, <https://www.themastonline.com/2018/07/20/kbn-writes-lungu-over-chinese-topstars-digital-migration-handling/>, viewed on 07/05/2020. This also shows how Star Times has continued getting a lion’s share like it was doing in other sub Saharan African countries reviewed.

- vi. **Top Star compresses signals of all the TV Stations or content providers it carries to the detriment of picture quality:** As mentioned in the above point, Top Star, despite being a distributor, it has also come with its own channels. This implies narrowing down the operational space for the local channels. Because of capacity issues, Top Star has to compress significantly the signals of all the TV Stations or content providers it carries. This compromises the picture quality and consequently takes away the very reason for which digital terrestrial television was established, to provide crystal clear quality picture and sound to a wider audience at a low cost. This is what also happened in the Democratic Republic of Congo. Star Times illegally used the public frequency for its telecasts (<https://www.zambianobserver.com/top-star-in-more-controversy/>, viewed on 05/11/2018). However, unlike the Democratic Republic of Congo (DRC), for Zambia this activity has been accepted. Instead the DRC revoked its license after the company illegally used the public frequency for its telecasts (<https://www.zambianobserver.com/top-star-in-more-controversy/>, viewed on 05/11/2018).
- vii. **Top Star runs adverts and gets advertising revenue:** Despite Top Star being contracted by the government of the Republic of Zambia as a distributor, it also competes for advertising revenue with local stations and sometimes even runs worded adverts on local stations without sharing revenue with the content providers. Thus Top Star is not being honest and in essence this is theft. This continues showing the greediness of Star Times as observed in other African countries reviewed.
- viii. **Expensive annual license fees:** The annual license fees of K20, 000 plus the carrier fees will make many stations to be out of business in no time. The fact that they have to compete for the same advertising revenue with the so-called signal distributor makes the situation extremely hard for the local stations to survive.
- ix. **Payment of fees by TV media houses to be carried by Top Star per zone:** The content providers have to pay Top Star for them to be carried. The country has been divided into 11 zones and the content providers have to pay for each of the zones for them to be able to be carried by Top Star. Each province is considered as a zone with Lusaka being split in two. In 2018, for those along the line of rail or in simple terms those in towns, they had to pay K16,

000 per zone while in rural areas they had to pay K11, 000. Now what it means is that if a TV media house has to broadcast country wide, it means it had to pay for each zone. Five out of these eleven zones are considered urban while the remaining six are considered rural. This means that if a TV media house wants to cover the entire country, it has to pay K146, 000 annually. Furthermore, Top Star is also enjoying revenues from advertisements which should only be handled by content providers. How possible is it for the TV media houses to manage to raise K146, 000 to pay Top Star? Advertisements are some of the methods in which TV media houses raise substantial revenues and these are being shared with Top Star. So how will the TV media houses raise this amount of money when some of the avenues are being encroached upon- by the very company to be paid? This again shows the greediness of Startimes, getting a lion's share.

x. **Private television stations outside Lusaka to send their signals to Top Star in Lusaka as the relaying point bearing the cost of sending the signal themselves from their base:** According to the initial understanding, the private television media houses outside Lusaka were meant to understand that Zambia Telecommunications Company (ZAMTEL), was going to carry their signals to Top Star in Lusaka using its optic fibre. However, when ZAMTEL realised that it was being offered a raw deal, it backed out of this deal. So now what it means is that these private television stations outside Lusaka have to send their signals to Top Star in Lusaka as the relaying point and they have to bear the cost of sending the signal from their base. In the absence of ZAMTEL, the alternative is to use other internet service providers and they are demanding for a monthly payment of K550, 000 which is impossible for the media houses to raise even if this was going to be an annual payment. This is extremely expensive and unimaginable. For example, in 2018, Chipata Television in Eastern Province wanted to be carried by Top Star, but they were asked to relay their signal to Lusaka at their own cost. So when they tried to engage a private internet service provider, to relay their signal to Top Star in Lusaka, they were asked to pay K550, 000 which was impossible for them to raise. Hence they backed out.

xi. **Top star was highly expensive as compared to other bidders:** From the information obtained in the *Zambian Watchdog* online newspaper, when this project was advertised by the Ministry of Information and Broadcasting Services, some of the bidders were Huawei Technologies, ZTE Corporation, Gospel Digital Technology Company Limited, and King Tai investments Zambia Limited for the Phases II and III of the digital migration process. In fact it is said that the bids of these companies were in the range of \$15 million and \$21 million compared to Star Times whose bid was \$220

million

(<https://www.zambiawatchdog.com/chipimo-queries-dora-siliya/>, viewed on 8/11/2018). After the government cancelled the tender that had been awarded to Star Times, then it went behind and formed a marriage of convenience with Star Times and formed a company called Top Star and gave it this project costing USD273 million. That means Star Times has reaped huge amounts of profits unnecessarily. This again shows the fraudulent under hand methods used by Star Times of getting the deal like in some other African countries which have been reviewed.

xii. **Top star enjoying the comfort of being rooted in ZNBC without any signs of moving out:** Top Star is charging for a local bouquet in the region of K40 per subscriber. It is said that by 2018 there were over 1.4 million active subscribers on Top Star. If these numbers are correct, it means that Top Star was earning in the range of \$4, 9 million every month without including the TV levy. Assuming costs of \$1 million per month, this gives a balance of nearly \$3.9 million per month. And if you multiply \$3.9 m by 12months the total is \$46.8 million. This would mean that the loan would be repaid in less than 5 years and even less if one takes the counterpart funding into consideration. (<https://www.zambiawatchdog.com/chipimo-queries-dora-siliya/>, viewed on 8/11/2018). That means Star times is reaping huge profits. But Star Times is known for shifting camps. Hence what has been experienced in other sub Saharan African countries may come to pass also here. Star Times may inflate the costs thereby staying longer in Zambia and reaping more profits.

8.3. Benefits of the digital television migration to the Political figures in the Zambian Government

Some of the benefits to the Zambian Government are as follows:

- i. **Ability of the country to do the digital television migration despite the poverty levels:** Although Zambia had become a signatory to a treaty with a resolution that all countries around the world were to migrate from analogue to digital television services by 2015, yet the truth was that the economy was so bad that it was doubtful as to whether the country would manage to migrate around the set time. But following this ratification, ZNBC complied with the ultimatum. This was made possible by the Zambian government entering into partnership with Star Times, a Chinese company that had the technical know-how and also the government procuring a loan of US\$273 million from China for the implementation of phase two of the Digital Migration programme. Hence, despite the Zambian economy being bad, government managed to abide by the international ultimatum.
- ii. **Suspicious fraudulent costs:** In 2011, the Zambia Digital Migration Task force announced that Zambia

needed \$30 million to carry out a successful digital migration. To this effect, in the first phase migration, government spent \$9 million. This first phase migration comprised of 4 provinces namely; Southern, Lusaka, Central and the Copperbelt Provinces. This figure resonates well with what other countries in the continent spent. It is surprising that the figures changed after the Chinese came on board. Initially, Star Times was awarded the contract costing USD 220 million. The tender was cancelled following a recommendation from the Zambia Public Procurement Authority (ZPPA) which cited irregularities in both the original tender document and the award process following appeals from two of the four unsuccessful bidders – Huawei Technologies, ZTE Corporation, Gospel Digital Technology Company Limited, and King Tai investments Zambia Limited. After the cancellation of this tender, then Star Times and the Zambian government created a special purpose investment vehicle called Top Star. This is how Top Star was born and bade for the tender and ultimately won the tender (<https://nextvnews.com/zambia-cancels-startimes-dtt-contract/>, viewed on 12/05/2020). In accordance with the wishes of government, Top Star then entered into an agreement with Zambia National Broadcasting Corporation (ZNBC). Through this venture the government now procured a loan of US\$273 million from China for the implementation of phase two of the Digital Migration programme. Now the new cost was even higher by USD53 million. There has been no proper explanation as to how the figure of \$30 million proposed in 2011 by the Task Force rose to \$220 million and finally rose to over \$273 million. Botswana spent \$18 million while South Africa, which has a far bigger population and geographical orientation, spent \$78 million. How is it that Zambia has spent close to \$300 million? (<https://www.lusakatimes.com/2018/03/16/topstar-deal-one-biggest-financial-scandals-modern-day-zambia-sanac/>, viewed on 04/05/2020). While the Southern Africa Network Against Corruption (SANAC) has written to the Minister of Information Dora Siliya over the Top Star Digital Migration deal, the Anti-Corruption Commission, a Zambian parastatal, has not raised any alarm against such seemingly inappropriate activities and hence whoever dipped their fingers in this pot have gone scot-free with blessings from government. SANAC instead says that the Top Star deal is one of the biggest financial scandals in modern day Zambia. Whereas other countries in the continent have spent far less, the Zambian digital migration deal is the most expensive in Africa costing government a whopping \$282 million.

- iii. **Suppression and muzzling of the freedom of the media:** Ordinarily, all things being equal, Zambia was supposed to have 2 signal carriers or distributors to allow for TV media houses to choose. However, the Zambian government refused to allow for 2 carriers and instead made sure that there was only one carrier which is Top Star and through ZNBC. So the competitive mechanism was not implemented. But the real crux of the matter is the fact that since ZNBC is government owned, it would

be in charge of allowing which television media house to accept and equally which television media house not to allow or throw out. This has been made possible by government refusing to sign the Right to Information since 2002. Furthermore, government has also tinkered with the Independent Broadcasting Authority (IBA). This has been done by IBA being housed in the ZNBC premises which is government property. Then when the job for the Director General of IBA was initially advertised, applicants wrote to the Permanent Secretary of the Ministry of Information and Broadcasting. So the Ministry picked the IBA Director General. The IBA Board was only appointed after the Director General had been employed. So naturally, the IBA Director General is answerable to the Ministry and not to the Board. A vivid example is what happened in 2020 to the Prime Television Station. On 13 March 2020, Prime TV owner Gerald Shawa, in his capacity as Chairperson of the Zambia Independent Media Association, a local trade group, told government officials that independent outlets were not prepared to air the government's coronavirus-awareness campaign for free because the government owed them money for airing previous government advertisements and, unlike the public broadcaster, they were not subsidised by the State. On 17 March 2020, the Information and Broadcasting Services Minister Hon. Dora Siliya, accused Prime TV of being unpatriotic and banned government officials from conducting any business with it, including appearing on its broadcasts and also barred the network's journalists from attending official events. On 27 March 2020, Topstar which is a signal carrier, informed Prime TV that it would stop carrying its broadcasts. On 9 April 2020, The Independent Broadcasting Authority, Zambia's broadcasting regulator, cancelled Prime TV's license "in the interest of public safety, security, peace, welfare or good order". Hence Prime TV was told to surrender its license and cease broadcasting immediately (Committee to protect journalists, Zambia cancels broadcaster Prime TV's license, police shutter office, 13 April 2020, <https://cpj.org/2020/04/zambia-cancels-broadcaster-prime-tvs-license-polic.php>, viewed on 04/05/2020). The conclusion was that the revocation of Prime TV's broadcast license confirmed that the government's aim was to silence a key independent media house that had at times been critical of the government's stance on the governance issues.

IX. CONCLUSION

Ultimately the Digital Television Migration in Zambia has created serious bottlenecks that need to be sorted out if the broadcast sector is to grow and prosper. The current environment stifles growth and makes it hard for the local TV sector to be competitive and profitable. The company that has benefitted most in terms of finances is Star Times, the Chinese Company. The Zambian government has instead benefitted in terms of migrating at the agreed upon time in accordance with the treaty, and it has

also benefitted in terms of individual government officials embezzling and enriching themselves from this project and above all government has benefitted in terms of usurping power to control, suppress and muzzle media freedom. Zambia, which had achieved so much after the Movement for Multiparty Democracy (MMD) liberalised the airwaves in 1993, has in essence gone backwards to state media era of the UNIP rule from 1964 to 1991. The people of Zambia have benefitted only in terms of the aesthetics which have come with the progress made by the digital television migration.

Recommendations

i. Anti-Corruption Commission to revisit the financial costs of this digital television migration: In 2011, the Zambia Digital Migration Task force of professionals announced that Zambia needed \$30 million to carry out a successful digital migration. To this effect, in the first phase migration, government spent \$9 million. This first phase migration comprised of 4 provinces namely; Southern, Lusaka, Central and the Copperbelt Provinces. This figure resonates well with what other countries in the continent spent. It is surprising that the figures changed after the Chinese came on board. There has been no proper explanation as to how the figure of \$30 million proposed in 2011 by the Task Force rose to \$220 million and finally rose to over \$273 million. Botswana spent \$18 million while South Africa, which has a far bigger population and geographical orientation, spent \$78 million. How is it that Zambia has spent close to \$300 million? The Anti-Corruption Commission (ACC), if it is worthy any pinch of salt, should raise an alarm and carry out independent free investigation. Failure to doing that may bring about future political boomerang effects. According to Bwalya and Kunda, when government entertains and hides corruption, when a different political party forms government later, the former government officials are hunted down by the new government and suffer adverse effects with unwelcome repercussions. That is why the ACC should rise to the occasion to help the Patriotic Front government 'put their house in order' lest they are hunted down, once they leave office (Bwalya and Kunda, 2019).

ii. Delayed review of the broadcasting environment to reflect new realities of the digital broadcasting: According to the insights of the policy on digital migration, the major hurdle of the television broadcasting industry in Zambia is the delayed review of the broadcasting environment, to reflect new realities of digital broadcasting in tandem with the policy. For example, there is need to review the operations of ZNBC as a public broadcaster in line with the new business model in the digital environment. Secondly there is need to ensure that regulators develop and implement tariff and universal access guidelines before switching off analogue terrestrial television and thirdly, there is need to facilitate the establishment of a private signal distributor through competitive mechanisms.

iii. Review downwards the fees being paid by local TV stations to Top Star: The fees to pay the carrier are extremely high. They are only meant to benefit the carrier while the local TV stations are getting stifled. Adverts by government should be paid for. This is the best way to show support to the local TV stations.

iv. Top Star to remain a signal distributor only: Top Star is a signal distributor and a content provider too. Top Star came with its own channels that have narrowed the operational space for the

available local channels. This is illegal. Top Star should remain as a signal distributor because by also being a content provider, it has encroached on the market for the local TV stations to do business. Otherwise the television broadcasting spectrum will turn out to be unprofitable for the local television stations and in the end Top Star will take over the show.

v. Sharing of TV levy and subscriber fees with other local TV stations: All things being equal, since ZNBC is a content provider and also a carrier, it therefore, follows that the revenue raised through Television Levy and subscriber fees should be shared with the content providers.

vi. Freedom of the media and freedom of expression: First it is important to understand that within the communications field, technology has been a great driver for diversity and pluralism. So, whether one is looking at the invention of the printing press or at radio and television and their capacity to disseminate information at the mass level, technology always provides a good opportunity to reach people with information and for people to provide feedback on governance, thereby creating a public sphere for social dialogue. Technology is always at the heart of the question of free expression. In the current situation, the movement from analogue to digital television creates an opportunity to expand media diversity and pluralism.

Digital broadcasting also eliminates the need for the infrastructure that traditional television relied upon. Unfortunately, almost all African countries are transitioning to an infrastructure model where there is only one platform for the distribution of content, which means that if somebody took hold of that one point then the totality of public expression could be compromised. It's a choke point: it is almost like holding somebody's neck and strangling the whole space for public expression. Hence there is need to develop policies and frameworks that take advantage of the diversity that digital migration allows, but also avoid the dangers it can present. There is need for distinction to determine who bears liability for offensive content and who can access constitutional protections for free expression. If broadcast distributors are designated as technology, they may not benefit from the constitutional protections available to the media.

Ordinarily, technology and infrastructure do not benefit from constitutional protections for free expression. If one looks at the analogy of the telephone, traditionally it has been considered as a common carrier: the telephone company will not be held liable for any offensive material communicated between two people over the telephone network. The downside of this is that, as a result of the principle of mutuality, common carriers don't receive constitutional protections for freedom of speech and expression. In the case of digital migration in Africa, without policy clarity, this could create problems: what if, in the future, intermediaries are asked to enforce government content restrictions for reasons that are ostensibly related to public safety but in reality are politically motivated? So since signal distributors stand at the gateway of public communication and have the capacity to choke public expression, it is important that they receive both freedom from liability for the content as well as legal protection from infringements on free expression. They should be given all the constitutional protections that are afforded to the media so that they are insulated from impermissible political encroachment. But

as intermediaries, they also need to be free from liability for content.

If they are not, distributors could be left vulnerable to lawsuits or government intervention and so may seek to limit their liability by refusing to broadcast critical content—effectively turning them into private censors. The question of how to treat intermediaries between content creators and the public is thorny and persistent, re-emerging with each major advance in communications technology. It is the same question about whether search engines and hosting sites should be held liable for the content of third parties. Indeed, Zambia also needs transparent, democratic legislation that addresses the relationship between content producers and the broadcast platform because at present, that relationship is usually regulated by contractual agreement. This means that if the signal distributor chooses not to broadcast particular content, the content producer can only sue for breach of contract. Remedies for breach of contract cannot remedy the costs of censorship: for example, if during an election a TV station is critical of the government and is subsequently removed from the airwaves by the signal distributor, suing for breach of contract may provide financial restitution but cannot address censorship's political ramifications (George Sarpong, National endowment for democracy, Forum Q&A, George Sarpong on defending media freedom during Ghana's digital migration, 14/02/2019, <https://www.ned.org/forum-qa-defending-media-freedom-during-ghanas-digital-migration/>, viewed on 04/05/2020).

vii. Introduction of the hire purchase pay slow system:

The "Set Top Box" costs K130 and the antenna K80 which altogether comes to a total cost of K210. This is about USD10. Even though poor people can afford, the problem is how is government, which is almost choked by the debt burden, going to raise up money and pay back the loan without being suffocated? Government could have reduced the burden of paying this loan by introducing the hire purchase system of buying the STBs. In this way, even poor people could have managed to be buying even at a higher price, but paying under the hire purchase system without realising that they were paying so much.

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