

## South Africa goes digital: what are the benefits to be reaped?

**Dr Blessing Mbatha**

University of South Africa

Department of Communication Science

PO Box 392, UNISA, 0003, South Africa

Tel: +27 12 429 8264 Fax: +27 12 429 3346

[mbathbt@unisa.ac.za](mailto:mbathbt@unisa.ac.za)

**Dr Zandi Lesame**

University of South Africa

Department of Communication Science

PO Box 392, UNISA, 0003, South Africa

Tel: +27 12 429 6693 Fax: +27 12 429 3346

[lesamnc@unisa.ac.za](mailto:lesamnc@unisa.ac.za)

### Abstract

*The study reports on the benefits that South Africans could reap from accessing digital television. It is important to note that the time to migrate to a digital broadcasting system has arrived. All South Africans need to embrace it because it is a major step towards improving their lives. A qualitative approach was adopted by conducting in-depth interviews with the key informants of the study. The data was analysed using open coding, where dominant themes from the discussions were identified and discussed in detail. The findings show that digital television will bring so much more to South Africa through a greater choice of channels and content. The additional content promises to deliver more education, information, cultural, sport and entertainment programming. It is exciting that South Africa will be counted among the most advanced countries in the world and is going digital in a way that will meet South Africa's unique challenges. As a country, the migration is set to accelerate economic growth, thus assisting in the achievement of the development goals particularly the country's quest to eradicate poverty.*

**Keywords:** Broadcasting digital migration, convergence, information and communication technology, digital television, digital terrestrial television, South Africa

### 1. Introduction and background

All around the world, the migration to digital broadcast transmission technology has begun. Countries already advanced in their migration programmes are France, United States, United Kingdom, Sweden and New Zealand (Go digital South Africa, 2012). In Finland and Mauritius, the analogue switch-off has already been carried out (Brand, 2011). In Europe and Africa, a timeline has been agreed upon within the framework of an International Telecommunications Union (ITU) treaty. A digital migration strategy was announced in 2006 to assist the migration from analogue to a digital broadcasting system (Brand, 2011: 23). Brand (2011) further cautions that after June 2015 analogue television transmissions will no longer be protected from harmful interference caused by digital TV transmissions. It is important to note that analogue TV transmissions will not be permitted to interfere with digital TV transmissions (Brand, 2011). The 2006 Regional Radio Communication Conference resolved to switch from analogue to digital broadcasting services by 2015 (Digital Migration Working Group Report, 2006: 10). It is interesting to note that South Africa will be a market leader in the mass roll-out of MPEG4 compression (the technology of choice for

digital transmission) (Brand, 2011). The only other country to have rolled out this advanced technology is New Zealand with a population of just five million people (Brand, 2011). Other countries are in the planning stage for MPEG4 digital, whereas South Africa is already in the trial phase and well on its way to implementation (Brand, 2011).

### **1. Benefits of digital migration**

The key benefit of digital broadcast technologies is that they use scarce national radio frequency spectrum far more efficiently than analogue technologies (Ardizzon & Ferrari, 2010). This means that existing broadcasting services can be provided using less of the radio frequency spectrum they currently occupy - hence the additional and dedicated delivery of government information, education, health and SMME programmes, digital broadcasting facilitates, the delivery of e-government services, the opportunity for developing new skills and the creation of new jobs, and new investment opportunities (Government Gazette, No. 31408 – Republic of South Africa, 2008). In this way broadcasting digital migration can directly contribute to the Accelerated Shared Growth Initiative of South Africa. In support of these views, Hadland, Aldridge and Ogada (2006: 45) observe that this enables additional capacity to deliver a diverse range of programmes in a range of different languages that meet the information, cultural and educational needs of audiences and increased access by people with disability. On the other hand, Banerjee and Seneviratne (2006: 217) argue that not everyone is convinced that DTT is the most efficient route, arguing that a digital satellite platform would be a better long-term investment.

The Government Gazette, No. 31408 – Republic of South Africa (2008), supported by Mbatha, Ocholla, and Le Roux (2011), reports that the radio frequency spectrum freed up through the digital migration process, often referred to as “digital dividend”, has the potential not only to provide new and improved broadcasting, but also to enable additional ICT services traditionally not provided in the broadcasting radio frequency band, such as mobile telephony and wireless broadband. The digital dividend, however, can only be realised after the migration process is completed (Government Gazette, No. 31408– Republic of South Africa, 2008). It is important to note that the migration to digital broadcasting will create opportunities for the development, use and wide dissemination of local content in all 11 official languages (Hadland, Aldridge, & Ogada, 2006: 45; Brand, 2011). It will also advance the expression and the efficient communication of the knowledge and experience of all communities and the country as a whole. It may also contribute to the integration of people from different ethnic or racial backgrounds, thus contributing to nation-building (Government Gazette, No. 31408 – Republic of South Africa, 2008). Also of note is that closed captioning is embedded in the television signal and becomes visible when a special decoder is used. The South African decoder will, as a matter of policy, enable viewers to see captions which assist them to read what is being said in that particular programme (Government Gazette, No. 31408 – Republic of South Africa, 2008).

Universal service and access and the availability and accessibility of broadcasting services to all citizens are key components of successful digital migration. In order for households to continue to receive television services on their current analogue TV sets after the analogue signal is switched off, set-top-boxes (STBs), which convert the digital signals into analogue signals, are required (Government Gazette, No. 31408 – Republic of South Africa, 2008). The current statistics show that the total TV-owning households in SA are estimated at 11.5 million, of which approximately 72% rely on free-to-air broadcasting services (Government Gazette, No. 31408 – Republic of South Africa, 2008). Interestingly, of these 11.5 million TV households, about 5 million are poor households who would find it very difficult to afford STBs (Government Gazette, No. 31408 – Republic of South Africa, 2008). In addition, government has decided, as a matter of policy, to consider finding the means to make STBs affordable and available to the poorest

TV-owning households. This support by government should be seen as part of its commitment to bridging the digital divide in South Africa. The government has therefore decided, as mandated by section 88 (1) (a) of the Electronic Communications Act (ECA), to subsidise poor households through the Universal Service and Access Fund (Government Gazette, No. 31408 – Republic of South Africa, 2008).

It is true that globally, poverty is associated with low access to information and knowledge. Van den Broeck and Pierson (2008) supported by Mbatha (2009) believe that government therefore regards greater information and communication flows within and between communities and regions as an important tool in the war against poverty in South Africa. Mbatha (2012) argues that the digital divide is to some extent the cause as well as a consequence of poverty. The Government Gazette, No. 31408 – Republic of South Africa (2008), states clearly that in line with the ITU's recommendations, part of the digital dividend will be set aside for mobile communications services. In addition, government will consider opportunities to facilitate the introduction of video on demand and digital audio broadcasting services (Government Gazette, No. 31408– Republic of South Africa, 2008). Hadland, Aldridge, and Ogada, (2006: 45) supported by Brand (2011) note that in this era of heightened demand for spectrum, digital migration will provide the South African television industry with opportunities to offer different services and applications to all South Africans. It brings with it a lot of benefits including, but not limited to the following:

- Multiple channels prioritizing parliamentary services, education, small, micro and medium enterprises (SMMEs) and youth - the provision of these channels will enhance the diversity of South African content.
- An opportunity to upgrade South Africa's aging broadcasting infrastructure.
- E-government services which should be seen as a fulfilment of government's contract with South Africans relating to the provision of services.
- The local manufacturing of STBs as a critical step to reinvigorate the country's electronic industry, thus creating jobs.
- Overcoming the country's perennial broadcasting coverage problems by using satellite in areas with difficult topography. This is part of government's vision to realize universal access.

## **2. Aim and research questions**

The study set out to identify the benefits of digital television that South African citizenry can hope to enjoy. To achieve the stated aim, the following questions were addressed:

- Why is South Africa adopting digital television?
- What are the benefits that South Africans can reap from digital television?
- How will the South African television industry change after the migration process has been completed?
- What kind of government services will South Africans be able to access via digital television?

## **3. Literature review**

It is undeniable that we are living in the age of digital television, since 1995 in fact, and the distinction between data and television has virtually disappeared (Fischer, 2004: 1). The Republic of South Africa is obliged, in the context of global transition from analogue television broadcasting to digital broadcasting, to effect the migration of existing terrestrial television services from analogue to digital broadcasting modes. It should be pointed out that until now, television and radio signals have been broadcast on an analogue

platform. Brown and Picard (2005) argue that analogue television requires a large amount of bandwidth to transmit the picture and sound information. The more bandwidth, the more can be carried - a bit like traffic lanes on a highway. Analogue signals use a lot of bandwidth, limiting the amount of signal that can get through at any one time. Digital signals, on the other hand, require much less bandwidth - up to nine times as much digital information can be carried in the same bandwidth (South African Broadcasting Corporation, 2012).

#### **4.1 What is broadcasting digital migration?**

According to Haggard and Mclachlan (2008), digital technologies are changing the way services are delivered, leading to a blurring of the boundaries between types of services and the means of delivery, and eroding the traditional distinctions between text, audio and video. Likewise, according to the Digital Migration Working Group Report (2006: 8), this process of change is often referred to as convergence, alluding to the convergence that is taking place between the previously separate sectors of print media, data, telecommunications and broadcasting. The Digital Migration Working Group Report (2006: 10) defines broadcasting digital migration (BDM) as the practice of using advanced compression techniques to encode and transmit audio, video and image signals resulting in more efficient bandwidth usage. This allows content providers room to provide more services or a higher quality signal than has previously been available. BDM can also simply be described as the process of converting the broadcast of television and radio signals from analogue to digital technology.

#### **4.2 Digital versus analogue television**

Digital terrestrial television (DTT) means the implementation of digital technology to provide a greater number of channels, especially when using standard definition television (SDTV); and/or better quality of picture when using enhanced definition television (EDTV) or high definition television (HDTV); and sound when using dolby digital through a conventional aerial instead of a satellite dish or cable connection (Digital Migration Working Group Report, 2006: 8). The transition from analogue to digital terrestrial television (DTT), a technology that uses the frequency occupied by analogue broadcasters to deliver the digital signal, is a phenomenon of global dimensions (Ardizzon & Ferrari, 2010). In the United States of America the date for the shutdown of analogue broadcasting was set for mid-2009. In South Africa, the deadline is 2012. Australia and most member states of the European Union are also supposed to complete the conversion by the end of 2012. Some scholars are of the view that this transition has been dictated primarily by political and industrial interests, rather than as often presented, by a desire to improve citizens' access to the digital world (Ardizzon & Ferrari, 2010).

The South African Broadcasting Corporation (2012) simply defines DTT as the broadcasting of terrestrial television in digital format. Terrestrial broadcasting in South Africa is currently in analogue format. South Africa is currently planning and preparing itself to migrate from analogue to digital broadcasting. The difference between terrestrial and satellite television is that in analogue one channel, eg South African Broadcasting Corporation (SABC) 1, uses a dedicated frequency to broadcast. This is because of the large amount of bandwidth the analogue signal requires. Whereas in digital, the signal is compressed, allowing for more channels to be broadcast in the same bandwidth as one current analogue channel uses. In addition, terrestrial television uses a network of transmission towers to relay the signal across the country (Kruger & Guerrero, 2002). Each transmission tower has a specific area of coverage, and it is the network of coverage that provides television signals across the country. If one is within an area covered by a tower, then people will be able to receive broadcast services from that tower. Satellite television broadcasting uses a satellite which is in a geostationary position above the earth. The broadcasting signals are sent to the satellite and

viewers receive the signal via a satellite dish. Viewers have to purchase a DTT set top box (STB) in order to receive and decode the signals for display on the TV set. Some viewers may require new TV aerials or adjust their existing aerials for reception (South African Broadcasting Corporation, 2012). Kruger and Guerrero (2002: 1) define DTV as a new television service representing the most significant development in television technology since the advent of colour television in the 1950s. To reiterate, DTV can provide sharper pictures, a wider screen, CD-quality sound, better colour rendition, multiple video on programming, or a single programme of high definition television (HDTV), and other new services currently being developed. DTV can be HDTV, or the simultaneous transmission of multiple programmes of standard definition television (SDTV), which is a lesser quality picture than HDTV but significantly better than today's television (Kruger & Guerrero, 2002: 1). Alternatively, DTV could deliver as part of a multiple offering, some other services such as the distribution of text or data, for example electronic newspapers or stock quotes or even a high speed connection to the internet (South African Broadcasting Corporation, 2012).

Zettl (2011: 82), contends that digital television has led to not only dramatically improved television pictures and sound but also to a convergence of various media. Television is becoming interactive and large, centralised digital databases offer television news organisations instant access to news files, and computers stream audio and video content over the internet. Furthermore, Zettl (2011: 82) is of the view that one can use a cell phone to text or video-record to friends, to find a nearby restaurant, or to watch television programmes while walking or riding a bus to work.

#### **4. Methodology**

A survey research design was used to conduct this study. A qualitative approach was adopted by conducting in-depth interviews in order to engage and encapsulate the different viewpoints of the target population. The target population, which consisted of a total of 27 members of South African broadcasting digital migration task team, was selected using purposive sampling. The interviews provided the respondents with an opportunity to share and reflect on their experiences with regard to BDM process. The data was analysed using open coding, where dominant themes from the discussions were identified and discussed in detail. The study sought to generate a rich body of findings from a smaller number of respondents rather than less detailed information from a larger group. While the study's findings may not be representative or generalisable, they indicate areas for further exploration and contribute to the development of strategies that can be implemented to ensure that digital migration is a success in South Africa.

In terms of ethical considerations, informed consent was obtained from each participant in the study in order to ensure that they understood what they were doing and verify their willingness to participate. The respondents were assured of their rights, including the right of consent, protection from disclosure of information, and respect for their privacy. All the research participants voluntarily participated and were not forced to take part in the study. With regard to protection from harm, the researchers ensured that the participants were not at any risk and would not be exposed to embarrassment, unusual stress, or any demeaning treatment. Anonymity and confidentiality were promised and maintained. The information they provided was not made available to anyone else who was not directly involved in the study and cannot be traced back to the participants. In terms of professional standards, the researchers ensured that the results were gathered in a professional manner without misrepresenting anyone and/or intentionally misleading the respondents about the nature of the study. The researchers ensured that all the findings were presented honestly without fabricating any data to support any particular finding. The researchers also adhered to the institutional guidelines on conducting research.

## 5. Findings and discussions

The findings are discussed under the following headings: demographics of the respondents, reasons for SA to go digital, benefits of digital television, impact of digital television on the South African television industry and delivery of e-government services via DTV.

### 6.1 Demographics of the respondents

The findings indicate that the sample was racially biased, with 19 (70%) participants being indigenous Africans, and 8 (30%) whites. The study was female dominant with a significant number (65%) being females; 35% were males. All the respondents were from the head office of the Department of Communications in Pretoria, South Africa.

### 6.2 Reasons for SA to go digital

One of the objectives of the study was to establish the main reasons for the South African government to implement digital television. The list below provides the responses that were gathered during the interviews.

- *“Well, there is a variety of reasons behind the adoption of digital television in South Africa. In 2006 the International Telecommunications Union held a Regional Radio Communication Conference, where it was resolved that all countries of Europe, Africa, Middle East and the Islamic Republic of Iran should migrate from analogue to digital broadcasting services by 2015.”*
- *“One of the reasons for the migration is to release valuable spectrum which can be used for other services, eg e-government services.”*
- *“Basically, we are fulfilling the ITU’s mandate that we must migrate to digital television.”*
- *“Due to the fact that spectrum is scarce, it is therefore necessary to make efficient use of the spectrum available for more telecommunications and broadcasting services.”*
- *“Amongst other reasons, government wants to place South Africa at the forefront of digital broadcasting worldwide.”*

It is clear from the findings above that there is quite a number of reasons for South Africa to migrate from analogue to digital television. It is important to note that digital broadcasting is the way the world is moving. Thus Government Gazette, No. 31408 -Republic of South Africa (2008), states that digital TV offers so much more than just better picture and sound quality. South Africa's acclaimed plan (called the Broadcasting Digital Migration Policy) to go digital aims to enhance the lives of South Africans. The main aim is to bridge the digital divide (the gap between people with effective access to digital and information technology, and those with very limited access or none at all). According to the Government Gazette, No. 31408 – Republic of South Africa (2008), this will redress the unequal acquisition of skills needed to make the best use of this technology to improve the knowledge and quality of life of people.

It should be pointed out that digital broadcasting has a key role to play in the socio-economic and cultural development of South Africa. It is of fundamental importance in the emerging information society and knowledge economy, in which access to information and knowledge is regarded as a prerequisite to economic and societal development. The adoption of BDM deliberately takes advantage of the opportunity provided by the process of migrating from analogue to digital broadcasting to accelerate the achievement of the country's socio-economic development goals in general and the millennium development goals (MDGs) in particular. In South Africa digital broadcasting will play a key role in building an inclusive development-oriented information society in accordance with and towards meeting South Africa's commitments with

respect to the World Summit on Information Society (Government Gazette, No. 31408 – Republic of South Africa, 2008). Mbatha and Ocholla (2011) argue that the country's information society vision is to establish South Africa as an advanced information society in which information and communication technology tools and information are key drivers of economic and societal development.

### 6.3 Benefits of digital television

It is hoped that digital television will bring a number of different benefits to the South African communities. The respondents were thus asked: “What are the benefits of digital television?” The findings are summarized below.

- *“To be honest, there are plenty benefits that DTV can offer, one being more terrestrial television channels than it currently is.”*
- *“You see, DTV will place our country at the forefront of digital broadcasting worldwide.”*
- *“There are many benefits of going digital, one being the fact that it will also have the power to transform and uplift the lives of all South Africans.”*
- *“DTV will help to accelerate economic development and to contribute to social cohesion.”*
- *“You see, DTV is the technology that improves the picture and sound quality of broadcast programmes.”*
- *“South African citizenry will have more access to information.”*
- *“DTV gives viewers access to radio and a host of other value add services.”*
- *“DTV will bring more local content.”*
- *“There will be more education, information, cultural, sport and entertainment programming.”*
- *“There will be multiple channels prioritizing parliamentary services, small, micro and medium enterprises (SMMEs) and youth. The provision of these channels will enhance the diversity of our content.”*
- *“Viewers will have access to e-government services which should be seen as a fulfilment of government's contract with our people relating to the provision of services.”*
- *“Well, the local manufacturing of set top boxes will be a critical step to reinvigorate the country's electronic industry, thus creating job opportunities.”*

The findings above demonstrate that there are plenty benefits that digital television will offer to the South African citizenry. In line with the findings above, the Government Gazette, No. 31408 – Republic of South Africa (2008), reports that broadcasting digital migration presents the country with a unique opportunity to positively shape the future dynamics of the ICT sector. It is true that broadcasting digital migration will bring with it many benefits including efficient use of the frequency spectrum, a public and scarce resource, more channels and, therefore, more diverse content delivered to the South African public. Other benefits that digital television brings are the potential for special interactive services to cater for people with visual and hearing impairments such as audio description and subtitling, and e-government delivery (Brand, 2011). It is worth pointing out that these benefits provide a clear case for South Africa to prioritize the migration to digital broadcasting. Digital broadcasting provides not only the space within which new and cutting edge technologies can be developed, but more importantly, it has the potential to directly contribute to socio-economic development and the improvement of the quality of life of all the people in South Africa (Government Gazette, No. 31408 – Republic of South Africa, 2008).

Interestingly, it will also help to grow the economy, eg set top boxes (required to receive a digital signal) will be built in South Africa and will therefore create jobs (Government Gazette, No. 31408 – Republic of South Africa, 2008). Similar views are shared by Digital Dzonga (2012) which states that to date, television and radio signals are broadcast on an analogue platform, which requires a large amount of bandwidth to transmit picture and sound information and so limits the amount of signals that can get through at any one time. Digital signals, on the other hand, require much less bandwidth, and therefore more channels can be broadcast at the same time, with a brighter, sharper picture and better sound (Fischer, 2004; Digital Dzonga, 2012). It is important to note that adopting digital television will not only place South Africa at the forefront of digital broadcasting worldwide, it will also have the power to transform and uplift the everyday lives of all South Africans as it is the government's aim to use broadcasting to accelerate economic development and to contribute to social cohesion.

#### **6.4 DTV impact on SA television industry**

It is believed that broadcasting digital migration will have a huge impact on South African television industry. As a result, respondents were required to comment on the impact that broadcasting digital migration will have on the South African television industry once it is fully operational. The findings are summarized below.

- *“You see, the digital television in South Africa will open up a host of other economic opportunities for the television industry and ICT sector.”*
- *“What I like about the broadcasting digital migration is that it provides us with the opportunity to upgrade our aging broadcasting infrastructure and this will definitely positively impact our television industry.”*
- *“DTV will place our country at the forefront of digital broadcasting worldwide.”*
- *“It will open up the opportunity for the local content and this will showcase the local talent.”*
- *“It will definitely put our television industry into the spotlight and it will be considered amongst the best in the world.”*
- *“It will assist by overcoming the country's perennial broadcasting coverage problems by using satellite in areas with difficult topography. This is part of government's vision to realize universal access.”*

It is clear from the findings above that broadcasting digital migration will change the face of the South African television industry. In support of the findings above, Brand (2011: 23) believes that DTV is capable of changing the face of the television industry by opening up the future through watching educational, entertainment, sport, information and cultural programmes. Moreover, according to the Digital Migration Working Group Report (2006), broadcasting digital migration will completely change the South African television industry by bringing so much to South Africans through more choice of channels and content. It is also worth mentioning that the future development of the broadcasting industry globally will be impacted by the process of digitization and convergence of communication technologies. These trends and pressures impact not only on legacy broadcasting operations, but also bring to bear new and emerging businesses based on the provision of innovative digital services and applications (Digital Migration Working Group Report, 2006). Interestingly, Brand (2011), who is a digital terrestrial television enthusiast, is of the opinion that the migration of South Africa's broadcasting system from analogue to digital is set to revolutionize the world of broadcasting across the globe. Likewise, the Government Gazette, No. 31408 – Republic of South

Africa (2008) notes that digital migration brings the opportunity to position South African television industry alongside the leading countries in Region 1 comprising Africa, Europe, the Middle East and the Republic of Iran.

### **6.5 Delivery of e-government services via DTV**

One of the objectives of the study was to establish how government can use digital television to improve service delivery. The list below provides some of the responses that were made during the interviews.

- *“You see, with digital television, government can communicate with the citizenry.”*
- *“Government can use digital television to disseminate important information.”*
- *“Government can use digital television to educate communities.”*
- *“DTV can be used to inform the public, eg about the election results.”*
- *“DTV can also be useful in disseminating health information, eg if there is an outbreak of an infection, government can use DTV to inform the citizenry of such occurrences.”*
- *“It can be used to empower SMMEs by giving them information they require in order to start and sustain their businesses.”*
- *“It can be useful in advertising job opportunities more especially in the public sector.”*
- *“All government departments can use it to disseminate their information that needs to be known by the public, eg bursaries.”*

The findings above show that DTV will be most effective in disseminating government information to the South African public. This surely will improve many people’s lives and the way some people view current government processes. Many researchers have written extensively on how government can use DTV to improve service delivery (see Fischer, 2004; Ardizzon & Ferrari, 2010; Zettl, 2011; Brand, 2011). The findings above concur with the Government Gazette, No. 31408- Republic of South Africa (2008) which is supported by Brand (2011) by stating that DTV can be effective in the delivery of government information, education, health and SMME programmes. Ardizzon and Ferrari (2010) share the view by noting that digital broadcasting facilitates the delivery of e-government services, the opportunity for developing new skills and the creation of new jobs, and new investment opportunities. Similarly, Kruger and Guerrero (2002), supported by Digital Dzonga (2012), report that digital broadcasting also provides opportunities for investment and job creation. In this way broadcasting digital migration can directly contribute to achieving the objectives of the new growth path.

## **6. Conclusion**

The main focus of the study was to identify the benefits that South Africans could reap from broadcasting digital migration. It is important to note that the time to migrate to digital broadcasting system has arrived. All South Africans need to embrace it because it is a major step in improving their lives. It surely cannot be denied that broadcasting digital migration is critical not only for the future of the local broadcasting industry but also has significant implications for the entire South African economy. It should be pointed out though that the South African society is confronted by a wide range of developmental challenges such as reducing the digital divide and the information gaps, as well as building social cohesion and a common national identity, eradicating poverty and creating employment opportunities. Digital broadcasting has the potential to contribute significantly towards addressing these challenges. Hence the South African government has identified broadcasting digital migration as a national priority.

It is true that for the digital migration process in South Africa to be successful, it is necessary to have a clear government policy and implementation plan. Also critical is the co-operation of all the relevant stakeholders with government. It should also be noted that digital broadcasting will require concerted efforts to increase the pace of generating digital content. The future development of the broadcasting industry globally will be impacted by the process of digitization and convergence of communication technologies. These trends and pressures impact not only on legacy broadcasting operations, but also brings to bear new and emerging businesses based on the provision of innovative digital services and applications. The findings show that digital TV will bring so much more to South Africa through more choice of channels and content. The additional content will deliver more education, information, cultural, sport and entertainment programming. It is exciting that South Africa will be counted among the most advanced countries in the world by going digital in a way that will meet its unique challenges. As a country, the migration is set to accelerate economic growth, thus assisting in the achievement of the development goals particularly South Africa's quest to eradicate poverty. To ensure that the goals of wider access to broadcasting and information technology as well digital inclusion are achieved, it is crucial that South Africa reduces the high national digital divide.

## References

- Ardizzon, M. & Ferrari, C. (2010). *Beyond Monopoly: Globalization and Contemporary Italian Media* (Eds). Lexington Books: Plymouth.
- Banerjee, I. & Seneviratne, K. (2006). *Public Service Broadcasting in the Age of Globalization*, Asian Media Information and Communication Centre: Singapore.
- Brand, R. (2011). *Media Law in South Africa*. Kluwer Law International: New York.
- Brown, A. & Picard, R.G. (2005). *Digital Terrestrial Television in Europe* (eds). Routledge: New Jersey.
- Digital Dzonga (2012). South Africa is going digital. [Online] <http://www.godigital.co.za> [Accessed July 15, 2012].
- Digital Migration Working Group Report (2006). *The proposed switchover from analogue broadcasting to digital broadcasting in South Africa*. Department of Communications: Pretoria.
- Fischer, W. (2004). *Digital Television: A Practical Guide for Engineers*. Springer: Munchen.
- Go digital South Africa (2012). See the difference in your life. [Online] <http://www.godigital.co.za/> [Accessed July 15, 2012].
- Government Gazette, No. 31408 - Republic of South Africa (2008). Electronic Communications Act (36/2005): Amendment: Broadcasting Digital migration Policy. Pretoria. Vol. 560, Notice 97.
- Hadland, A., Aldridge, M., & Ogada, J. (2006). *Re-Visioning Television: Policy, Strategy and Models for the Sustainable of community television in South Africa*. HSRC Press: Cape Town.
- Haggard, K. & Mclachlan, A. (2008). *Joburg!: the passion behind a city, Vol 2*. Affinity Publishers: Johannesburg.
- Kruger, L.G. & Guerrero, P.F. (2002). *Digital Television: An Overview*. Novinka Books: New York.
- Mbatha, B.T. (2009). Web-based technologies as key catalysts in improving work productivity and creativity: the case of Zululand District Municipality. *Journal for Communication Sciences in Southern Africa*, 28, 82-95.
- Mbatha, B.T., Ocholla, D.N. & Le Roux, J. (2011). Some implications of Information and Communication Technologies (ICTs) on public service work environments in South Africa. *Information Development*, 27, 47-62.
- Mbatha, B.T. & Ocholla, D.N. (2011). Contextualising the use of ICTs in the public sector, the case of selected government departments in KwaZulu-Natal. *Mousaion*, 29, 193—208.
- Mbatha, B.T. (2012). Exploring the potential of electronic commerce tools in South African SME tourism service providers. *Information Development*, 29, 41-59.
- South African Broadcasting Corporation (2012). What is digital Terrestrial Television. [Online] <http://www.sabc.co.za/wps/portal/SABC/dtt> [Accessed July 12, 2012].
- Van den Broeck, W. & Pierson, J. (2008). *Digital Television in Europe* (eds). Brussels: VUBpress.
- Zettl, H. (2011). *Television Production Handbook*. (11<sup>th</sup> Ed.). Wadsworth Cengage learning: Boston.