

**The influence of regulatory approach on competition
in the South African pay-TV market.**

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Abstract

In the year 2004, before the advent of competition in the South African subscription television broadcasting market the Independent Communications Authority of South Africa (ICASA) identified various potential barriers to enter this market. Then, in January 2006 ICASA issued an invitation to apply for commercial satellite and cable subscription television broadcasting licenses. Eighteen applications were received and five were licensed during November 2007. The purpose of this qualitative study is to assess how effective the regulatory approach has been in addressing the identified entry barriers and in promoting competition and convergence in this market. The findings from the research study indicate that there is lack of effective and sustainable competition and convergence in the market, and that the applicable light-touch regulatory approach is preferred for this market but needs to be intensified. This may seem contradictory, but it is not if the regulator is regarded as absconding from its responsibilities. A significant finding is that ICASA is viewed as a weak regulator that is absconding from its regulatory obligations in this market. Some of the important negative findings include: there are extensive barriers to entry which have created an uneven playing field that favours the dominant operator; ICASA and the Department of Communications have been captured by the dominant operator; there is monopoly in the ownership of content rights which stems from abuse of content exclusive rights and lack of relevant regulations; and the regulatory framework and licensing regime should be modified in the context of the migration to the Digital Terrestrial Television transmission, the urgent need to promote competition in this market and the creation of a converged communications industry in the country.

Declaration

I declare that this report is my own, unaided work. It is submitted in partial fulfilment of the requirements of the degree of Master of Management in Information Communications Technology Policy and Regulation to the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree of examination at any other university.

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Monamodi Owen Thothela

28 March 2013.

Dedication

To my Guide, the Rock of my salvation, my Lord Jesus Christ and my Father God. To the crown of my life, my dear wife Winnie. To my treasure and joy, my children Letlotlo and Neo. To the constant factor in my life, my extended family and friends. Thank you for your love that has motivated me to journey in confidence and has made my life a wonderful experience.

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Table of Contents

List of Figures	10
List of Tables	11
Acronyms.....	12
CHAPTER 1: LOCAL AND GLOBAL TRENDS IN THE SUBSCRIPTION TELEVISION MARKET	14
1.1 Introduction.....	14
1.2 The South African communications industry	18
1.3 The South African subscription television broadcasting market	19
1.4 Internet penetration in South Africa	24
1.5 South African socio-economic environment.....	27
1.6. Television in a converged communications industry	29
1.6.1 Significance of television	29
1.6.2 Subscription Television.....	32
1.7 Competition in the subscription television market	37
1.8 Competition strategies	37
1.8.1 Exclusivity.....	37
1.8.2 Set-Top-Box	38
1.9 The effect of convergence on television broadcasting	41
1.10 Regulatory environment.....	44
1.10.1 Regulating interconnection in the subscription television broadcasting market	47
1.10.2 South African legislation and regulation.....	50
1.10.3 The sector regulator	51
1.11 Current policy and regulatory developments	53
1.12 Problem Statement.....	54
1.13 Purpose statement	55
1.14 Summary	55
CHAPTER 2: REVIEW OF LITERATURE ON REGULATORY APPROACH AND CONVERGENCE IN THE SUBSCRIPTION TELEVISION BROADCASTING MARKET	57
2.1 Regulation in the communications industry	57
2.2 Market structure and regulation.....	62
2.2.1 Market structure.....	62
2.2.2 Regulation: ex ante or ex post.....	65
2.3 Regulation and transformation of market structure.....	68
2.3.1 Selection of regulatory framework	68
2.3.1 Evolution of regulation	70
2.4 Locating regulatory approach in evolving markets	73
2.5 Market structure and regulation of the subscription television broadcasting	75
2.5.1 Development of regulation in the television broadcasting market	76
2.5.2 Subscription television broadcasting market structure and regulation	77
2.6 Convergence and competition in the commercial television markets	79
2.6.1 Defining convergence	79
2.6.2 Effects of convergence on the communications industry and society	81
2.7 Impact of convergence on competition in the television broadcasting market	86

2.8 Drivers of convergence in the subscription television market	88
2.9 Impact of convergence on regulation in the television broadcasting market	92
2.10 Analytical Framework	94
2.10.1 Barriers to entry	95
2.10.2 Barriers to enter the South African subscription television broadcasting market.....	97
2.10.3 Analytical framework in detail	98
2.10.4 Regulatory Impact Assessment (RIA)	101
2.11 Summary	102
CHAPTER 3: RESEARCH METHODOLOGY FOR THE STUDY OF THE EFFECTS OF REGULATORY APPROACH ON COMPETITION IN THE SOUTH AFRICAN SUBSCRIPTION TELEVISION BROADCASTING MARKET	104
3.1 Research methodology.....	104
3.2 Research design.....	105
3.3 Interview guide.....	106
3.4 Reliability and validity.....	107
3.5 Sampling methodology	108
3.6 Data collection.....	110
3.6.1 Interview method	111
3.7 Data analysis	113
3.8 Research questions	115
3.9 Summary	119
CHAPTER 4: RESEARCH FINDINGS ON THE EFFECT OF REGULATORY APPROACH ON COMPETITION IN THE SOUTH AFRICAN SUBSCRIPTION TELEVISION BROADCASTING MARKET.....	121
4.1 Review of official records.....	121
4.1.1 The existence of barriers to enter the market	121
4.1.2 Effect of barriers-to-entry on competition and convergence.....	122
4.1.3 The state of competition in the market.....	123
4.1.4 Bolstering competition in the market.....	124
4.1.5 The effect of change in the licensing regime on competition and convergence	124
4.1.6 Heavy-handed regulatory approach versus light-touch regulatory approach.....	126
4.2 Field research	127
4.2.1 The existence of barriers to enter the market	127
4.2.2 Effect of barriers-to-entry on competition and convergence.....	139
4.2.3 The state of competition in the market.....	141
4.2.4 Bolstering competition in the market.....	143
4.2.5 The effect of change in the licensing regime on competition and convergence	145
4.2.6 Heavy-handed regulatory approach versus light-touch regulatory approach.....	147
4.3 Summary	149
CHAPTER 5: ANALYSIS OF THE RESEARCH RESULTS ON THE EFFECTS OF REGULATORY APPROACH ON COMPETITION IN THE	

SOUTH AFRICAN SUBSCRIPTION TELEVISION BROADCASTING	
MARKET	151
5.1 Market definition and production substitutability (Step 1).....	151
5.1.1 Market definition and presence of relevant markets.....	151
5.1.2 Presence of Production Substituters	152
5.2 Assessment of market conditions and historical entry and exit patterns	
(Step 2)	153
5.2.1 Performance of the operators.....	153
5.2.2 Time required for a new entry	154
5.2.3 Change of market competitiveness	155
5.3 Appraisal of incumbents absolute cost advantages (Step 3).....	157
5.3.1 Cost asymmetries between incumbents and new entrants	157
5.3.2 Legal and regulatory barriers.....	159
5.4 Assessment of sunk cost, economies of scale and capital requirements	
(Step 4)	162
5.4.1 Substantial sunk costs, capital requirements and economies of scale	162
5.4.2 Intensity of expected post-entry competition	163
5.5 The effect of product differentiation, advertising, switching cost and	
network externalities on competition (Step 5).....	165
5.5.1 Product differentiation	165
5.5.2 Advertising	166
5.5.3 Switching costs	168
5.5.4 Network externalities	169
5.6 Appraisal of vertical foreclosure and exclusion (Step 6).....	170
5.6.1 Exclusive dealing and contracting	170
5.6.2 Refusal to supply	173
5.6.3 Product bundling and tying	173
5.7 Determining predatory behaviour (Step 7)	175
5.7.1 Predatory pricing	175
5.7.2 The market share of the predatory firm	176
5.8 Appraisal of entry impediments (Step 8).....	176
5.8.1 Licensing requirements	176
5.8.2 Other entry impediments.....	180
5.9 Summary	180
CHAPTER 6: RESEARCH STUDY CONCLUSION ON THE EFFECTS OF	
REGULATORY APPROACH ON COMPETITION IN THE SOUTH AFRICAN	
SUBSCRIPTION TELEVISION BROADCASTING MARKET.....	
182	
6.1 The existence of barriers to enter the market	183
6.1.1 Recommendation: Implement ex ante regulatory framework.....	184
6.2 Effect of barriers-to-entry on competition and convergence	185
6.2.1 Recommendation: Alignment of legislation, policy and regulatory	
framework.....	186
6.2.2 Recommendation: Creation of a converged communications industry	
.....	187
6.3 The state of competition in the market	188
6.3.1 Recommendation: Ex ante regulation of exclusive content	
broadcasting rights.....	189
6.4 Bolstering competition in the market	190

6.4.1 Recommendation: Asymmetrical STB interconnection regulations .	191
6.5 The effect of change in the licensing regime on competition and convergence	192
6.5.1 Recommendation: Technology and device neutral licensing framework	194
6.5.2 Recommendation: Removal of limitations on foreign ownership.....	195
6.6 Heavy-handed regulatory approach versus light-touch regulatory approach	195
6.6.1 Recommendation: Improve institutional capacity	196
6.7 Areas of further research.....	198
6.8 Summary	199
7 REFERENCES:.....	201

List of Figures

Figure 1: South African television audience by province	20
Figure 2: South African television viewers by station	20
Figure 3: Vertical structure of the South African subscription television market	23
Figure 4: Households with Internet access, 2013	26
Figure 5: Proportion of households with a television, 2002-2009 (around the world)	30
Figure 6: Proportion of households with a television, by region, 2009	31
Figure 7: Projected growth trends in subscription television markets	33
Figure 8: Subscription television value chain	35
Figure 9: The current business model of subscription television broadcasting	36
Figure 10: The communications industry value chain	42
Figure 11: The impact of technological convergence on the television value chain	44
Figure 12: The need for regulation in transitioning market structures	70
Figure 13: The evolution of regulation	73
Figure 14: The effects of convergence in the communications industry	81
Figure 15: The evaluative steps to determine entry conditions	101

List of Tables

Table 1: Broadcasting sector value chain	32
Table 2: Types of competition	63
Table 3: Advantages and disadvantages of ex ante and ex post Regulation	66
Table 4: The impact of convergence on society	83
Table 5: The relationship between regulation and convergence	93
Table 6: Sample composition	108
Table 7: Respondent's identity code	111
Table 8: Link of secondary questions, data themes and the analytical framework	116
Table 9: Existence of barriers to enter the market of Summary of responses to interview questions	127
Table 10: Effect of barriers-to-entry on competition and convergence of Summary of responses to interview questions	139
Table 11: The state of competition in the South African subscription television market of Summary of responses to the interview question	141
Table 12: Bolstering competition in the market of Summary of responses to the interview questions	143
Table 13: Effect of change in the licensing regime on competition and convergence of Summary of responses to interview questions	145
Table 14: Heavy-handed regulatory approach versus light-touch regulatory approach of Summary of responses to interview questions	148

Acronyms

AME	Africa and Middle East
API	Applications Programme Interface
ASGISA	Accelerated and Shared Growth Initiative of South Africa
BBBEE	Broad Based Black Economic Empowerment
BRICS	Brazil, Russia, India, China and South Africa
BTA	Basic Telecommunications Agreement
CA	Conditional Access Systems
DTT	Digital Terrestrial Television
DoC	Department of Communications (Republic of South Africa)
DoL	Department of Labour (Republic of South Africa)
Dstv	Digital Satellite Television
ECA	Electronic Communications Act
ECNS	Electronic Communications Network Services
ECS	Electronic Communications Services
EPG	Electronic Programme Guide
EU	European Union
FCC	Federal Communications Commission
FDI	Foreign Direct Investment
GNI	Gross National Income
GDP	Gross Domestic Product
HDI	Human Development Index
IBA	Independent Broadcasting Authority
ICASA	Independent Communications Authority of South Africa
ICT	Information Communications Technology
IPTV	Internet-Protocol Television
ISP	Internet Service Provider
ITA	Invitation To Apply
ITU	International Telecommunications Union
JSE	Johannesburg Stock Exchange
LSM	Living Standard Measure
MDDA	Media Development and Diversity Agency
M-Net	Electronic Media Network
NDP	National Development Plan-2030

NGN	Next Generation Networks
NPC	National Planning Commission
OECD	Organisation for Economic Co-operation and Development
OFCOM	The Office of Communications (the United Kingdom)
OFT	Office of Fair Trading (the United Kingdom)
ODM	On Digital Media
PVR	Personal Video Recorder
RIA	Regulatory Impact Assessment/Analysis
R&D	Research and Development
SAARF	South African Audience Research Foundation
SABC	South African Broadcasting Corporation
SATRA	South African Telecommunications Regulatory Authority
SCP	Structure-Conduct-Performance
SMME	Small, Medium and Micro Enterprises
SMS	Subscriber Management Service
Stats SA	Statistics South Africa
STB	Set-Top Box
UGC	User Generated Content
USA	United States of America
VOD	Video-on-Demand
WEF	World Economic Forum
WOW TV	Walking on Water Television
WTO	World Trade Organisation
21CN	21 st Century Networks

CHAPTER 1: LOCAL AND GLOBAL TRENDS IN THE SUBSCRIPTION TELEVISION MARKET

This chapter provides a brief history and the recent developments in the South African subscription television market. The societal relevance and economic contribution of the communications industry and television broadcasting in particular are examined in the global and South African context to provide an assessment of the magnitude of this study. The behaviour of players in the market in response to convergence and increased competition is examined in order to provide insight into the effectiveness of the existing regulatory framework. Section 1 introduces the South African subscription television market. This section offers a brief explanation of the recent developments in the market, the market's position in the South African communications industry and the country's macro-economic outlook. Section 2 examines the factors that affect television broadcasting globally, trends affecting competition in this market and the impact of convergence on this market. Section 3 examines the applicable regulatory approach in the South African subscription broadcasting market, its effectiveness and the consequences thereof.

1.1 Introduction

This section provides background to the developments in the South African subscription television market. A summation of the South African communications industry, with a particular reference to the broadcasting sector, its contribution to the economy and its future growth path is provided. This section also examines broadband penetration in the country which is an alternative distribution platform and the country's macro-economic environment is underlined in order to consider the viability of subscription television in the country.

The first television broadcast in the republic of South Africa was carried out in 1976 by the South African Broadcasting Corporation (SABC). The SABC was established as a public broadcaster in 1938. The SABC is one of the two licensed free-to-air broadcasters and it has three channels namely SABC 1, SABC 2 and SABC3. SABC 1 and SABC 2 are public broadcasting service channels whilst SABC 3 is a public commercial service channel. The other free-to-air broadcaster is owned by a private entity Sabido Investment (Media Development and Diversity Agency (MDDA), 2009, p.77. Sabido Investment has

only one channel, etv, which broadcasts a variety of shows. Free-to-air television broadcasting service is defined in section 1 of the South African Broadcasting Act of 1999 as "a service which is broadcast and capable of being received without payment of subscription fees"

The Electronic Media Network (M-Net) became South Africa's first subscription television broadcaster in October 1986 when it broadcast its first 12 hour channel through the terrestrial transmission. M-Net was established by a conglomerate of four major South African print media groupings (de Lanerolle, 2011, p.53). These were "Times Media Ltd (now Avusa/BDFM), Argus (now the Independent Group), Naspers and Perskor (now defunct)" (OECD, 2013b, p.2).

In 1995 M-Net was placed under Multichoice Limited. Multichoice Limited is currently operating as Digital Satellite Television (Dstv) and broadcasts its services through satellite transmission whilst M-Net is on terrestrial transmission. Subscription broadcasting is defined by the South African Broadcasting Act as "a broadcasting service provided to an end user upon the payment of a fee" (ICASA, 2005, p.7). Section 5 (2) of the Broadcasting Act identifies three categories of subscription broadcasting services. These are: terrestrial subscription broadcasting services, satellite subscription broadcasting services and cable subscription broadcasting services.

Dstv launched digital television services in South Africa during 1995, thus introducing multi-channel television services in the country (MDDA, 2009, p.31). Multichoice Limited operated its broadcasting services in the country without a license. It was broadcasting under permission for 12 years (MDDA, 2009, p.77).

The current principal shareholders of Multichoice Limited are "MIH Holdings Limited, Phuthuma Nathi Investments Limited and Phuthuma Nathi Investments 2 Limited, who own 80%, 13.3% and 6.7% respectively" (Multichoice, 2012, p.6). Naspers is the ultimate controlling party of Multichoice Limited through MIH Holdings. Phuthuma Nathi Investments is Multichoice's Broad Based Black Economic Empowerment (BBBEE) initiative aimed at diversifying Multichoice's ownership by attracting historically disadvantaged individuals and groups to invest in the company (Multichoice, 2012, p.6).

Naspers Limited the owner and controller of Multichoice Limited is a vertically integrated communications company that is listed on the Johannesburg Stock Exchange (JSE) and the Nasdaq Stock Market in the United States of America (USA). Naspers operates in %Sub-Saharan Africa, Greece, Cyprus, the Netherlands, the United States, Thailand, Brazil, Poland, Russia, India and China and it generates approximately 72.7% of its revenues+from South Africa where it is based (MDDA, 2009, p.46).

On 31 January 2006 the national sector regulator, the Independent Communications Authority of South Africa (ICASA), issued an Invitation-To-Applv (ITA) for commercial satellite and cable subscription television broadcasting services. The objective of this invitation was to attract investment in the broadcasting industry (ICASA, 2007, p. 13). During the licensing process E-Sat, one of the applicants, cautioned ICASA that %the South African market will not be able to sustain more than two licensed subscription broadcasting services and recommended that ICASA limit the number of licensees to two+ (ICASA, 2007, p. 33).

Out of the eighteen (18) applications that were received, five were licensed during November 2007. Those licensed were Multichoice, E-Sat, On Digital Media (ODM), Walking on Water (WOW TV) and Telkom Media. Telkom, the telecommunications operator had 66 percent equity holding in Telkom Media (MDDA, 2009, p.77). In May 2009 Telkom Media sold its operations and license to Shenzhen Media (also known as Super 5 Media). Shortly after receiving its subscription television broadcasting license, %E-Sat signed an agreement with Multichoice to supply channels to Multichoice rather than become a competitor+ (OECD, 2013b, p.4).

During May 2010 ODM launched its new subscription television service, Toptv. Toptv was to offer competition to the natural monopolist in the subscription television market; Dstv. 50 000 Toptv set-top boxes (STBs) were sold in less than 6 hours of its launch (Toptv, 2010). This was viewed as a triumph for competition and consumer choice. Currently, only these two licensed subscription-television broadcasters are operational.

The principal shareholders of ODM are First National Investment Holdings, Red Gold Investments, SES Global Africa, Industrial Development Bank of South Africa, First AOne Trade and Invest 12, National Empowerment Fund Trust (ODM, 2012). At the beginning of the year 2011 the South African subscription television market comprised of approximately 6 730 000 households subscribed to Dstv and 200 000 households subscribed to Toptv (MDDA, 2009, p.11; Dstv, 2011; Toptv, 2011).

During the 2010 and 2011 financial years Multichoice Limited generated a net profit of 3.4 and 4.2 billion South African Rands respectively. This growth of more than 20 percent in net profits was generated mainly from new subscriptions and improvements in operational efficiency. The company also paid dividends of 2.7 and 6 billion South African Rands respectively during these periods (Multichoice, 2012, p. 6 . 11). These high dividend payouts by Multichoice beat most of the JSE listed companies and it is also an indication that the South African subscription television is a very lucrative market (ICASA, 2007, p. 36).

MultiChoice's profitability is based on consumer exploitation as 70% of those who do not subscribe to DSTV believe that the fee is too high and that's why they do not subscribe+ (ICASA, 2007, p.133). This is supported by the observation by Gillwald, *et al.* (2010, p.9) that the South African communications industry has substantially higher prices than comparator African countries, as well as OECD countries+. Furthermore, the country's National Development Plan-2030 (NPC, 2012, p.190) observed that the price of services and equipment remains a significant barrier to the expansion of the communications industry.+

Subscription television operators in South African are prohibited from earning majority of their annual revenues from advertising or sponsorship (ECA, 60 (4)). This implies that Toptv has to attract about 350 000 new subscribers annually for the first five years of its operation in order to be sustainable (*Business Day*, 2010, May 3). By October 2012; two years after its launch, Toptv had only sold 450 000 STBs. Of these 450 000 STBs about 155 000 were being used continuously on a monthly basis. This is below the required 350 000 required monthly subscribers for Toptv to break even (*Techcentral*, 2012, October 12).

This proves that Toptv has a daunting task as Dstv has increased its marketing campaign and has introduced a cheaper bouquet to rival Toptv's basic package.

Both Toptv and Dstv offer a range of bouquet channels nationally over the satellite transmission platform. Dstv offers 8 bouquet channel pricing packages. 60 percent of Dstv subscribers are on the expensive Dstv Premium, 30 percent are on medium priced Dstv Compact and 10 percent are on cheaper bouquets that offer limited range of channels. On the other hand, Toptv offers 7 bouquet channel pricing packages (Dstv, 2011; Toptv, 2011). Dstv has also been licensed to provide mobile television services in the country.

1.2 The South African communications industry

This section provides background to the South African communications industry and the South African television broadcasting sector. It provides an indication of industry performance and possible future growth of the industry.

ICASA (2007, p. 36) declared that the South African broadcasting market is very lucrative and highly challenging with broad and diverse demographics. The country's film and broadcasting sector was estimated to be worth R 5.8 billion and it generated 30 000 employment opportunities in 2008 (Department of Labour (DoL), 2008, p. 21). This sector is estimated to be growing at 5 percent per annum, and it is projected to triple in size by 2020 (DoL, 2008, p. 21).

Household expenditure on communication services increased from 3.6 percent to 4 percent between 1995 and 2006, with the significant change of more than 9.7 percent within the Black African households. This indicates a modest growth in expenditure on communication services and increased adoption of communication services by the Black African households (Stats SA, 2007, p.54). This growth is in line with the findings of the study by the Department of Labour (2008, p.38) which projected the sector to expand being driven mainly by the rising black middle class with increasing disposable income.

The South African communications industry contributed 2.8 percent to the country's gross domestic product (GDP) in 2008 (Gillwald, Esselaar, Moyo & Naidoo, 2010, p.8). Comparatively this was below global standards as the global

communications industry accounts for 4 percent of global GDP (A.T. Kearney, 2010). It was also lower than that of the other comparable middle income countries (Gillwald, *et al.*, 2010, p.8). This means that the South African communications industry and its film and broadcasting sector are performing below par.

This low performance connotes that there is a significant room for competition and growth in this industry particularly in the film and broadcasting sector (Gillwald, *et al.*, 2010, p.9). This also implies that the South African public is not deriving the maximum benefit from this industry as compared to worldwide industry performance. As a result the South African government through its Accelerated and Shared Growth Initiative of South Africa (ASGISA) programme singled out the craft and film sectors, as one of the identified drivers of sustainable economic opportunities and livelihoods for local communities whilst expanding business opportunities for small, medium and micro enterprise (SMMEs) (DoL, 2008, p. 3).

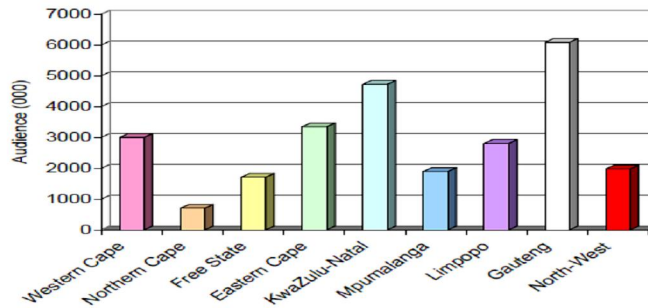
1.3 The South African subscription television broadcasting market

This section provides background to the South African television broadcasting sector which includes the subscription television broadcasting market. It presents the size of this market, comparative pricing of subscription television services, the distribution of viewers by province and recent developments in this market.

South African television broadcasting has the second largest media audience size after radio broadcasting (MDDA, 2009, p. 73). The dominance of television broadcasting is derived from the high ownership; about 74.5 percent, of television sets by the South African households (Stats SA, 2012, p.58). According to the MDDA (2009, P.73) television broadcasting had about 26.2 million viewers in 2009 with Gauteng province having the highest number of viewers in the country; about 6.1 million television viewers. KwaZulu-Natal province was the second largest province with high number of television viewers; 4.7 million television viewers (MDDA, 2009, p. 73). Northern Cape province had the lowest number of television viewers in the country.

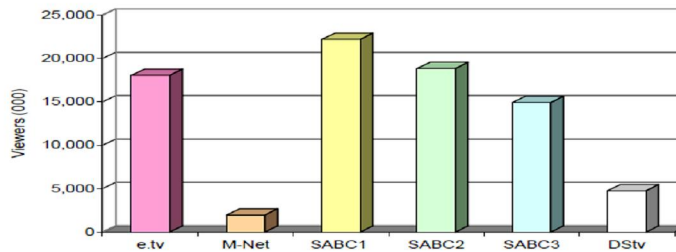
Figures 1 and 2 below present the data of television viewership by province and by television station. It indicates that the subscription television market is relatively small compared to the free-to-air broadcasting market.

Figure 1: South African television audience by province



Source: Media Development and Diversity Agency (MDDA), 2009.

Figure 2: South African television viewers by television station



Source: Media Development and Diversity Agency (MDDA), 2009.

The household penetration of satellite television in South Africa is low. Only 25.8% of the South African households have access to satellite television hence the low viewership figures for M-Net and Dstv as depicted in Figure 2 above (Stats SA, 2012, p.58). Traditionally, MultiChoice (that is both M-Net and Dstv) target audience was LSMs 8 to 10 (MDDA, 2009, p.11). It was serving a small population that comprised only of the high earning ranks of society resulting in satellite television being treated as a luxury service. This explains the low household penetration of satellite television as the majority of the population was excluded.

In reaction to the introduction of competition in the market MultiChoice broadened its offering to include target audiences from all LSM groups through

low cost services+ (MDDA, 2009, p.11). This low household penetration of satellite television in South Africa can also be attributed to the existence of %substantially higher prices than comparator African countries, as well as OECD countries due to limited network competition+ in the South African communications industry (Gillwald, *et al.*, 2010, p.9; National Planning Commission (NPC), 2012, p.190).

The dominant subscription television service operator in South Africa is MultiChoice. MultiChoice has a market share in excess of 95 percent in the country and it also operates in Zambia, Kenya, Nigeria, Namibia and Uganda under the GOtv brand (OECD, 2013b, p.4). Not only does MultiChoice have market power in the subscription broadcasting market, it %can outbid any competitor for the content rights. Multichoice has built an extensive film library which then allows it to hoard this content and keep actual and potential competitors out of the market+(OECD, 2013b, p.5).

Most of the premium content carried by the South African subscription television broadcasters is imported %from major US film studios such as Universal, Warner Bros, Paramount, Columbia, Buena Vista (Walt Disney), T.C. Fox, MGM and DreamWorks+(Ratshisusu, 2010, p.10). Premium football content %is imported from Europe with the most popular leagues in South Africa being the English Premiership (in England), Serie A (in Italy) and Primera Liga (in Spain). Locally produced premium content is accounted for by various sporting codes such as rugby, cricket and football+(Ratshisusu, 2010, p.11).

Multichoice has a significant competitive advantage over the new entrant and the free-to-air commercial broadcasters through its capability to extend its financial resources. MultiChoice's financial resources exceed the available reserves of the other commercial broadcasters as it can %outbid any competitor for the content rights+(OECD, 2013b, p.5).

Multichoice's financial capacity combined with its long-term exclusive arrangements with the local premium content (first-release or blockbuster movies) distributors like Nu Metro, Ster-Kinekor and UIP who in turn have long-term exclusive arrangements with content producers (Hollywood studios)

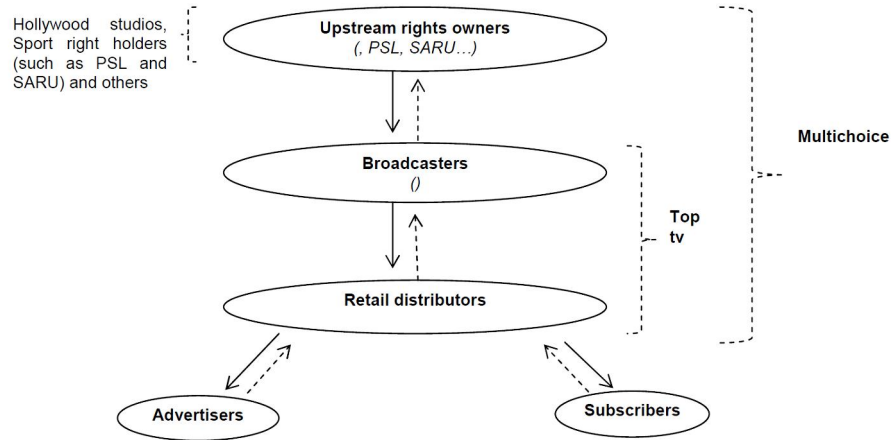
provides MultiChoice with the ability to acquire exclusive rights to the premium content and to gain %significant competitive advantage over its rivals and the rivals suffer a negative externality+(OECD, 2013b, p.5).

On the sporting front, Multichoice has an exclusive arrangement/contract with the local Premier Soccer League (PSL) granting it the rights to broadcast all of the PSL games for a period of 5 years. %While the PSL breaks down the broadcasting rights into small packages, the bidding process does not prevent any particular broadcaster from owning all the broadcasting rights to broadcast the PSL games (the winner takes all principle applies)+(OECD, 2013b, p.5). On the other hand the South African Rugby Union (SARU) does not observe a tender process to issue its broadcasting rights; it deals exclusively with Multichoice (OECD, 2013b, p.5). These exclusive arrangements results in Multichoice owning %the rights to broadcast most sporting events in South Africa+(OECD, 2013b, p.5).

MultiChoice is the only vertically integrated firm in this market and it %is active at each level in the vertical structure, although it operates primarily in the broadcasting and retailing layers. Its main activity is the purchase of rights to premium content from original rights owners, such as major sports events and Hollywood movies, for direct distribution to its own satellite subscribers, and for resale to its downstream competitors in distribution+(OECD, 2013b, p.4).

Figure 3 below depicts the vertical structure of the South African subscription television broadcasting market. The vertical structure consists of three layers. The uppermost layer consists of content producers, the middle layer consists of broadcasters who purchase either content and/or its broadcasting rights, then packages this content into channels for transmission, and the bottom layer consists of retailers who %purchases content and channels from broadcasters+to sell directly to viewers (OECD, 2013b, p.4).

Figure 3: Vertical structure of the South African subscription television market



Source: OECD, 2013.

The Competition Commission of South Africa, which deals with the general competition matters ex post in the country, has a concurrent jurisdiction with the communications industry sector regulator, ICASA. In 2012 the Competition Commission embarked on a preliminary research study to evaluate the state of competition in the South African subscription television broadcasting market. The research study recommended that the Competition Commission should consider engaging in advocacy with content providers such as sporting unions on (a) the importance of a competitive bidding process (b) the inefficiencies of collective selling and (c) the importance of requiring the winning bidder to sub-license content to other broadcasters+(OECD, 2013b, p.6).

Competition Commission is currently investigating allegations of abuse of dominance relating to access to premium content against Multichoice+(OECD, 2013b, p.6). As early as 2004 ICASA (2004, p.42) was conscious of the fact that worldwide access to premium content across platforms is essential+ for competition in the market, for sustainability and success of the new entrants. It noted the regulatory ruling in the European Union which requires dominant operators to make content available to competitors+(ICASA, 2004, p.42).

Contrary to its observation ICASA chose not to regulate competition at all in the South African subscription television market stating that competition issues that

arise need/may be dealt with by way of general competition law+ (ICASA, 2005, p.72). ICASA is of the opinion that competition matters in the market should be addressed through ex post regulatory framework which is contrary to the observation by Ratshisusu (2010, p.14) that this market requires ex ante regulatory framework as it is %susceptible to destructive competition+ (Ratshisusu, 2010, p.1).

ICASA's decision not to regulate competition ex ante in the subscription television broadcasting market could hinder the achievement of the objectives of the South African Broadcasting Digital Migration policy (2008, p.12) which are aimed at building an inclusive information society and network knowledge economy.

1.4 Internet penetration in South Africa

This section gives a brief overview of internet penetration in South Africa. The role of broadband as an alternative distribution platform for television broadcasting services is highlighted and a brief comparison of internet penetration in South Africa with other comparable countries is provided.

Internet penetration; broadband connectivity in particular, which is a cheaper alternative distribution platform to satellite broadcasting distribution is low in South Africa. This limits the growth prospects of Internet Protocol Television (IPTV) as an alternative to satellite distribution platform. Broadband as an alternative platform enables %high levels of interactivity, customized demand and supply+ and the growth of pay-per-view services (Nicita & Ramello, 2005, p. 371). The growth of broadband connectivity as an alternative broadcasting distribution platform is critical to the growth of the subscription television broadcasting as it has the potential to overcome most of the barriers to enter this market (McPhillips & Merlo, 2008, p.242).

Migrating to the internet as the preferred platform of delivery for the broadcasting sector and the entire communications industry addresses the social and economic challenges as the internet currently accounts for 21 percent of GDP growth in the economies with advanced broadband penetration and 3.4 percent of GDP growth in economies in the early stages of internet development. The

internet has also created 2.6 percent of new jobs for every one job destroyed as a result of corporate modernization strategies, mergers and alliances (McKinsey & Company, 2011, p.3). Convergence has provided an opportunity for countries to leapfrog in development through migration to the internet platform.

The development of broadband is associated with increased competition, higher rates of innovation, improved productivity, higher economic growth and improvements in the quality of life (Bleha, 2005, p.112; McKinsey & Company, 2011, p.v). Studies conducted by Correa (2003), Röeller and Waverman (2001) and Greenstein and Spiller (1995) and found that the penetration and diffusion of communications products and services [including the Internet and broadband] into the wider economy has a significant spill over and impact on national economic growth. They maximize social returns, growth, productivity and the development of networked knowledge economy+(Waverman, 2006, p.166).

Internet connectivity is an input into virtually all productive activities+ and the lack of broadband penetration in the country results in high tariffs and constrained service offerings which are now recognized as a tax on industry and a drag on economic growth+ (Horwitz & Currie, 2007, p.447). Thus broadband should be treated as a core national infrastructure+ as this will lead to the reduction of barriers to enter the South African subscription television broadcasting market, unleash economic growth and will also enhance the development into a network knowledge economy (ITU, 2012d, p.9).

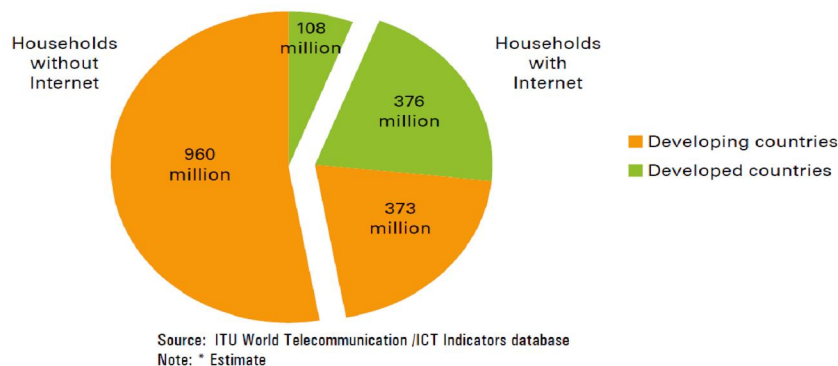
A meagre 8.6 percent of the households have internet access, 64.8 percent of households have no access to the internet and 26.6 percent access the internet either from work, elsewhere or through the cell-phone (Stats SA, 2012, p.58). This is below developing countriesq standard where household internet penetration is approximately 28 percent in 2013 (ITU, 2013). South Africa's broadband penetration falls far behind countries with similar GDPs per capita including Argentina, Poland, Mexico, Turkey and Brazil+ (Gillwald, *et al.*, 2010, p.9). The country's National Development Plan-2030 (NPC, 2012, p.190) paints a true but gloomy picture of internet and broadband development in the country as it state that South Africa has lost its status as continental leader in internet and broadband connectivity+.

South Africa as a member of the BRICS group of developing economies should strive to increase its household internet penetration to at least meet the standard of other developing economies and the target of connecting 40 per cent of households in developing countries to the Internet by 2015 as endorsed by the Broadband Commission for Digital Development (ITU, 2012d, p.10).

South Africa can achieve and exceed this target through the digital migration process as the Digital Terrestrial Transmission (DTT) STBs will be enabled to connect to the internet and facilitate bi-directional communication (de Lanerolle, 2011, p.52). This will assist the country to improve its level of education and Human Development Index (HDI) as the research study by the OECD has shown that children with Internet access at home perform better in school (ITU, 2012d, p.10).

Figure 4 below indicates that approximately 41 percent of households worldwide are connected to the Internet in 2013. Half of these households are found in the developing world, where household Internet penetration has reached 28 percent and Africa only accounts for 7 percent of these households. 78 percent of all households in the developed world are connected to the Internet (ITU, 2013).

Figure 4: Households with Internet access, 2013*



Although South Africa is no longer the continental leader in internet penetration its real gross domestic fixed investment in the communications networks has increased steadily, more or less doubling every five years (Gillwald, *et al.*, 2010, p.9). However, limited network competition has led to increase in costs (NPC,

2012, p.190). Gillwald, *et al.* (2010, p.9) further observe that the South African communications industry has substantially higher prices than comparator African countries, as well as OECD countries. This is supported by the country's National Development Plan-2030 (NPC, 2012, p.190) as it states that the price of services and equipment remains a significant barrier to the expansion of the communications industry.

1.5 South African socio-economic environment

This sub-section gives a background on the South African socio-economic environment, with a brief comparison with other developing countries and the OECD standards. This section provides a background to the affordability, growth and viability of subscription television broadcasting which had been classified as a luxury service in the past but is currently available to all who can afford it in the South African society.

South Africa's Gross National Income (GNI) indicates that it is one of the 50 wealthiest nations and among the 35 largest economies in the world (May, 2010, p.1). It is the biggest economy in Africa with estimated population of 51.7 million in 2011 (Gillwald, *et al.*, 2010, p.8; Stats SA, 2012, p.22). South Africa's GDP growth increased from 2.9% in 2010 to 3.5% in 2011. GDP growth slowed down to 2.5% in 2012 mainly because of uncertainty in policy position regarding nationalisation, unstable domestic structural weaknesses and the fragile global economic recovery. GDP growth is expected to rise to 3.6% in 2013, subject to global recovery taking place and an orderly resolution of the Euro zone fiscal and financial crisis (African Economic Outlook, 2012, p.2).

These sluggish economic growth rates are typical as the country's growth pattern after the apartheid period. Economic growth after years of stagnation, has been modest, underpinned largely by stringent fiscal policy (Gillwald, *et al.*, 2010, p.8). This stringent fiscal policy has resulted in imbalances in the general government budget which have led to unprecedented unemployment rate and widening inequalities in the country (World Economic Forum (WEF), 2012, p.324).

The average living standards in South Africa differ from the OECD average living standards due to the presence of first world amenities which are found amidst

widespread poverty and widening inequalities in the South African economy (Gillwald, *et al.*, 2010, p.8). The widespread poverty stems from an unusually high unemployment problem in general and among the young. Only 40% of those of working age have jobs, compared to 65% in Brazil, 71% in China, and 55% in India. The emerging market average is 56%+ (African Economic Outlook, 2012, p.14). One of the causes of this high unemployment rate is the country's restrictive labour regulations that are cited as the second factor that impedes business development in South Africa (WEF, 2012, p.324).

This high unemployment among the youth is a grave risk to the future prospects of the country as it is contributing to the increase in violence, crime, alcohol abuse and other social ills+ (NPC, 2012, p.29). This increase in incidents of violence and crime has led to the increase in costs of doing business in the country (WEF, 2012, p.402).

The South African average age is 25 years, and the labour force comprises 64 percent of the population (Stats SA, 2012, p.42). Normally economies with this type of demographic profiles are often associated with rising incomes, faster productivity growth, higher savings and rising living standards+ (NPC, 2012, p.28). However, contrary to international developments South Africa's favourable demographic profile is associated with a frustrating and destabilising environment where young people cannot get work+ (NPC, 2012, p.29). Furthermore, South Africa has higher proportion of household consumption to GDP than other comparable middle income countries (Eyraud, 2009, p.5). Thus, the country has a high consumption rate and lower savings rate compared to other middle-income countries.

The widening inequality in the country is mainly historical and racial. Inequality between and within population groups in the country is high, with Gini coefficient for the country at 0.72 percent (Stats SA, 2008, p.1). The average white-headed households mainly dwell in an environment with first world amenities and have an average annual income that is six times higher than those of Black African-headed households (Stats SA, 2012, p.37).

Although the average annual household income has more than doubled in a decade for all households in South Africa, the country has experienced a decline in HDI over the same period. It was ranked 125th of 175 countries in 2008, down from its placement as 93rd in 1992. This is largely the result of high levels of adult mortality whereby South Africans face life expectancies at birth that are among the 30 worst in the world (Stats SA, 2012, p.36; May, 2010, p.1). The high mortality rate stems from the high prevalence of communicable diseases in the country (WEF, 2012, p.41). This declining HDI is the major contributor to the country's high unemployment rate and its decline in global competitiveness (WEF, 2012, p.324).

1.6. Television in a converged communications industry

This section underscores the importance of television broadcasting in society and the entire communications industry value chain. The effects of convergence on television broadcasting and the subsequent competitive approaches that broadcasters adopt are discussed in detail to clarify the impact of developments in this market on the applicable regulatory framework.

1.6.1 Significance of television

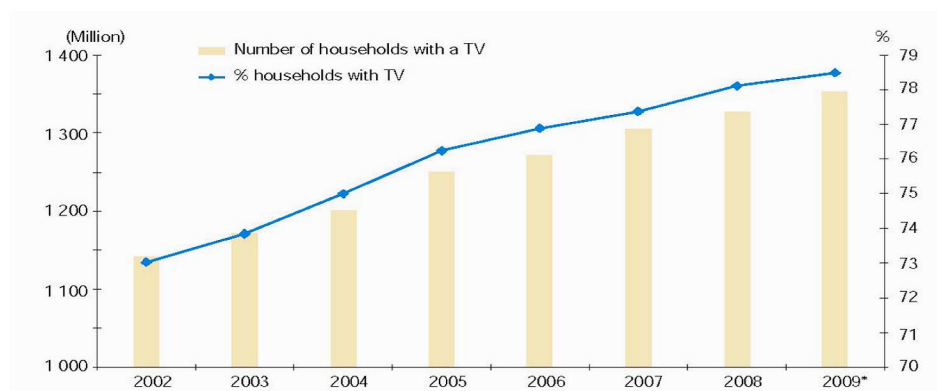
Television is critical to the growth of the communications industry, as it influences content creation in other communications sectors and it is a critical component to the future of the communications industry as it will be used to deliver digital services to the household (Deloitte Touché Tohmatsu (Deloitte), 2011, p.20; A T Kearney, 2010). Thus, television has the status of a super media (Deloitte, 2011, p.20). Globally, revenues from television advertising are expected to increase by \$10 billion in 2012 (Deloitte, 2011, p.20).

According to A.T. Kearney partners (2010), the communications industry has grown by 10% per annum worldwide over the past decade, compared with 7 percent per annum growth in global GDP. During the first quarter of 2010 the global communications industry was worth US \$2 trillion and has grown from 3 percent to 4 percent of global GDP over the past decade.

Figure 5 below depicts the growth in households with a television set globally. It indicates that the number of households with a television set have grown steadily within a period of seven years between 2002 and 2009. This indicates

that the number of households with access to voice and visual information and entertainment have been increasing steadily. This also shows that the number of households with a potential to receive converged communications services through a television set that is connected to an internet enabled STB is steadily increasing, thus increasing the likelihood of ubiquitous information to every household in the world as espoused by the Broadband Commission for Digital Development and the network knowledge economy. (ITU, 2012d, p.10)

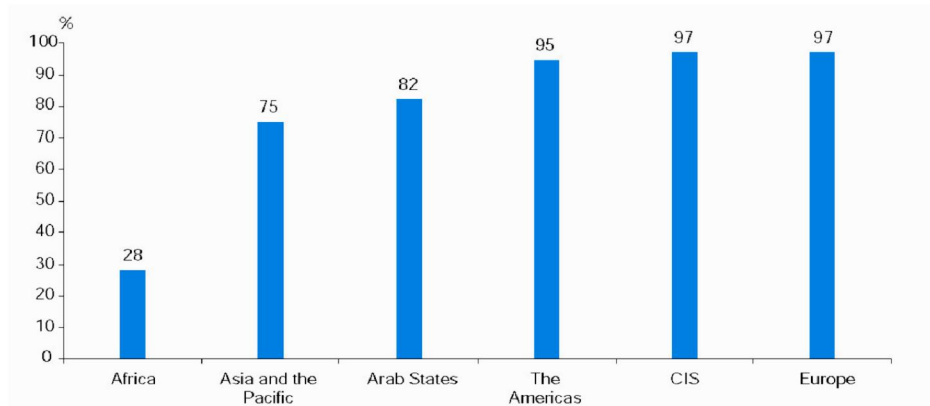
Figure 5: Proportion of households with a television, 2002-2009 (around the world)



Source: ITU World Telecommunication/ICT Indicators database.

Figure 6 below indicates that although the number of households with a television set has been growing steadily worldwide. More than 90 percent of the households in the developed economies have a television set, more than 70 percent of the households in the developing economies have a television set and less than 30 percent of households in Africa have a television set. This correlates with the assertion by IDATE (2010, p.8) that Africa is the next frontier for the strongest growth in households with a television set worldwide. This observation is supported by the World Bank (2012a, p.6) as it states that the GDPs of most African countries have been increasing at an average of 5 percent annually for the past decade, and, Africa's economy is projected to grow faster than any other continent in the next five years with information and communications technologies (ICTs) take-up being one of the major contributory factors. ICTs contribute approximately 7 percent to the continental (Africa) GDP (World Bank, 2012a, p.6).

Figure 6: Proportion of households with a television, by region, 2009



Source: ITU World Telecommunication/ICT Indicators database.

The Deloitte 2010 study, forecasted that 30 percent of broadband-enabled households were likely to interact regularly with what they were watching on television while simultaneously engaging in other internet protocol based services through the Internet-enabled STBs. Websites and web-based applications are being built and adapted for Internet access and control through the television. This will enable households to access social networks, e-commerce and content streaming services through the STB (Deloitte, 2010, p.12). This indicates that convergence of technologies, industry and markets has impacted television broadcasting as well (McPhillips & Merlo, 2008, p. 238).

Subscription and free-to-air television operate on two different business models. The model for subscription television is based on consumers directly paying the broadcasters for entertainment. The free to air television broadcasting model does not require consumers to pay for the broadcasts and broadcasters generate revenues by selling advertising slots. IDATE (2010, p.8) reported that until 2008, advertising was by far the primary means of funding for the industry, generating about 50 percent of the industry's revenue, compared to 40 percent for paid television and 10 percent for public funding. In 2009, the weight of advertising and subscriptions each accounted for about 45 percent of the industry's revenue. By 2010, revenue from paid television should exceed overall advertising revenue worldwide, reaching a ratio of approximately 47 percent /44 percent by 2013+.

Table 1 below identifies the important role players in the broadcasting sector and also delineates the stages of content production and distribution. The content production stage is principally focused on content production and development. In the content aggregation stage the focus is on packaging content into brands or organizing it into channels to be delivered to consumers. Retail service provision stage is mainly concerned with the translation of content into a form that can be decoded by terminal equipment at the point of viewing by the customer. This stage also involves the management of client services (Subscriber Management Services). The infrastructure provision stage focuses on identifying and selecting an optimal content distribution infrastructural platform to enable communication to and from the wholesale service provider and at the retail level. The terminal vending stage is mainly concerned with the development and acquisition of the necessary equipment to decode or translate the signal into receivable audio visual messages. (OECD, 2013a, p.7).

Table 1: Broadcasting sector value chain

Stage:	Example:
Content production and development	Hollywood studios, television studios, production houses, web publishers.
Content aggregation and packaging into channels (like products)	Free to air broadcasters, major cable channels (CNN, HBO)
Retail Service provision (transmission, decoding and customer accounting)	Local cable providers, satellite providers, internet service providers
Infrastructure Provision	Telecoms, satellite broadcasters, other transmission
Terminal vending	Manufacturers of televisions, set top boxes and devices capable of accessing the internet.

Source: OECD, 2013.

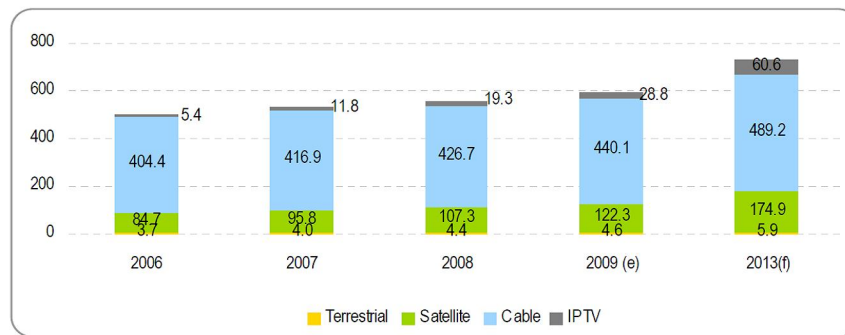
1.6.2 Subscription Television

Subscription television is predicted to experience substantial growth in the future. In 2009 global subscription television market grew by 7 percent. Worldwide subscription television was projected to grow by 40 million new viewers in 2011 and revenues from subscription television in the BRIC countries were projected to increase by 20 percent (Deloitte, 2011, p.20). This could be applicable to South Africa as Africa as it is the newest member of the BRICS

group of countries and the Middle East (AME) as a region recorded the strongest growth worldwide between 2006 and 2009; the region grew by 44.4 percent (IDATE, 2010, p.8). Moreover, in the past decade the African continent has been the second fastest growing region in the world (McKinsey & Company, 2012, p.1).

Figure 7 below depicts the estimated growth in different television transmission platforms. It indicates that the subscription television broadcasting markets are forecasted to grow substantially worldwide. Satellite, cable and IPTV transmission platforms which are used in the subscription television markets are forecasted to grow at a tremendous pace. Satellite transmission, which is applicable to the South African subscription television broadcasting market, is forecasted to more than double its growth within a decade.

Figure 7: Projected growth trends in subscription television markets.



^e estimates, ^f forecasts

Source: IDATE, according to World Television Markets January 2010

As a result of the expected growth, television broadcasters; particularly subscription television broadcasters, have increased their investments in the quality of their content, quality of their sound, quality of their picture, quality of their service, the development of sophisticated programmes schedules and they are also increasing the diversity of their horizontal television bouquet in order to attract advertising revenue and larger audience (Matteucci, 2004, p.4; IDATE, 2010, p.17).

Subscription television broadcasters differentiate themselves by providing a variety of high quality content. They do this through provision of latest global news content, premium programmes like sports events, latest social events,

reality programmes, interactive programmes and newly released movies. Subscription television broadcasters compete for the rights to broadcast newly released movies (which are commonly referred to as first window rights) which are generally available within 6 to 12 months after being released, as they attract most viewers (Ratshisusu, 2010, p.11). The costs associated with the acquisition of this exclusive premium content rights account for between 70 and 80 percent of the subscription television service total costs (Nicita & Ramello, 2005, p. 372).

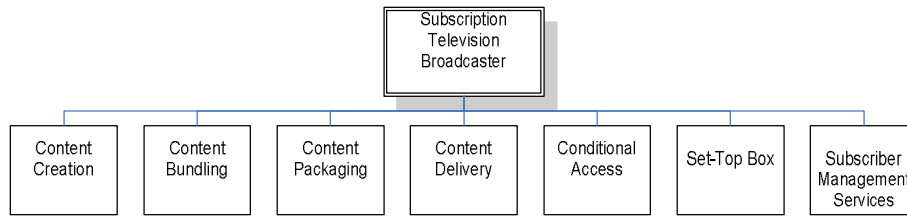
Subscription television is viewed as an exclusive transmitter of premium information, education and entertainment content. This premium content can significantly improve the quality of life for those who are willing and able to pay for it in a network knowledge economy. As a result, a subscription television broadcaster which does not hold premium content rights provided by the major content creators has limited prospects of becoming competitive (Ratshisusu, 2010, p.11; OECD, 2013a, p.17). More so, the success and sustainability of a new entrant into the subscription television market is determined by the ability of new broadcasters to gain access to the content that consumers demand and to differentiate their offering from that of incumbent broadcasters (OECD, 2013a, p.17).

Historically the communications industry like most of the other network industries was characterised by vertically integrated operators. The operators dominated the entire value chain, from creative inception to production, marketing, and ultimately distribution (McPhillips & Merlo, 2008, p.244). The arrangement is similar in the subscription television broadcasting market where operators regard control over the value chain as key to success in the market (ICASA, 2004, p.41).

Figure 8 below depicts the arrangement of most of the subscription television broadcasters. The subscription television value chain is similar to the broadcasting sector value chain as indicated in Table 1 above. The main difference is that the subscription television value chain is more detailed and provides an insight into the operational arrangement of most subscription television broadcasters as they have dominance over the entire value chain.

(ICASA, 2004, p.41). The content aggregation stage is divided into two segments, that is, content bundling and packaging. Content delivery relates to the retail service provision stage in Table 1 above. The last three segments relates to the infrastructure provision stage and the terminal vending stages in Table 1.

Figure 8: Subscription television value chain



Source: ICASA, 2004.

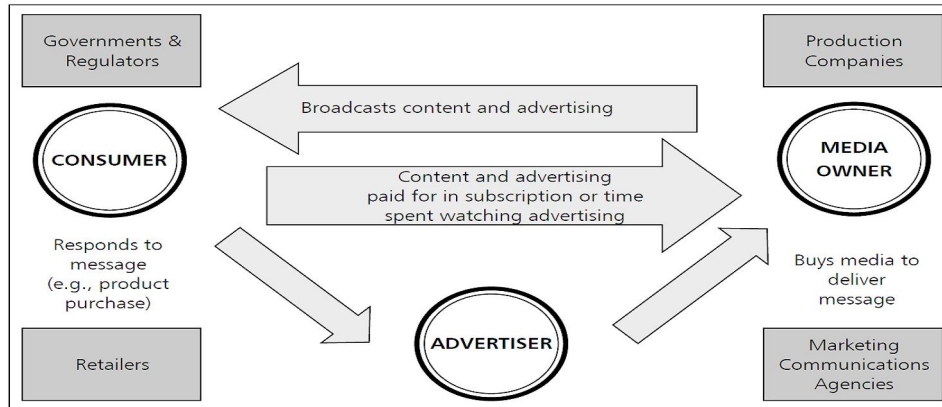
Subscription television broadcasters act as a conduit of premium content to the consumer who pays for this service in return. On the other hand the subscription television broadcaster sell advertising slots to firms that seek to convey commercial messages to the subscribers of this television broadcast. Thus, the primary goal of the subscription broadcaster is to attract significant subscribers through offering premium content and attract advertisers to deliver commercial messages to this audience. Subscription television broadcasters invest between 70 and 80 percent of their revenue from subscriptions and advertising to reinvest in premium content (Nicita & Ramello, 2005, p. 372)

This arrangement results in subscription television broadcasters acting as gatekeepers to the audience and as a nexus of communication between the advertiser and the audience. In this business model the consumer is a critical stakeholder as he provides the subscription television broadcaster with almost half of the revenue and determines the value of advertising that passes through the subscription television network (McPhillips & Merlo, 2008, p.238).

Figure 9 below depicts the functioning of this business model and identifies the important stakeholders in subscription television broadcasting. Subscription television broadcasters act as an intermediary that provides informational and entertainment content to the subscribers who pay for this content. Subscription

television broadcasters then sell advertising slots to companies that want to access the audience that is on the broadcasters network. Governments and regulators set the guidelines for the market through policies and regulations.

Figure 9: The current business model of the subscription television broadcasting



Source: McPhillips & Merlo, 2008.

As a broadcaster of premium information, subscription television plays a critical role in the information society. Hahn and Tetlock (2006, p.266) observed that premium information has the potential to improve decision making and policies throughout the economy. Premium information plays an important role in the allocation and governance of power in the modern society as politics, just like any aspect of modern society, have become informational (Castells, 2010, p. xxxii). Scott and Murray (2002, p.493) observed that the process of convergence underlies this reallocation of power and governance.

This result in politicians, lobbyist and marketers seeking to disseminate their ideologies and messages to a broader audience, and in return, the public seeks greater transparency and accountability from the politicians through the media; which includes television broadcasting. This development fortifies Castells (2010, p. xxxii) observation that politics in the network society is primarily media politics. This poses a problem as broadcasters could be biased and exert influence on the political discourse in favour of their preferred political outcome. Collins, Finn, Hoskins and McFadyen (2001, p.8) highlighted this problem by observing that a privately owned, profit-motivated media organization can never

be free of the danger of its owners exerting improper influence over its services in order to promote commercial interests.+

1.7 Competition in the subscription television market

The launch of satellite subscription television in 1994 has led to increased competition globally. However, recently the number of competitors in this market has been shrinking, both in Europe and the USA, due to mergers and technological convergence (Matteucci, 2004, p.3). Globally, subscription television market in many nations; including South Africa, are on the verge of being monopolized or being highly concentrated (Matteucci, 2004, p.3; McPhillips & Merlo, 2008, 243; Nicita & Ramello, 2005, p. 372).

This reversal in market structure increases the risks of regulatory capture and regulatory failure as the existing regulatory frameworks were developed for competitive markets. As a result the evaluation of the prevailing market structure in the subscription television market is important as it will dramatically affect in the medium term the convergence process of the other related sectors+(Nicita & Ramello, 2005, p. 372). This stems from the observation by McPhillips and Merlo (2008, p. 238) that the subscription television broadcasting market is profoundly impacted by the convergence process than the other sectors of the communications industry.

1.8 Competition strategies

This sub-section focuses on two main strategies that are applied by the subscription television broadcasters that have an effect on market performance. These strategies relate to exclusivity and the use of the Set-Top-Box.

1.8.1 Exclusivity

The backward migration to monopolistic market structure arises from subscription television broadcasters' strategy of demanding ~~%~~ exclusionary contracts, tying arrangement, territorial exclusions, long-term contracts, loyalty rebates, most-favoured clauses and exclusive dealing rights+ with content owners in order to accumulate content and attract subscribers (Matteucci, 2004, p.5). For example, subscription broadcasters use the transmission of live sports events as one of their main attractions by entering into exclusive dealing rights with the event organizers. However, this strategy results in vertical foreclosure of

competition and monopolization of the retail market (Nicita & Ramello, 2005, p. 373; Matteucci, 2004, p.5).

Subscription television broadcasters demand exclusionary contracts to recoup the costs associated with the investments in the acquisition of programme rights+ which account for between 70 and 80 percent of the subscription television service total costs (Ratshisusu, 2010, p.2; Nicita & Ramello, 2005, p. 372). However, these exclusionary contracts have a potential of foreclosing competition in the retail market when there is already content scarcity (Nicita & Ramello, 2005, p. 373; Matteucci, 2004, p.5; Ratshisusu, 2010, p.2; OECD, 2013a, p.17).

The Ministries of Economic Development and Culture and Heritage in of New Zealand observed in 2009 that a broadcaster that has exclusionary contracts can lock up long-term rights to all or most premium content [resulting in it having] the capacity to dominate the retail market and exercise market power+ (OECD, 2013a, p.18). As a result exclusive contracts can create a barrier to entry in an environment with network effects, even for new more efficient technologies, given the impossibility of reaching the critical mass of users necessary to launch a competitive challenge to the market leaders+ (Nicita & Ramello, 2005, p. 382).

The request for exclusive licensing frameworks which covers the broadcasters' rights to broadcast premium content exclusively is based on misinterpretation of the rights entitled by a copyright. Instead of fostering innovation, the right to distribute premium contents over own platforms and related right to exclude others from doing the same through alternative platforms had the result of raising sharply rivals' costs, creating barriers to entry and leading to a market inefficient outcome+ (Nicita & Ramello, 2005, p. 372).

1.8.2 Set-Top-Box

Another strategy commonly used by firms to prevent competition is to bar interconnection and interoperability of the STB. Interconnection and interoperability are the pillars of competition (Melody, 1997, p. 29). They ensure convergence of communications markets and offer increased choice of services to the consumer. By preventing the interconnection and interoperability of the

STB firms also impede convergence and this entrenches the essential facility characteristics of the STB (Matteucci, 2004, p.5). This strategy was heavily used in the computer software market by Microsoft in the 1980s and the early 1990s. In 1994 it was found to be an anti-competitive behaviour resulting in Microsoft being compelled to it (Galperin & Bar, 1999, p. 21).

Firms usually use technology as a core competence that provides competitive advantage in the market to differentiate themselves, their products and their services (Lawry, Singh & Waddell, 2007, p.58-1). They also use proprietary technology for equipment to act as barrier to entry (Lynch, 2006, p. 389; Galperin & Bar, 1999, p. 7).

During April 2010 in the matter between the Competition Commission and Netstar (case 17/CR/Mar05) the Competition Tribunal found that proprietary technology can be used as a barrier to entry thereby reducing consumer choice and innovation (Competition Tribunal, 2010, April 19). This is the case in the South African subscription television market where broadcasters use various technological platforms that neither interconnect nor interoperate, leading to market fragmentation.

The lack of STB interoperability has a high ecological footprint as a consumer has to install several antennas and STBs in order to navigate between the competing networks. This results in customer lock-in, meaning that a customer has to incur unnecessary switching costs of purchasing new hardware (a STB and an antenna) usually without an option of lease agreement, and the customer has to incur additional installation costs before accessing subscription television services (Ratshisusu, 2010, p.13).

These switching costs affect the new entrant in the market more adversely as the incumbent is favoured by the existence of consumers' high switching costs generated both by the technological lock-in coming from the system already adopted and by path dependency phenomena (Nicita & Ramello, 2005, p. 386).

The lack of STB interoperability results in concentration of the STB manufacturing market as the dominant duopoly market players Altech UEC and

Reunert are further entrenched through exclusive dealing rights with the subscription television broadcasters (ioltechnology, 2009, December 3). This market concentration in STB manufacturing could lead to high prices as concentrated markets have a tendency to charge high prices (Gillwald, *et al.*, 2010, p.10).

The combination of market concentration, astronomical sunk cost, essential facilities, economies of scale and network externalities could be detrimental to allocative efficiency and productive efficiency in the STB manufacturing market of the communications industry (Park, 2009, p.34). This could have negative implications for STB innovation in South Africa as competition is stifled due to early mover advantages in the market (Park, 2009, p.41).

This lack of STB interoperability is a strategic barrier to entry (Squires, Sanders Dempsey LLP, 2002, p.16). In addition, the lack of STB interoperability also stifles the development of networks and the transformation towards Next Generation Networks (NGN) environment; where NGNs are either substitute or complimentary content transmission platforms. This lack of STB interoperability hampers convergence of communications networks as it does not encourage seamless integration of networks (Galperin & Bar, 1999, p.7).

The lack of STB interoperability also constitute vertical barrier to entry. Vertical barriers to entry could be strong in the subscription television market as is the case in the related telecommunications sector which has shown a strong trend of vertical integration by networks (Park, 2009, p.45). Furthermore, new entrants into this market are likely to fail without the advantage of a vertically integrated structure; this in turn leads to the creation of strong network effects (Park, 2009, p. 45). It is apparent from this presentation that the STB possess the characteristics of an essential facility (Matteucci, 2004, p.5).

Migration to the NGN environment for content transmission is at an advanced stage as evidenced by the joint launch of the Internet television and an interoperable STB in May 2010 by Sony, Google and Logitech (Infosync, 2010, May 20). However, in South Africa Multichoice offers internet services through its subsidiary MWEB using STBs which are neither interconnected nor

interoperable thus hampering convergence, foreclosing competition from other internet service providers (ISP) and barring consumers of the benefits that are derived from competition.

ICASA was aware of all these strategies and their resultant challenges and barriers during the licensing process however it did not act on reducing these barriers, rather it cautioned of the threat of these barriers to new licensees viability and survival (ICASA, 2007, p.37). ICASA has the benefit of scope to act as regulation always lags market developments. By taking appropriate actions to reduce barriers to enter the market ICASA will be fulfilling its mandate as it is required to be vigilant and update the regulatory framework and regulatory approaches constantly in line with the Structure-Conduct-Performance (SCP) framework (ICASA Act, ss. 4 (3) (h) (j) and (m); Fu, 2003, p. 275).

1.9 The effect of convergence on television broadcasting

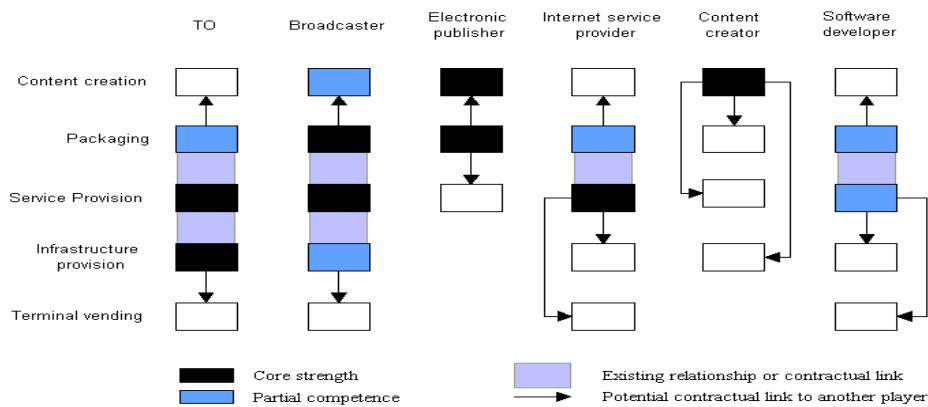
Television broadcasting has long been protected on the basis of spectrum scarcity, perceived influence on culture, public interest, economy and political life. Regulations of this sector were based on the protection of existing oligopolies, particularly the free-to-air broadcasters (Kwak, 2007, p. 89; Matteucci, 2004, p.3). However, the rapid change of technological innovation has resulted with convergence of technology, industry and markets.

Convergence is describes the coming together of the information technology, media, broadcasting and telecommunications sectors (EU, 1997, p. 1; Papadakis, 2007, p.1). The convergence process is driving the transformation of the entire communications industry structure as technological, sectoral and market boundaries have blurred resulting in a converged environment in the communications industry.

Figure 10 below; indicate the structural position of the major players in the communications industry and the relationships between them. It indicates that the industry has a vertical structure that that is transforming to a converged environment through mergers and alliances for the future. These mergers, strategic alliances and partnerships emerge from the rapid and disruptive nature of convergence in the communications industry. Convergence deconstructs the

communications industry from the current vertically layered model to a converged communications industry. From this it emerges that a television broadcaster could merge or form strategic alliances with either an electronic publisher or content creator and a telecom operator to form a strong converged communications firm or coalition. This is deduced from the strong trend of vertical integration by networks in the telecommunications sector+ (Park, 2009, p. 45). Regulators will need to observe the markets vigilantly as these developments will have an impact on the regulatory frameworks and approaches.

Figure 10: The communications industry vertical structure.



Source: Squires, Sanders Dempsey LLP and Analysys Ltd.

Convergence presents a serious and disruptive social and economic value proposition as it has delivered substantial economic growth and created jobs on a large scale and will remain one of the biggest drivers of global economic growth over the coming decades+ (McKinsey & Company, 2011, p.v). Convergence has influenced corporate strategies and firms financial considerations, in turn; these have resulted in mergers, alliances, vertical integration in some markets and the emergence of new sectors in the communications industry (Henten, Samarajiva & Melody, 2006, p.5).

The impact of convergence is more profound on the subscription television broadcasting market than on the other markets in the communications industry (McPhillips & Merlo, 2008, p. 238; Nicita & Ramello, 2005, p. 371). Therefore, it is important to note the impact of convergence in the subscription television

broadcasting market as it will dramatically affect in the medium term the convergence process of the other related sectors+ (Nicita & Ramello, 2005, p. 372).

The features of convergence in television broadcasting can be grouped into three categories namely consumption patterns, access and funding (IDATE, 2010, p.19). In terms of consumption patterns, consumers are beginning to demand content of their choice, thus leading to more personalised viewing. There is also increased demand for portable content as consumers like to share content with others without the limitations of place and time.

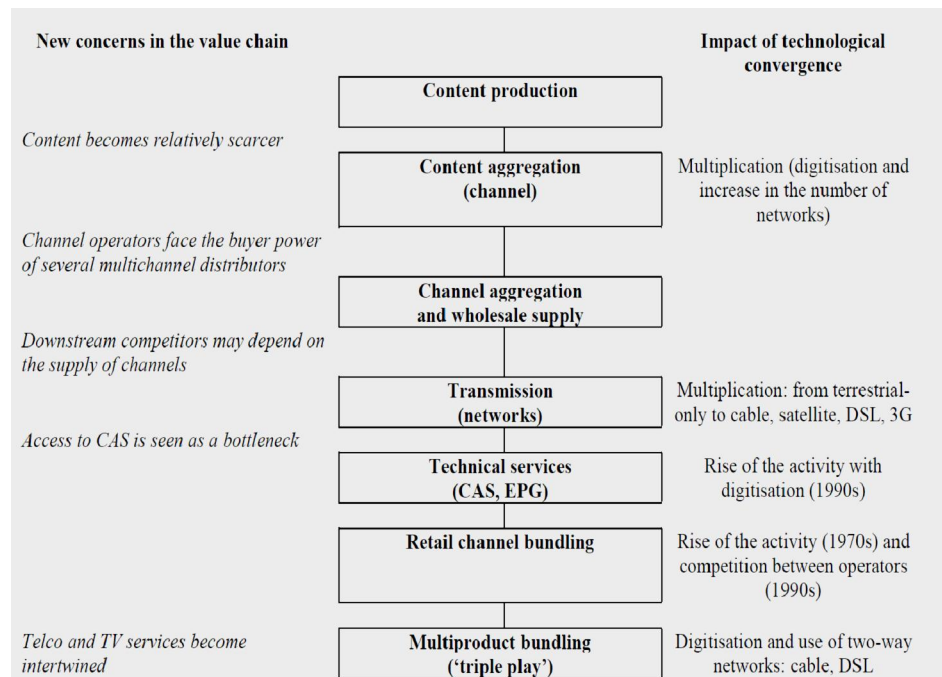
In terms of access, there is an increase in new image distribution solutions and a pervasive networks+ also the storage capacity of consumer devices is increasing rapidly enabling them to be the place where content is aggregated+ thereby enabling consumers to become self providers of entertainment content (IDATE, 2010, p.19). This empowers viewers to by-pass television as the preferred supplier of content.

In terms of funding, revenue from advertising is becoming fragmented as advertisers seek to spread their presence over many distribution networks. Therefore, convergence is breaking down the traditional television value chain in general and the content distribution portion in particular. Distributing content is becoming increasingly complex from a technical standpoint, which is leading to the appearance of new middlemen to provide technical solutions (set-top boxes, software). In some cases, these middlemen play a dominant role in the commercial distribution process+(IDATE, 2010, p.19).

Figure 11 below illustrates that although there has been a reduction of entry barriers due to the effect of digital compression technologies and the development of new networks+, there are new concerns for competition in the value chain. Technological convergence has enabled content distributors to bundle their television channels at the wholesale level for delivery in different retail combinations+. The major concern for new entrants becomes access to content which becomes relatively scarcer+ as distribution networks increase. Another concern is the rise of technical services for the encryption of television

signals, controlling access by the customers through a Conditional Access System (CAS), enabling the customer to navigate through the channels by means of an Electronic Programme Guide (EPG). Another concern is the development of multichannel bundles combining triple or quadruple play offers, with telecommunication services, such as voice telephony and the internet may also create opportunities for exclusion (OECD, 2013a, p.12).

Figure 11: The impact of technological convergence on the television value chain



Source: OECD, 2013.

1.10 Regulatory environment

This section draws attention to the actors, legislative and regulatory frameworks that are operational in the South African subscription television market. The significance of interconnection and interoperability of devices is discussed in order to provide clarity and deeper understanding of the underlying issues that affect competition in this market.

Buigues (2006, p.12) assert that the communications industry in its entirety requires intense regulation due to the existence of high and non-transitory entry barriers and the existence of natural monopolies. The 2007 global financial crisis exposed the disastrous effects of delinquent market behaviour in the

absence of overarching regulatory oversight and the light-touch regulatory approach was blamed for this crisis (Dymski, 2009, p. 2; Scott, 2009, p.2). Mary McAleese, former President of Ireland during the 2007 global financial crisis surmised the unintended consequences of light-touch regulatory approach by stating that "it was long argued that heavy regulation, strong-handed regulation was not the most conducive environment for business and yet we know to our cost that light regulation was a recipe for trouble." (Irish Times, 2010, September 11).

South Africa like most OECD member countries applies the light-touch regulatory approach in the subscription television market. Light-touch regulatory approach was advocated for the market by the Triple Inquiry Report that was commissioned by the IBA in 1995 (ICASA, 2007, p.12).The Triple Inquiry Report did not specify the reasons for recommending light-touch regulation for this market (IBA, 1995, par.16.2.2.2).

In the OECD countries barriers to enter these markets, particularly sunk costs, have been substantially reduced due to increased satellite transponder capacity available for lease and the rapid technological convergence. However, in South Africa there are numerous potential competition and technological barriers to enter this market (ICASA, 2004, p.32 . 45). The pace and intensity of competition in the OECD countries is rife and has led to increased consumer choice (Matteucci, 2004, p.5; ICASA, 2007, p. 12).

On the other hand, the South African subscription television market has major challenges associated with the astronomical capital requirements to start and sustain operations, the existence of high skills shortage and the high costs attached to acquiring and retaining these skills, the high and escalating costs associated with the procurement of infrastructure for content production, the high costs associated with supplier agreements for both content and equipment, the high costs for advertising the new licensees new services in the market, the high costs and challenges associated with the outsourcing of services, and the limited availability of both basic and premium content, programmes and channels (ICASA, 2007, p.36). All these challenges and potential barriers to enter the

South African subscription television market indicate that this market has high sunk costs.

According to the theory of evolution of regulation, the South African television subscription market is in a phase that requires ex ante regulation as former monopolists have great powers to foreclose competition through refusal to interconnect to existing network infrastructures (Bergman, Doyle, Gual, Hlutkrantz, Neven, Roller & Waverman, 1998, p.8). One of the network infrastructures in the subscription television market is the STB, and it has the characteristics of an essential facility+(Matteucci, 2004, p.5).

Interconnection of network infrastructures is crucial for increased investment, increased consumer choice, spurring the development of convergence and the achievement of building an inclusive information society and network knowledge economy as espoused by the Broadcasting Digital Migration Policy (2008, p.12). This was also noted by Melody (1997, p. 29) when he observed that interconnection is the pillar of competitionq(Melody, 1997, p. 29).

In 2007 ICASA declared interconnection and interoperability of the STB as a matter of commercial arrangements not a regulatory matter therefore it would not intervene in the market (*Business Report*, 2007, September 13). This decision is not only contrary to the theory of evolution of regulation. It indicates ICASA's position that the market has transformed to sustainable competition where only ex post regulation is required as barriers to enter the market have been substantially reduced.

ICASA's decision reflects the observation by Intven, Oliver and Sepulveda (2000, p.1-21) that there is a tendency among new regulators to try to be even-handed+ and to treat incumbent operators and new entrants the same+. They warn that this approach can actually increase regulatory intervention over the longer term. It can impose unnecessary burdens on new entrants, and prevent implementation of asymmetrical+ regulatory initiatives that will open networks and markets to competition+.

Intven, *et al.*, (2000, p.1-21) warn that this tendency to abstain from intervening decisively in the markets particularly in interconnection issues by suggesting that new entrants and incumbent operators should freely negotiate the terms of interconnection+ exacerbates problems as most incumbent operators have few incentives to negotiate favourable interconnection agreements with their would-be competitors+.

1.10.1 Regulating interconnection in the subscription television broadcasting market

There is a lack of interconnection and interoperability regulations for the South African subscription television market. This regulatory gap has resulted in subscription broadcasters using strategies that control traffic and value passing through the set-top box. This strategy has a potential to raise barriers to enter the market which impede competition, innovation and convergence in the market. This development indicates the relevance of the observation made by Bergman, *et al.*, (1998, p.6) noting that competition can only be introduced into a network industry through enforcing network interconnection+.

Ratshisusu (2010, p.13) provides a good example of how failure to regulate interconnection and interoperability can have disastrous effects on competition and introduce unnecessary instability in the market. He observed that the lack of interoperability between STBs led to the failure of BSB when the OFCOM intended to create a competitor to Sky. The ultimate result of a merger between BSB and Sky provides credible evidence that an obstacle minute as the lack of interoperability between the incumbent firm ϕ STBs and new entrants q may quell whatever desired competition in a pay-TV market+(Ratshisusu, 2010, p.13).

The regulation of STB interconnection and interoperability usually follows one of the two approaches. In the conventional embedded approach the STB can only be used on one platform by the firm that owns the STB proprietary standards. In this case the STB is neither interconnected nor interoperable as is the case in South Africa. This may lead to customer lock-in and competition foreclosure in the market. The detachable approach allows the STB to operate on different platforms and gives the customer increased choice of networks over a single STB through the use of a smart card. In this scenario the STB is interconnected and interoperable.

The detachable approach has been enforced since 2005 in the USA by the Federal Communications Commission (FCC) through Section 629 of the Telecommunications Act of 1996 (Galperin & Bar, 1999, p. 28). It is also applied in South Korea, where the STBs are interoperable (ICASA, 2004, p.37).

In regulating the interconnection and interoperability of the STB Waverman (2006, p.169) cautions that in the case of Research and Development (R&D), it is generally agreed that patents protect the firms' (ex ante) incentives to innovate by allowing them to earn monopoly rents on their innovation for a limited period. However, ex ante regulation of incumbents' new networks does the reverse. It undermines the incentives for innovation by threatening to expropriate part of those returns from innovation. The greater danger is that regulation, particularly regulation pertaining to access to essential infrastructure, could induce too low a level of investment . a tragedy at a time when such investment is ever-more socially useful.+ Thus Waverman introduces the time element to ex ante regulation of essential infrastructure.

The essential facility characteristics of the STB as were observed by Matteucci (2004, p.5) require regulations that will introduce the migration to the detachable approach of regulating the interconnection and interoperability of the STBs. These regulations should be time bound as indicated by Waverman (2006, p.169) to protect innovation rents, to attract investment in this essential facility and to introduce competition in the market at the appropriate time. This could spur increased investment and innovation in the South African STB manufacturing market and dissolve market concentration. This also means that making the STB interoperable may lead to a tremendous increase in the pace of subscription television development as consumers will gain greater value from the STB. This may also spur economic growth through the development of a robust e-commerce industry in the country (Macnamara, 2010, p.336; ITU, 2012c, Module 7, 1.4).

In April 2010 ICASA promulgated the interconnection regulations however these regulations were viewed to be for the telecommunications sector and not for the broadcasting sector as the broadcasting sector is governed by the Broadcasting

Amendment Act of 2002 and the issued television broadcasting licenses are not technology neutral (ICASA, 2007, p. 34). This limited the scope of interconnection regulations only to the telecommunications sector.

This application of different regulatory frameworks within the same industry results in regulatory asymmetry at the sector level. Levi-Faur, Jordana and Gilardi (2005, p.19) state that regulatory asymmetry is aimed at creating a level playing field through the application of different procedures and standards for different business actors within the same sector or within a converged communications environment. de Lanerolle (2011, p.52) observed that this regulatory asymmetry is one of the regulatory factors that slacken the pace of convergence within a converged communications environment in South Africa.

This regulatory asymmetry stems from policy and regulation relating to broadcasting being developed independently of, and at times, in contradiction to, policy and regulation in telecommunications (de Lanerolle, 2011, p.51). This is an indication of lack of alignment of policy and regulatory processes and de Lanerolle (2011, p.51) state that there is considerable evidence that the South African Department of Communications (DoC) and ICASA have failed to achieve this. This lack of alignment of policy and regulatory processes impede the development of convergence as the broadcasting sector is deliberately insulated from convergence (de Lanerolle, 2011, p.55). Thus the South African communications industry is not a level playing field (de Lanerolle, 2011, p.52).

de Lanerolle provides a succinct explanation of the cause of this uneven playing field by observing that in spite of a stated commitment to promote convergence and converged services, the actions of the South African government and the South African regulator (to the extent they are reflected in policies, regulations, Bills before Parliament and in legislation) have not been consistent with, and certainly have not been sufficient to meet this aim. Equally important, we can see that in many instances where policy and regulation fail these tests, the failure is either in broadcasting regulation itself, or is a result of the separation of, or contradictions between, broadcasting regulation and telecommunications regulation, and that this separation has continued to be persistent after the

passing of the Electronic Communications Act which enshrined the commitment to convergence in law+(de Lanerolle, 2011, p.52).

1.10.2 South African legislation and regulation

Legislation governing the South African communications industry is considered to be moderate; without repressive measures against industry players (MDDA, 2009, p.28). Telecommunications and broadcasting sectors were aligned in 2005 through the enactment of the ECA. The ECA is a poorly drafted+legislation that puts onerous demands+on the sector regulator that does not have the capacity or expertise to respond swiftly to the demands made on itō [The ECA] has created a critical regulatory bottleneck to a fair, competitive environment+(World Bank, 2012, p.11). The objectives of the ECA (Section 2, (a), (b), (f) and (g)) are aimed at facilitating the promotion of convergence, the development of interoperable and interconnected electronic networks, promotion of open and equitable access to broadcasting services and the promotion of competition within the communications industry.

ICASA succinctly summarised its regulatory responsibility in the South African subscription television broadcasting market as ensuring that fair market conditions exist, such that all the participants are able to compete on an equal footing. The main purpose of regulating competition is ensuring effective and sustainable competition whilst protecting the interests of the consumer+(ICASA, 2004, p.40).

During the licensing process ICASA decided not to issue technology neutral licenses as it had not developed a licensing framework that is congruent with the ECA. This restricted subscription broadcasting to satellite and cable transmission and excluded NGN transmission platforms (ICASA, 2007, p. 34). This development strengthens the view expressed by de Lanerolle (2011, p.54) that in spite of the stated aim of the ECA to promote convergence, the regulation of broadcasting is treated as a special case based on a legal framework that assumes that public broadcasting requires substantial protection and that this provides greater social and political welfare than would a competitive market+.

The ECA is succinct on the importance of interconnection and harmonization of electronic communications networks. Sections 37 and 38 of the ECA address

the issues of obligation to interconnect and interconnection regulations. Section 35 (1) of the ECA confer ICASA with the responsibility of setting and approving technical standards. This is aimed at addressing the use of proprietary technology in a technology-neutral regulatory environment.

During February 2008 ICASA published a notice of intention to develop technical standards regulations in respect for electronic communications equipment. One of the objectives of these regulations would be ensuring interconnection and interoperability of electronic communications equipment. By February 2013, five years later, promulgation of these regulations had not been published.

1.10.3 The sector regulator

During the South African transition period from an apartheid state to a constitutional democracy the Independent Broadcasting Authority Act (IBA Act) was promulgated. The IBA Act was designed to provide, among other things, for the establishment of an independent broadcasting regulator; the Independent Broadcasting Authority (IBA), and the licensing of commercial and community broadcasters. The IBA was established in by an Act of Parliament (IBA Act (No.153)) in 1993. Prior to 1993 South Africa did not have an independent broadcasting regulator.

In June 2000, the South African Telecommunications Regulatory Authority (SATRA) which was the national regulator for the telecommunications sector merged with the IBA to form a single electronic communications regulator, the Independent Communications Authority of South Africa (ICASA). ICASA is mandated to regulate broadcasting, electronic communications and postal matters in terms of the ICASA Act of 2000, the Electronic Communications Act (ECA) of 2005, the Broadcasting Act of 1999 and the Postal Services Act of 1998.

Lewis (2007, p.198) observed that the regulator has been active in the broadcasting sector through various regulatory interventions. These regulatory interventions were mainly for the transformation of the SABC as there had been significant interference in the SABC by the apartheid government and its military (de Lanerolle, 2011, p.53). This observation is supported Horwitz and Currie (2007, p.446) who state that the SABC had become a putative public

broadcaster serving as a National Party-aligned apartheid bulwark, and its transformation was deemed mandatory in the lead-up to the first democratic and all-race election period to come in 1994.

ICASA's interventions in the industry have been bluntly ineffective resulting in the regulatory environment being viewed as a major stumbling block to doing business in South Africa (Esselaar & Gillwald, 2006, p.9; Horwitz & Currie, 2007, p.447). This lacklustre performance of the regulator has been compounded by legal bottlenecks, ICASA's limited capacity and expertise, and nebulous policy direction (National Planning Commission, 2012, p.191).

ICASA has an acute lack of both financial and human resources and like most regulators it faces three challenges in developing and maintaining the human resources and skills required to be an effective regulators (Teljeur, Gillwald, Steyn & Storer, 2003, p.14). These challenges are: (1) finding individuals with needed expertise, (2) finding the resources to be able to offer attractive pay and benefit packages and (3) retaining staff members in a job market that sorely lacks skills and that places a premium on technical and management skills. ICASA's operating budget is determined by Parliament. Whilst it generates huge amounts of revenue from licensing and spectrum fees for the state, its operating budget is inadequate for its purposes. As a result, this lack of financial resources is a huge impediment to effective regulation.

ICASA's ineffective regulatory performance can also be linked to government's overall interventions in the communications industry which have been mostly disappointing (National Planning Commission, 2012, p.190). Though there is dual jurisdiction between ICASA and the Competition Commission on competition matters in the communications industry, Horwitz and Currie (2007, p.447) observe that ICASA's authority in the communications industry has been undermined by a second cumbersome dual jurisdictional structure with the Ministry of Communications.

The Ministry of Communications acts as the policy-maker for the communications industry and as the guardian of the state's absolute shareholding in Telkom, Broadband Infraco, Sentech and the SABC. This state

shareholding poses a challenge and requires to be reviewed as the terms on which capital is provided to publicly-owned firms can distort market competition (Bergman, *et al.*, 1998, p.9).

This arrangement also results in the Ministry having a structural conflict of interest in the industry (Horwitz and Currie, 2007, p.447). This structural conflict results in ICASA being rendered ostensibly superfluous as the Ministry oversteps its boundaries in the interdependent relationship between policy and regulation (Scott, 2000, p.50 . 54). Horwitz and Currie (2007, p.447) noted that this dual jurisdictional structure stems from government's mistrust of the ICASA's independence and has resulted in efforts to control ICASA. This mistrust has resulted in policy instability and has fostered monopolistic behaviour in the industry (Gillwald, *et al.*, 2010, p.3; Horwitz & Currie, 2007, p.447).

1.11 Current policy and regulatory developments

The South African government is conscious of this long standing lack of alignment of policy and regulatory processes. The National Development Plan (NDP)-2030 offers a glimmer of hope as it highlights the critical importance of this alignment in order to support the country's economic growth prospects. It states that there is a clear and urgent need for a full policy review, which has not been done in the ICT sector since 1995. In the next five years, South Africa needs to develop a more comprehensive and integrated e-strategy that reflects the cross-cutting nature of the ICT sector. This should link policy objectives to specific strategies. It should include plans to allocate the new spectrum that will become available with the switch to digital broadcasting, and should set out a strategy for universal internet access, with clear targets for monitoring and evaluation (National Planning Commission, 2012, p.194).

During November 2012 the Minister of Communications appointed the ICT Policy Review Panel. It is hoped that the ICT policy review process will identify all pertinent issues that need to be addressed, spur the alignment of policy and regulatory processes and commence the arduous but much needed work of removing all the features of monopolistic market structure through the introduction of competition enabling ex ante interventions.

1.12 Problem Statement

Subscription television plays a crucial role in building an inclusive information society and network knowledge economy as espoused by the Broadcasting Digital Migration Policy (2008, p.12). However, the lack of interconnection and interoperability regulations for the subscription television market in South Africa has resulted in subscription broadcasters using strategies that control traffic and value passing through the set-top box. This potentially raises barriers to enter the market which impede competition, innovation and convergence in the market.

Firms usually use technology as a core competence that provides competitive advantage in the market to differentiate the firm and they also use proprietary technology for equipment to act as barrier to entry (Lynch, 2006, p. 389; Galperin & Bar, 1999, p. 7). This is the case in the South African subscription television market where broadcasters use various technological platforms that neither interconnect nor interoperate, leading to market fragmentation. During April 2010 in the matter between the Competition Commission and Netstar (case 17/CR/Mar05) the Competition Tribunal found that proprietary technology can be used as a barrier to entry thereby reducing consumer choice and innovation (Competition Tribunal, 2010, April 19).

In 2007 ICASA declared interconnection and interoperability of the STB is a matter of commercial arrangements not a regulatory matter therefore it would not intervene in the market (*Business Report*, 2007, September 13). This decision indicates ICASA's belief that the market is in phase 3 of market structure and only ex post regulation is required; though there are potential barriers to enter the market. This decision does not correlate with the Bergman theory of regulation. According to this theory the South African television subscription market is in phase 2 of competition and requires ex ante regulation as former monopolists have great powers to foreclose competition through refusal to interconnect to existing network infrastructures.

There has been little research into regulatory approach and its effects on industry performance. The problem to be investigated is the regulation of competition in the South African subscription television market by comparing

heavy-handed and light-touch regulation through the assessment of barriers to entry.

1.13 Purpose statement

The purpose of this research study is to investigate the regulatory approaches to competition in the robustly growing subscription television market between 2006 and 2012, with particular attention to interconnection and interoperability. There has been little research into regulatory approach and its effects on industry performance. This research is relevant to ICASA and other regulators in light of the financial crisis of 2007 in which light-touch regulation was blamed for delinquent market behaviour and the unintended consequences thereof. Hence, the problem to be investigated is the regulation of competition in the South African subscription television market, with comparison between heavy-handed and light-touch regulation through the assessment of barriers to entry.

This research will enable us to explore the impact of varying regulatory approaches on the performance of this market that has monopolistic characteristics. Gathering data on the perspectives and strategies of the regulator and operators will enable the researcher to analyse the strengths and weaknesses of alternative approaches of heavy-handed and light-touch regulation. This study is also relevant for the assessment of the market structure, market power of the incumbents and provides insight into the failure of the other licensed subscription television broadcasters to commercialise their licenses. This in turn will indicate the areas of possible regulatory intervention in the subscription television value chain.

1.14 Summary

The above presentation builds an understanding that television is critical to the growth of the communications industry as it determines the convergence path for the entire communications industry through its status of a super media and its ability to influence professional content creation in the entire communications industry. The subscription television market is positioned for substantial growth in the future, particularly in Africa. In South Africa it is predicted to continue growing as the rising black middle class households demand premium information and entertainment. However, the South African subscription television broadcasting market has challenges that relate to lack of constructive

competition and lack of convergence emanating from a regulatory framework that does not address interconnection and interoperability which are the pillars of competition in the communications industry. The research problem is whether the regulation of competition and convergence in the South African subscription television market through the light-touch regulatory approach is effective. The purpose of this study is to investigate the effect of the regulatory approach on competition in the South African subscription television market between 2006 and 2012 through the assessment of barriers to enter this market.

The structure of this research report is as follows: The next chapter, Chapter 2, reviews relevant literature and explains the considerations and assessments for adopting a regulatory framework and the regulatory approach for a market. The third chapter explains the research methodology applied to this research study. The fourth chapter presents the research results. Thereafter, an analysis of these results is done in the fifth chapter. The final chapter, Chapter 6 presents the conclusions and recommendations of this research study.

CHAPTER 2: REVIEW OF LITERATURE ON REGULATORY APPROACH AND CONVERGENCE IN THE SUBSCRIPTION TELEVISION BROADCASTING MARKET

In this chapter an appraisal of the relevant literature relating to the research question is presented. Firstly, transformational focus of regulation is outlined in order to provide the historical background of regulation in the communications industry and to highlight the regulatory responsibility of converting the market structure from being monopoly inclined to being a globally competitive network industry. The basic theories for regulation including the choice of a regulatory framework and the evolutionary process of a regulatory approach are expounded together with the underlying factors for the regulation of the communications industry, the broadcasting sector and the subscription television market. Secondly, the concept, the impact and the importance of convergence on society, the evolution of the commercial broadcasting market and on regulations for the entire communications industry is introduced. Lastly, the analytical framework to be applied in assessing the effect of the regulatory approach on competition in the South African subscription television market is discussed.

2.1 Regulation in the communications industry

This section provides a brief history of regulation in the communications industry touching on its transformation from a monopolistic market structure to a globally competitive network industry. The basic theories for regulation are expounded and the underlying factors for the regulation of the communications industry are provided

Before reforms in the communications industry came into effect, many countries provided communication services through monopolistic market conditions, mainly through state entities or private companies at a lesser degree (Boylaud & Nicoletti, 2001, p.103; Buigues, 2006, p.12; ITU, 2012b, Module 6, 2.1). Boylaud and Nicoletti (2001, p.103) assert that ~~this~~ this approach was based on the belief that economies of scale in the communications industry meant that it would be wasteful for more than one firm to operate in the market.

As countries sought economic growth they recognized the growing importance of the communications industry to their national economic growth. Information Communications Technologies (ICTs) provided opportunities for international

trade to overcome geographic and time limitations thereby reinforcing the system of capitalism and enhancing the pace of globalisation (Castells, 2000, p.101). As a result governments intensified their focus on ICTs as a pre-requisite for economic and social development (Castells, 1999, p.3). This resulted in the introduction of pro-competition policies aimed at spurring innovation, lowering costs and increasing consumer choice in the communications industry.

In the 1990s private sector participation in the industry increased dramatically as a result of the World Trade Organisation's (WTO) Basic Telecommunications Agreement (BTA) which has been an important catalyst for reform in the communications industry. The BTA commits countries to put in place transparent regulatory structures, laws, and procedures for the industry (Intven, Oliver & Sepulveda, 2000, p.1-5; ITU, 2012b, Module 6, 2.1; ITU, 2012a, Module 2, 1.2). This push for regulatory structures emanated from the existence of what was perceived to be a governance gap between the economically-motivated activities of key stakeholders and the external consequences for other firms, end-users, public services, etc (Cave & Marsden, 2008, p.2).

Boylaud and Nicoletti (2001, p.103) observed that the other reasons for introducing regulations in the communications industry were the presence of natural monopolistic market structures and the existence of network externalities. They observed that natural monopoly characteristics related to the fixed cost of establishing the network needed to provide services as well as the costs related to the sharing of the infrastructure among several service providers. Externalities were related to both the so-called network effects and the spillover effects on public goods (Boylaud & Nicoletti, 2001, p.103).

Buigues (2006, p.12) observed that the communications industry requires regulation due to the existence of high and non-transitory entry barriers and the existence of natural monopolies issues (such as structural barriers and legal or regulatory barriers). Structural barriers which include extensive economies of scale and astronomical sunk costs could prevent or even impede market entry. Buigues (2006, p.12) asserts that structural barriers to entry exist when the technology and the cost structures create asymmetric conditions between incumbents and new entrants, preventing or even impeding market entry.

Bergman, *et al.*, (1998, p.8) also state that the vertical structure of network industries; which include the communications industry, requires regulatory oversight to ensure that consumers are protected and competition works effectively. Regulation is required to transform network industries that operate in monopolistic market structures to industries in which competition works effectively.

As a result countries established separate national regulatory authorities to support liberalization . whilst simultaneously advancing the provision of universal communication services to the vulnerable customersq (Waverman, 2006, p. 158) . and ease the implementation of policy objectives through the enactment of sector specific regulations.

Gillwald (2005, p.474) assert that regulation helps in the development of a competitive market environment by adding clarity and certainty which are important to attract foreign investment to the industry. Levi-Faur, *et al.*, (2005, p. 23) state that regulation by independent national regulators indicate that governments are %serious about private investment and want to assure investors that there is a stable institutional design that separates technocratic decision-making from political decision-making [in the country as this] puts constraints on the reversal of policies+

Intven, *et al.*, (2000, p.1-1) observed the responsibilities of these regulatory authorities to be varied and to encompass; the authorization of new operators; the removal of barriers to enter the market; the establishment of an interconnection framework that enables interconnection between new entrants and incumbent operators, to promote competition and universality of services.

Levi-Faur, *et al.*, (2005, p.20) observed that these regulatory authorities needed professional and scientific approaches to management by experts as they would be required to engage in %risk assessment, problem definition and fact-finding in the face of market and social failures in an increasingly complex environment+

Black (2002, p.20) defines regulation as essentially the "sustained and focused attempt to alter the behaviour of others according to defined standards or purposes with the intention of producing a broadly identified outcome or outcomes, which may involve mechanisms of standard setting, information gathering and behaviour modification".

Kirkpatrick (2001, p.2) defines regulation as "any government measure or intervention that seeks to change the behaviour of individuals or groups". Black's definition is broad as it anticipates regulation to be more democratic; including the actions of other industry stakeholders, and therefore not emanating from government actions alone. As a result Black's definition will be used in referring to regulation in this paper.

Majone (1997, p 147), Levi-Faur, *et al.*, (2005, p. 21) and Levi-Faur and Bachar (2011, p.246 . 247) state that there are two schools of thought relating to regulation. The first perspective on regulation relates to the public interest theory of regulation. In this regard regulation is applied as a response to market failure. In a competitive and capitalistic market environment failures are "widely prevalent" (Levi-Faur & Bachar, 2011, p.247; Levi-Faur, *et al.*, 2005, p. 20). Levi-Faur and Bachar (2011, p.247) state that as the degree of competition intensifies the need for market regulation increases as well.

The second thread of public interest theory of regulation relates to risk management. Competition brings a high risk of both social and market failure and adds complexity to the market and thus there is a growing demand for scientific, professional and efficient governance of the market (Majone, 1997, p 147; Levi-Faur, *et al.*, 2005, p. 20; Levi-Faur & Bachar, 2011, p.246 . 247). (3)

The third thread of public interest theory of regulation relates to the protection of public interest. As market complexity increases and the risk of market failure is more evident transparent and democratic processes need to be introduced to safeguard the interests of the general public (Majone, 1997, p 147; Levi-Faur, *et al.*, 2005, p. 21; Levi-Faur & Bachar, 2011, p.246 . 247).

The fourth thread of public interest theory of regulation relates to promoting investor confidence. There is a demand for long-term policy commitment and trust from the investors and the general public for the creation of credible investment regimes (Levi-Faur, *et al.*, 2005, p. 21; Levi-Faur & Bachar, 2011, p.246 . 247).

The alternative to public interest theory of regulation is the economic theory of regulation which responds to the prevention of regulatory capture. Regulators are at the risk of being unduly influenced to act for the benefit of some market players who would like to influence regulatory decision making because it has a direct bearing on the industry and social welfare (Majone, 1997, p 147; Levi-Faur, *et al.*, 2005, p. 21; Levi-Faur & Bachar, 2011, p.246 . 247).

The second thread of economic theory of regulation relates to the prevention of bureaucratic entrepreneurialism. Regulators can act for their own and the narrow interests of other market players in order to gain either monetary bribes or monetary contributions to political campaigns or build personal relationships that lead to conflict of interest or advance the interest of future employers as they may be promised future employment by one of the market players; referred to as the revolving door syndrome . whereby an employee changes employment between different actors within the industry (Majone, 1997, p 147; Levi-Faur, *et al.*, 2005, p. 21; Levi-Faur & Bachar, 2011, p.246 . 247).

The third thread of economic theory of regulation relates to the reduction or prevention of principal-agent conflict. Principal-agent theory state that the executive and the legislature . principals . have significant influence on statutory agencies . agents . as they manage performance contracts and incentives and this should keep the regulators committed to delivering on policy goals. It further states that the information asymmetry that exists between the agent (the one with better information) and the principal (the one with less information) may lead the agent to engage in opportunistic behaviour that might defeat the intended policy goals (Majone, 1997, p 147; Levi-Faur, *et al.*, 2005, p. 21; Levi-Faur & Bachar, 2011, p.246 . 247).

Buigues (2006, p.4) noted that the objective of liberalization and the introduction of national regulatory authorities was to transform the market structures of network industries; which include the communications industry, from national monopolies and to competitive market structures with competition in prices, creating incentives to lower production cost and increasing product innovation. Waverman (2006, p.163) observed that regulation is a proxy for competition. The next section looks at the different market structures and regulatory frameworks that are applicable to the communications industry.

2.2 Market structure and regulation

This section focuses competition as one of the four basic market structures and provides an explanation of the prevalent forms of competition. It provides reasons for the preference of competition over other market structures. This section also introduces approaches that are used to attain a competitive market environment in the form of ex ante and ex post regulatory frameworks. The positives and negatives of both regulatory frameworks are provided and the conditions for the application of both the ex ante and ex post regulatory frameworks are explained in detail for clarity.

2.2.1 Market structure

This sub-section introduces competition as a market structure and the varying forms of this market structure. The preferred market structure for the communications industry is introduced accompanied by empirical evidence from research studies conducted in many communications industries.

Competition is one of the four basic market structures namely monopoly, competition, oligopoly, and duopoly (monopolistic competition). Unlike the other market structures competition forces firms to be engaged in a healthy rivalrous relationship (Shapiro, 1985, p.320). This rivalry resulting in firms trying to outmanoeuvre each other in order to gain more market share. They do this by being more customer focused thereby offering innovative products at lower prices and increasing customer choice (Bergman, *et al.*, 1998, p.4).

Unlike the other forms of market structure competition maximizes benefits to society and as such it is more preferred than other market structures (Shapiro, 1985, p.320; Bergman, *et al.*, 1998, p.4; ITU, 2012a, Module 2, 1.3). The ITU (2012a, Module 2, 1.3) assert that competition maximizes benefits to society by

(1) ensuring that resources, products, and services are allocated to the person or persons who value them the most this is commonly referred to as allocative efficiency, (2) forcing market participants to use scarce resources as productively as possible this is called productive efficiency and, (3) encouraging market participants to innovate and to invest in new technologies at the best time this is referred to as dynamic efficiency.

There are varying forms of competition. The four most prevalent types of competition are: perfect competition, effective competition, market contestability and sustainable competition (Monson, 2006, p.2; Hayat, 2008, p.4). Table 2 below provides detailed explanation for each type of competition (Hayat, 2008, p.5).

Table 2: Types of competition

Perfect Competition	Effective Competition
<ul style="list-style-type: none"> ❖ Perfect competition rarely occurs and as such it is not useful for the analysis of market performance. ❖ It requires a number of conditions: ❖ The product concerned must be homogeneous; ❖ There should be a sizeable market for that product; ❖ Buyers must be homogeneous and perfectly informed; ❖ There should not be a firm with significant market power; ❖ There should be no barriers to entry and exit; ❖ There must be no economies of scale and scope; 	<ul style="list-style-type: none"> ❖ Effective competition occurs when four major market conditions are present: ❖ Buyers have access to alternative sellers for the products they desire (or for reasonable substitutes) at prices they are willing to pay; ❖ Sellers have access to buyers for their products without undue hindrance or restraint; ❖ The market price of a product is determined by the interaction of consumers and firms. No single consumer or firm can determine, or unduly influence, the level of the price; and ❖ Differences in prices charged by different firms reflect only

<ul style="list-style-type: none"> ❖ There must be no externalities (either beneficial or adverse); ❖ There must be no regulation of the market; and ❖ There must be no restrictions on capital. 	<p>differences in cost or product quality/attributes (product differentiation exists);</p> <ul style="list-style-type: none"> ❖ There is functional equivalence, that is, one form of a product is usually a reasonable substitute for another form of that product; ❖ There are no barriers to entry and exit.
<p style="text-align: center;">Market Contestability</p>	<p style="text-align: center;">Sustainable competition</p>
<ul style="list-style-type: none"> ❖ A market is said to be contestable when barriers to entry and exit are so low that the threat of potential entry prevents the incumbent from exercising market power. Therefore high firm concentration does not translate to market power as there are no barriers to entry or exit. It is assumed that the threat of potential entry will constrain the behaviour of incumbent firms. ❖ Contestability requires that there are no sunk costs for market entry. That is, should an entrant fail, it can recover its fixed costs (for example by selling assets or reusing them elsewhere). 	<ul style="list-style-type: none"> ❖ Sustainable competition occurs when competition is on a level playing field and consumers and operators are not subject to anti-competitive practices. It is the ultimate aim of competition policy.
<p>Adapted from: Hayat, M. Learning Initiatives on Reforms for Network Economies (LIRNE . Asia).</p>	

Source: LIRNE . Asia.

The ITU observed that rivalry between firms in the communication industry leads to lower prices, higher productivity, more service choices, and greater connectivity+ (ITU, 2012a, Module 2, 1.3). Therefore, a country that seeks to reap the maximum economic and social benefits of penetration and diffusion of communication products and services has to embrace competitive market structure in its communications industry.

Studies conducted by Röeller and Waverman (2001), Greenstein and Spiller (1995) and Correa (2003) support this view through observing that the penetration and diffusion of communications products and services into the wider economy has a significant spill over and impact on national economic growth . maximize social returns, growth and productivity+ (Waverman, 2006, p.166).

A study by Deloitte (2009) estimated that a 10 percent increase in telephone penetration results in a 1.2 percent increase in GDP in emerging markets and a 0.6 percent increase in developed markets. On the other hand Röeller and Waverman (2001) found that the correlation of investment and growth is higher in economies with relatively high telephone penetration rates+ (Gillwald, *et al.*, 2010, p.9).

2.2.2 Regulation: ex ante or ex post

This sub-section expounds on the types of regulatory frameworks that can be applied to transform a market structure from highly concentrated or monopolistic to a competitive market structure. The positives and negatives of each regulatory framework are discussed in detail to provide clarity on the effective application of the two regulatory frameworks.

Transforming the market structure from monopolistic to sustainable competition can be achieved through the implementation of general competition laws (multi-sector regulation) or through competition enhancing rules in specific sectors (sector specific regulation)+ (ITU, 2012b, Module 6, 2.2). Thus, competition regulation has much to do with structuring the market+(Hitchens, 2011, p.234).

Competition laws, which take the form of multi-sector regulations, are generally ex post regulations. On the other hand, sector specific regulations are ex ante in nature. Ex ante regulation is anticipatory intervention whilst ex post regulation is reactionary intervention that gives the competition authority or the courts powers to respond to anti-competitive behaviour once it has occurred+ (Buigues, 2006, p.6).

Ex ante regulation is mainly concerned with market structure . the number of firms and level of market concentration, entry conditions, and the degree of product differentiation. On the other hand ex post regulation is mainly concerned with market conduct, that is, the behaviour of a firm with respect to both its competitors and its customers. Ex ante regulation often takes the form of sector-specific regulation whilst ex post regulation often takes the form of competition laws enforced by competition authorities (Buigues, 2006, p.6; ITU, 2012a, Module 2, 1.2; ITU, 2012b, Module 6, 2.2).

Table 3 below highlight the advantages and disadvantages of both ex ante and ex post regulatory frameworks. This table also indicates that the professional practice of choosing the type of regulation for a market is complex and requires specialist knowledge and skills (Mayo & Cullum, 2006, p.87).

Table 3: Advantages and disadvantages of ex ante and ex post regulation

Regulation	Advantages	Disadvantages
Ex ante Regulation	<ul style="list-style-type: none"> ❖ Sets forward looking expectations for firm behaviour; ❖ Avoids damage from anti-competitive behaviour by anticipating and preventing it; ❖ Can provide certainty for market participants, by setting out clear rules in 	<ul style="list-style-type: none"> ❖ Prevents all conduct of a certain type, regardless of whether it would actually be harmful; ❖ May prevent potentially beneficial behaviour; ❖ Often uses the perfect competition model as a benchmark, which can lead to unnecessary or excessive intervention; ❖ Can introduce unforeseen

	<p>advance;</p> <ul style="list-style-type: none"> ❖ Promotes transparency; ❖ Eases dispute resolution, as the competition framework is already established; ❖ Regulators and affected parties know in advance the types of information required for regulatory proceedings, and can collect it accordingly. 	<p>distortions in the operation of the market (Asymmetric regulation);</p> <ul style="list-style-type: none"> ❖ Imposes high informational requirements on regulators; ❖ Can be costly and lengthy; ❖ Regulatory processes can be captured by regulated entities.
Ex post Regulation	<ul style="list-style-type: none"> ❖ Competition laws specify in advance which forms of conduct are prohibited; ❖ Attempts to only stop conduct that is shown to be harmful to the social good; ❖ Lower informational and monitoring requirements than ex ante regulation, and therefore lower costs; ❖ Apply the same rules across all sectors leading to consistent outcomes in all sectors; ❖ Ex post regulation is the least disruptive 	<ul style="list-style-type: none"> ❖ It does not prevent harm to competition as it is triggered after alleged anticompetitive conduct has already occurred; ❖ Securing the information needed to enforce regulation, from the accused firm, can be difficult; ❖ General competition laws may be unsuitable for identifying and penalizing anti-competitive conduct specific to a certain market; ❖ When applied alongside industry-specific regulation, general competition laws can cause inconsistencies in regulatory outcomes; ❖ Can create uncertainty for

	form of regulation for emerging markets; ❖ Competition authorities are less susceptible to capture than sector specific regulators.	firms, particularly firms with market power. At what point do they cross the line between aggressively competitive behaviour and anticompetitive use of market power?
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Source: ITU . ICT Regulation Toolkit.

2.3 Regulation and transformation of market structure

This section explains how the regulatory frameworks introduced in section 2 above are applied in practice to transform a network industry from a monopolistic market structure to a competitive market structure. The type of the regulatory framework to be applied and the intensity of its application at different stages of the transformation of the market structure are expounded in detail.

2.3.1 Selection of regulatory framework

This sub-section provides guidance on how a regulatory framework is chosen for a particular market. It provides insight into the type of studies that are undertaken to base the decision to either apply ex ante or ex post regulatory framework in a market. It also details how the regulatory framework is adapted as the market structure changes.

As the market structure transforms from monopolistic to sustainable competition more regulation is required; more so in the early phases of transformation. Bergman, *et al.*, (1998, p.4) observed that regulation is required as there are large and often dominant incumbents during the early stages of liberalization, these powerful incumbents may be in a position to exercise monopoly power. During these phases countries determine the best route to achieve competition policy objectives. They also establish a regulatory framework to be applied; ex ante or ex post regulatory regime. In determining the appropriate regulatory framework three key results need to be considered, particularly when considering the application of the ex ante regulatory framework (Bergman, *et al.*, 1998, p.126).

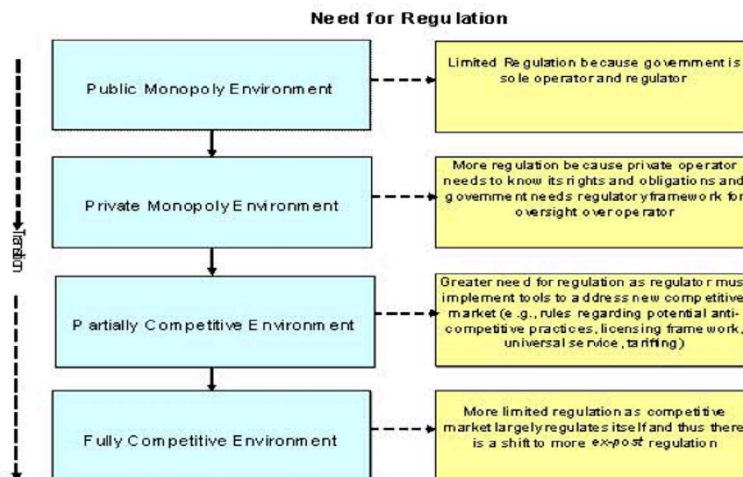
The first results for consideration are the results from an assessment of market entry conditions. This exercise will determine if a competitor can enter the

market without going over substantial hurdles that can act as barriers to enter and produce goods and services on an equal footing with the other competitors in the market. Secondly, the results of an assessment study of the intensity of competition in the market. This exercise will determine if the market is monopolistic, concentrated or competitive. This exercise will assist in developing an appropriate regulatory framework for the market. The last set of results for consideration are the results a study into the most efficient governance of public resources. This study will recommend the most efficient manner of administering public resources like spectrum (ITU, 2012b, Module 6, 2.2).

After the regulatory framework has been chosen for the market then the necessary regulatory authorities are established to support liberalization and ease the implementation of policy objectives. During these early phases regulators are mainly concerned with the establishment of a regulatory framework that can resolve disputes, address anticompetitive abuses, protect consumers, and attain national goals+as this will ease the transition to a market structure with sustainable competition (ITU, 2012b, Module 6, 2.2).

Figure 12 below depicts the need for regulation at different phases of the market as it transitions from monopolistic to a market structure with sustainable competition. It indicates that in a monopolistic market structure there is minimal regulation. Regulation increases as the market transforms from monopolistic market structure to a fully competitive market structure. The intensity of regulation eases as the market matures into a competitive market structure. At this stage the more applicable regulatory framework becomes the ex post regulatory framework. Ex ante regulatory framework still exists at this stage but it is not as intensive as during the period when competition was introduced in the market (Intven, *et al.*, 2000, p.1-21).

Figure 12: The need for regulation in transitioning market structures



Source: Telecommunications Management Group, Inc.

2.3.1 Evolution of regulation

This sub-section chronicles how the regulatory framework transform over time and the focus of regulation at different phases of market transformation from monopolistic to competitive market structure. The concepts of heavy-handed regulation, light-touch regulation and self-regulation are introduced and located at different phases of development as the regulatory framework transforms.

Figure 13 below presents the theory of the evolution of regulation in transforming market structure as conceptualized by Bergman, *et al.*, (1998, p.8). It shows that a market that is in phase 1 of regulation lacks favourable conditions for competition. It is a market that is highly concentrated and it displays strong monopolistic tendencies. Regulation in this phase is primarily focused on the prevention of monopoly abuse.

Countries that seek to establish a competitive market environment normally intervene during phase 1 with the objective of transforming a market from monopolistic to competitive market structure. Usually countries establish ex ante regulatory framework to transform a market from phase 1 to phase 2 of regulation. This normally results in the introduction of more regulations to reduce

monopolistic behaviour in the market (Bergman, *et al.*, 1998, p.8). This correlates with Reding's (2006, p.6) assertion that "regulation should promote competition, and should not favour monopolies".

As a result phase 2 involves the greatest intensity of regulation, mainly ex ante regulation. This reflects the market that has the presence of both monopolistic and competition market structures. More regulation is particularly required in the early development stages of phase 2 as the monopolistic market structure is still dominant and "to ensure that public service objectives are met" (Bergman, *et al.*, 1998, p.8). "At the beginning of phase 2 when a network industry is opened up to competition more rather than less regulation is required" (Intven, *et al.*, 2000, p.1-21).

The intensity of regulation during phase 2 is expected to rise initially, reflecting, for example, problems of abuse in interconnection markets. Buigues (2006, p.6) observed that during the early phase 2 "new entrants need interconnection on the network of the incumbent in a number of network industries. In principle, it is easier to ex post judge if a price is unfair than to set ex ante a fair price. However, ex-post aspects of competition policy may create uncertainties for new entrants. They have to make huge investments without any clear information on the interconnection charge and its future evolution. Over time, however, competition should become more effective during phase 2 and the need for regulation should diminish". However, the World Bank (2001, p.71) cautions that as competition intensifies there is more need for effective regulation rather than less regulation.

Intven, *et al.*, (2000, p.1-21) observed that regulatory authorities intervene in decisive "at the early stages of market liberalization, in order to ensure effective competition has a chance to emerge. They further observed that there should be a decisive intervention to remove barriers to entry early in phase 2 as this "will stimulate competition and permit greater deregulation down the line. While markets are being opened to competition, regulation should normally be focused on the incumbent operators, whose networks must be open to interconnection and unbundled to permit new entrants to be viable" (Intven, *et al.*, 2000, p.1-21).

Many of the challenging regulatory problems arising in phase 2 relate to interconnection. New entrants demand interconnection to existing network infrastructures that are normally owned and operated by the natural monopolist+ (Bergman, *et al.*, 1998, p.8). At times the natural monopolists engage in uncompetitive behaviour by refusing interconnection or discriminating against the new entrants. It is in phase 2 that greater regulation overseeing the way that publicly-owned firms obtain finance will be required+ (Bergman, *et al.*, 1998, p.8; Buigues, 2006, p.12).

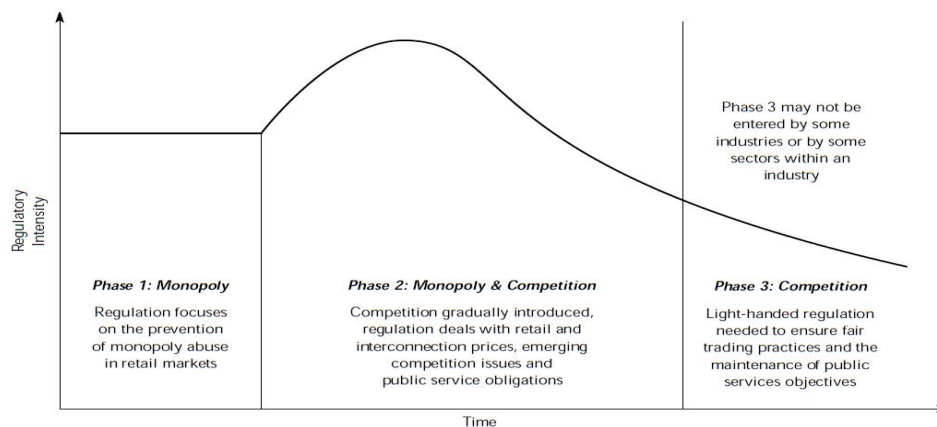
Intven, *et al.*, (2000, p.1-21) observed a tendency among new regulators to try to be even-handed+ and to treat incumbent operators and new entrants the same+. They warn that this approach can actually increase regulatory intervention over the longer term. It can impose unnecessary burdens on new entrants, and prevent implementation of asymmetrical+ regulatory initiatives that will open networks and markets to competition+(Intven, *et al.*, 2000, p.1-21).

Intven, *et al.*, (2000, p.1-21) warn that this tendency to abstain from intervening decisively in the markets particularly in interconnection disputes by suggesting that new entrants and incumbent operators should freely negotiate the terms of interconnection+ exacerbates problems as most incumbent operators have few incentives to negotiate favourable interconnection agreements with their would-be competitors+.

If a market were to enter phase 3, it is believed that the market would provide incentives needed to obtain desirable outcomes+ (Bergman, *et al.*, 1998, p.8). Regulation would still be required, as in other competitive industries, to ensure fair trading practices. The intensity of ex ante regulation in phase 3 lies below that in phase 1 because when an industry structure is competitive there is less need for ex ante regulation and more need for ex post regulation (Bergman, *et al.*, 1998, p.8; Buigues, 2006, p.12). Intven, *et al.*, (2000, p.1-21) observed that as competition increases, regulation should decrease as the advantages of privatization and liberalization can be lost, or severely limited by burdensome regulatory measures+. This correlates with the observation by Waverman (2006, p.163) noting that ex ante regulation is a proxy for ex post regulation.

Figure 13 below depicts the focus and intensity of regulation as the market transitions from a monopolistic to a competitive market structure. The prevailing market structure in Phase 1 is monopolistic and the focus of regulation is on the prevention of monopoly abuse in retail markets+ (Bergman, *et al.*, 1998, p.7). During Phase 2 competition is introduced in the market and the focus of regulation is the prevention of monopoly abuse in both retail and interconnect markets by dominant incumbents; emerging competition issues; and public service obligations+ (Bergman, *et al.*, 1998, p.7). During Phase 1 and Phase 2 there is high regulatory intervention as regulation is intense. The applicable regulatory approach is heavy-handed until competition intensifies in the market. During Phase 3 competition is entrenched in the market and the focus of regulation is to ensure fair trading practices and the maintenance of public service objectives+ (Bergman, *et al.*, 1998, p.7). The applicable regulatory approach during Phase 3 is light-touch regulation which could include self-regulation.

Figure 13: The evolution of regulation



Source: Bergman, *et al.* (1998).

2.4 Locating regulatory approach in evolving markets

This section introduces the concepts of heavy-handed regulation, light-touch regulation and self-regulation. It also locates the application of these approaches at different phases of development as the market structure and regulatory framework transform.

The intensity of regulation is ~~humped~~ in phase 2, as regulatory intensity rises in the beginning before declining when competition is more firmly established. During phase 2 ten conflicting priorities for regulation normally arise (Bergman, *et al.*, 1998, p.11). One of these conflicting priorities is whether to apply light-touch or heavy handed regulatory approach. The intensity of market regulation in phase 2 is commonly referred to as heavy-handed regulatory approach, as the regulator is heavily involved throughout the wide spectrum of the market through the promulgation of regulations that are aimed at altering the behaviour of the market participants, changing the market structure and encouraging increased competition (Bergman, *et al.*, 1998, p.11).

This decline in the intensity of ex ante regulation is commonly known as light-touch regulatory approach as the sector specific regulator focuses on those parts of the industry where there is a clear need for regulatory intervention. Focusing regulation where it is needed, and withdrawing it in those parts of the market where it is no longer necessary is called regulatory forbearance. Regulatory forbearance rests on the goal of a gradual removal of ex ante regulation and an accompanying increase in the use of general ex post regulation. Regulatory forbearance has two elements: (1) the regulator chooses not to intervene in the some markets through the application of certain regulatory conditions (2) the regulator chooses to either reduce the scope of regulation in the markets or withdraw completely from regulating certain markets (ITU, 2012a, Module 2, 1.3; Bergman, *et al.*, 1998, p.8; Hayat, 2008, p.20).

In phase 3, regulation is treated as a temporary measure in place until sustainable competition is feasible in the market (ITU, 2012b, Module 6, 2.3; Bergman, *et al.*, 1998, p.8; Reding 2006, p.5). If a market were to enter phase 3, sector specific regulatory authorities would still be needed as they have a critical role to play due to (1) the high pace of change brought about by heightened innovation in the market meaning that there is more need for regulation and (2) new technologies may introduce new issues into the regulatory environment (Levi-Faur, *et al.*, 2005, p. 23).

The ITU supports this view by asserting that ~~in~~ certain areas, regulators need to maintain a prominent role because market forces often fall short of creating the

conditions necessary to satisfy public interest objectives such as universal access and service+ (ITU, 2012b, Module 6, 2.3). Many countries seek to promote public interest objectives through the enactment of consumer provisions in their industry and sector legislations (ITU, 2012b, Module 6, 3.4.3).

Phase 3 is characterized by highly competitive markets and increased litigation among market operators. In most countries with highly competitive markets there is an increased reliance on industry self-regulation approach. Industry self-regulation approach is implemented through the adoption of voluntary codes of practice by all the stakeholders to prepare the industry or the sector for public interest codes (ITU, 2012b, Module 6, 3.4.3; Foster & Kiedrowski, 2006, p.34).

The European Union defines self-regulation as %a type of voluntary initiative, which enables the economic operators, social partners, non-governmental organisations or associations to adopt common guidelines amongst themselves and for themselves+ (Cave & Marsden, 2008, p.6). Mayo and Cullum (2006, p.94), however, warn of the perils of self-regulation by stating that %e research suggests that self-regulation works less well in fragmented markets where there is a wide and diverse range of providers+ and they conclude that %a failing market, self-regulation is a privilege, not a right+.

Collins, *et al.*, (2001, p.6) state that research by others including Collins (1997 and 1998), Garnham (1994) and Graham (1999) has indicated that %he media markets have an intrinsic tendency to fail and broadcasting is a failed market+. These observations by Mayo and Cullum (2006, p.94) and Collins, *et al.*, (2001, p.6) indicate that self-regulation should be treated as a privilege in the television broadcasting sector.

2.5 Market structure and regulation of the subscription television broadcasting

This section applies the market structure and regulatory frameworks introduced in section 2 and 3 to the commercial television broadcasting market which includes the subscription television market of the communications industry. It details the factors that influenced the selection of a regulatory framework for this market and introduces the recommended regulatory framework for the television broadcasting market.

2.5.1 Development of regulation in the television broadcasting market

This sub-section provides a historical overview of the commercial television broadcasting market. The concepts of ex ante and ex post regulation, and market structure introduced in sections 2 and 3 above are applied to this market.

In the past, the rationales for regulating broadcasting were mainly politically motivated. This resulted in lack of trust between the industry and the regulators, weak and negative regulations that were accepted half-heartedly usually as part of a trade-off for spectrum allocations or some other subsidy and regular attempts by the industry to push back the regulatory front (Hitchens, 2011, p.221). This resulted in the establishment of national broadcasting regulatory authorities; meaning ex ante regulatory frameworks were applied in the broadcasting sector (Tambini, 2006, p.113).

Regulations for commercial television broadcasting, which include subscription television broadcasting, were of a protective nature based on perceived spectrum scarcity, perceived competition of private television with governments over the means of information, perceived influence of television on politics and culture, the safe guarding of the public interests, the contribution of public broadcasting television to the national economy and the assumption that diversity of ownership will produce a diversity of voice and view (Noam, 2006, p.67; Hitchens, 2011, p.229). As a result commercial television regulations were based on the protection of existing oligopolies. Which were mainly the free-to-air broadcasters (Kwak, 2007, p. 89; Matteucci, 2004, p.3).

The protective nature of the commercial television regulatory framework resulted in an excess profits from advertising and these profits were mainly taken by the private sector broadcasters and partly by government through fees government charged for access to the airwaves (Giles, 2006, p.105). This in turn enriched the few operating national commercial television broadcasters and they could access better quality television programmes, establish positive network effects, entrench market dominance and build virtual barriers to enter the commercial broadcasting market. As a result, the presence of essential facilities, sunk cost, economies of scale and network externalities became more entrenched in the

television broadcasting sector than in other sectors of the communications industry (Park, 2009, p.34).

During the late 1980s and early 1990s pro-competitive trends began to emerge in the television broadcasting market. Commercial satellite subscription television services were launched in many countries; South Africa (1986), the US (1994) and later in Europe (1996) (Matteucci, 2004, p.3). Commercial television broadcasters, which include subscription television broadcasters, offer television programmes to attract subscribers to their broadcasting platforms under certain cost conditions. A first-mover advantage can be acquired through offering popular programmes and this can result in the monopolisation of the commercial television market, due to strong positive network effects (Matteucci, 2004, p.3).

Matteucci (2004, p.3) observed that these pro-competitive trends have led to an increased degree of pluralism of each national television industry and has increased the quantity and variety of the programmes available for consumers to the extent that commercial television has been promoted as a new business model alternative to the traditional free to air broadcasting. In fact, while traditional broadcasts are both non rival and non excludable services, digital encryption techniques have transformed the TV signal into a private service, which can be offered to households in exchange of a direct payment.

2.5.2 Subscription television broadcasting market structure and regulation

This sub-section presents research evidence to substantiate the recommended regulatory framework for the subscription television broadcasting market.

Giles (2006, p.104) has observed that the commercial television broadcasting market, which includes subscription television market, is complicated and, though competition has increased, barriers still exist that require continued regulation. Nevertheless, the scope to make monopoly profits is reducing every year as competition increases between broadcasting networks and between telecommunications networks and broadcasting networks as they both contest for the same market.

Matteucci (2004, p.4) observed that commercial television; particularly satellite broadcasting, is currently witnessing a reversal of the initial pro-competitive trends; while the commercial television market continues to grow in value added, the number of competitors tends to shrink, especially in Europe and the United States of America. Moreover, the broadcasting firms which exit the market are not always marginal in size. There are cases in which the smaller broadcasters have planned to merge or to acquire the bigger rivals. In any case, the most likely outcome is that in the near future the commercial television market would end up being monopolised or severely concentrated.

This reversal in pro-competitive trends emanates from the demand by subscription television broadcasters for exclusionary commercial contracts relating the broadcast rights of premium content in order to recoup the costs associated with the acquisition of this premium content. However, these exclusionary contracts have a potential of foreclosing competition in the retail market when there is already content scarcity (Nicita and Ramello, 2005, p. 372 . 373; Matteucci, 2004, p.5; OECD, 2013a, p.17).

The foreclosing competition in the retail market stems from first mover takes all+ or a winner takes all+type of competition created by the exclusivity of premium content (Nicita & Ramello, 2005, p. 377). This type of competition is referred to as destructive competition (Ratshisusu, 2010, p.2). Ratshisusu (2010, p.6) observed that destructive competition is rife in markets where sunk costs are a significant proportion of the total cost, and in markets with sustained long and recurrent periods of excess capacity (Kahn, 1988; Kay & Vickers, 1988; Adams, 1958) and in markets where natural monopolies prevail in which economies of scale are huge and the marginal cost to produce a unit of output on existing infrastructure is small (Shy, 2001). These are some of the characteristics of the broadcasting sector and the subscription television market as indicated in section 2.1 above.

Premium content as an information good carries copyrights which grants the licensee the right to copy, the right to make derivative works, the right to distribute, and the right to perform (Nicita & Ramello, 2005, p. 375). These copyrights which are property rights grant the licensee the right to exclude other

agents from using the protected information good in order to solve a problem of free-riding over a public good, save upon payment of a price+ (Nicita & Ramello, 2005, p. 375). Thus, exclusivity granted by copyrights forecloses competition in the retail market, provides the licensee with market power and creates conditions for destructive competition in the market.

Collins, *et al.*, (2001, p.6) state that ~~the~~ media markets have an intrinsic tendency to fail and broadcasting is a failed market+. These observations support the assertions by Buigues (2006, p.12) and Ratshisusu (2010, p.2) that the communications industry and the television broadcasting sector in particular, require ~~ex ante~~ ~~regulation~~ due to the existence of high and non-transitory entry barriers and the existence of natural monopolies issues such as structural barriers and legal or regulatory barriers+. They argue that ex ante regulatory framework is more effective in promoting competition and enhancing consumer welfare during the market liberalisation phase.

Furthermore, public interests have to be protected as the broadcasting market has an inherent tendency to fail. This is an indication that the technological advancements of recent years have not altered the monopolistic market structure significantly, have not eliminated barriers to entry and that ex ante regulation is still needed in the commercial television market. The commercial television market structure has not changed much as the degree of competition is still low in the sector due to the presence of variety of persistent entry barriers such as high costs in the implementation of satellite networks and the existence of natural monopolies issues (ITU, 2012c, Module 7, 1.4).

2.6 Convergence and competition in the commercial television markets

This section introduces the disruptive and paradigm-shifting concept of convergence. It details the importance of convergence on society and on the evolution of the commercial broadcasting market with particular emphasis on the impact of convergence on competition and regulation in this market.

2.6.1 Defining convergence

In this sub-section the definition of convergence as applied throughout this study is presented and the sectoral view of the communications industry is presented with the effect of convergence on this sectoral view being highlighted.

Traditionally the communications industry was viewed to be composed of the three sectors, namely; the press (newspapers), radio and television. Their communication modus operandi was mainly the same; one-to-many form of communication, whereby content was pushed to the audience and the audience had little control over content. The mode of content distribution was mainly through one platform that is newspapers delivered text; radio, voice; and television delivered voice and visual content+(Hitchens, 2011, p. 219).

Nowadays technological developments are rendering this sectoral distinction to be unrealistic and unsustainable as different services can be carried on different infrastructures and the end users' access equipment is designed to communicate with different services. This process of fusion of content, service, infrastructure and end user equipment is denoted as convergence+(ITU, 2012c, Module 7, 1.5).

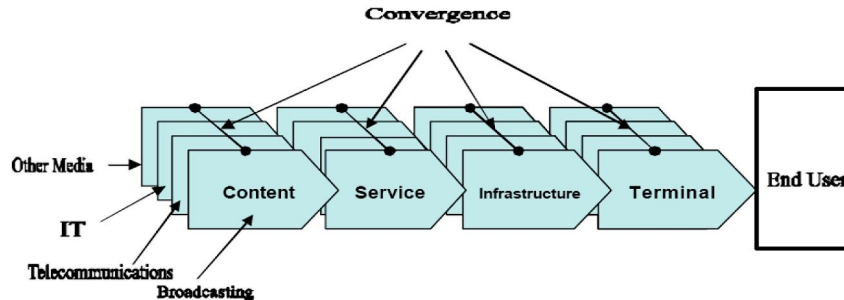
The ITU has adopted the definition of convergence as was expressed in the European Commission's Green Paper on convergence. It defines convergence as the ability of different network platforms to carry essentially similar kinds of services; and the coming together of consumer devices such as the telephone, television and personal computer. Convergence is not just about technology, it is about services and about new ways of doing business and of interacting with society+(ITU, 2012c, Module 7, 1.5).

This definition is congruent with Reding's (2006, p.5) assertion that technological developments and convergence in particular are not about a better lifestyle rather, they are about a better life for everyone through better services for consumers and citizens and new opportunities for growth and jobs+. Therefore, convergence has proven to be more than a new fad applicable only in the communications industry. It is associated with increased competition, higher rates of innovation, improved productivity, higher economic growth and improvements in the quality of life (Bleha, 2005, p.112).

Figure 14 below, illustrates how the information technology, telecommunications, broadcasting sectors and the entire communications industry environment has changed and how industry boundaries have blurred. It details the convergence

process throughout the communications value chain indicating how convergence is breaking the traditional technology, industry, sector and services market boundaries. Thus giving credence to the observation by Currie and Richards (2006, p.19) that convergence is 'radically changing the communications industry'.

Figure 14: The effects of convergence in the Communications Industry



Source: Henten, et al., 2006.

2.6.2 Effects of convergence on the communications industry and society

This sub-section indicates the wide-ranging impact of convergence on the entire communications industry and it presents the positive and negative effects of convergence on society.

2.6.2.1 Effects of convergence on the communications industry

The rapid technological innovations have resulted with convergence of the traditional sectors within the communication industry. This convergence is primarily driven by digitization. Digitisation is the migration from analogue to digital transmission and enables different network platforms to converge and carry similar kinds of services. Thus firms in different sectors of the industry can carry a combination of data, voice and video; these services are also known as triple-play services. As Waverman (2006, p. 160) observed 'no longer do we have a particular service (voice, data or video) tied to a unique infrastructure (copper, cable or satellite)' (Gillwald, 2003, p. 8; Xavier, 2008, p. 21; McPhillips & Merlo, 2008, p.237).

This convergence of different network platforms has led to the adoption of internet-protocol-based next generation networks (NGNs) as the preferred communications networks. NGNs enable firms to be innovative, being motivated

by the rewards of being first to reach the market and thereby increasing the degree of competition and offering more consumer choice in a converged communications industry. Foster and Kiedrowski (2006, p.26) state that "NGNs enable quicker development of new services and applications at a lower cost than that associated with analogue networks."

Convergence has enabled functions such as computation, entertainment, and voice to integrate seamlessly into consumer devices which are able to execute multiplicity of tasks. Foster and Kiedrowski (2006, p.26) have observed the benefits of NGNs as their ability to allow for services that offer downloads and streaming of broadcast quality images, with the scope for the uploading of consumer-generated content carried on a single, converged, core network platform in combination with a variety of fixed and mobile access networks. Even wireless technologies, be they 3G and 4G mobile or WiMAX, are capable of higher bandwidth delivery, although to varying degrees (ITU, 2012c, Module 7, 2.2.4; EU, 1997, p. 1; Papadakis, 2007, p.1).

As a result, convergence strengthens the observation by Collins, *et al.*, (2001, p.6) in their assertion that broadcasting is a failing market. However, this market failure results in positive social consequences (Collins, *et al.*, 2001, p.6). Resulting in users and consumers in a converged communications environment being empowered to contribute their opinions and transform or create content; thereby becoming content producers.

Hitchens (2011, p.220) observed that users and consumers use an array of platforms to contribute their opinions and transform or create content through activities such as creating home videos and uploading them on YouTube, instant connection and communication with friends and family through Facebook page, constant Twitter feed, video or photos shot via a mobile phone during a civil uprising and distributing it worldwide, to the blogs . amateur and professional, public and private. All this content is referred to as user-generated content (UGC) which is mostly unedited, pervasive and is a result of user empowerment through convergence.

This user empowerment has also led to consumer sovereignty as viewers are empowered to determine the content that they want to view and also their own viewing schedules (Naughton, 2006, p.46). Thus the ownership of the means of information has passed from those who could afford their high capital costs to just about anyone who has a computer, some appropriate software and an internet connection (Naughton, 2006, p.50). This view is also supported by Foster and Kiedrowski (2006, p.25) who have also observed that market structures are changing, bringing into commercial competition firms that have been undisputed masters of their own patch sometimes for decades.

2.6.2.2 Effect of convergence on society

De Lanerolle (2011, p.48) observed that convergence is not a new fad that is rampant and limited to the communications industry. It has a serious impact on the political, economic and social life within a country, region and globally. Thus convergence cannot be ignored or wished away, it is inexorable. Shirky (2007) and Eisenstein (2005) (as cited in de Lanerolle, 2011, p.48) draw a parallel between convergence and the invention of the printing press which was followed by significant changes in the role of the church, the development of new industries and changes in the social, political and cultural roles of books and pamphlets in Europe. This analogy helps identify a number of reasons for the scale and range of impact that convergence may have on society and its development.

Table 4 below is adapted from Macnamara (2010, p.336) and it summarises these impacts and effects on society. DiMaggio, Hargittai, Neuman & Robinson (2001, p. 307 - 329) identified the impacts and effects of convergence; which is propelled by digitisation and the migration to the internet platform, on different stakeholders in society. The table identifies both positive and negative effects of convergence on different strata of society.

Table 4: The impact of convergence on society

IMPACT	POSITIVE EFFECTS	NEGATIVE EFFECTS
Social equity	<ul style="list-style-type: none"> ✓ Increased access to information ✓ Declining cost of 	<ul style="list-style-type: none"> ➤ Different aspect of digital divide ➤ Digital divide

	<p>information access</p> <ul style="list-style-type: none"> ✓ Access to communities unlimited by geography ✓ Online education 	<p>means that those without digital access (mainly broadband) or literacy miss out</p> <ul style="list-style-type: none"> ➤ Online pornography, paedophilia and financial fraud
Community	<ul style="list-style-type: none"> ✓ New forms of social interaction ✓ Opportunities for collective intelligence and knowledge communities to share knowledge and gain power through collaboration 	<ul style="list-style-type: none"> ➤ Loss of social capital . reduced personal interaction ➤ Creation of digital enclaves of like-minded people feeding each other's prejudices ➤ Loss of privacy
Politics	<ul style="list-style-type: none"> ✓ New opportunities for political engagement ✓ A more effective public sphere of debate ✓ Opportunities to reach isolated communities and for isolated communities to reach politicians and institutions 	<ul style="list-style-type: none"> ➤ Domination by power elites which colonise cyberspace ➤ Popular culture corruption of politics, lowering of political debate (e.g. spoofs and parodies) ➤ Creation of pseudo-organisations
Organisations	<ul style="list-style-type: none"> ✓ Flexible organisations . e.g. Home-working ✓ Networked interaction for 	<ul style="list-style-type: none"> ➤ New forms of internal surveillance (e.g. e-mail) ➤ Online

	collaboration ✓ More horizontal channels of communication	communication remains top-down ➤ Online becomes a low-trust environment
Business	✓ Engagement with stakeholders ✓ Low-cost e-commerce (online sales) ✓ Long Tail business models to cost-effectively reach niche and small markets (Anderson 2006) ✓ Market research from tracking user Web trails ✓ New forms of individual marketing	➤ Fragmentation of audiences requiring more micro-targeting ➤ Increased opportunities for criticism and public attack (e.g. blogs, YouTube videos) ➤ Loss of control over brands in participatory media
Culture	✓ Demassification of access to content ✓ Everyone can become a media producer	➤ Hyper-segmentation, digital enclaves, fragmentation and dilution of common culture
Adapted from DiMaggio, Hargittai, Neuman & Robinson (2001, p. 307 - 329)		

Source: Macnamara (2010, p.336).

These impacts and effects of convergence, the internet and emergent media are not only disruptive but they are also deep, structural and they affect the very foundations of how liberal markets and liberal democracies have coevolved for almost two centuries (Benkler, 2006, p.1). Regulators, politicians, business and the general public have to consider both the positive and negative effects that

are presented by each impact and decide if regulatory intervention is necessary. If regulatory intervention is needed, then they have to determine the type of regulatory frameworks and approaches that should be applied and the duration thereof.

2.7 Impact of convergence on competition in the television broadcasting market

This section expound on the significant changes brought about by convergence in the television broadcasting market. The impact of these changes on the transformation of the market structure is explained and their impact on competition in this is highlighted.

The transformation of the broadcasting landscape brought about by technological convergence has resulted in increased number of competitors, the rapid development of technologically advanced consumer products, continuous and advanced user empowerment, growth in UGC and releasing of spectrum for other uses. This transformation has also brought about increased risk of declining profitability and business sustainability as advertising revenue declines due to the ability of viewers to avoid advertisements (Naughton, 2006, p.45; ITU, 2012c, Module 7, 1.5.1).

The impact of convergence is more profound on the subscription television broadcasting market than on the other markets and sectors of the communications industry (McPhillips & Merlo, 2008, p. 238; Nicita & Ramello, 2005, p.371). This is observed by the ITU which has stated that ~~the~~ the broadcasting sector faces a decisive challenge in personalizing content and segmenting channels towards a still more fragmented market that includes the Internet. In particular, young people have their requirements for content and communication through the Internet and mobile services covered, while their consumption of the traditional television media is correspondingly strongly reduced+(ITU , 2012c, Module 7, 1.5.1).

Another risk brought about by convergence is the reduction if not total removal; in some cases, of barriers to enter the communications industry. As Naughton (2006, p.44) has observed ~~as~~ as spectrum is released broadcast television is in serious . and apparently inexorable . decline. Its ~~haemorrhaging~~ haemorrhaging viewers, or at

least the viewers who are the most commercially lucrative. And its audience is fragmenting. This release of spectrum for other uses as a result of technological convergence is referred to as the digital dividend (Hitchens, 2011, p. 231).

Digital dividend is made possible by the ability of digital technology to transmit the same number of channels using only one third to one-sixth of the spectrum bandwidth. This opens up the possibility of releasing some current broadcasting spectrum for other applications, such as mobile broadcasting or fixed broadband wireless access (Goggin, 2006, p.243). Digital dividend has moved television broadcasting from the limiting analogue transmission to digital transmission with abundant choice for the users at minimal use of the spectrum. Digital dividend moves spectrum from being a scarce resource to an abundant resource and abundance is an important feature of the emerging media environment (Naughton, 2006, p.41).

Digital dividend and the resultant spectrum abundance are the results of the emerging media industry which is an integral part of the new economy that is characterized by abundance. This abundance stems from the rapid technological developments which challenge the traditional views and present a new paradigm which asserts that when seen through the lens of technology, few resources are truly scarce; they are mainly inaccessible (Diamandis & Kotler, 2012, p.6).

This abundance manifests in the ubiquitous availability of services and products mainly through the internet and the non-excludability of consumers. Spectrum as an abundant resource presents the broadcaster and the consumer with advantages such as better technical quality, more programs and services on a given set of frequencies, and the option of multimedia and interactive services (ITU, 2012c, Module 7, 1.4). Thus digital dividend presents the communications industry with an opportunity to deepen the integration of various markets in the print, broadcasting, information technology and telecommunications sectors to create a digitally converged communications environment (Collins, *et al.*, 2001, p.6).

New digital broadcasting networks; which are NGN, are currently transforming the television broadcasting landscape through the introduction of new markets

and a variety of new value-added services which include (1) enhanced text television . which use graphical tools, hypertext etc., and the text television in digital version is more advanced and usable. (2) Downloading of software . as the television broadcasting networks are mostly used in the day and evening hours the transmission capacity at night can be used to download software, for example, new versions of software to the set-top-boxes. (3) Downloading of newspapers . in the same way newspapers can be downloaded to the set-top-boxes. (4) Access to and advancement of e-commerce markets . products and services could be ordered by remote control, e.g. during advertisement. (5) Internet access through television . access to the Internet as known in the communication networks will not be possible because of capacity-per-user problems of digital television networks. However, the solution can be to broadcast a limited version of Internet, e.g. sites that are seen as relevant from a political and/or societal perspective+(ITU, 2012c, Module 7, 1.4).

The ITU assert that convergence has transformed the broadcasting sector to the point that the next step will be a paradigm shift, which will change television broadcasting from being a broad pushmedia, in the near future, to delivering a large amount of segmented channels with targeted pullservices customized to mobile usersqconstant changing demands and uses+(ITU, 2012c, Module 7, 1.5.1). This observation is also proclaimed by IDATE (2010, p.6) as it asserts that television broadcasting is evolving from mass market to atomized market.+

As television broadcasting is becoming digital, Naughton and Noam (2006, p.45; 2006, p.71) posit that the normal and predictable progression for television broadcasting is through the ubiquitous broadband internet as most of the next-generation communications applications are already transmitted over the internet and it is likely to become the major way to deliver television and other content+(Noam, 2006, p.71).

2.8 Drivers of convergence in the subscription television market

This section offers a summary of the drivers of convergence in the subscription television market whilst expounding on the effect of each driver on the communications industry and the subscription television market. Having shown the impact of convergence on the

entire communications industry, the broadcasting sector and society it is important to understand the drivers of this process.

Convergence in the subscription television market is driven mainly by developments that affect three main stakeholders. These developments are consumer-driven trends, advertiser-driven trends and the communications industry trends (McPhillips & Merlo, 2008, p.242).

The first industry-wide driver of convergence in the market is globalisation. As the internet connects most geographic markets it opens immeasurable opportunities for firms in the communications industry to grow and collaborate on a global scale. The second industry-wide driver of convergence in the market is horizontal Integration in the communications industry worldwide. As boundaries between sectors in the communications industry blur due to convergence of technologies firms have merged horizontally in pursuit of new profitable business opportunities, business continuity and improvements in operational efficiency (McPhillips & Merlo, 2008, p.242).

The third industry-wide driver of convergence is the consolidation of ownership. As firms in the industry merge the structure of the communications industry changes and new patterns of ownership begin to emerge. Empirical evidence from both media, technology and telecom markets suggest that the mass market will become dominated by a few major players, with a few niche operators operating in specialist areas. Mid-sized operators will struggle to find scale to compete with the larger firms. It is likely that there will be a polarisation in the industry structure, as both global conglomerates and small independent media owners co-exist (McPhillips & Merlo, 2008, p.243).

The fourth Industry-wide trend that drives convergence is vertical disintegration. The rapid technological advancements enabled by digitization working in tandem with the growth in connectivity enabled by the ubiquitous internet have enabled content producers to bypass the television broadcasters and distribute their content independently thus challenging the dominance of the vertically integrated broadcasters over the entire value chain. This in turn presents new

development for the unbundling of services and vertical disintegration in the communications industry (McPhillips & Merlo, 2008, p.242 -244).

The last Industry-wide trend that drives convergence is the creation of new media channels. As technology evolve it presents new opportunities for growth and new channels for keeping the current audience and reaching new audience. %necessarily, new channels will be created, which will lead to new challenges and opportunities+ (McPhillips & Merlo, 2008, p.243). New channels such as IPTV offer subscription television broadcasters opportunities for growth and enables their audiences the freedom to view what they want whenever they want (McPhillips & Merlo, 2008, p.242 -244).

The first consumer trend that drives convergence is the democratization of content. The ubiquitous nature of the internet has empowered consumers to share and access professional content free of charge and free of advertising. This development challenges the current business model of the subscription television broadcasting as content producers do not derive maximum benefit for their work and their profits are reduced significantly. Thus digitization has turned the focus of content production to %being made for the people, by the people+ (McPhillips & Merlo, 2008, p.245).

The second consumer trend that drives convergence is the growth in User Generated Content. The rapid technological developments have led to the reduction of video production costs. This development together with the easy access to the internet has empowered consumers to produce and share their own content with the entire world. The third consumer trend that drives convergence is the growth in the personalization of schedules. The growth in STBs that have integrated Personal Video Recorders (PVR) has empowered audiences to record content of their choice with the aim of viewing it on their preferred device whenever they want. Thus, personalizing their viewing schedules according to their preferences (McPhillips & Merlo, 2008, p.245).

The fourth consumer trend that drives convergence is the growth in social networking and virtual reality (4). The growth of social networks has enabled broadcasters and content producers to deepen their engagement with their

consumers in order to become more relevant and to trial their potential offerings on social websites in order to gain feedback and produce content that will be well received (McPhillips & Merlo, 2008, p.246).

The last consumer trend that drives convergence is the divergence of consumer groups. As new technology develops subscription television audience is fragmenting into two major groups. The first group is comprised of technology savvy consumers who engage with technology, are proactive in choosing content and individualizing their viewing schedules. The second group is made up of passive consumers of pre-packaged television content. This puts pressure on subscription television broadcasters to consider divergent approaches in order to maintain market share through improved operational efficiencies, improved coordination of distribution channels and improved management of the supply chain (McPhillips & Merlo, 2008, p.245 -249).

The first trend that emanate from the advertisers that drive convergence in the market is the increase in distribution channels. Consumer empowerment and audience fragmentation has enabled consumers to avoid advertising messages. McPhillips and Merlo (2008, p.246) indicate that ~~ab~~ about 80% of viewers with PVRs avoid advertisements+. As a result advertisers reduce their expenditure on subscription television broadcasting and spread their messages through a variety of other distribution channels. This results in the need to review the current business model for subscription television broadcasting which comprise of advertisers contributing about 50 percent of subscription television revenue.

The second advertiser related trend that drives convergence is increased sophistication in advertising. As advertising become more sophisticated advertisers seek integrated advertising solutions. This puts pressure on subscription television broadcasters to be integrated with other modes of distribution. The third advertiser related trend that drives convergence is increased precision in advertising delivery. As STBs have become intelligent they have enabled personalization of viewing schedules and inevitably they will enable personalization of advertising delivery whereby ~~two~~ people with differing profiles will see different advertisements whilst watching the same show+ (McPhillips & Merlo, 2008, p.249).

The last advertiser related trend that drives convergence is the increase in audience-led delivery. Personalization of advertising delivery also includes the quest to increase the resonance of advertising through merging commercial messages into the content so that they are delivered at a time when consumers are engaged with the content+(McPhillips & Merlo, 2008, p.250). This will lead to the decline in the revenues of the subscription television broadcaster and puts urgent impetus to review the current business model for subscription television broadcasting (McPhillips & Merlo, 2008, p.249 . 250).

2.9 Impact of convergence on regulation in the television broadcasting market

This section presents the impact of convergence on the applicable regulatory frameworks in the television broadcasting market and the communications industry as a whole. The regulatory framework that is applicable in regulating the internet is presented as one of the benchmarks for developing the next-generation regulatory framework for television broadcasting in a converged market environment.

Convergence has influenced corporate strategies and firms financial considerations, in turn; these have resulted in mergers, alliances, vertical integration in some markets and the emergence of new sectors in the communications industry (Henten, Samarajiva & Melody, 2006, p.5). Convergence has also increased the pace of change in the rapidly innovating and constantly transitioning communications industry with positive social consequences+(Collins, et al., 2001, p.6). Thus, convergence is a catalyst for economic development and social welfare (Collins, et al., 2001, p.6). However, convergence has had an impact on the regulatory system as well. It has compounded the complexity of the fragmented regulatory frameworks where different services are regulated differently+(ITU, 2012c, Module 7, 2.2.4).

Most of the current regulatory frameworks in the television broadcasting markets were developed for a fragmented industry characterized by slow and incremental pace of change (Hitchens, 2011, p.237). As Waverman (2006, p.162) has observed these fragmented regulatory frameworks will be effective for some time; however, it seems that in the longer term they may be unsustainable+. Foster and Kiedrowski (2006, p.25) support this observation through their

assertion that the ongoing nature of the change underway will require a fundamental review of the approaches to regulation across a range of issues, and now is the time to prepare the groundwork for that review.

Naughton (2006, p.50) further states that the regulatory environment is constantly evolving and is becoming more richer, more diverse and immeasurably more complex because of the number of content producers, the density of the interactions between them and their products, the speed with which actors in this space can communicate with one another, and the pace of development made possible by ubiquitous networking.

As a result convergence is rendering the current regulatory frameworks ineffective and this is posing threats of unintended consequences and also reduces the impact of the intended consequences of regulatory interventions (de Lanerolle, 2011, p.49). One of the threats observed by Mayo and Cullum (2006, p.90) is that ineffective regulation can inhibit business creativity and innovation as incumbent businesses often use regulation to prevent or restrict competition, for example by setting unnecessarily high entry standards.

de Lanerolle (2011, p.49) summarise the relationship between convergence and regulation and the impact that both have on each other in Table 5 below. Table 5 indicates that the rapid and disruptive nature of convergence can render the regulatory framework obsolete and the regulatory framework can hinder the development of convergence and competition in the market.

Table 5: The relationship between regulation and convergence

<i>Impact of regulation on convergence</i>	<i>Impact of convergence on regulation</i>
Delay or enable convergent services Increase or limit competition	Render regulation ineffective Create new unintended consequences

Source: de Lanerolle, 2011.

In order to avoid the costly unintended consequences due to wrong regulation the current operating regulatory frameworks need to be reviewed in order to make them relevant to the ever changing regulatory environment (ITU, 2012c,

Module 7, 2.2.4; Waverman, 2006, p.158). This could release productivity gains from investment in the Next Generation Networks (NGN); also referred to as 21st Century Networks (21CN), and also provide regulatory certainty to the investors and the public (Waverman, 2006, p.158).

Furthermore, Noam (2006, p.71) has observed that ~~as~~ as the internet becomes the main platform for most media uses, the regulatory rules for the internet become the rules for much of the media system as a whole. And with the regulatory rules for the internet moving toward those of telecom, because the issues that led to telecom regulation . discrimination, market power, national security, consumer protection . are precisely the same issues being raised by the internet. It then follows that the telecom rules become the rules affecting all media. Therefore, television regulation will become telecom regulation.+ This observation is compatible with Giles (2006, p.105) assertion that television broadcasting market is not unique sector within the communications industry as it ~~is~~ currently shares many of its characteristics with the telecommunications and print publishing.+

As regulators consider introducing new regulatory frameworks that will enable migration from the outdated and unsustainable fragmented regulatory frameworks of the past. The internet will stand out as the preferred platform of delivery for the entire communications industry and will present a new paradigm for consideration in developing new and effective regulatory frameworks.

2.10 Analytical Framework

This section presents the analytical framework that will applied by this research study to assess the presence of barriers to enter the South African subscription television broadcasting market and their effects on market structure and diffusion of convergence in the market. The background to the definition of barriers to entry is provided and the definition to be applied by this study is clarified.

As Bergman, *et al.*, (1998, p.8) and Buigues (2006, p.12) have indicated that the communications industry requires ~~regulation~~ regulation due to the existence of high and non-transitory entry barriers, the existence of natural monopolies issues and the prevalence of vertically integrated firms in the industry+. This research study seeks to evaluate the presence and structural effects of barriers to entry in the

South African subscription television market and the role of the regulatory approach in enhancing competition and convergence in this market. The study will apply the seven step procedure for assessing entry conditions in the telecommunications sector as an evaluative framework (Park, 2009, p.43).

The Office of Fair Trading (OFT) in the United Kingdom published a report in 1994 that suggested best practices in evaluating barriers to entry in the telecommunications sector. This report also proposed methods to appraise the existing barriers to entry. The OFT proposed the seven step procedure for assessing entry conditions in the telecommunications sector (Park, 2009, p.43). This procedure has been used worldwide to appraise the incumbents' market power or evaluate the impact of the requested mergers on market competition (Park, 2009, p.43).

The seven step procedure for assessing entry conditions identifies barriers to enter a market as a critical element in the formation of a market structure as they influence and determine the market share and they also confer market power to the incumbent firms (Park, 2009, p.1). As a result, the presence of high entry barriers leads to high prices and their presence is detrimental to allocative efficiency and productive efficiency (Park, 2009, p.34).

Unlike other industries the communications industry is characterised by the existence of high sunk cost, essential facilities, economies of scale and network externalities (Park, 2009, p.34). All these indicate prohibitive presence of diverse barriers to entry and they are also an indication of an imperfect market. Thus, the communications industry is not a level playing field as there is neither natural market contestability nor sustainable competition.

2.10.1 Barriers to entry

This sub-section presents the different economic views to defining barriers to entry. The sub-section underscores the recommended definition to be applied by this study as well.

Although there is no coherent and popularly used definition of entry barriers, Park (2009, p.34) describes barriers to entry as factors that halt or make it difficult for new competitors to successfully enter a market in which they have not previously competed. This definition will be applied throughout this research

study as a scope to assess possible barriers to enter the South African subscription television broadcasting market. The lack of coherence in defining barriers to entry stems from the difference of focus in the application of the economic literature; whether the focus is on excessive profits of incumbents or cost difference between incumbents and new entrants+(Park, 2009, p.35).

Bain (1956, p.3) defined barriers to entry as an advantage of established sellers in an industry over potential entrant sellers, which is reflected in the extent to which established sellers can persistently raise their prices above competitive levels without attracting new firms to enter the industry+. Bain's focus was on the market conditions that could lead to incumbents gaining excessive profits as a result of the state of entry into the market and his theoretical assumptions were based on the structure-conduct-performance theoretical framework (Park, 2009, p.36).

On the other hand, George Stigler refuted the assertion that absolute cost advantages, capital requirements and economies of scale form part of barriers to entry as identified by Bain (Park, 2009, p.36). Stigler represents the Chicago School of thought. He defined barriers to entry as a cost of producing (at some or every rate of output) which must be borne by firms which seek to enter an industry but is not borne by firms already in the industry+(Stigler, 1968, p.67).

The Chicago school focuses on the costs that must be borne by an entrant to a market that need not be borne by an incumbent+ (Park, 2009, p.36). This definition emphasizes the relative position of the new entrant and the incumbent post competition in that the incumbent and the new entrants would not be equally efficient after the costs of entering are taken into account+(Park, 2009, p.36). The new entrant would have to incur costs to enter the market that need not be borne by an incumbent+(Park, 2009, p.36). This is referred to as cost asymmetry; it highlights the costs differentials between the new entrant and the incumbents (Park, 2009, p.36).

Park adopted a new theoretical and empirical analysis+from other scholars and identified various factors that could act as barriers to entry. These factors are segmented into various categories depending on the type of conditions that they

emanate from. Barriers to entry are grouped as either: ancillary barriers, antitrust barriers, artificial barriers, economic barriers, natural barriers, standalone barriers, strategic barriers and/or structural barriers to entry (Park, 2009, p.35).

2.10.2 Barriers to enter the South African subscription television broadcasting market

This sub-section presents the potential barriers to enter the South African subscription television broadcasting market as identified by the sector regulator in 2004. This sub-section also outlines the link between these barriers and the analytical model.

In 2004, before the advent of competition in the South African subscription television broadcasting, ICASA published a discussion paper named: Inquiry into subscription broadcasting. At that time ICASA (2004, p.32 . 45) indicated that there were a variety of potential barriers to enter the South African subscription television broadcasting market. These barriers were grouped into two categories; namely; technological and competition barriers to entry. The interview protocol provides a summary of these potential entry barriers to the South African subscription television broadcasting market.

The focus of this research study is to determine whether these potential barriers as identified by ICASA have transformed into real entry barriers or they are no longer applicable to the South African subscription television broadcasting market. In addition this study examined the presence of entry barriers as explicated in the analytical framework. The study then examined the effect that all these barriers; that is if they are real, have had on competition and convergence in this market. The study also examined if the regulatory approach is a barrier to enter this market and the effect that the regulatory approach has had in addressing these barriers, promoting competition and enhancing convergence in this market.

The competition barriers to enter the South African subscription television market as identified by ICASA (2004, p.32 . 45) are complex, high level and do not provide details of their composition. For an example market power, control over the value chain, access to key rights and costs of programming rights as barriers to entry could emanate from a range of issues in the market including other low level technical barriers as explained in the analytical framework (ICASA, 2004, p.32 . 45). By focusing and addressing these low level technical barriers the

composition of the high level barriers can be easily explicated. The analytical framework for investigating barriers to entry as formulated by Park (2009, p.34) provides a detailed method to assess these barriers and their composition. The link between the potential entry barriers as identified by ICASA and the potential entry barriers in an advanced telecommunications market as identified by the analytical framework is provided in section 3.8 of Chapter 3.

2.10.3 Analytical framework in detail

This sub-section explicates the analytical framework that will be applied in this research study. The steps involved in the framework are clarified and explained in detail. The sub-section also clarifies the location of the framework in both economic and communications literature.

An analysis of barriers to entry is regarded as a valuable exercise in identifying market power within an economic sector (Park, 2009, p.35). Park illuminated both the economics; in particular the industrial organisation, and the telecommunications literature by bringing attention to a variety of factors that could hinder or complicate successful entry into the advanced telecommunications network market in the future+ and he introduced an analytical framework that could be applied to evaluate barriers to enter this market (Park, 2009, p.35).

Park (2009, p.43) used the OFT's seven step procedure for assessing entry conditions in the telecommunications sector and the modified eight step procedure by Kim and Lee (2005) to develop an analytical framework. The eight steps that form this analytical framework are: (1) the establishment of market boundary and production substitutability, (2) market conditions and the record of entry and exit, (3) absolute cost advantages of the incumbents, (4) sunk cost, economies of scale and capital requirements, (5) product differentiation, advertising, switching cost, and network externalities, (6) vertical foreclosure and exclusion, (7) predatory behaviour, and (8) entry impediments such as certification requirements and required time to build up brand name+ (Park, 2009, p.43).

Step 1: Market definition and production substitutability.

This step seeks to determine the nature and intensity of competitive rivalry in the defined market segment. Production substitutes are included within the market frontier as the focus is entirely on demand substitutability (Park, 2009, p.43).

Step 2: Assessment of market conditions and historical entry and exit patterns.

This step seeks to determine the historical performance of firms within the market boundary; particularly recent performance. Included in this step also is the recent historical patterns of entry and exit in the defined market (Park, 2009, p.43).

Step 3: Appraisal of incumbents absolute cost advantages.

Park (2009, p.44) defines absolute cost advantages as costs which must be borne by the entrant but not by incumbents. Examples include exclusive or superior access by an incumbent firm to particular necessary inputs such as patents, copyright, exclusive contracts with input suppliers, ownership of a network, etc. Most legal and regulatory barriers to entry come under this heading. Cost asymmetries due to superior efficiency of incumbents, however, should not be included.

Step 4: Assessment of sunk cost, economies of scale and capital requirements.

This step seeks to determine the interaction of sunk costs, economies of scale and the expected price of products after entry in creating barriers to enter the defined market. This step also investigates the expected intensity of competition after new entry (Park, 2009, p.44).

Step 5: The effect of product differentiation, advertising, switching cost and network externalities on competition.

Firms differentiate their products in order to gain strategic competitive advantage and lessen the likelihood of price competition. However, in industries where products are differentiated advertising, brand proliferation and goodwill have been identified as possible important sources of (strategic) barriers to entry in some circumstances. If sunk costs are required to advertise or establish a

market presence, etc. then entry is in general more risky, and incumbents may be in a position to exploit first mover advantages. The rapid development of technologies has made it possible to produce a variety of services in the telecommunications industry and this makes product differentiation and advertising more critical strategic barriers to entry+(Park, 2009, p.44).

Step 6: Appraisal of vertical foreclosure and exclusion.

This step investigates the impact of a range of business practices such as vertical integration and vertical mergers, exclusive dealing and contracting, exclusive territories and franchising, exclusive/long term contracts with customers, refusal to supply, and product tying and bundling, etc+on completion in the defined market (Park, 2009, p.44). There is a strong tendency of vertical integration by networks in the telecommunications sector and new entrants based on structural separation are likely to fail because they would increase rather than reduce uncertainty+(Park, 2009, p.44). As a result, it is difficult to assess what will be the impact of these business practices on competition in the defined market.

Step 7: Determining predatory behaviour.

One of the dominant behaviours of the incumbent firms when faced with new entrant into the market is to set the price below the reasonable cost either to squeeze rival firms out of the market or to deter the entry of potential competitors. If it were successful, the incumbent would be able to dominate the market and enjoy monopolistic pricing+(Park, 2009, p.45). This behaviour is referred to as predatory pricing. Regulators have to distinguish between normal competitive behaviour and predatory pricing behaviour.

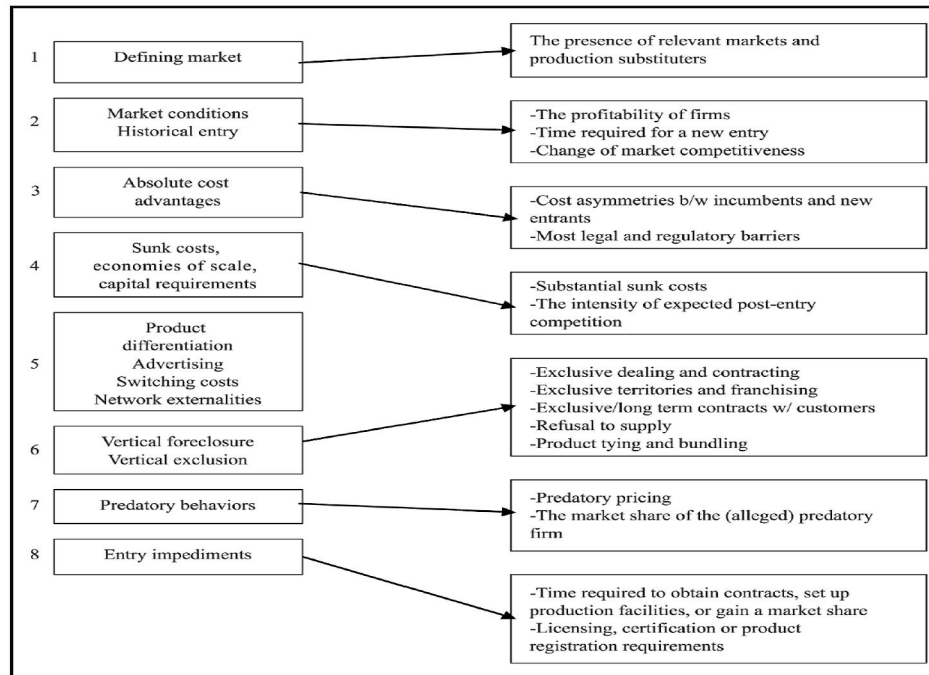
Step 8: Appraisal of entry impediments.

Park (2009, p.45) describes entry impediments as any factors which delay the process of entry into a market without increasing the (sunk) costs of entry, or creating an asymmetry between incumbents and entrants Good examples of entry impediments are licensing, certification or product registration requirements which involve little or no actual costs, but take significant amounts of time to satisfy. Other examples include the time required to obtain contracts (i.e. where the market's products are sold via long term contracts), set up production

facilities, or gain a market share large enough to significantly influence the behaviour of incumbents.+

Figure 15 below provides a summary of the eight step procedure and the factors that should be given attention in each step in order to ease entry into the highly developed telecommunications network market.

Figure 15: The evaluative steps to determine entry conditions



Source: Park, E.A. (2009).

2.10.4 Regulatory Impact Assessment (RIA)

This sub-section presents the theoretical location of the analytical framework in regulatory literature. It also outlines the relevance of regulatory impact assessment in a regulatory state.

The seven step procedure for assessing entry conditions forms part of the Regulatory Impact Assessment/Analysis (RIA) and it is used to determine the appropriate regulatory framework for the markets. RIA is an integral part of the three key results that must be considered in order to apply ex ante regulatory regime. These are the results of (i) the assessment of market entry conditions, (ii) assessment of the intensity of competition in the market and (iii) the most

efficient governance of public resources (ITU, 2012b, Module 6, 2.2). The seven step procedure for assessing entry conditions provides a remedy to the first two assessments and the third result can be provided by the other components of RIA.

The scope of RIA is broad; it ranges from appraising the economic activities of small units, i.e. a firm, to the whole economic sectors, competitiveness and the overall economic impact of regulations. RIA can also be used to appraise the effects of proposed regulations on public administration (e.g., other departments, schools, hospitals, prisons, universities) and sub-national governments (Radaelli & De Francesco, 2010, p.280). As the seven step procedure for assessing entry conditions seeks to appraise competitiveness, particularly in the telecommunications sector, it forms a fundamental constituent of RIA.

RIA is aimed at improving the quality of regulatory decision-making and, as such, it is hailed as a crucial part of the smart regulatory state (Radaelli & De Francesco, 2010, p.279). Radaelli and De Francesco (2010, p.279) indicate that the decision-making in the regulatory process is influenced by: (i) the inputs of trusted experts, (ii) consensus by principal stakeholders, (iii) party-political inclinations, (iv) benchmarking to determine best practice and (v) empirical evidence from controlled research and in-depth analysis.

RIA forms part of the empirical approach to regulatory decision-making and, as such; its application can lead to improved decision-making that is based on research evidence (Kirkpatrick, 2001, p.10). RIA is widely used as an assessment framework to provide the costs and benefits analysis (positive and negative impacts) of existing or potential regulatory measures in order to improve transparency and accountability in regulatory decision-making (Kirkpatrick, 2001, p.3; Radaelli & De Francesco, 2010, p.279). RIA is a Social-Impact Assessment (Neuman, 2003, p.29).

2.11 Summary

Literature review indicates provides numerous concepts to assess the effect of regulatory approach on market performance. Globalisation, consumer welfare and economic development are some of the crucial factors that led to the

introduction of regulation in the communications industry worldwide. Social, economic and technological developments have an impact on regulation and as such introduce an element of change in the applicable regulatory approach. Light-touch, heavy-handed and self-regulation regulatory approaches mirror the development of the regulated market. As a result an effective regulatory approach is aligned to the evolution of the market structure and reflects a balanced picture that encompass policy, public-interests and economic-interest views of the country. The quest to apply the most effective regulatory approach that satisfies the interests of all stakeholders introduces regulatory assessment tools that are aimed at determining the appropriate regulatory approach to promote consumer welfare and socio-economic development.

CHAPTER 3: RESEARCH METHODOLOGY FOR THE STUDY OF THE EFFECTS OF REGULATORY APPROACH ON COMPETITION IN THE SOUTH AFRICAN SUBSCRIPTION TELEVISION BROADCASTING MARKET

This chapter provides a description of the research methodology that was applied by this study. It details the research orientation of the study. It introduces the qualitative applied research orientation of the study as well as the research tool that will be used in this study. The descriptive case study dimensions of the research are presented. Field research data collection methodology, the purposive sampling methodology and the population of this study are explained. Data analysis methodology, the data themes that emerged and the link between the research questions, the data themes and the analytical framework are presented.

3.1 Research methodology

This is a qualitative applied research study. Qualitative style of research is selected for this study as it allows for direct observation and participation in a small-scale social setting, on a real-time basis and in the home culture of the researcher (Neuman, 2003, p.378). Thus, qualitative style of research provides the researcher with the opportunity to engage and observe a dynamically changing and emerging environment such as the communications industry and the South African subscription television broadcasting market in particular.

Applied research address a specific concern that affects a researcher's community and it is usually a quick and small-scale study with a focus on providing practical results (Neuman, 2003, p.25). Applied research is appropriate for this study as it affords this researcher an opportunity to rapidly assess a specific concern of the influence of regulatory approach on competition in the South African subscription television broadcasting market in a rigorous and intimate manner. Thus this study is an evaluation research.

Evaluation research is one of the three major types of applied research. It seeks to assess the effectiveness of a program, policy or a way of doing things (Neuman, 2003, p.26). This study is an evaluation research that seeks to find out if the current regulatory approach in the South African subscription television

broadcasting market is effective in encouraging competition in the market. Applied research seeks to address a specific concern with the aim of offering a practical solution to a current problem (Neuman, 2003, p.25). The results of this applied research will aid this researcher to present a practical solution to the problem of how regulatory approach influences competition in the South African subscription television broadcasting market.

Applied research normally uses needs assessment and cost-benefit analysis as tools during the study (Neuman, 2003, p.30). The tool that this research will apply is the seven step procedure for assessing entry conditions in the telecommunications sector (Park, 2009, p.43). This tool is part of the Regulatory Impact Assessment/Analysis (RIA) framework.

RIA is widely used as an assessment framework to provide the costs and benefits analysis (positive and negative impacts) of existing or potential regulatory measures in order to improve transparency and accountability in regulatory decision-making (Kirkpatrick, 2001, p.3; Radaelli and De Francesco, 2010, p.279). Application of this tool will aid the researcher in assessing both the positive and negative impacts of the current operating regulatory approach in the South African subscription television broadcasting market.

3.2 Research design

This purpose of this study is both descriptive and explanatory. Neuman (2003, p.33) observed that research studies may have multiple purposes. The descriptive element of the purpose of this research study is to describe in detail how the regulatory approach affects competition in the South African subscription television broadcasting market. Descriptive research is aimed at providing an accurate picture of the research area and it is focused on the how and why questions (Neuman, 2003, p.35).

Descriptive research focuses on providing an accurate picture of the causal relationships (Neuman, 2003, p.34). Thus, this study will afford the researcher the opportunity to report on the causal process between regulatory approach and competition (Neuman, 2003, p.35). The descriptive design approach will enable this study to provide a descriptive detail of the influence of regulatory

approach on competition and identify the role players in the South African subscription television broadcasting market (Neuman, 2003, p.35).

The explanatory element of the purpose of this research study is to explain the entry barriers in detail as they affect the state of competition in the South African subscription television market. This correlates with the observation by Neuman (2005, p.35) that explanatory research seeks to explain the background to events or occurrences. This will be beneficial as the South African subscription television broadcasting market has not been researched extensively.

The case study dimension is chosen as the appropriate research time dimension for this study as it allows for an in-depth examination of an extensive amount of information about very few units or cases for one period or across multiple periods of time+ (Neuman, 2003, p.40). Leedy and Ormrod (2005, p.144) observed the benefit of a case study as its ability to provide a greater understanding of a phenomena.

A case study research enables an in-depth analysis of a very few units. It is deemed appropriate for this research as enables a detailed research of the South African subscription television broadcasting market with a focus on few units that are operational in this market. The time dimension of this research is over one period of five years. Starting from the moment that competition was introduced in the South African subscription television broadcasting market; that is 2007, until the end of 2012.

3.3 Interview guide

The interview guide that was designed and administered for the study is attached as Appendix A. The questionnaire included an explanation of terms and concepts used in order to clarify all the variables and to avoid confusing the respondents (Neuman, 2003, p.277). The questions were written in simple corporate English. Each question focused at a particular area avoiding an overlap of responses. As a result, the study avoided the use of double-barrelled questions (Neuman, 2003, p.278).

The wording of the questions also shunned from leading the respondents into a particular choice thus giving legitimacy to each respondents views (Neuman, 2003, p.279). The questions were developed with a focus on the South African subscription television broadcasting market and were worded to match the capabilities of the respondents in this market. This ensured high-quality responses. In order to keep the study relevant and meaningful both validity and reliability measures were considered when developing survey questions.

3.4 Reliability and validity

For a study to be credible and acceptable academically it has to be reliable and valid (Neuman, 2003, p.188). Reliability means that the study is consistent. This study focused on reliability through posing questions with clear meaning, repetition of the same research questions sequentially throughout all the interviews, ensuring that the respondents understanding was consistent with the study and by providing a consistent explanation of questions and terms used.

Validity on the other hand means that the study is plausible; that is, it provides a fair depiction of reality. Firstly, to ensure internal validity and to minimise biases the researcher considered theory of telecommunications regulation, literature on competition economics and several sources of diverse empirical data so that the results of the study are neither exclusive nor a repetition of one truth in the world (Neuman, 2003, p.197). Neuman (2003, p.150) refers to this as theoretical triangulation.

External validity was ensured through the collection of secondary evidence from international regulatory reports, industry research reports, annual corporate reports and newspapers. These were accessed electronically from various corporate websites. Official records were reviewed to provide diversity in observer triangulation and to make the study plausible (Neuman, 2003, p.50). Data collected from the respondents was compared between individual responses, secondary evidence and official records for further triangulation. Both theoretical and observer triangulation assisted in viewing the research problem from different angles or viewpoints (Neuman, 2003, p.149).

3.5 Sampling methodology

The population of the study was made of the current players in the communications industry including the licensed subscription broadcasters, potential competition and academics. The purposive sampling method was used as it complies with field research and it also accommodates the collection of data from the experts. The study focused on gaining knowledge from the experts as they have more technical and valuable knowledge than the public concerning the South African subscription television broadcasting market.

This focus on expert knowledge is complimentary to the descriptive research which aims to paint an accurate picture of the research area. The purposive sampling method allows for in-depth examination of the research area which complies with the case study research orientation that is chosen for this study (Neuman, 2003, p.222). This also correlates with the evaluation applied research which uses the inputs of trusted experts and principal stakeholders to gather data that will be used as empirical evidence from controlled research and in-depth analysis to determine best practice (Radaelli & De Francesco, 2010, p.279)

Table 6 below provides a snapshot of the experts who participated as respondents in this research study and their professional location in the communications industry.

Table 6: Sample composition

Sample	Number	Name
Subscription television licensees	1	ODM
Network providers	2	Cell C and Sentech
Industry opinion makers	2	Academic and communications industry legal expert
Content production	1	Independent television content production firm
Industry	3	Southern African Digital Broadcasting

Associations		Association (SADIBA), South African Communications Forum (SACF) and the MDDA
STB manufacturers	2	Reunert and one emerging STB manufacturer

The expert respondents came from different areas and had different roles in the communications industry; as indicated in Table 5 above. This was informed by the researcher's responsibility to obtain a variety of views. However, they were all aware of the developments in the subscription television market particularly regulatory dynamics which are similar to other markets and sectors in the South African communications industry.

Two experts in the field of regulation from the dominant operator were requested to participate in this research study. One was on extended leave and the other declined (through ignoring numerous requests) to participate in the study. Five requests were sent to the experts in the field of regulation based in the newly licensed firms. Only one senior expert from the new entrant accepted the request and participated in the study.

Three requests were sent to the experts in the field of regulation based in the network providing firms; two accepted the request and participated in the study. Three requests were sent to the ICASA councillors, all declined (through ignoring numerous requests) to participate in the study. Seven requests were sent to academics and industry opinion makers; two accepted the request and participated in the study. Two experts in television content creation were requested to participate in this research study; one declined stating possible biasness. Three requests were sent to the experts in the industry associations; all accepted the request and participated in the study. Three requests were sent to the experts in the STB manufacturing firms; two accepted the request and participated.

Eleven experts responded to all the questions posed. This number of respondents was acceptable to the researcher as the case for a South African

master's level study usually ranges between five and twenty five respondents. A sample consisting of eleven responses from experts in the field is large enough to ensure validity and reduce biases in the study (Babbie & Mouton, 2004, p.287; Galpaya & Samarajiva, 2009, p.3).

3.6 Data collection

This research study applies two main data sources. That is the data collected from interviews and data from official records.

Official records were reviewed to reveal and analyse relevant historical data and to highlight the decision-making processes and patterns of the sector regulator. The ICASA website contained some records which mainly dealt with recent events. The researcher searched the Internet for official documents relating the historical events in the South African subscription television broadcasting market. The documents sourced from both the ICASA website and the World Wide Web are used for the review of official records. The rich data and information relating to historical and current events from these sources assisted in providing guidance for the interview process.

Data was collected from the respondents using the field research method whereby the researcher directly observed, interacted and recorded notes on people in their natural setting+ (Neuman, 2003, p.46). Field research is applicable to descriptive studies and it is usually used in such studies (Neuman, 2003, p.46). Prospective interviewees were contacted through e-mail and thereafter telephonically to explain the data collection process. All potential respondents were sent the brief explanation of the research and the interview questions beforehand. Thereafter, appointments for interviews were made with all those who agreed to participate as respondents in the study.

Field research method added value to this study as it allowed for the understanding, knowledge, opinions and experiences of the respondents to be probed, clarified and noted (Neuman, 2003, p.46). One respondent completed the questionnaire on his own and sent his responses back via e-mail. In order to gain clarity the researcher then contacted this respondent telephonically to

explain some of his responses. All the research answers were used as raw data for to be analysed.

The application of the field research and the review of official records methods are complimentary as they both seek to inform the study using credible data from the industry experts.

3.6.1 Interview method

Face-to-face interviews were administered during the study as they have an advantage of yielding the highest response rates, accommodating open-ended questions and permitting extensive probing (Neuman, 2003, p.301). Thus, Face-to-face interviews enriched the study as it allowed variety of divergent views to be expressed and for the interview process to be in-depth. Thus, face-to-face interviews generated adequate data from the respondents on the research topic (Neuman, 2003, p.458).

Table 7 below presents the identity codes allocated to the respondents, the reason for the inclusion of these experts in the study and the dates of the interviews. Respondents are allocated identity codes to conceal their identities.

Table 7: Respondents’ identity code and the reason for inclusion in the research study

Respondent's code	Reason for selection	Interview date
Subscription Television Broadcasting Firm Representative (STBFR)	Licensee: active competitor. To present the perspective of the new entrant	8 November 2012
Telecommunications Firm Representative (TFR) ❖ Former advisor to the Minister of Communications in South Africa	Potential competitor in a converged communications environment	1 November 2012
ICT Law Expert (ICTLE) ❖ Former ICASA Councillor	Industry expert	30 October 2012

Emerging Manufacturer Representative (ESTBMFR)	STB Firm	Active competitor in STB manufacturing	26 and 29 October 2012
Signal Distribution Representative (SDFR)	Firm	Sector signal distributor	16 November 2012
Broadcasting Technical Representative (BSTBR)	Sector Body	Sector technical expertise	24 October 2012
Communications Industry Scholar (CIS) ❖ Former advisor to the Minister of Communications in South Africa	Industry	Industry scholar	25 October 2012
Independent Broadcasting Producing Representative (ITBCPFR)	Television Content Firm	Content production expertise	7 November 2012
Communications Industry Monitoring Representative (CIMFR) ❖ Former ICASA Councillor	Industry Firm	Communications industry knowledge	26 November 2012
Communications Industry Body Representative (CIBR)	Industry Representative	Communications industry knowledge	9 November 2012
Dominant Manufacturing Representative (DSTBFR)	STB Firm	Active competitor in STB manufacturing	Sent a responses to the questioned posed in the interview guide

3.7 Data analysis

The direction of theorizing of this study is deductive. Deductive theorizing begins with a stated theoretical proposition that outlines the logical connection between concepts and then move towards concrete empirical evidence+ (Neuman, 2003, p. 59). This study's proposition is that generally regulatory approach aims to increase competition in the market by reducing existing barriers to enter the market. This means that there is a relationship between regulatory approach and competition.

To analyse this social reality the meso-level theory of analysis is applied in this study. Meso-level analysis focuses on the relationships between organisations, communities and social movements. Meso-level analysis looks at the impact of actions of these organisations, communities and social movements and events facilitated by them over a moderate period of time (Neuman, 2003, p. 61).

Meso-level analysis compliments the case study dimension as it allows for the research on cases for one period or across multiple periods of time+ (Neuman, 2003, p. 40). Meso-level analysis enabled the study to investigate the impact of regulatory approach applied by ICASA (the organisation) on competition, convergence (social movements and events) and on the players (the community) involved in the South African subscription television broadcasting market.

To explain this social reality in detail and to ensure relevance to the global communications industry, the focus of analytical theory used in this study is substantive theory (Neuman, 2003, p. 62). Substantive theory enabled the study to be focused on the research area and to apply theories that are already applicable in the fields of broadcasting, telecommunications and economics.

The use of these already existing theories enabled the study to offer powerful and relevant explanations of events and social movements in the South African subscription television broadcasting market. This in turn, enabled the in-depth examination of the South African subscription television broadcasting market as is required in a case study (Neuman, 2003, p. 62).

The interpretive theoretical explanation is applied to ensure fair explanation of the social reality. The primary goal of interpretive explanation is to promote understanding through observation and interaction with the research area (Neuman, 2003, p. 72). The social movements and events in the South African subscription television broadcasting market are analysed, explained and interpreted according to the analytical framework detailed in Chapter 2.

Contrast context analysis method was applied as it complements the interpretive theoretical explanation and also enabled the study to thoroughly interpret each case and highlight the impact of each case within the research area (Neuman, 2003, p. 468). The contrast context analysis enabled the study to contrast the events within the South African subscription television broadcasting market with the ideal scenario as presented by relevant literature.

The range of theorizing and interpretation is based on the OFTC's seven evaluation steps procedure, the modified eight step procedure by Kim and Lee (2005). The analytical framework includes elements of the Structure-Conduct-Performance (SCP) theoretical framework to relate the presence of potential entry barriers to the behaviour of the operators in the market (Park, 2009, p.48).

These theoretical frameworks provided assumptions, concepts and forms of explanation (Neuman, 2003, p. 74). The SCP framework is applied intensively across the world in analyzing the communications industry and its sectors (Fu, 2003, p.275). The SCP evaluates the interaction between market structure, conduct of the incumbents and industry performance. Fu states that the SCP presents a logical, systematic guideline for formulating theoretical models and crafting empirical examinations of the operation of a media market. Its merit also lies in normative implications it generates that can benefit the making of policies and regulations on media industries (Fu, 2003, p.275).

Themes were developed to classify data collected in order to separate data into categories, free the researcher from entanglement in the details of raw data and enable the researcher to develop a holistic outlook on the data (Neuman, 2003, p. 461). In developing these themes the study followed the steps expounded by Leedy and Ormrod (2001, p. 140) which include:

Statement identification: statements from the interviews were classified according to relevance (relevant v/s irrelevant). Relevant statements were broken down according to themes that reflect specific thoughts.

Data grouping: Data was categorized according to topics that were found in the data. Data patterns: Divergent experiences were examined for interpretation of information.

Composite Construction: Overall descriptions, conclusions and implications were developed.

The themes were developed based on the main and secondary questions of the study and were aligned with the OFTC's seven evaluation steps procedure and the modified eight step procedure by Kim and Lee (2005) as discussed in Chapter 2. The research questions and themes are discussed in the following section.

3.8 Research questions

As indicated in Chapter 1 the subscription television market is positioned for substantial growth in the future. In South Africa it is predicted to continue growing being driven mainly by the rising black middle class households who premium information and entertainment. However, the South African subscription television broadcasting market has challenges that relate to lack of constructive competition and lack of convergence emanating from a regulatory framework that does not address interconnection and interoperability which are the pillars of competition in the communications industry. The research questions are informed by the purpose of this study which is to investigate the effect of the regulatory approach on competition in the South African subscription television market. The research questions are:

Main question

How can the subscription television regulatory approach be updated to promote competition and convergence in the market?

Secondary questions

The main research question has five secondary questions which are linked to the OFTC's seven evaluation steps procedure and the modified eight step procedure by Kim and Lee (2005) and the potential entry barriers for the South

African subscription television broadcasting market as identified by ICASA in 2004.

Table 8 below indicates the linkage between the research secondary questions, the analytical framework and the identified potential barriers to enter the South African subscription television broadcasting market. The analytical framework identifies potential entry barriers that may be found in %advanced telecommunications network market in the future+ (Park, 2009, p.35). The potential barriers to entry that were identified by ICASA and those identified by the analytical framework are also linked. The potential technological barriers as identified by ICASA are linked mainly but not exclusively to Step 3, 4 and 5 of the analytical framework. Steps 3, 4, and 5 of the analytical framework relate to the %absolute cost advantages of the incumbents (Step 3), sunk cost, economies of scale and capital requirements (Step 4) and product differentiation (Step 5)+ (Park, 2009, p.43). The potential competition barriers as identified by ICASA are linked with all the steps of the analytical framework as they deal with wide ranging but specific potential barriers which may affect competition currently and in the future in an advanced market like the South African subscription television broadcasting market. The research secondary questions are linked either to the potential barriers as identified by ICASA and/or the potential barriers as identified by the analytical framework depending on the relevance and scope of the question.

Table 8: Link – secondary questions, data themes and the analytical framework

Secondary questions	Themes	ICASA's potential entry barriers	OFT's Seven Step procedure and the modified Eight Step Procedure
(a) What are the barriers to enter the South African	The existence of barriers to enter the market	Technology and competition barriers to	Steps 1 . 8

subscription television market?		entry	
(b) How do these barriers affect competition in the South African subscription television market?	Effect of barriers-to-entry on competition and convergence	Technology and competition barriers to entry	%Market conditions and the record of entry and exit+ (Step 2),
(c) How would a convergence approach in the subscription television market perceived by industry, the policy-maker, the regulator and other opinion-makers?	The state of competition in the market	Technology and competition barriers to entry	The establishment of market boundary and production substitutability (Step 1), %Absolute cost advantages of the incumbents+ (Step 3), %Sunk cost, economies of scale and capital requirements+ (Step 4), %Product differentiation, advertising,

			switching cost, and network externalities+ (Step 5), %Vertical foreclosure and exclusion+ (Step 6) %Predatory behaviour+ (Step 7)
	Bolstering competition in the market	Technology and competition barriers to entry	Steps 1 . 8
(d) How would a change in the subscription television licensing regime affect competition and convergence in this market?	The effect of change in the licensing regime on competition and convergence	Technology and competition barriers to entry	%Entry impediments such as licensing, certification requirements and required time to build up brand name+ (Step 8)
(e) How would heavy-handed regulatory approach, an alternative to the current operating light-	Heavy-handed regulatory approach versus light-touch regulatory approach	Technology and competition barriers to entry	%Absolute cost advantages of the incumbents+ (Step 3). %Most legal and

touch regulatory approach, affect competition in this market?			regulatory barriers to entry come under this step+ (Park, 2009, p.44)
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3.9 Summary

The research question for this study is: *How can the subscription television regulatory approach be updated to promote competition and convergence in the market?* The main research question has five secondary questions which are linked to the analytical framework and the research data themes.

This research study applies the descriptive and explanatory social science approach . which is concerned with providing an accurate explanation of the research area and the causal relationships between regulatory approach and competition in the South African subscription television broadcasting market (Neuman, 2003, p.34 . 35). This research study is a qualitative applied case study research. Qualitative applied research approach allows for direct observation and participation on a real-time basis in a %small-scale social setting+ (Neuman, 2003, p.378). This approach %address a specific concern and it is usually a quick and small-scale study+ with a focus on providing practical results (Neuman, 2003, p.25). The case study dimension allows for %an in-depth examination of an extensive amount of information about very few units or cases for one period or across multiple periods of time+ (Neuman, 2003, p.40). This study is an evaluation research which is one of the three major types of applied research and it seeks to assess the effectiveness of a program, policy or a way of doing things (Neuman, 2003, p.26). This is congruent with the objective of this study which is to assess the effectiveness of regulatory approach in order to promote competition and convergence in the South African subscription television broadcasting market.

This case study applies the less formal and less structured data collection methods . i.e. review of official records and semi-structured interviews. Semi-

structured interviews were conducted following the field research method as it allowed for the understanding, knowledge, opinions and experiences of the respondents to be probed, clarified and noted (Neuman, 2003, p.46). The sampling method used for the interviews is purposive sampling which allowed for in-depth examination of the research area and is complimentary to the descriptive research which aims to paint an accurate picture of the research area. (Neuman, 2003, p.222). This case applies the substantive analytical theory which enables the application of theories that are already applicable in the fields of broadcasting, telecommunications and economics whilst focusing on the research area (Neuman, 2003, p. 62).

The next chapter, Chapter 4, presents the results of this research study. Chapter 4 is divided into two sections. The first section of Chapter 4 presents the results from the review of official records whilst the second section of the same chapter presents the results from the individual interviews.

CHAPTER 4: RESEARCH FINDINGS ON THE EFFECT OF REGULATORY APPROACH ON COMPETITION IN THE SOUTH AFRICAN SUBSCRIPTION TELEVISION BROADCASTING MARKET

This chapter presents data as was obtained from the respondents. The interview guide that was administered and the questions which were answered by the respondents are included in Appendix A. The research questions were derived from the results of the inquiry into subscription broadcasting market published by ICASA in 2004 and the OFT's 'seven step procedure for assessing entry conditions' in the telecommunications sector which was modified by Kim and Lee (2005) to include the eighth step as presented in Chapter 2. The data is presented according to the derived themes as indicated in Chapter 3.

4.1 Review of official records

The ICASA website contained some records which mainly dealt with recent events. The researcher searched the Internet for official documents relating the historical events in the South African subscription television broadcasting market. The documents sourced from both the ICASA website and the World Wide Web are used for the review of official records and the regulatory decision-making processes of the sector regulator as is the norm in a smart regulatory state (Radaelli & De Francesco, 2010, p.279). RIA is applied in this research study as a regulatory tool aimed at improving the quality of regulatory decision-making (Radaelli & De Francesco, 2010, p.279). The rich data and information relating to historical and current events from these sources assisted in providing guidance for the interview process.

4.1.1 The existence of barriers to enter the market

In the year 2004 ICASA published a discussion paper named: Inquiry into subscription broadcasting. This paper indicated that there were a variety of potential barriers to enter the South African subscription television broadcasting market. These barriers are grouped into two categories; namely; technological and competition barriers to entry. These barriers are described in the detail in the attached Annexure A: Interview guide. These barriers are discussed in detail in section 4.2.1 below.

On 17 October 1995 M-Net obtained permission to broadcast to non-subscribers. This allowed M-Net to broadcast unencoded (the Open Window) during the daily time slot of 18h00 to 19h00 until 31 December 1988 or until such time as a subscription figure of 150 000 was reached. The licence was later amended to allow the Open Window to run from 17h00 to 19h00+ (ICASA, 2005, p.64).

ICASA's position paper on subscription broadcasting services stated that it would not be possible for new entrants to use open windows to access free-to-air audiences. The reasons provided related to spectrum scarcity and analogue v/s digital transmission platforms (ICASA, 2005, p.65).

Currently new entrants cannot promote their services on the incumbents' networks on equitable terms. This is mainly influenced by the decision reached in a judicial matter (*case 1990(4), SA 604(W)*) between Times Media Ltd and the South African Broadcasting Corporation (SABC). In this case the judge ruled that the *boni mores* of the market place did not require that the respondent (SABC) broadcast an advertisement promoting the interests of its competitor (ICASA, 2004, p.45). However, this decision could be circumvented by the reintroduction of Open Windows as was the case when M-Net entered the market (ICASA, 2005, p.64).

4.1.2 Effect of barriers-to-entry on competition and convergence

ICASA (2004, p.40) noted that MultiChoice had considerable head start in the market which provides it with unfair market advantage which could be a potential barrier to enter the market. This considerable head start endowed Multichoice with first-mover advantages. Atiyas and Dogan (2007, p.503) observed that once first-mover advantage results in dominance, that dominance is difficult to break.

ICASA summarised its regulatory responsibility relating to competition in the market as ensuring effective and sustainable competition whilst protecting the interests of the consumer (ICASA, 2004, p.40). Thus ICASA is responsible to oversee fair market conditions exist, such that all the participants are able to compete on an equal footing (ICASA, 2004, p.40).

The subscription television broadcasting licensing process of 2007 was aimed at increasing diversity and choice in programming and investment and growth in the industry+(ICASA, 2004, p.40). ICASA (2004, p.40) noted that %a market is dominated by a player with market power, such a player could charge monopoly prices and therefore undermine consumer interests+

The submissions by the Support Public Broadcasting Coalition (SOS) and etv state that the subscription broadcasting television market is %effectively monopolised+by MultiChoice and the %one struggling competitor, Toptv has tried to resort to porn channels to survive. The SOS coalition blames ICASA for failing to %ensure a thriving competitive subscription market+(ICASA, 2012, p. 39).

4.1.3 The state of competition in the market

During the stakeholder consultation process in relation to the Review of the Broadcasting Regulatory Framework the commercial free-to-air television broadcaster, etv, submitted to ICASA (2012, p. 38) that Multichoice's dominance is a threat to all broadcasters as it erodes the advertising base of all broadcasters, threatens the long-term viability of other broadcasters and undermines the public interest obligations of the free-to-air broadcasters.

During this process Kagiso Media urged the regulator to commit to increasing competition and the range of services offered by the subscription television market (ICASA, 2012, p. 38). Toptv the competitor to Multichoice is struggling to survive and the SOS puts blame on the regulator for failing to promote competition and challenging Multichoice's monopoly in the subscription television market (ICASA, 2012, p. 39).

From these submissions it becomes apparent that competition in the South African subscription television market is not effective and sustainable. This is contrary to ICASA's assertion that its main regulatory responsibility is to %ensure effective and sustainable competition whilst protecting the interests of the consumer+(ICASA, 2004, p. 40).

4.1.4 Bolstering competition in the market

The current regulations favour the dominant service provider and should be reviewed. This is supported by Kagiso Media's submission to ICASA (2012, p.38) during the Review of the Broadcasting Regulatory Framework as it requested for an inquiry into this market and the total overhaul of the regulations for this market in light of the migration to DTT and the future growth of broadband, particularly mobile broadband.

The review of the current regulations should prioritise and treat the regulation of premium content and sport broadcasting as urgent. Kagiso media is of the view that premium content and sport broadcasting market is headed for failure as they are controlled by the monopoly operators in the commercial broadcasting markets (ICASA, 2012, p.21). This view is supported by the SABC and the SOS who urge ICASA to intervene speedily and examine better ways to acquire, retain and use sport and premium content for the development of competition in entire commercial broadcasting markets (ICASA, 2012, p.22 -23).

Failure to review the current regulations will entrench anti-competitive behaviour by those commercial broadcasters who have monopoly over premium content and sport broadcasting rights.

4.1.5 The effect of change in the licensing regime on competition and convergence

During the licensing process ICASA decided not to issue technology neutral licenses as it had not developed a licensing framework congruent with the ECA. This restricted subscription broadcasting to satellite and cable transmission and excluded NGN transmission platforms (ICASA, 2007, p. 34).

This lack of technology neutral licensing framework will also result in the subscription television broadcasting markets having three sets of licences; one for satellite transmission, the other for cable transmission and the new one for DTT transmission. This will raise unnecessary administration burden and increase uncertainty in the market.

ICASA announced in 2007 that it was currently developing a licensing framework in terms of Chapter 3 of the ECA. ICASA further indicated that it will

comply with the requirements of section 2 (b) of the ECA with respect to technologically neutral licensing framework and thereafter align all licenses issued prior to the new licensing framework with the new framework+ (ICASA, 2007, p.34).

The market has been waiting for this alignment since November 2007 when the licensees were announced and there has not been an indication that this alignment will happen soon. This raises the concern that ICASA is not perturbed by the developments within the subscription television broadcasting market.

The costs associated with the granting, amendment and renewal of a license for subscription television broadcasting are steep and prohibitive. Stipulated by the subscription broadcasting services regulations of 2006 to be R70 000.00 for a license granting the use of one transmission platform and R100 000.00 for a composite license. An additional R5 000.00 is levied for the issuing of a license and annual license fees which are stipulated to be two percent of annual turnover. These costs do not include expenditure associated with pre-entry market research, administration costs and the costs for the authorisation of channels.

Section 30 (1) of the Broadcasting Act, 1999, which is applicable to commercial broadcasting services stipulate the following conditions for all commercial broadcasters %a) must provide a diverse range of programming addressing a wide section of the South African public; (b) must provide, as a whole, programming in all South African official languages;(c) may provide programming in languages other than South African official languages, where the Authority is convinced that such services can be commercially viable; (d) must within a reasonable period of time be extended to all South Africans and provide comprehensive coverage of the areas which they are licensed to serve+. These conditions together with the additional set of conditions applicable to subscription television broadcasting which were announced by ICASA (2005, p.58 . 56) impose extra costs on the new entrants.

Regulations on ownership limitations in the South African subscription television broadcasting are an anomaly as most of the OECD economies do not set foreign

ownership limitations on subscription television broadcasting (ICASA, 2004, p.12 . 13). These ownership limitations put a restriction on foreign direct investment (FDI) in the country, in the communications industry and in the sector. New entrants need these sources of income and expert relationships in order to pose a serious competition to the affluent dominant operator.

4.1.6 Heavy-handed regulatory approach versus light-touch regulatory approach

Light-touch regulatory approach was advocated for the sector by the Triple Inquiry Report that was commissioned by the IBA in 1995 (ICASA, 2007, p.12). During the stakeholder consultation process in relation to the Review of the Broadcasting Regulatory Framework the SABC argued for the retention of the light-touch regulatory approach in the South African subscription television broadcasting market (ICASA, 2012, p. 39).

Kagiso media, the SABC and the SOS coalition are of the view that premium content and sport broadcasting market is headed for failure as they are controlled by the monopoly operators in the commercial television broadcasting markets (ICASA, 2012, p.21). They urge ICASA to intervene decisively and speedily to examine better ways to acquire, retain and use sport and premium content for the development of competition in entire commercial broadcasting markets (ICASA, 2012, p.22 . 23). This indicates a need for intensified light-touch regulation in the market particularly on regulating premium content.

The subscription broadcasting services regulations of 2006 do not address competition matters in the market. They do not specify the role of the Competition Commission in the market, they do not address pertinent aspects raised in chapters 6, 7, 8 and 10 of the ECA as applicable to this market, they do not address barriers to enter the market and the thorny issue of exclusive content rights which have created a regulatory environment that favours the dominant operator at the expense of consumer welfare, competition and convergence in the market.

These regulations exhibit the position adopted by ICASA that the market is in phase 3 of regulation that is associated with intensified competition among the

operators. ICASA (2005, p.72) indicated this position by stating that %competition issues that arise need may be dealt with by way of general competition law+.

4.2 Field research

During the field data collection phase of this research study predetermined questions were posed to the respondents and their responses aggregated to form the data collected for the study. Responses to each question posed to all respondents were combined and presented in one section. In this section data is presented according to the themes that emerged from the aggregated data. A synopsis of the responses is provided to reveal meaning in order to address the question precisely. The synopsis is based on the responses that were received and do not change the actual response and meaning as was expressed by the respondents.

4.2.1 The existence of barriers to enter the market

This theme outlines the market boundary of the subscription television broadcasting market; it also highlights pertinent issues that affect production substitutability. An assessment of the development of potential barriers to entry as were identified by ICASA in 2004 is provided under this theme.

Table 9 below provides an indication of the respondent's views regarding the existence of barriers to enter the South African subscription television broadcasting market. It also point to the evolution of the identified potential barriers into real and existent entry barriers.

Table 9: Existence of barriers to enter the market – Summary of responses to interview questions

Existence of barriers to entry	Yes	No	Unclear
Are these barriers (being potential or real) still applicable in this market?	11	0	0
<i>The thrust of this question was to determine if there are barriers to enter the South African subscription television broadcasting market and identify if the potential barriers to enter this market as identified by ICASA in 2004 have evolved to being real and existent barriers to enter this market.</i>			

All eleven respondents believe that there are barriers to enter the South African subscription television broadcasting market and they all agreed that the potential barriers as identified by ICASA in 2004 have developed into real and entrenched barriers to entry. Respondents (STBFR and TFR) indicated that by virtue of requiring a license to enter and operate in this market it means that this market is a protected market. Thus, the subscription television market in South Africa is not a free market. They further expressed that firms cannot enter this market as and when they choose to pose competition to the licensed operators as they need operating licenses to do so.

Respondent (TFR) stated that this protection delineates the broadcasting sector and this market whereas the ECA calls for a converged communications environment. Respondents (STBFR and TFR) concluded that this protection over the market and the subsequent demand for an operating license is a barrier to entry that exists and supersedes all other barriers to enter this market.

Respondent (TFR) further noted that broadcasting in general is the only protected sector in the South African communications industry and the licensing regime segments service providers and network providers according to industry thus acting as barrier to enter this sector. Respondent (ICTLE) indicated that the licensees invested substantially to receive the operating license and they would not simply allow their investments go to waste. This respondent stated that the fact that the other four new licensees never came to the market is indicative that there are barriers to entry.

Respondents (ITBCPFR, ICTLE and BSTBR) indicated that although there is presence of free-to-air commercial broadcaster and a public broadcaster this does not necessarily imply that they offer substitute services to subscription television broadcasting as they do not have premium content rights that attracts and keeps eyeballs to the screen (BSTBR).

Respondents (ITBCPFR, ICTLE and ESTBMFR) indicated that DTT broadcasting platform which would introduce new television broadcasting services which in turn would act as substitute services is already under threat as

the dominant subscription television broadcaster has exclusive ownership of most of the premium broadcasting content rights in the market.

Respondents (TFR, BSTBR and SDFR) summarised this observation by stating that content is king in television broadcasting. Respondent (STBFR) indicated that although there is sufficient supply of content globally it is extremely expensive for new entrants to afford. Ten respondents indicated that in the local context premium and current must have content is monopolised by the dominant subscription television broadcaster. This defeats the goal of free-to-air broadcasters and new Digital Terrestrial Television (DTT) broadcasters acting as substitute service providers.

All respondents indicated that the potential barriers to enter the South African subscription television market as identified by ICASA in 2004 have developed into real barriers to enter this market are grouped into two categories namely technological and competition barriers to entry (ICASA, 2004, p.32 . 45).

4.2.1.1 Technological barriers

The potential technological barriers that were identified by ICASA in 2004 are:

4.2.1.1.1 Infrastructure costs

All respondents indicated that infrastructure costs have escalated and have become prohibitive. The main infrastructure costs in the South African subscription television broadcasting market relate to broadcasting studio costs, satellite uplinking costs and transponder capacity leasing costs (ICASA, 2004, p.33). Respondent (TFR) indicated that these costs are substantial and inevitably they are recouped from customers. This in turn pushes the costs of subscription television broadcasting services high in the country. This view was supported by respondent (BSTBR and ESTBMFR) who stated that the incumbents prices are steep.

Respondent (TFR) suggested that the government could intervene by leasing its massive studio infrastructural investment that is available throughout the country. This respondent further suggested that these costs could have led to most of the licensed subscription television broadcasters failing to launch as

these costs are critical and they can affect the sustainability of a new entrant particularly in the first 5 years of operation.

Respondent (ESTBMFR) asserted that although the infrastructure costs are expensive leasing of studios is one option that is available to the new entrants. This respondent indicated that the free-to-air commercial broadcaster %stv owns the biggest studios in Africa and is leasing them out.+This point was supported by respondent (SDFR) who states that facilities leasing regulations allows for leasing of infrastructure in cases where it is technically and economically feasible.

4.2.1.1.2 The cost of the Set-Top Box (STB)

All the respondents indicated that the costs of developing a new STB for subscription television broadcasting are prohibitively high. Respondents (SDFR and ESTBMFR) indicated that the costs of a new STB to compete with the dominant subscription broadcaster's STB will be influenced mainly by the intelligent software that operates the STB. Respondents (CIMFR and ITBCPFR) indicated that the dominant incumbents STB is technologically advanced, example being its ability to offer the audience services like Video-On-Demand (VOD). This offers competitive advantage to the incumbent as new entrants may not afford an intelligent STB. This is the case with the new entrant, Toptv.

Respondent (SDFR) asserted that the intelligence of a STB is a competitive issue as the STB is not only used for receiving television signal but to enable a converged industry environment. Respondents indicated that these high costs could prohibit customers from purchasing a new substitute subscription television broadcasting service. These high costs require a new entrant to be heavily capitalised to subsidize the manufacturing of the STB and reduce consumer price. As a result the development costs associated with a new STB are prohibitive to competition.

Respondent (BSTBR) outlined that the current operators are subsidizing their STBs and %spreading the entry costs to be recouped across monthly payments+. However, this claim could not be verified as the incumbents could not provide the costs due to trade secrecy and commercial confidentiality.

The current STBs in the market are not interoperable and are embedded with the incumbents' proprietary technology. Thus, if the new entrant does not have sufficient sunk costs to manufacture its own STB it will have to contend with the proprietary technology that is embedded in the incumbents' STB. Respondent (ESTBMFR) indicated that the South African subscription television broadcasters do not permit the sharing of the STB.

Respondent (STBFR) cautioned against STB sharing as the STB owner would be able to analyse the competitor's behaviour and this could be detrimental to competition in the market. Respondent (BSTBR) indicated that it is near impossible to have an interconnected and interoperable STB as the STB is a unique infrastructure.

Respondent (TFR) clarified this matter by indicating that the incumbents' STBs are tuned to receive only the incumbents' allocated spectrum frequencies. The respondent further indicated that subscription television broadcasting depends on the security of the STB, as a result subscription broadcasters regard the integrity of the STB as a very critical element of their operations.

4.2.1.1.3 The Applications Programme Interface (API)

The API is the operating language that controls the operation of the STB and which applications need to interact in order to deliver subscription broadcasting services (ICASA, 2004, p.36). Respondent (CIS) stated that the South African subscription television broadcasters use proprietary API technology making it difficult for the regulator to enforce a particular standard as the ECA is technology neutral. However, in the current environment of no interoperability of the STBs the new entrant would have to use the incumbents' API if the new entrant does not have sufficient capital to manufacture their own STB. This could result in the incumbents refusing to provide access to the technical requirements needed to interrelate with the API as it is a proprietary technology and they may provide access at disadvantageous terms.

Most of the respondents with the exception of respondents (SDFR and ESTBMFR) agreed that the API could act as a critical barrier to entry as the incumbents have the power to delay the delivery of the proprietary API for the new entrant to operate on.

Respondent (ESTBMFR) indicated that the costs of the API would vary by the specifications required by the new entrant. The respondent further indicated that the basic API system could be downloaded as an open source technology on the internet to be developed further to meet the new entrant's specifications. Respondent (SDFR) supported this view by indicating that the API is not a barrier to entry as the new entrant can develop its own API.

4.2.1.1.4 The Conditional Access Systems (CA)

The CA systems enable access to certain programming conditional upon payment for the content received+ (ICASA, 2004, p.37). Respondent (CIS, ESTBMFR and BSTBR) indicated that the costs of procuring CA systems are exorbitant due to the intense use of proprietary intellectual property in the development of these systems.

Respondent (ESTBMFR) highlighted the critical significance of the CA system by referring to the court case between etv and the Minister of Communications regarding control of the CA system in the DTT platform. Respondent (STBFR) indicated that incumbents would not disclose the design specifications of their CA systems to the new entrants as this could compromise the incumbents' future viability.

Respondent (BSTBR) indicated that the CA system is expensive because it controls the revenue stream of the subscription television broadcaster as these broadcasters need to know when the subscriber has not paid+and terminate the services. Respondent (SDFR) summarised the importance of the CA system by stating that the CA controls property rights+ in subscription television broadcasting.

All respondents with the exception of respondent (SDFR) agreed that the CA systems have a significant prohibitory effect on competition in the South African television broadcasting market. Respondent (SDFR) indicated that the CA systems affect sustainability but they are not barriers to enter this market.

4.2.1.1.5 The Electronic Programme Guide (EPG)

The EPG systems are used to display and sort lists of available services+, programmes and schedules on the incumbents' spectrum allocation (ICASA, 2004, p.38). The EPG offers an advantageous position in influencing the

viewer's choice. A new entrant that would like to use the incumbent's STB and share the use of EPG could be disadvantaged as the incumbents own and control the EPG therefore they can dictate which channels take prominence by dedicating the first positions on the EPG to themselves (ICASA, 2004, p.38).

Respondent (ESTBMFR) indicated that the EPG is a serious barrier to entry and he drew parallel comparison between the EPG that will be used in the DTT STB. He indicated that the EPG that will be used for the DTT STB was designed with the SABC as the primary stakeholder at the disadvantage of etv, future DTT broadcasters and most of the STB manufacturers. Most of the respondents with the exception of respondent (SDFR) agreed that the EPG system is a barrier to entry for new entrants.

4.2.1.1.6 The Subscriber Management Service (SMS)

The dominant incumbent in the South African subscription television market has many years of experience in the SMS business (ICASA, 2004, p.40). The operational goal of SMS is to record churn and constantly endeavour to reduce.

Respondent (ESTBMFR) indicated that there is a possibility of sharing the SMS however the subscription television broadcasters refuse to embrace sharing as an operating model. This view was supported by respondent (SDFR) who emphasised that the SMS is not a barrier to entry but a business model and management issue. Respondent (CIS) emphasized that in a competitive environment each competitor would have its own SMS to manage churn.

Respondents (CIS, ESTBMFR and SDFR) indicated that finding competent people to operate the SMS might be a challenge for a new entrant but it is not a significant barrier to enter this market. All the other respondents agreed that the SMS is a barrier to enter the subscription television broadcasting market.

4.2.1.1.7 The availability of satellite transponder capacity

Availability of satellite transponder capacity is one of the challenges that a new entrant will have to contend with (ICASA, 2004, p.39). Respondent (ESTBMFR) indicated that most of the national footprint capacity has been taken by the dominant incumbent and this has resulted in excess capacity for the dominant incumbent and the creation of a scarcity problem in the market. This respondent

suggested that government could intervene by introducing a policy that would enable the use of Telkom's satellite capacity by new entrants.

Respondents (TFR and SDFR) indicated that satellite bandwidth is expensive as most of the satellites are owned by foreign firms as a result payment is affected by the prevailing Rand/US Dollar exchange rates. All respondents agreed that availability of satellite transponder capacity is a serious barrier to entry. Most of the respondents noted that the DTT migration an alternative and viable distribution platform. This in turn might render the availability of satellite transponder capacity as a weak barrier to entering this market.

Respondent (SDFR) indicated that one of the advantages of DTT platform over satellite transmission is DTT's stability even in adverse weather conditions.

Respondents (ICTLE and CIMFR) summarised this section by indicating that the migration to the DTT platform could offer new entrants into the subscription television broadcasting an opportunity to circumvent and weaken most of these technological barriers to entry.

4.2.1.2 Competition barriers

The potential competition barriers that were identified by ICASA in 2004 are:

4.2.1.2.1 Market power

In 2003 the South African subscription television broadcasting market was characterised by potential development of significant barriers to entry. Some of the barriers included the embedded costs of distribution, the need for economies of scale in distribution, access to content and the extent to which the incumbent subscription broadcaster is dominant in key subscription television broadcasting areas+ (ICASA, 2004, p.41). All respondents indicated that these barriers to entry still exist and are more entrenched in this market.

Respondent (BSTBR) stated that Mstv (Multichoice) is a dominant player+in this market and its dominance is becoming a threat to free-to-air broadcasters. Respondent (ESTBMFR) indicated that Multichoice has dominance in the market due to its historical head-start in the market. Respondent (STBFR) indicated that the dominant operator has been grandfathered+ by the previous government and the dominant player has a competitive advantage over other broadcasters

as it could easily offer Internet Protocol Television (IPTV) services through its sister company, M-WEB.

Respondents (CIMFR and ICTLE) emphasised that Multichoice's market dominance is dangerous as Multichoice is aggressively working to stop new players from entering this market. Respondents (BSTBR and ESTBMFR) indicated that this behaviour is dangerous for consumer welfare as Multichoice has the power to charge high prices for its services and to short-change the market.

Respondent (ICTLE and ITBCPFR) noted that the industry is waiting for the small and struggling Toptv to collapse and if this happens it would be difficult for new players to enter the subscription television broadcasting and this would lead back to monopoly market conditions. Respondents (ICTLE, CIMFR, ESTBMFR and CIBR) indicated that there is no genuine competition as the market displays characteristics of a monopolistic market structure and Multichoice has a lot of leeway to the detriment of the other broadcasters.

Respondents (CIMFR, SDFR and ESTBMFR) indicated that Multichoice is using a similar operating model as its parent company, Naspers. These respondents indicated that Naspers is a dominant player in the communications industry locally and globally. Respondents (ESTBMFR, CIS and CIBR) indicated that Multichoice's dominance stems from its smart management team. They stated that not many firms would have performed so well given the changing circumstances that they had to deal with.

Respondent (SDFR and CIBR) noted that Multichoice's market dominance stems from its ability to acquire content on an exclusive basis and this affects competition in the market negatively. Respondents (ESTBMFR and CIBR) stated that the problem with Multichoice's market dominance relates to its behaviour, it has a tendency to abuse its power. This view was supported by respondent (ITBCPFR) who stated that Multichoice is a dominant player who plays rough. Thus there is a need for regulation. Respondents (CIS and ITBCPFR) indicated that the dominant operator's economies of scale and scope are an anomaly when comparing it with other global subscription television broadcasters.

Respondent (STBFR) summarised this section by stating that the South African subscription television broadcasting market is not a level playing field.

4.2.1.2.2 Control over the value chain

ICASA (2004, p.41) observed that, subscription television broadcasters regard control over the value chain as key to the success of their service. Respondents (ESTBMFR, CIS, ITBCPFR and CIMFR) indicated that Multichoice has massive financial reserves which it uses to fend off competition. The respondents indicated that Multichoice uses its financial power to significantly control the value chain. This provides Multichoice with market power to limit potential new entrants into this market.

Respondent (CIS) contextualised this matter by stating that Toptv's investment is only a fraction of Multichoice's investment and Toptv does not have control over the value chain. Respondents (ITBCPFR and CIBR) stated that broadcasting is a cash-hungry business and new entrants do not have the capital resources to compete with the dominant operator.

Respondents (ESTBMFR, CIMFR, CIBR and STBFR) indicated that Multichoice used its financial muscle to purchase all of the premium content available. They indicated that Multichoice has locked-in all African content rights for 20 to 25 years at minimum rates and purchased all local and international soccer, rugby and cricket sport content rights. The respondents stated that this indicates Multichoice's power and control over the content creation segment of the value chain prior to the introduction of competition in the market.

Respondents (CIBR and STBFR) indicated that in its quest to gain these content rights Multichoice got involved in some dodgy deals particularly for the local soccer rights and the relicensing of SABC rights to KYKNET television channel which is owned by Multichoice. Respondent (ESTBMFR and TFR) stated that although there is scarcity of satellite transponder capacity in the local market Multichoice has excess capacity and it has a distribution footprint that expands from the Equator to Southern Africa. The respondents stated that this indicates that Multichoice has significant control over the content delivery segment of the value chain.

Respondent (CIMFR, CIBR and STBFR) stated that on the eve of Toptv's entrance into the market Multichoice repackaged its channels to attract subscribers at different LSM levels. These respondents stated that this development indicates that Multichoice has significant control over the content bundling and packaging segments of the value chain.

Respondent (TFR) cautioned that Multichoice has long-standing relationships with most if not all of the stakeholders in the value chain and this gives it control over critical areas of subscription television broadcasting. All respondents agreed that the dominant incumbent in the South African subscription television market has significant control over the value chain.

Respondent (CIS) summarised by stating that most of the subscription television broadcasting applicants were naïve as they believed that they had exclusive rights to lower LSM markets and Multichoice was banished to broadcasting premium content only.

4.2.1.2.3 The cost of programming rights, access to key rights and channels

The cost of programming rights is estimated to be around 50% of total operating costs for a subscription television broadcasting service (ICASA, 2004, p.42). All respondents stated that programme content is a major barrier for potential subscription television broadcasting operators as it is expensive and new entrants do not have the financial capacity to outbid the dominant operator in the market.

Respondents (ITBCPFR) stated that due to the limited supply of premium programming and the rising costs of premium rights the dominant incumbent is better placed to secure this content. Respondent (STBFR) indicated that conditions that are attached to the reselling of content by the dominant player are detrimental to the new entrants as the dominant operator dictates the terms of sale when new entrants purchase the content rights. This respondent concluded by indicating that this arrangement provides the dominant operator with the power to curtail competition in the market.

Respondents (ITBCPFR, ICTLE, ESTBMFR, STBFR and CIMFR) observed that the dominant incumbent is already contracted to many key rights and is highly

integrated with content creators. Respondent (SDFR and CIS) observed that the dominant incumbent is also able to invest in new content as it has high revenues generated from high subscriber numbers, sponsors and advertisers.

Respondents (TFR and ITBCPFR) stated that new entrants and the smaller subscription television broadcaster are in a weak position to invest in new locally produced content as it is expensive at times more expensive than foreign produced content. All respondents agreed that access to key rights and channels is a critical entry barrier in this market (ICASA, 2004, p.42).

Respondents (ITBCPFR, CIMFR and CIBR) summarised this section by indicating that just like new subscription television entrants are struggling in the satellite transmission side, new subscription television broadcasters on the DTT platform might not be sustainable as all premium content, which is the life blood of subscription television, is already in the control of the dominant operator in this market.

4.2.1.2.4 The ability to promote services on other broadcasting services

To generate demand new entrants should be able to market their services effectively, this includes advertising on the competitors' networks (ICASA, 2004, p.43). Currently new entrants cannot promote their services on the incumbents' networks on equitable terms. This is mainly influenced by the decision reached in a judicial matter (*case 1990(4), SA 604(W)*) between Times Media Ltd and the South African Broadcasting Corporation (SABC). In this case the judge ruled that the *boni mores* of the market place did not require that the respondent (SABC) broadcast an advertisement promoting the interests of its competitor (ICASA, 2004, p.45). Collected data indicates that most of the respondents believe that this arrangement limits competition and acts as barrier for new entrants to attract subscribers who might be disgruntled with the service of the competitor.

Respondents (ICTLE, CIS and ESTBMFR) summarised this section by indicating that Multichoice, through M-Net, was afforded an open window which lasted for twenty years and the same courtesy should be afforded to all new subscription television broadcasting licensees.

4.2.2 Effect of barriers-to-entry on competition and convergence

This theme highlights issues within the South African subscription broadcasting market that affect market conditions in the context of competition, convergence, and the record of entry and exit.

Table 10 below provides an indication of the respondents' views regarding the effects of barriers to enter the South African subscription television market on competition and convergence in this market.

Table 10: Effect of barriers-to-entry on competition and convergence – Summary of responses to interview questions

Effect of barriers-to-entry on competition and convergence	Yes	No	Unclear	Elaborate
Do these barriers have significant impact on competition in the market?	10	1	0	11
<i>The point of this question was to establish the impact of these barriers, which are real and existent, on competition in the South African subscription television broadcasting market.</i>				
How do these barriers impact competition in the market?				11
<i>The focus of this question was to determine the extent of distortion in competition caused by these barriers in this market.</i>				
How do these barriers impact on convergence in the market?				11
<i>The intent of this question was to determine the effect of these barriers on convergence in this market.</i>				

Most of the respondents, with the exception of respondent (SDFR) indicated that all the identified barriers have a significant impact on competition in this market. Their impact on competition is severe as evidenced by the new entrant struggling to attract and retain subscribers and some industry experts (ICTLE and ITBCPFR) have speculated that this new entrant is about to collapse.

Respondent (SDFR) stated that most of the identified barriers relate mainly to the business model that is used by the new licensees. This respondent was

mainly referring to the potential of the DTT broadcasting platform to circumvent the identified technological barriers.

Respondents (ICTLE, CIMFR, ESTBMFR and CIBR) indicated that there is no effective and sustainable competition in this market as this market displays characteristics of a monopolistic market structure. Respondents (CIMFR and ICTLE) emphasised this skewed competition emanates from the dominant player's behaviour of aggressively working to stop new players from entering this market by acquiring all premium content on an exclusive basis and reselling these content rights to other television broadcasters at unfavourable terms.

Respondents (CIBR and SDFR) noted that the dominance of the dominant subscription television broadcaster transcends beyond this market. Respondent (CIBR) stated that this was evidenced by this dominant operator's ability to delay the roll-out of the DTT STB. This came as a result of this dominant operator being part of the committee that determined the technical standards for the DTT STB. As a result this dominant operator determined the technical standards to be used by its competitors on the DTT platform (CIBR).

These respondents concluded that this dominant operator used its influence to delay the digital migration process in the country to its own advantage. This is evidenced by the dominant operator growing at an increased rate between 2007 when competition was introduced and 2012.

Respondent (TFR) identified the applicable licensing regime as a major barrier to a converged market environment. He indicated that for convergence to be spurred in this market the STBs should have a return path to enable interactive services. He stated that the KA band of satellite broadband can enable internet connectivity.

Respondents (ITBCPFR, STBFR, CIBR, SDFR, ICTLE, ESTBMFR and CIS) noted that the DTT STB would be able to carry a return path thus enable convergence on the DTT platform however this would not be in the subscription television market as the broadcasters in this market have not identified internet connectivity and internet broadcasting as an issue to be prioritised.

4.2.3 The state of competition in the market

This theme addresses key issues posed by the analytical framework relating to issues that impact on competition in the market. These key issues are: the absolute cost advantages of the incumbents, sunk cost, economies of scale, capital requirements, product differentiation, advertising, switching cost, network externalities, vertical foreclosure, exclusion, required time to build up brand name and predatory behaviour+(Park, 2005, p.43 . 45).

Table 11 below provides an indication of the respondents' views regarding the state of competition in the South African subscription television broadcasting market.

Table 11: The state of competition in the South African subscription television market – Summary of responses to the interview question

The state of competition in the market	Elaborate
To what extent is the current form of competition in the subscription television market effective and sustainable?	11
<i>The focus of this question was to determine the type of market structure that is applicable in this market in order to determine the appropriate regulatory approach.</i>	

There is no effective and sustainable competition in this market (ICTLE, CIMFR, ESTBMFR and CIBR) and this has resulted in a monopolistic market structure. Respondent (TFR) indicated that the current dominant subscription television broadcaster, Multichoice, has a significant head-start in the market giving it an ability to become an expert in this market resulting in its ability to manipulate competition to its advantage in this market.

Respondents (ESTBMFR, CIMFR, CIBR and STBFR) indicated that Multichoice engaged in predatory behaviour when it purchased all of the premium content available, locked-in+ all African content rights for 20 to 25 years at minimum rates and purchased all local and international athletic, Olympic, soccer, rugby, cricket and general sport content rights. This in turn foreclosed competition in this market vertically and excluded competitors and substitute service providers from vital source of competition.

The dominant incumbent has absolute cost advantages to foreclose competition vertically and exclude competitors. This arrangement affords Multichoice the advantage of differentiating itself as a service provider of premium content. This is evidenced by the overwhelming agreement by all respondents that the dominant incumbent in the South African subscription television market has significant control over the subscription television broadcasting value chain (refer to 4.2.1.2.2 above).

Respondents (ESTBMFR, CIS, ITBCPFR and CIMFR) indicated that the dominant operator is using its massive financial resources and market power to limit potential new entrants into this market. Respondent (CIS) indicated that Multichoice's investment eclipses the new entrant's investment significantly. Respondents (ITBCPFR and CIBR) stated that broadcasting operates on capital intensive business model and subscription television broadcasting requires huge sunk costs.

Respondents (ESTBMFR and TFR) stated that Multichoice has excess capacity and it has a distribution footprint covers the entire African continent. This provides an indication that Multichoice has greater economies of scale than Toptv and other commercial broadcasters. Respondents (ICTLE, CIMFR, ESTBMFR and CIBR) agreed that there is minimal competition in this market and the market exhibits characteristics of a monopolistic market structure. This arrangement has conferred Multichoice with massive economies of scale and scope, enormous positive network effects and unfair market advantage.

Respondents (ITBCPFR and TFR) stated that perceptions influence consumer purchasing behaviour and Toptv is perceived as weak service provider and Multichoice is perceived as a premium service provider in terms of content that they broadcast. This in turn creates positive network externalities for the dominant operator, Multichoice. This has resulted in Multichoice gaining more market dominance which leads it to charge monopoly prices and undermine competition in the market. This negative perception on Toptv's service and Multichoice's strong brand increases the amount of time required for Toptv to build a reputable brand name.

The presence of switching costs which have been identified by respondents (CIMFR, TFR and ITBCPFR) as significant for a household to change service providers whenever they please. When these switching costs combine with the positive network externalities mentioned above they entice new subscribers to the dominant operator's network. This in turn strengthens Multichoice's dominance over the subscription television market.

Respondents (CIS and SDFR) indicated that the dominant operator generates enormous revenue from advertising as it has massive subscriber base and most of its subscribers are affluent individuals and households with disposable income that the advertisers are chasing after. This in turn creates a virtuous circle of reinvestment in self promotion by the dominant operator.

4.2.4 Bolstering competition in the market

The focus of this theme is on the identification of practical approaches to promote competition in the South African subscription television broadcasting market.

Table 12 below provides an indication of the respondent's views regarding ways that competition can be promoted in the South African subscription television market.

Table 12: Bolstering competition in the market – Summary of responses to the interview question

Bolstering competition in the market	Elaborate
How can competition in this market be stimulated?	11
<i>The intent of this question was to solicit ideas on improving competition in this market.</i>	

Respondents (BSTBR, SDFR, ITBCPFR, ESTBMFR and STBFR) suggested that ICASA should suspend the latest Invitation to Apply (ITA) for subscription television broadcasting until it has commissioned and received the results of a market review study to determine the size of this market in order to determine the number of operators that this market can handle, to determine the minimum sunk costs required for the new entrant to be viable, to determine the

appropriate licensing framework and to determine other viable alternative distribution platforms.

The DoC together with ICASA should review the applicable policy and the applicable regulatory framework urgently, particularly chapters 8 . 10 of the ECA as they favour the dominant operator (CIMFR, SDFR, CIS, CIBR and STBFR). ICASA should consider introducing asymmetrical regulations to encourage diversity of ownership of content rights (CIBR).

Encouraging diversity in content ownership rights will encourage competition in the entire broadcasting sector (CIS). Asymmetrical regulations were applied in the telecommunications sector when Vodacom and MTN were introduced as competitors to the monopoly operator Telkom (CIBR).

Respondent (CIBR) stated that interoperability of the STB is essential for competition.+ ICASA should introduce regulations that stipulate interconnection of the STB as a technical standard. This view was supported by (ITBCPFR, SDFR and ICTLE) who urged for the introduction of a universal STB for the market or enforcement of STB interoperability by ICASA.

This will lead to service-based competition contrary to the current form of competition which includes strong elements of infrastructure competition (TFR). It came out strongly that ICASA should prioritise the regulation of access to premium content rights with a strong focus on the regulation of exclusivity rights (ICTLE, CIMFR, SDFR, CIBR, STBFR, ITBCPFR and CIS). Without equitable access to premium content rights the entire broadcasting sector is doomed to fail leading to further entrenchment of the dominant operators' position in the market.

ICASA should invest in acquiring regulatory and legal expertise and building a strong research component that will review markets constantly (CIS). This will enable ICASA to address the market with confidence and avoid being bullied by strong operators in the industry as it has happened before. This will also enable the regulator to urge for open window regulations for new entrants into the market (CIS and ICTLE).

ICASA should link subscription broadcasting licenses with mobile broadcasting licenses (ITBCPFR). This could reduce the initial investment required, it will spur convergence and enable new entrants to generate more revenue thus stabilising their sustainability path.

DoC should speed the DTT migration process and the roll out of broadband as they offer alternative distribution platforms to satellite transmission which is expensive (CIMFR). ICASA should review the subscription television broadcasting ownership and control regulations as the 20 percent foreign ownership restricts investment in this market (STBFR). This review should be benchmarked with developed and comparable developing countries. These developments have a potential of attracting new competitors to the market.

4.2.5 The effect of change in the licensing regime on competition and convergence

The focus of this theme is on the evaluation of the effectiveness of the current licensing framework in the South African subscription television broadcasting market, assess if license requirements are a barrier to enter this market and identifying possible improvements of the licensing regime to promote competition and convergence in the market.

Table 13 below provides an indication of the respondent’s views regarding the effectiveness of the current licensing regime for the South African subscription television broadcasting and the effect that a change of the applicable licensing regime may have on competition and convergence in this market.

Table 13: Effect of change in the licensing regime on competition and convergence – Summary of responses to interview questions

Effect of change in the licensing regime on competition and convergence	Yes	No	Unclear	Elaborate
Is there a need for an update of the subscription television licensing regime?	11	0	0	11
<i>The essence of this question was to determine if the licensing regime that is applicable to this market is effective and if it is a barrier to enter this market.</i>				

How would this update affect competition and convergence in this market?	11
<i>The thrust of this question was to determine the extent to which the prevailing licensing regime impacts on promotion of competition and convergence in this market.</i>	

Respondents (CIS, ESTBMFR, ICTLE, TFR, ITBCPFR, STBFR, CIBR, SDFR and CIMFR) indicated that there is a need to review the current licensing framework as it does not promote convergence and there is a pressing need to address failure of competition in this market.

ICTLE stated that the 2007 licensing process was an absolute failure as three of these licensees have failed to enter the market and the new entrant is fighting for survival. The dominant operator which has monopoly on premium content rights is using exclusivity of premium content rights to control competition in this market and the entire broadcasting sector (ICTLE).

The dominant operator also benefits from the must carry licensing conditions which enable it to offer free-to-air broadcasting services on its network (CIMFR). The dominant operator is advantaged by the current licensing regime to go beyond its boundaries as stipulated by the licensing framework (CIS). This calls for the regulator to impose pro-competition conditions on the dominant broadcaster in order to promote competition and convergence (CIBR).

The current licensing framework segments service providers according to distribution platform that they use (TFR). This is contrary to the ECA which promotes technology neutrality. Satellite, cable, Internet and terrestrial broadcasting platforms comprise of the infrastructure and technology components. However, the current licensing framework treats the broadcasting platform as infrastructure thereby creating an environment that is not technology neutral and does not promote open access (TFR and ESTBMFR).

This results in the dominant subscription broadcasters benefiting from the double protection that is offered by the separation and protection of the entire broadcasting sector and subsequent protection from the effects of convergence

in other sector of the communications industry (TFR). The DTT migration process which a potential of attracting new investments in the market will pose challenges on the current subscription licensing regime as there might be different sets of licenses for the subscription television broadcasting market (ITBCPFR).

The introduction of open access licensing regime might lead to increased demand for other cheaper distribution channels, which include broadband Internet (CIBR). This might spur the penetration of local-loop broadband as other firms might be incentivised to lay more fibre through out the country (CIS). This in turn will generate increased demand for content that will be viewed on any transmission platform and can be viewed on the device preferred by the consumer in a converged communications environment (SDFR).

STBFR noted that ICASA should promote transparency in the entire licensing process. He indicated that the basis for issuing licenses to the new subscription television broadcasting licensees was not clearly communicated. He also indicated that the reason for issuing the latest ITA for new subscription television broadcasting licenses is not clear either as the current licensees are struggling to enter the market.

4.2.6 Heavy-handed regulatory approach versus light-touch regulatory approach

The focus of this theme is on evaluating the effectiveness of the current regulatory approach in the South African subscription television market, identifying causes of failure or success of this approach and identifying new practical and effective approaches that will improve competition and spur convergence in the market.

Table 14 below provides an indication of the respondents' views regarding the effectiveness of the current regulatory approach in the South African subscription television market and the identification of alternative regulatory approaches that might be more effective for this market.

Table 14: Heavy-handed regulatory approach versus light-touch regulatory approach – Summary of responses to interview questions

Heavy-handed regulatory approach versus light-touch regulatory approach	Yes	No	Unclear	Elaborate
Is there a need for a change of the applicable regulatory approach (from light-touch to heavy-handed regulation)?	11	0	0	11
<i>The intent of this question was to establish if the applicable regulatory approach is appropriate for the prevailing market structure in this market.</i>				
What would be the reasons for this change in regulatory approach?				11
<i>The crux of this question was to establish if there is a link between the applicable regulatory approach and the promotion of competition and convergence in this market.</i>				
What new regulatory approaches are needed?				11
<i>The intent of this question was to solicit new, practical and proficient ideas on improving the regulatory framework applicable in this market.</i>				

Respondents (BSTBR, ICTLE, ESTBMFR, TFR, ITBCPFR, STBFR, CIBR, CIMFR and SDFR) indicated that light-touch regulatory approach is preferred by most operators and heavy-handed approach could stifle competition even further in the market. They indicated that competition failure in the market is not about the regulatory approach but it relates to ICASA's inability to regulate.

This stems from ICASA's interpretation of light-touch regulation to mean the absence of regulatory intervention at all. Respondent (ICTLE) stated that ICASA and the DoC are seen as absconding from intervening in this market and this raises suspicions of regulatory capture. This view was supported by respondent (STBFR) who pointed that ICASA councillors and employees are employed by the industry operators when they terminate their employment from the regulator. ICASA is seen as applying a hands-off or no-touch approach to this market rather than the light-touch approach that it claims to be applying. This has resulted in the dominant operator developing into a global anomaly.

ICASA should understand that light-touch regulatory approach does not imply complete absence of the regulator from intervening in the market. Respondents (CIS and ICTLE) stated that ICASA should consider the costs attached to failure of competition in the market and engage with the Competition Commission to address this failure.

ICASA should look at other regulators like OFCOM and the Australian sector regulator to benchmark itself (SDFR, CIBR and STBFR). Due to failure of competition and the dominance of a single operator over the entire broadcasting sector ICASA should adopt a regulatory approach that is in the public interest and that will attract new entrants to this market (ICTLE and CIMFR).

Respondent (STBFR) urged ICASA to encourage self-regulation as the market operators will contribute to undertaking research in the sector as it is the case with the South African Audience Research Foundation (SAARF). He argued that this will build consensus on current and future developments in the market.

Respondents (STBFR, TFR, CIS, BSTBR and ESTBMFR) pointed to failure of policy to address competition issues in the market and urged the DoC to bring stability in the market by providing ICASA with adequate funding to fulfil its regulatory obligations and by respecting ICASA's independence through restraint from interfering in ICASA's sphere of responsibility.

4.3 Summary

This case study applies the less formal and less structured data collection methods . i.e. review of official records and semi-structured interviews. Semi-structured interviews were conducted following the field research method as it allowed for the understanding, knowledge, opinions and experiences of the respondents to be probed, clarified and noted (Neuman, 2003, p.46). The ICASA website contained some records which mainly dealt with recent events. This led the researcher to search the Internet for documents relating the historical events in the South African subscription television broadcasting market. The documents sourced from both the ICASA website and the World Wide Web are used in section 1; the review of official records. The interview respondents were selected from a pool of experts as they have more technical and valuable knowledge than

the public concerning the South African subscription television broadcasting market. Data collected from these experts was presented in section 2.

The next chapter, Chapter 5, presents an analysis of the research results. This analysis is structured around the eight steps of the analytical framework applied and is positioned to answer the main and secondary research questions. The eight steps of the analytical framework are: the establishment of market boundary and production substitutability; assessment of market conditions and the record of entry and exit; the assessment of absolute cost advantages of the incumbents; evaluation of sunk cost economies of scale and capital requirements; evaluation of product differentiation, advertising, switching cost, and network externalities; evaluation of vertical foreclosure and exclusion; evaluation of predatory behaviour, and the assessment of entry impediments+ (Park, 2009, p.43).

CHAPTER 5: ANALYSIS OF THE RESEARCH RESULTS ON THE EFFECTS OF REGULATORY APPROACH ON COMPETITION IN THE SOUTH AFRICAN SUBSCRIPTION TELEVISION BROADCASTING MARKET

The effect of regulatory approach on competition and convergence in the South African subscription television market will be analysed according to the OFT's seven evaluation steps procedure and the modified 'eight step procedure' by Kim and Lee (2005) analytical framework as discussed in Chapter 2. Central to this task will be to align descriptions in the themes described in Chapter 4 with the evaluation steps of the analytical framework which were aligned with the research sub-questions in Chapter 3. First, the steps of the analytical framework are defined followed by an analysis of each step in the context of the South African subscription television market.

5.1 Market definition and production substitutability (Step 1)

The purpose of this step is to assess the nature and intensity of competitive rivalry in the South African subscription television market. Substitute services are also included to determine demand substitutability (Park, 2009, p.43).

5.1.1 Market definition and presence of relevant markets

The South African subscription television market exists within the broadcasting sector and the South African communications industry. It is regulated by the ICASA through the Subscription Broadcasting Services Regulations of 2006. Subscription broadcasting is defined by the Broadcasting Act as a broadcasting service provided to an end user upon the payment of a fee (ICASA, 2005, p.7). Section 5 (2) of the Broadcasting Act, 1999, identifies three categories of subscription broadcasting services. These are: terrestrial subscription broadcasting services, satellite subscription broadcasting services and cable subscription broadcasting services.

In 2007 ICASA issued five satellite and cable subscription television broadcasting licenses to operate in this market. Four of these licenses were issued to new entrants and one to the incumbent subscription television broadcaster. In the year 2010 one of the new licensees, ODM, launched its new subscription television service, Toptv. Both Multichoice and ODM use satellite to

transmit their services. By the end of the year 2012 there were only two active licensees in this market, the incumbent Multichoice and the new entrant ODM. The other new licensees failed to take off.

Competition in the sector is minimal, ineffective and unsustainable resulting in a monopolistic market structure. This monopolistic market structure with minimal competition is an indication of ~~unstable~~ structural weaknesses in the South African economy resulting in restrained competition, curtailed consumer welfare and low economic growth rates (African Economic Outlook, 2012, p.2). This minimal competition corresponds with observations by Matteucci (2004, p.3) and McPhillips and Merlo (2008, 243) who noted that globally subscription television market in many nations is on the verge of being monopolized or being highly concentrated.

The conduct of the dominant incumbent, Multichoice, is viewed as detrimental to consumer welfare, consumer choice and competition in the market. The minimal competition that exists in the market is on the verge of being vanquished as the industry is waiting for the small and struggling Toptv to collapse. The dominant incumbents conduct is in line with the observation by Bergman, *et al.*, (1998, p.8) that network industries; including the communications industry, require strong regulatory oversight to ensure that consumers are protected and competition works effectively.

5.1.2 Presence of Production Substituters

Free-to-air television broadcasting service as defined by the Broadcasting Act, 1999, as a ~~service~~ which is broadcast and capable of being received without payment of subscription fees and fulfils a role of substitute service to the subscription television service. However, Multichoice's dominance transcends beyond subscription television broadcasting market. Multichoice is using its massive financial reserves to acquire premium content on exclusive basis. Premium content attracts viewers, advertising and lucrative sponsorships. Multichoice then attaches unfavourable terms on this content when reselling it to other television broadcasters, they being subscription television licensees or free-to-air licensees.

The effect of this conduct is that content which is the life blood of broadcasting is monopolised by one dominant subscription broadcaster who controls competition even in the substitute market thereby rendering the substitute market weak and unattractive. This development is worrisome as the free-to-air broadcaster etv has indicated that Multichoice's dominance is a threat to all broadcasters as it erodes the advertising base of all broadcasters, threatens the long-term viability of other broadcasters and undermines the public interest obligations of the free-to-air broadcasters and the public broadcaster (ICASA, 2012, p. 38).

5.2 Assessment of market conditions and historical entry and exit patterns (Step 2)

The purpose of this step is to outline the current, recent and historical performance of the licensed operators within the South African subscription television market. Also included in this step is the assessment of the expected intensity of competition after new entry and the historical patterns of entry in the South African subscription television broadcasting market (Park, 2009, p.43 . 44).

5.2.1 Performance of the operators

ICASA (2007, p.36) stated that the South African subscription television broadcasting is a lucrative market. This observation is supported by the recent financial statements from the dominant operator, Multichoice. According to these financial statements Multichoice Limited generated a net profit of 3.4 and 4.2 billion South African Rands during the 2010 and 2011 financial years respectively. This growth of more than 20 percent in net profits was generated mainly from new subscriptions. Multichoice also paid dividends of 2.7 and 6 billion South African Rands respectively during these periods (Multichoice, 2012, p.6 . 11).

This substantial growth in net profits, subscriber numbers and dividends are a clear indication that Multichoice is performing well. In its submission for the application of an operating license to ICASA in 2007 Multichoice indicated that it expected its net profit and revenue growth path to continue ~~at~~ the same rate as it currently does+ (ICASA, 2007, p.117). This indicates that Multichoice was

already confident that the new licensees who would be potential new entrants would not change the competition landscape in the market.

On the other hand the new entrant ODM operating in the market as Toptv is struggling to attract about 350 000 new subscribers annually in order to be sustainable (*Business Day*, 2010, May 3). By October 2012; two years after its launch, Toptv had only sold 450 000 STBs. Of these 450 000 STBs about 155 000 were being used continuously on a monthly basis. This is below the required 350 000 required monthly subscribers for Toptv to break even (*Techcentral*, 2012, October 12). It may be early to judge if Toptv will be successful as it had indicated to ICASA during the licensing process that it expected to reap positive profits in its third year in operation (ICASA, 2007, p.134).

The stark contrast in performance between Multichoice and Toptv complimented by the failure of the other three new licensees to commercialise their licenses is a grave concern as Collins, *et al.*, (2001, p.6) state that "the media markets have an intrinsic tendency to fail and broadcasting is a failed market". Failure by ICASA to develop a framework that would combat the identified barriers to enter the market in a network industry which is known globally to consist of "high and non-transitory entry barriers and the existence of natural monopolies issues such as structural barriers" was a perfect set up for competition to fail in the market (Buigues, 2006, p.12; Giles, 2006, p.104).

The dominant operators' net profits continue to increase whilst the new entrant is experiencing attrition. This is contrary to Giles (2006, p.104) observation that "the scope to make monopoly profits is reducing every year" indicating that competition is failing to take hold in the South African subscription television market.

5.2.2 Time required for a new entry

When ICASA issued the ITA for commercial satellite and cable subscription broadcasting in 2007 it did not specify the time required for the new licensees to enter the market. This is worrying as ICASA stipulated the submission of articles pertaining to "the capability, expertise and experience of the applicants; the financial means and business record of the applicants and the business record of persons in a position to control the operations of the licensee" in the criterion

to be met by all the applicants (ICASA, 2007, p.18). These articles were meant to assess the readiness of the new licensees to enter the market and their future viability.

ICASA's failure to set timeframes for the entry of new licensees into the market is in line with the National Planning Commission's (2012, p.190) observation that ICASA's intervention in the sector has been mostly disappointing. This observation is also supported by Horwitz and Currie (2007, p.447) who noted that ICASA's interventions in the industry have been ineffective resulting in the regulatory environment being viewed as a major stumbling block to doing business in South Africa (Esselaar & Gillwald, 2006, p.9).

ICASA (2007, p.28) noted that upon extensive enquiry and post-hearing analysis, the Authority concluded that some applicants had not raised sufficient capital to finance the operations of their proposed business plan. However, the licensees were found to be in good financial position but ICASA still failed to stipulate the required time for the new licensee to enter the market when it issued these licenses. ICASA's failure to comprehend that issuing a license is not tantamount to introducing competition in the market is noted by the National Planning Commission (2012, p.191) as an indication of ICASA's limited capacity and expertise.

5.2.3 Change of market competitiveness

Some of the principles of the ECA that ICASA purposed to achieve when it issued the ITA for commercial satellite and cable subscription television broadcasting licenses were to promote and facilitate the convergence of telecommunications, broadcasting, information technologies and other services contemplated in the ECA; promote and facilitate the development of interoperable and interconnected electronic networks, the provision of the services contemplated in the ECA and to create a technologically neutral licensing framework; and encourage investment and innovation in the communications industry; promote competition within the ICT sector (ICASA, 2007, p.19).

The stated principles of promoting convergence, competition, the creation of a favourable environment for interoperable and interconnected networks,

encouraging investment and innovation in the sector were not achieved. This lack of alignment of the ECA principles and regulatory processes impede the development of convergence as the subscription television broadcasting market is deliberately insulated from convergence (de Lanerolle, 2011, p.55). This in turn renders the South African subscription television broadcasting market being an uneven playing field (de Lanerolle, 2011, p.52).

Although the promotion of convergence in the communications industry is a principle that is enshrined in the ECA, there is an absolute lack of convergence within the subscription television broadcasting market and convergence of the broadcasting networks with other communications networks. This slow pace of convergence stems from the lack of interconnection and interoperability of networks and devices which were noted as ~~the~~ pillars of competition by Melody (1997, p. 29).

Bergman, *et al.*, (1998, p.6) observed that ~~no~~ competition can only be introduced into a network industry through enforcing network interconnection. This lack of interconnection and interoperability of networks and devices emanates from broadcasting being regulated ~~as~~ a special case, this being informed by a regulatory framework ~~that~~ assumes that broadcasting requires substantial protection and that this provides greater social and political welfare than would a competitive market. (de Lanerolle, 2011, p.54).

This special protection provided to the broadcasting services in the country is being challenged by convergence through consumer empowerment in the form of UGC, the benefits of spectrum dividend as mainly observed through the migration to the DTT platform and the migration to NGNs which are based on the internet protocol platform. The result of this special protection on broadcasting against the effects of convergence is simply delaying the inevitable.

As Noam (2006, p.71) has observed that ~~as~~ the internet becomes the main platform for most media uses, the regulatory rules for the internet become the rules for much of the media system as a whole. And with the regulatory rules for the internet moving toward those of telecom, because the issues that led to telecom regulation . discrimination, market power, national security, consumer

protection . are precisely the same issues being raised by the internet. It then follows that the telecom rules become the rules affecting all media. Therefore, television regulation will become telecom regulation.+

Judging by the performance of the new entrant, the failure of the other new licensees to commercialise their licenses, and increasing dominance of the dominant operator accompanied by its tendency to abuse its power and act aggressively towards other broadcasters, it is clear that the commercial satellite and cable licensing process of 2007 failed to achieve its stated objectives.

There is still limited network competition amongst broadcasters and telecommunications networks in the country, resulting in the essential facility characteristics of the STB being more entrenched as observed by Matteucci (2004, p.5) and the costs of subscription television broadcasting services remaining high as observed by the NPC (2012, p.190). This supports the observation by Gillwald, *et al.* (2010, p.9) that the South African communications industry including its subscription television broadcasting market have substantially higher prices than comparator African countries, as well as OECD countries+which are an indication of limited competition in the market.

5.3 Appraisal of incumbents absolute cost advantages (Step 3)

This step assesses the existence and strength of legal and regulatory barriers as well as the incumbents absolute cost advantages+(Park, 2009, p.44). Cost advantages are defined as the costs which must be borne by the entrant but not by incumbents+(Park, 2009, p.44).

5.3.1 Cost asymmetries between incumbents and new entrants

In its submission for the application of an operating license to ICASA in 2007 Multichoice which was already operating as the sole incumbent in the market indicated that it did not plan to incurring significant establishment costs as they have already been incurred in the preceding ten years of business+(ICASA, 2007, p.117). Already in 2007, Multichoice expected its future operations in the market to generate sufficient cash flows to reinvest in the business+, it also indicated that it would not need external funding to offer current and future services, and it announced that it planned to use its existing infrastructure to roll out new service offerings+(ICASA, 2007, p.117).

This submission indicated that the incumbent and the new entrants would not be equally efficient after the costs of entering are taken into account (Park, 2009, p.36). The new entrants would have to incur costs to enter the market that need not be borne by an incumbent (Park, 2009, p.36). This placed the incumbent in an advantageous position compared to the new entrants, even before the licenses were issued. This has resulted in MultiChoice using its financial resources, which exceed the available reserves of the other commercial broadcasters, to outbid any competitor for the content rights (OECD, 2013b, p.5).

Contrary to the incumbents position the new licensees had to incur establishment costs relating to the development of: broadcasting infrastructure, the STB, the API, the CA system, the EPG, the SMS, transponder capacity, relationships with content creators and owners, acquisition of channels, content rights, access to critical premium and other miscellaneous costs. The new entrant is in a precarious position as it has to incur all these development costs whilst it is targeting the low subscriber market which comprise of households that are between LSM 6 and 9 (ICASA, 2007, p.133).

MultiChoice is using its massive financial position, the advantage and freedom of having incurred establishment costs in the past, the advantage of being a vertically integrated operator in the market or with longstanding relationships with suppliers, and having an existing subscriber base to acquire most of the premium content rights in the market.

Most of the content creators prefer to deal with broadcasters who have good financial position and good subscriber base as they have the potential to be repeat buyers and also presents them with an opportunity to showcase their content to a larger audience. In cases where premium content is auctioned MultiChoice has the financial strength to outbid the new entrant who does not have comparable financial reserves as the incumbent. This was observed by the OECD (2013b, p.5) in its assertion that MultiChoice can outbid any competitor for the content rights. This has created a monopoly in the ownership of premium content rights in the entire television broadcasting market in the country.

This monopoly in the ownership of premium content rights is creating a scenario in which premium content and sport broadcasting market in the country is headed for failure (ICASA, 2012, p.21 . 23). This emanates from these rights being owned and controlled by the commercial broadcasters who have monopoly over these content rights. These broadcasters who have monopoly over premium content rights attach unfavourable terms on this content when reselling it to other television broadcasters.

There is an immediate need to examine better ways to acquire, retain and use sport and premium content rights for the development of competition in entire broadcasting sector as it has happened in the United Kingdom, France and other countries.

5.3.2 Legal and regulatory barriers

The subscription television broadcasting market in South Africa is not a free market in the true sense as entry into and exit out of the market are regulated. Regulation is not a problem if it is carried out by the regulator who is perceived to be promulgating regulations that are smart, relevant, responsive and consistent. Mayo and Cullum (2006, p.90) observed that ~~the~~ effective regulation can inhibit business creativity and innovation as incumbent businesses often use regulation to prevent or restrict competition, for example by setting unnecessarily high entry standards.+

The South African television broadcasting market is not a ~~level~~ playing field+(de Lanerolle, 2011, p.52). The regulatory framework favours the dominant operator and the regulator, ICASA, is doing nothing to remedy this situation. ICASA is absconding from its regulatory responsibilities by not intervening in the market.

ICASA is misinterpreting the applicable light-touch approach to mean that commercial arrangements precede or are beyond the scope of regulation as it indicated when it addressed the issue of interconnection and interoperability of the STB and the acquisition and reselling of premium content rights in the market (*Business Report*, 2007, September 13). ICASA's performance is contrary to the observation by the World Bank (2001, p.71) that as competition intensifies there is more need for effective regulation rather than less regulation.

Intven, *et al.*, (2000, p.1-21) warned that this approach can actually increase regulatory intervention over the longer term. It can impose unnecessary burdens on new entrants, and prevent implementation of asymmetrical regulatory initiatives that will open networks and markets to competition. Intven, *et al.*, (2000, p.1-21) also warn that this tendency to abstain from intervening decisively in the markets particularly in disputes by suggesting that new entrants and incumbent operators should freely negotiate the terms of interconnection exacerbates problems as most incumbent operators have few incentives to negotiate favourable agreements with their would-be competitors.

This triumph of commercial interests over public interests has created mistrust towards ICASA and the DoC by creating an impression that they are captured by the dominant operator. Regulatory capture in this instance manifests in ICASA and the DoC being unduly influenced to act for the benefit of the dominant operator in the market who influences regulatory and policy decision making because it they have direct bearing on the dominant operator's profits (Levi-Faur & Bachar, 2011, p.246 . 247).

Light-touch regulatory approach was advocated for the market by the Triple Inquiry Report that was commissioned by the IBA in 1995 (ICASA, 2007, p.12). There is a general consensus that this approach is good for the market as heavy-handed regulatory approach might impede business development. However, this consensus is not informed by literature.

Empirical evidence indicates that whenever competition is introduced in the market the regulatory approach that is used is heavy-handed regulatory approach as the market lacks favourable conditions for competition, there is a need to prevent monopoly abuse, the market is highly concentrated and it displays strong monopolistic tendencies (Bergman, *et al.*, 1998, p.8; Intven, *et al.*, 2000, p.1-21).

The preference for the light-touch regulatory approach stems from the lack of confidence in ICASA's ability to promulgate extensive regulations to remedy inequalities in the market without causing regulatory unintended consequences (Waverman, 2006, p.158). This lack of confidence in ICASA is based on the

existing and acute lack of both financial and human resources (Teljeur, *et al.*, 2003, p.14).

This has led to the request for self-regulation in the market as the operators can develop set of regulations for the market and they could finance the regulatory process. However as Collins, *et al.*, (2001, p.6) and research results from studies conducted by Collins (1997 and 1998), Garnham (1994) and Graham (1999) have indicated that ~~the~~ media markets have an intrinsic tendency to fail and broadcasting is a failed market~~+~~. Thus, giving commercial broadcasters the responsibility to self-regulate in this early phase of competition could be dangerous as Mayo and Cullum (2006, p.94) have observed that self-regulation ~~is~~ a privilege~~+~~ in the television broadcasting sector.

The subscription broadcasting services regulations of 2006 do not address competition matters in the market, their quite on the role of the Competition Commission in the market, they do not address pertinent aspects raised in chapters 6, 7, 8 and 10 of the ECA as applicable in the market, they do not address barriers to enter the market and the thorny issue of exclusive content rights which have created a regulatory environment that favours the dominant operator at the expense of consumer welfare, competition and convergence in the market.

These regulations exhibit the position adopted by ICASA (2005, p.72) that ~~competition~~ issues that arise need may be dealt with by way of general competition law~~+~~. Clearly indicating that ICASA believes that ex post regulatory framework is more relevant to this market and thus contradicting the observations by Buigues (2006, p.12) and Ratshisusu (2010, p.2) which indicates that ex ante regulation would be more effective during this phase of liberalisation of this market.

There is an urgent need for an update of the current regulatory framework for the subscription television broadcasting in the country as these regulations do not address competition matters ex ante. ICASA is of the opinion that competition matters in the market should be addressed through ex post regulatory framework as it stated that ~~competition~~ issues that arise need may be dealt with

by way of general competition law+ (ICASA, 2005, p.72). As Waverman (2006, p.162) has indicated regulatory frameworks are %effective for some time; however, it seems that in the longer term they may be unsustainable+. Therefore, there should be timeframes attached to regulations.

Given the rapid and disruptive technological developments in the communications industry a five year period is normally attached to regulations thereafter followed by their review (Naughton, 2006, p.50). This is in line with Foster and Kiedrowski (2006, p.25) observation that %the ongoing nature of the change underway will require a fundamental review of the approaches to regulation across a range of issues, and now is the time to prepare the groundwork for that review+.

5.4 Assessment of sunk cost, economies of scale and capital requirements (Step 4)

This step evaluates the link between %sunk costs, economies of scale and capital requirements as barriers+ to enter the South African subscription television broadcasting market. Also included in this step is the expected price of products after entry (Park, 2009, p.44).

5.4.1 Substantial sunk costs, capital requirements and economies of scale

The presence of entry barriers have skewed competition in this market to the advantage of the dominant operator thereby putting the consumer, the new licensees, the new entrant and the entire broadcasting sector at a disadvantage. ICASA (2007, p.36) was well aware of these barriers to the point of warning the new licensees that %a new entrant into this sector faces significant barriers to entry and related challenges+.

Some of the major challenges identified by ICASA are the astronomical capital requirements to start and sustain subscription broadcasting operations, the existence of high skills shortage and the high costs attached to acquiring and retaining these skills, the high and escalating costs associated with the procurement of infrastructure for content production, the high costs associated with supplier agreements for both content and equipment, the high costs for advertising the new licensees new services in the market, the high costs and challenges associated with the outsourcing of services, and the limited

availability of both basic and premium content, programmes and channels (ICASA, 2007, p.36). Added to these challenges are the competition and technological barriers to entry identified by ICASA (2004, p.32 . 45) which form part of the sunk costs.

All these challenges and barriers to entry point to the need for substantial sunk costs and capital requirements to enter the South African subscription television broadcasting market. These challenges and barriers were observed by Park (2009, p.34) in stating that globally the communications industry including the telecommunications sector and the subscription television broadcasting market has astronomical sunk cost, essential facilities, economies of scale that could be detrimental to allocative efficiency and productive efficiency in the market.

Instead of developing a framework to quell the identified barriers and challenges that had a potential of creating an uneven playing field once the licensees were announced and competition was introduced in the market. ICASA simply warned the licensees that they should apply their minds to these barriers and challenges and built sound strategies to deal with them. Without the aforementioned considerations, the survival and viability of the successful applicants who will be new players in this market will be threatened (ICASA, 2007, p.36). This has resulted in the South African subscription television broadcasting market not being a level playing field and being dominated by one incumbent with significant resources and influence over the entire television broadcasting value chain (de Lanerolle, 2011, p.52).

5.4.2 Intensity of expected post-entry competition

The local market was projected to grow by five percent per annum in a conservative scenario or modestly, twenty percent in line with global growth projections or 44 percent in a scenario of robust growth as has been the growth trajectory of the AME region which recorded the strongest growth worldwide between 2006 and 2009 (DoL, 2008, p.21; Deloitte, 2011, p.20; IDATE, 2010, p.8).

Multichoice's subscriber grew from approximately 1 048 000 in 2005 to surpass the six million mark (6 730 000) in 2009 (ICASA, 2007, p.119; MDDA, 2009,

p.11). This growth was in line with the robust growth trajectory of the AME region as Multichoice's subscriber base grew by more than 40 percent.

Instead of the entire market growing at the same pace Multichoice has grown singularly to generate growth of more than 20 percent in net profits in line with the global growth projections, whilst the new entrant is struggling to attract new subscribers and to breakeven (*Techcentral*, 2012, October 12).

Multichoice's growth is in line with the observation by Gillwald, *et al.*, (2010, p.9) that there is a significant room for growth in the South African communications industry particularly in the film and broadcasting sector. As a result, MultiChoice has grown its market share by more than 95 percent in the country (OECD, 2013b, p.4).

Traditionally, MultiChoice's target audience consisted of households in the LSM 8 to 10 brackets. In reaction to the introduction of competition in the market Multichoice broadened its offering to include target audiences from all LSM brackets+ by offering low cost subscription television broadcasting services (MDDA, 2009, p. 11). It extended its pricing packages to eight bouquet channel including cheaper bouquets that offer limited range of channels (Dstv, 2011). This was to be expected as the licensing of the new players was supposed to intensify the degree of competition in the market (Levi-Faur & Bachar, 2011, p.247). However, as Levi-Faur and Bachar (2011, p.247) indicated as the degree of competition intensifies the need for market regulation increases as well.

Competition in the market has not changed significantly. More worrying though is that already in the year 2007 Multichoice which was the sole incumbent in the market then indicated that it expected its net profit and revenue growth path to continue at the same rate as it currently does+(ICASA, 2007, p.117).

This indicates that Multichoice was already confident that the new licensees who would be potential new entrants would not change the competition landscape in the market. This validates the observation by the NPC (2012, p.191) that ICASA has limited capacity and expertise+to regulate the communications industry. This

observation is in line with Hitchens (2011, p.221) assertions that weak and negative regulatory performance has been inherent to television broadcasting.

5.5 The effect of product differentiation, advertising, switching cost and network externalities on competition (Step 5)

This step evaluates the effects of advertising, product differentiation, switching costs and network externalities (including brand proliferation) in acting as strategic barriers to enter the South African subscription television broadcasting market (Park, 2009, p.44).

5.5.1 Product differentiation

In its submission to ICASA (2007, p.133) ODM indicated that it would differentiate its services through low prices aimed at households in the LSM 6 to 9 brackets. Soon thereafter Multichoice repackaged its existing services and introduced new services aimed at lower LSM brackets that it had ignored prior to the subscription television licensing process. Thus, both service providers differentiate their services. As Park (2009, p.44) observed service differentiation can be applied by the incumbents as a critical strategic barrier to entry.

Service differentiation as a barrier to entry adds to the high number of entry barriers which exist in the South African subscription television broadcasting market (ICASA, 2004, p.32 . 45). The presence of these entry barriers corresponds with Giles (2006, p.104) and Buigues (2006, p.12) observations that the communications industry requires regulation due to the existence of high and non-transitory entry barriers and the existence of natural monopolies issues (such as structural barriers, strategic barriers and legal or regulatory barriers).

The failure of the current regulatory framework to address competition matters in the market ignores the existence of strategic entry barriers which are high and non-transitory. This regulatory failure emanates from ICASA's misinterpretation of light-touch regulatory approach and its ignorance of the observation made by the World Bank (2001, p.71) that as competition intensifies there is more need for effective regulation rather than less regulation.

This validates the observation by the NPC (2012, p.191) that ICASA has limited capacity and expertise to regulate the communications industry. This

observation corresponds with Hitchens (2011, p.221) assertions that weak and negative regulatory performance has been inherent to television broadcasting.

5.5.2 Advertising

Subscription television broadcasting is embedded with high costs for advertising, more so for the new entrant in the market (ICASA, 2007, p.36). ICASA (2007, p.36) noted that the costs associated with advertising the new licensee's services in the market are exorbitant. In order to establish themselves in the market new entrants need to advertise their services equitably on all platforms, including the incumbent's network. The combination of substantial sunk costs associated with advertising and the incumbent position to exploit its first mover advantages makes advertising more critical strategic barriers to entry (Park, 2009, p.44).

The ability of the new entrant to advertise its services is critical to the new entrant's sustainability and stability in the market as subscription television broadcasting audience is fragmenting and declining in most of the developed markets. As Naughton (2006, p.44) has observed subscription television broadcasting is hemorrhaging viewers, or at least the viewers who are the most commercially lucrative. Therefore, failure by the new entrants to advertise their services on the networks of both the competitors and substitute service providers' networks on an equitable basis would hinder their potential for success and curtail competition in the market (ICASA, 2004, p.43).

Currently new entrants cannot promote their services on the incumbent's networks on equitable terms. This is mainly influenced by the decision reached in a judicial matter (*case 1990(4), SA 604(W)*) between Times Media Ltd and the South African Broadcasting Corporation (SABC). In this case the judge held that the *boni mores* of the market place did not require that the respondent (SABC) broadcast an advertisement promoting the interests of its competitor (ICASA, 2004, p.45). However, this decision could be circumvented by the reintroduction of Open Windows as was the case when M-Net entered the market (ICASA, 2005, p.64).

ICASA (2005, p.65) took a position that it would not introduce Open Windows for the new entrants to promote their services freely or at a minimum cost as was

the case when M-Net entered the market. When M-Net entered the market it was afforded the right to broadcast to non-subscribers. This arrangement came to be known as the Open Window (ICASA, 2005, p.64). The duration of the Open Window was a daily time slot of 18h00 to 19h00 until 31 December 1988 or until such time as a subscription figure of 150 000 was reached (ICASA, 2005, p.64). The Open Window was later extended to 17h00 to 19h00 daily.

This arrangement provided M-Net with an opportunity to promote itself freely beyond its limited subscriber base, it also presented M-Net with the much needed income generating stream from new subscriptions and advertisers. This in turn created a virtuous circle of reinvestment in the acquisition of premium content in an environment where there was no competition and it also reduced the need for M-Net to subsidise its STBs (ICASA, 2004, p.43).

ICASA's decision not to reintroduce Open Windows for the new entrants created an uneven playing field that resulted in Multichoice and the new entrants not being equally efficient after the costs of entering are taken into account. Meaning that the conditions for entering for the incumbents were less difficult than for the new entrants, as the new entrants would have to incur substantial sunk costs associated with advertising that need not be borne by an incumbent (Park, 2009, p.36; de Lanerolle, 2011, p.52).

The reasons provided by ICASA not to reintroduce Open Windows to support the new entrants were spectrum scarcity and the need for an STB that would enable the viewing of digitally encrypted transmission by the free-to-air audiences before the end of the digital migration process (ICASA, 2005, p.65).

The issue of spectrum scarcity has been nullified by the digital dividend resulting from the DTT migration which has enabled the transmission of the same number of channels using only one third to one-sixth of the spectrum bandwidth (Goggin, 2006, p.243; Hitchens, 2011, p. 231). Secondly, the STB that would be used by the free-to-air audiences would be compliant with the needs and standards of a digitally converged communications environment in the country (ICASA, 2012, p.28).

This failure by ICASA to support new entrants into the market through the reintroduction of Open Windows to be used for advertising the new entrants' services as was the case when M-Net was launched is another indication that the South African subscription television market is not a level playing field (de Lanerolle, 2011, p.52), and that the regulatory environment favours the dominant operator which is contrary to Reding's (2006, p.6) assertion that regulation should promote competition, and should not favour monopolies.

5.5.3 Switching costs

The need to procure an antenna and an STB combined with the payment of an activation fee create switching costs which could discourage a household to invest in the new entrants' services. The presence of these switching costs combined with Multichoice's monopoly over premium content entices new subscribers to the dominant operator's network.

As Nicita and Ramello (2005, p. 386) observed the presence of switching costs affect the new entrant in the market more adversely as the incumbent is favoured by the existence of consumers' high switching costs generated both by the technological lock-in coming from the system already adopted and by path dependency phenomena.

In turn these factors together with Multichoice's first mover advantage strengthen Multichoice's dominance over the South African subscription television market. These switching costs form structural barriers to enter the market as technology and the cost structures create asymmetric conditions between incumbents and new entrants, preventing or even impeding market entry (Buigues, 2006, p.12).

The failure of the current regulatory framework to address competition in the market ignore the existence of high and non-transitory entry barriers and the existence of natural monopolies issues (such as structural barriers and legal or regulatory barriers) in the market (Buigues, 2006, p.12).

This regulatory failure emanates from ICASA's ignorance of the observation made by the World Bank (2001, p.71) that as competition intensifies there is more need for effective regulation rather than less regulation. This validates the observation by the NPC (2012, p.191) that ICASA has limited capacity and

expertise+ to regulate the communications industry. This observation corresponds with Hitchens (2011, p.221) assertions that %weak and negative+ regulatory performance has been inherent to television broadcasting.

5.5.4 Network externalities

Audience perceptions influence consumer purchasing behaviour and Toptv is perceived as weak service provider and Multichoice is perceived as a premium service provider in terms of content that they broadcast. Consumers who have been exposed and accustomed to Multichoice's premium content may be slow to switch to the new entrant which is perceived as a provider of old and second rate content.

These perceptions create a path dependency whereby new subscribers follow the dominant network (Nicita & Ramello, 2005, p. 386). This in turn creates positive network externalities for the dominant operator as indicated by Matteucci (2004, p.3) who observed that subscription television market has strong positive network externalities.

In turn Multichoice entrench these positive network externalities by taking advantage of its first-mover advantage through increased investment in exclusive premium content, offering popular and in-demand programmes and attracting more subscribers and advertisers which is in line with the observation by McPhillips and Merlo (2008, p.238). MultiChoice's ability to acquire exclusive rights to the premium content results in it gaining %significant competitive advantage over its rivals and the rivals suffering a negative externality+ (OECD, 2013b, p.5).

The dominance by Multichoice over the subscription television value chain also contribute to strengthening Multichoice's positive network effects as is the case in the related telecommunications sector %which has shown a strong trend of vertical integration by networks+ and has the presence of strong network effects (Park, 2009, p.45). As Park (2009, p.34) observed the presence of %network externalities could be detrimental to allocative efficiency and productive efficiency+ in the entire South African subscription television broadcasting market.

These positive network externalities have resulted in Multichoice gaining more market dominance. This in turn presents Multichoice with an opportunity to charge monopoly prices and undermine competition in the market. The negative perception related to Toptv's service and Multichoice's strong brand presence and positive network effects have increased the amount of time required for Toptv to build a reputable brand name.

The failure of the current regulatory framework to address competition issues in the market have ignored the presence of intensive network externalities in the market and correspond with the observation by the NPC (2012, p.191) that ICASA has limited capacity and expertise to regulate the communications industry. This observation by the NPC is in line with Hitchens (2011, p.221) assertions that weak and negative regulatory performance has been inherent to television broadcasting.

5.6 Appraisal of vertical foreclosure and exclusion (Step 6)

This step evaluates the impact of a range of commercial practices such as vertical integration, exclusive dealing and contracting, refusal to supply, and product tying and bundling on competition in the South African subscription television broadcasting market (Park, 2009, p.44).

5.6.1 Exclusive dealing and contracting

Naspers the firm that owns Multichoice is a vertically integrated multinational communications industry operator with interests in newspapers, magazines, printing, book publishing and private education and electronic media such internet service provision and online news and Multichoice benefits from this arrangement (MDDA, 2009, p.46).

Naspers position in the industry is typical for a firm operating in a network industry. Network industries are characterised by vertically integrated operators (Buigues, 2006, p.12). These operators dominate the entire value chain, from creative inception to production, marketing, and ultimately distribution (McPhillips & Merlo, 2008, p.244). The subscription television broadcasting market shares a similar arrangement where operators regard control over the value chain as key to success in the market (ICASA, 2004, p.41).

Multichoice's commercial strategy is that of demanding ~~an~~ exclusionary contracts, tying arrangement, territorial exclusions, long-term contracts, loyalty rebates, most-favoured clauses and exclusive dealing rights with content owners in order to accumulate content and attract subscribers (Matteucci, 2004, p.5; OECD, 2013b, p.5). However, this strategy results in vertical foreclosure of competition and monopolization of the retail market (Matteucci, 2004, p.5).

This is evidenced by the Multichoice's acquisition of all the premium content rights available in the market that enabled it to build ~~an~~ extensive film library which then allows it to hoard this content and keep actual and potential competitors out of the market (OECD, 2013b, p.5). Multichoice could afford these acquisitions as it has enviable head-start in the market, long-term commercial arrangements with the suppliers and it also has absolute cost advantages to foreclose competition vertically and exclude competitors; being free-to-air television broadcasters who offer substitute service or the new entrant in the subscription television broadcasting market.

Multichoice's argument is that there is ex ante competition in the market as all broadcasters have the opportunity to bid for content. However Multichoice is was sufficiently aware that the exclusivity attached to content rights distorts competition in the retail market as ~~an~~ exclusive contract restricts competition ex post and create an opportunity for the monopolization of the retail market (ICASA, 2005, p.38; Matteucci, 2004, p.5).

Consequently, this strategy has ~~locked-in~~ all African content rights for 20 to 25 years as well as all local and international athletic, Olympic, soccer, rugby, cricket and general sport content rights. In turn, this strategy has foreclosed competition in this broadcasting sector vertically and excluded competitors and substitute service providers from the vital source of competition; premium content.

This arrangement affords Multichoice the advantage of differentiating itself as a service provider of premium content. Having excluded other broadcasters from this vital source of competition. Multichoice then benefits from first-mover advantage as it becomes the only broadcaster to offer popular and in-demand

programmes. This in turn results in the monopolisation of the commercial television market, due to the presence of strong positive network effects (Matteucci, 2004, p.3).

ICASA (2005, p.72) decided not to regulate the exclusive acquisition of content as it believed that this arrangement was fundamental to the provision of subscription television broadcasting services and this arrangement will offer the broadcasters the ability to attract and retain subscribers. ICASA believed that this arrangement was both efficient and desirable for the South African television broadcasting sector (ICASA, 2005, p.72).

In taking this position ICASA ignored its own observation that international experience demonstrates that access to premium content across platforms (particularly for new entrants) is essential for their success (ICASA, 2004, p. 42). This is another development that raises suspicions of regulatory capture and validates the observation that ICASA has limited capacity and expertise to regulate the communications industry (NPC, 2012, p.191; Levi-Faur & Bachar, 2011, p.246).

ICASA's position ignored the development in the telecommunications sector that indicated that there is a strong trend of vertical integration by networks in all network industries (Park, 2009, p.45). Furthermore, this position exposed new entrants into this market to strong possibilities of failure as new entrants based on structural separation are likely to fail as they do not have the advantage of a vertically integrated structure (Park, 2009, p. 44).

This position also ignored the effect of the combination of the already existing dominance of Multichoice and the identified astronomical sunk cost, essential facilities, economies of scale and network externalities could be detrimental to allocative efficiency and productive efficiency in the entire South African broadcasting sector (Park, 2009, p.34). This arrangement has created suspicions of regulatory capture as ICASA has endorsed Multichoice's position as the arrangement to be applicable to the entire television broadcasting markets and it has also entrenched the observation that ICASA has limited

capacity and expertise to regulate the communications industry (NPC, 2012, p.191; Levi-Faur & Bachar, 2011, p.246).

5.6.2 Refusal to supply

After acquiring premium content rights either through outbidding other broadcasters including the new entrant or through exclusionary contracts, tying arrangement, territorial exclusions, long-term contracts, loyalty rebates, most-favoured client arrangements and exclusive dealing rights with content owners (Matteucci, 2004, p.5). Multichoice then attaches unfavourable reselling conditions when selling content rights to the new entrant and other broadcasters as the seller, in this case being the dominant operator, has the power to dictate the terms of sale.

This development affords Multichoice with the power to discriminate against the new entrants due to its monopoly power over premium content in the local market. As Ratshisusu (2010, p.6) observed, markets in which there are dominant firms who abuse their market power, would lack effective competition. This is normally the case when competition is introduced (Bergman, *et al.*, 1998, p.8; Noam, 2006, p.71). This has resulted in the dominant operator having the power to curtail competition in the South African subscription television market and the entire broadcasting sector as it has monopoly over premium content in the retail sector (Matteucci, 2004, p.5).

The lack of a regulatory framework to address the attachment of unfavourable reselling conditions which results in refusal to supply by the dominant operator have created suspicions of regulatory capture (Levi-Faur & Bachar, 2011, p.246) and stands against Reding's (2006, p.6) assertion that regulation should promote competition, and should not favour monopolies.

5.6.3 Product bundling and tying

Product or service bundling was defined by OFCOM as means of linking one service or product to the supply of others (ICASA, 2004, p.51). Multichoice's dominance over the entire value chain provides it with intelligence to bundle its services. McPhillips and Merlo (2008, p.244) observed that most vertically

integrated subscription television broadcasters have intelligence to bundle their services.

This bundling of services limits consumer choice as the purchasing of one product is linked to a full range of bouquet services %even though there might be demand for only one service (channel or programme) in the bundle+(Park, 2009, p.44). This results in ~~full line forcing~~ Full line forcing occurs when the consumer's desire to procure one service results in the consumer having to procure the entire bouquet (ICASA, 2004, p.51).

ICASA ~~excused~~ itself from regulating service bundling and tying after being informed by Multichoice assertion that %an analysis of other jurisdictions demonstrates that it would be exceptional to provide ex ante regulation of bouquets as a means of addressing competition concerns+(ICASA, 2005, p.40). ICASA did not request Multichoice to provide the results of such a study and it did not verify the truth of the dominant operator's assertions.

ICASA promulgated regulations on the authorization of channels in line with Sections 4(3) and 4(4) of the Broadcasting Act (ICASA, 2006, p.5). These regulations do not address service bundling and tying which could be applied in an uncompetitive manner by the dominant operator (ICASA, 2004, p.51).

These regulations do not address competition matters ex ante as ICASA (2005, p.72) is of the opinion that competition issues in the market should be addressed through ex post regulatory framework. ICASA's position is contrary to the observation by Ratshisusu (2010, p.2) which indicates that ex ante regulation would be more effective during this phase of liberalisation of this market. The ignorance of these regulations to address service bundling and tying has resulted in the suppression of the growth of the pay-per-view market in the country.

Pay-per-view market is linked to the growing trends of personalization, ~~consumer sovereignty~~ and viewer empowerment which have been observed by Naughton (2006, p.46), McPhillips and Merlo (2008, p.245) and the ITU (2012c, Module 7, 1.5.1) as some of the trends that drive convergence in the

subscription television market. The demand for pay-per-view services is expected to grow as personalisation and viewer empowerment drive subscription television broadcasting to evolve from mass market to atomized market+ (IDATE, 2010, p.6).

ICASAs ignorance of the effect of content bundling and tying on the growth and development of the pay-per-view market in the country is another instance that validates the assertion that ICASA has limited capacity and expertise+ to regulate the communications industry (NPC, 2012, p.191).

5.7 Determining predatory behaviour (Step 7)

This step evaluates the behaviour of the dominant subscription television broadcaster in the context of engagement in predatory pricing (Park, 2009, p.45).

5.7.1 Predatory pricing

From its inception Multichoice focused on the target audience that comprised of the LSM 8 to 10 brackets (MDDA, 2009, p.11). Most of the applicants including the new entrant ODM indicated in their license applications in 2007 that they aimed to target lower LSM markets which were not covered by Multichoice by then. This was based on the market research study conducted by Research Surveys in 2006 which found that 70% of those who do not subscribe to DSTV believe that the fee is too high and that's why they do not subscribe+ (ICASA, 2007, p.133). Based on this observation ODM adopted a low pricing strategy aimed at the target audience that comprised of the LSM 6 to 9 brackets.

After this licensing process Multichoice reacted by introducing new services aimed at the lower LSM markets which it had ignored before (MDDA, 2009, p.11). Multichoice's lower end services range between R166.00 and R260.00 are in the same price range as those of the new entrant which are priced between R109.00 and R279.00.

The combination of Multichoice's introduction of the services aimed at the lower end of the market prior to the entry of ODM which had indicated that it targeted this low end market, lower service prices offered by Multichoice and its monopoly in the ownership of premium content rights in the market indicate the

engagement in predatory behaviour which is aimed at %either to squeeze rival firms out of the market or to deter the entry of potential competitors+(Park, 2009, p.45). These strategies effectively strengthen Multichoice's dominance in the market and provide it with an opportunity to set monopolistic pricing.

5.7.2 The market share of the predatory firm

Multichoice's subscriber base was estimated to be 6 730 000 in 2009 and it has been growing (MDDA, 2009, p.11). On the other hand ODM is struggling to attract about 350 000 new subscribers annually in order to be sustainable (*Business Day*, 2010, May 3). By October 2012; two years after its launch, Toptv had only sold 450 000 STBs. Of these 450 000 STBs about 155 000 were being used continuously on a monthly basis. This is below the required 350 000 required monthly subscribers for ODM to break even (*Techcentral*, 2012, October 12).

It is clear that Multichoice has significant market power with regard to subscriber base. MultiChoice has a market share in excess of 95 percent in the country (OECD, 2013b, p.4). As indicated in section 5.6 above, Multichoice's dominance stems primarily from its ownership and control of content exclusivity rights. Content exclusivity rights have the effect of distorting competition in the retail market as %an exclusive contract restricts competition ex post+ and create an opportunity for the monopolization of the retail market (ICASA, 2005, p.38; Matteucci, 2004, p.5).

5.8 Appraisal of entry impediments (Step 8)

This step evaluates the presence and effect of entry impediments on competition in the South African subscription television broadcasting market. Park (2009, p.45) describes entry impediments as %any factors which delay the process of entry into a market without increasing the (sunk) costs of entry, or creating an asymmetry between incumbents and entrants+.

5.8.1 Licensing requirements

During the licensing process ICASA decided not to issue technology neutral licenses as it had not developed a licensing framework congruent with the ECA. This restricted subscription broadcasting to satellite and cable transmission and excluded NGN transmission platforms (ICASA, 2007, p. 34). As a result of this

misalignment ICASA issued commercial broadcasting service licenses and not the Electronic Communications Network Services (ECNS) or the Electronic Communications Services (ECS) licenses (ICASA, 2007, p.11).

This lack of alignment between legislation, regulatory processes and policy is an indication of confusion of roles and responsibilities between the DoC and ICASA and there is considerable evidence that the DoC and ICASA have failed to achieve this alignment+(de Lanerolle, 2011, p.51). This misalignment resulted in ICASA specifying the type of technology to be used resulting in the pace of convergence and innovation in the market being curtailed.

The lack of technology neutrality in the current licensing framework has resulted in the segmentation of subscription television broadcasters according to distribution platform. This has not only limited competition, the development of convergence, and the promotion of interconnection and interoperability of networks and devices in the market. It has also resulted in subscription broadcasters benefiting from the double protection that is offered by the separation and protection of the entire broadcasting sector and subsequent protection from the effects of convergence in other sector of the communications industry.

The lack of technology neutral licensing framework will also result in the subscription television broadcasting market having three sets of licences; one for satellite transmission, the other for cable transmission and the new one for DTT transmission. This will raise unnecessary administration burden and increase uncertainty in the television broadcasting markets.

The introduction of a technology neutral licensing framework which promote interconnection and interoperability of networks and devices might lead to increased demand for alternative and cheaper distribution channels, which include DTT and broadband Internet. This in turn has a potential of attracting new investments in the market. This development might spur the penetration of local-loop broadband as other firms might be incentivised to lay more fibre through out the country. In turn, this will generate increased demand and competition for content that will be viewed on any transmission platform and can

be viewed on the device preferred by the consumer in a converged communications environment.

The costs associated with the granting, amendment and renewal of a license for subscription television broadcasting are steep and prohibitive. Stipulated by the subscription broadcasting services regulations of 2006 to be R70 000.00 for a license granting the use of one transmission platform and R100 000.00 for a composite license. An additional R5 000.00 is levied for the issuing of a license and annual license fees which are stipulated to be two percent of annual turnover. These costs do not include expenditure associated with pre-entry market research, administration costs and the costs for the authorisation of channels.

These high costs are in contrast with the developments in the global communications industry such as UGC, user empowerment and ~~consumer sovereignty~~ whereby viewers are empowered to determine the content that they want to view and also their own viewing schedules (Naughton, 2006, p.46). This user empowerment and ~~consumer sovereignty~~ have resulted in ~~about~~ 80% of viewers with PVRs avoiding advertisements (McPhillips & Merlo, 2008, p.246). This in turn has resulted in advertisers reducing their expenditure on subscription television broadcasting and spreading their messages through a variety of other distribution channels. Thus further reducing the much needed income stream that new entrants need to invest in premium content to attract more subscribers and advertisement revenue.

Section 30 (1) of the Broadcasting Act, 1999, which is applicable to commercial broadcasting services stipulate the following conditions for all commercial broadcasters ~~(a)~~ must provide a diverse range of programming addressing a wide section of the South African public; (b) must provide, as a whole, programming in all South African official languages; (c) may provide programming in languages other than South African official languages, where the Authority is convinced that such services can be commercially viable; (d) must within a reasonable period of time be extended to all South Africans and provide comprehensive coverage of the areas which they are licensed to serve.

An additional set of conditions applicable to subscription television broadcasting were announced by ICASA (2005, p.56 . 58). All these conditions impose extra costs on the new entrants and they ignore commercial broadcaster's aspirations of focusing on a particular niche for the purpose of being a target market broadcaster. As Foster and Kiedrowski (2006, p.25) have also observed that "market structures are changing" and a licensee may want to enter the market just to serve a particular niche market for a particular as most of the premium content is already owned and controlled by monopoly commercial broadcasters in the market.

The multi-pronged purpose of the regulations on ownership limitations in the South African subscription television broadcasting market were described by ICASA (2005, p.69) as "the promotion of viewpoint diversity, the redressing of historical imbalances, economic and cultural protectionism, and the promotion of competition in the broadcasting sector." These elements with the exception of promotion of competition are addressed by the effects of convergence in the communications industries worldwide.

Currently users and consumers in converged communications environments are empowered to contribute their opinions and transform or create content through an array of platforms and activities such as "creating home videos and uploading them on YouTube, instant connection and communication with friends and family through Facebook page and Skype, constant Twitter feeds, video or photos shot via a mobile phone during a civil uprising and distributing it worldwide, to the blogs . amateur and professional, public and private" (Hitchens, 2011, p.220).

Regulations on ownership limitations in the South African subscription television broadcasting are an anomaly as most of the OECD economies do not set foreign ownership limitations on subscription television broadcasting (ICASA, 2004, p.12 . 13). These ownership limitations put a restriction on foreign direct investment (FDI) in the country, in the communications industry and in the sector. New entrants need these sources of income and expert relationships in order to pose a serious competition to the affluent dominant operator.

There is an urgent need to review the licenses that were issued by ICASA and the licensing conditions attached to commercial broadcasters in light of the positive effects of convergence in technology neutral communications industries globally and the imminent migration to the DTT platform in the country.

ICASA (2007, p.34) announced in 2007 that it was currently developing a licensing framework in terms of Chapter 3 of the ECA, and indicated that it will comply with the requirements of section 2 (b) of the ECA with respect to technologically neutral licensing framework. Thereafter, it will align all licenses issued prior to the new licensing framework with the new framework (ICASA, 2007, p.34).

The television broadcasting sector has been waiting for this alignment since November 2007 when the licensees were announced and there has not been an indication that this alignment will happen soon. This raises the concern that ICASA is not perturbed by the developments within the subscription television broadcasting market. Thus, adding more burden to the South African regulatory environment which is viewed as a major stumbling block to doing business in South Africa (Esselaar & Gillwald, 2006, p.9).

5.8.2 Other entry impediments

Other entry impediments exist and act as barriers to enter the South African subscription television broadcasting market. These entry impediments are: the incumbent's long-term exclusive contracts with content suppliers resulting in monopoly conditions in the entire broadcasting sector, product certification and product registration requirements as stipulated by ICASA may take significant amounts of time to be satisfied by the licensee, the time required to gain a significant market share to drastically change or influence the behaviour of the well resourced dominant incumbent with long time operational experience in the market and finding suitable infrastructure to set up broadcasting studios, satellite uplinking facilities and transmission distribution facilities (Park, 2009, p.34).

5.9 Summary

The data from the research study is analysed in accordance with the steps/themes from the analytical framework. The analytical framework is linked to the secondary research questions which in turn are linked to the data themes

that emerged during the data analysis stage of this research study. Critical themes from the analysis reveal that: There are numerous barriers to enter the South African subscription television market; The 2007 subscription television licensing process failed to achieve the intended objective of promoting competition and convergence in the market; The South African Subscription broadcasting Services Regulations of 2006 do not address the promotion of competition and convergence in the market; The South African subscription television market just like the entire communications industry is an uneven playing field that favours the dominant incumbent; ICASA's failure to regulate the market is an additional barrier to entry, strengthens the observation that ICASA is not fit to regulate the communications industry and raises suspicions of regulatory capture.

The next chapter is the research study's conclusion. Its goal is to amalgamate the steps/themes from the analysis in order to succinctly explain how competition and convergence can be promoted in the South African subscription television broadcasting market through regulatory intervention.

CHAPTER 6: RESEARCH STUDY CONCLUSION ON THE EFFECTS OF REGULATORY APPROACH ON COMPETITION IN THE SOUTH AFRICAN SUBSCRIPTION TELEVISION BROADCASTING MARKET

This chapter examines the issues that emerged from the research study and it relates them to the relevant literature and the current developments in the subscription television broadcasting market globally. Suggestions for further research are also outlined.

As highlighted in Chapter 3 the main research question for this study is: How can the subscription television regulatory approach be updated to promote competition and convergence in the market?

The main research question has five secondary questions which are:

- (a) What are the barriers to enter the South African subscription television market?
- (b) How do these barriers affect competition in the South African subscription television market?
- (c) How is the state of competition in the subscription TV market perceived by industry, the policy-maker, the regulator and other opinion-makers?
- (d) How would a convergence approach in the subscription television licensing regime affect competition and convergence in this market?
- (e) How would heavy-handed regulatory approach, an alternative to the current operating light-touch regulatory approach, affect competition in this market?

The secondary research questions are linked to the analytical framework which in turn is linked to the potential entry barriers for the South African subscription television broadcasting market as identified by ICASA in 2004. These are categorised according to the data themes that emerged during the data analysis stage of this research study. All these are structured according to the research sub-questions and the interview protocol. These themes are:

1. The existence of barriers to enter the market
2. Effect of barriers-to-entry on competition and convergence

3. The state of competition in the market
4. Bolstering competition in the market
5. The effect of change in the licensing regime on competition and convergence
6. Heavy-handed regulatory approach versus light-touch regulatory approach

The research answers to both the primary and secondary questions are framed according to the above mentioned themes and are encompassed below. In addition a number of recommendations are made on promoting competition and convergence in the South African subscription television broadcasting market.

6.1 The existence of barriers to enter the market

There are numerous barriers to enter the South African subscription television broadcasting market. The first set of barriers relate to those identified by ICASA as potential entry barriers in 2004. These potential entry barriers have developed into real entry barriers. The second set of entry barriers relate to the barriers identified by the analytical framework. All these barriers are real, entrenched and intense in this market.

These barriers raise questions about the regulatory decision making process. ICASA was conscious the possibility of these potential barriers turning into real barriers before it issued licenses to operate in this market in 2007. ICASA had commissioned a market analysis study in 2003 and this study indicated trends in the global subscription television markets.

One of the findings of that study was that there were potential barriers to enter this market and one of the crucial barriers related to the exclusive acquisition of premium content. ICASA (2004, p. 42) observed that ~~the~~ international experience demonstrates that access to premium content across platforms (particularly for new entrants) is essential for their success. However, ICASA chose not to introduce an ex ante regulatory framework to address competition issues in this market.

The failure by ICASA to regulate this market raises concerns of regulatory capture and regulatory competence. The reason not to regulate the market ex

ante reflects the submission of the incumbent to ICASA in 2005. Multichoice requested the exclusive application of ex post regulation on competition in this market. This raises concern of regulatory capture. ICASA had identified the possible development of the barriers to entry in due time before it could introduce competition in the market. However, ICASA decided not to intervene ex ante in the market to reduce the potential of the identified barriers in the market. This raises questions of regulatory competence by ICASA.

6.1.1 Recommendation: Implement ex ante regulatory framework

ICASA should develop and promulgate an ex ante regulatory framework to enable it to intervene decisively in the market as this market has characteristics of natural monopoly, there is a requirement of substantial sunk costs to enter this market and there is a presence of high non-transitory barriers to entry (Bergman, *et al.*, 1998, p.4; Intven, *et al.*, 2000, p.1-1; Boylaud & Nicoletti, 2001, p.103; Levi-Faur, *et al.*, 2005, p. 23; Buigues, 2006, p.12; Levi-Faur & Bachar, 2011, p.247).

Failure to intervene decisively in the market has resulted in three of the new licensees failing to enter the market and the new entrant struggling to survive whilst the incumbent has used its first-mover advantage to fortify its dominance over the market. All these indicate that there is lack of effective and sustainable competition and destructive competition prevails in this market as is the case globally (Nicita & Ramello, 2005, p. 377; Atiyas & Dog n, 2007, p.503; Ratshisusu, 2010, p.6).

This market requires ex ante regulatory intervention as is the case in most of the subscription television broadcasting markets globally. Ex ante regulatory frameworks in the subscription television broadcasting markets are applied by the FCC, OFCOM, Korea Communications Commission, Commerce Commission of New Zealand and the European Commission (Galperin & Bar, 1999, p. 28; ICASA, 2004, p.37; Nicita & Ramello, 2005, p. 377; OECD, 2013a, p.18).

Ex ante regulatory framework should focus on combating all the barriers to entry as identified by ICASA and the analytical framework. One of the areas where there is a immediate need for decisive intervention is the regulation of exclusive

content broadcasting rights as these foreclose competition not only the local subscription television broadcasting market but in the entire South African broadcasting market.

The development of ex ante regulatory framework to address competition issues and reduce the barriers to enter the subscription television broadcasting market should be considered by and inform the findings of the ICT Policy Review Panel.

6.2 Effect of barriers-to-entry on competition and convergence

The barriers to entry as identified by ICASA and the analytical framework are entrenched and intense in the South African subscription television broadcasting market. This has resulted in three of the new licensees failing to enter the market, the new entrant struggling to survive, the incumbent using its first-mover advantage to fortify its dominance over the market and the incumbent abusing its market dominance particularly in the area of access to premium content (OECD, 2013b, p.6). Thus, these barriers to entry have distorted competition in the market.

This development has created conditions of unsustainable competition which are contrary to ICASA's regulatory responsibility of ensuring that fair market conditions exist, such that all the participants are able to compete on an equal footing. The main purpose of regulating competition is ensuring effective and sustainable competition whilst protecting the interests of the consumer (ICASA, 2004, p.40).

Consumer welfare has been diminished as there is no effective rivalry between firms which has resulted in the slow pace of innovation and convergence in this market. This is contrary to emerging trends in the global subscription television markets, where the impact of convergence is more profound on the subscription television broadcasting market than on the other markets and sectors in the communications industry (McPhillips & Merlo, 2008, p. 238; Nicita & Ramello, 2005, p.371).

MultiChoice has a market share in excess of 95 percent (OECD, 2013b, p.4). This market dominance results in the dominant operator, MultiChoice, setting

high prices for its services as there is no sustainable competition in the market and there is no viable substitute market in the sector. This is supported by the results of study which indicated that 70% of those who do not subscribe to DSTV believe that the fee is too high+(ICASA, 2007, p.133).

These high fees which diminish consumer welfare supports the observation by Gillwald, *et al.* (2010, p.9) that the South African communications industry has substantially higher prices than comparator African countries, as well as OECD countries. Furthermore, this is supported by the country's National Development Plan-2030 (NPC, 2012, p.190) which states that the price of services and equipment remains a significant barrier to the expansion of the communications industry.

These high fees hamper the development of an inclusive information society and network knowledge economy, limit the growth potential of the South African subscription television market, reduce the effectiveness of decision making and policies throughout the economy and plurality as content broadcasted by the subscription television services play an important role in the allocation and governance of power in the modern society as politics (Hahn & Tetlock, 2006, p.266; Castells, 2010, p. xxxii).

6.2.1 Recommendation: Alignment of legislation, policy and regulatory framework

Legislation, policy and regulatory framework for the South African communications industry should be aligned to create favourable conditions for all operators to compete on equitable basis in the industry and take advantage of the opportunities that are presented by convergence. Although the ECA seeks to promote convergence in the communications industry it treats the broadcasting sector separately and this has created a critical regulatory bottleneck to a fair, competitive environment+(World Bank, 2012, p.11).

At the moment the South African communications industry is not a level playing field (de Lanerolle, 2011, p.52). This hinders the development of a converged industry and the promotion of converged services in the industry as legislation, policy and regulatory framework are not aligned.

Commercial television broadcasting is currently insulated from the effects of convergence in the industry as policy and regulation relating to broadcasting is developed independently of, and at times, in contradiction to, policy and regulation in telecommunications (de Lanerolle, 2011, p.51). This indicates the lack of alignment between legislation, policy and regulatory processes (de Lanerolle, 2011, p.51). Commercial television broadcasting market is not unique sector within the communications industry as it currently shares many of its characteristics with the telecommunications and print publishing (Giles, 2006, p.105). Therefore, it should be regulated as other commercial markets in the communications industry.

Policy and regulation should move the television subscription television broadcasting market towards a fully competitive, advancing beyond a partially competitive market.

The alignment of legislation, policy and regulatory framework for the South African communications industry should be considered by and inform the findings of the ICT Policy Review Panel.

6.2.2 Recommendation: Creation of a converged communications industry
ICASA should realise that the communications industry globally is no longer arranged vertically as convergence and competition have effected corporate modernization strategies, mergers and strategic alliances in some markets, resulting in the blurring of sectoral boundaries and the emergence of new sectors in the communications industry (Henten, *et al.*, 2006, p.5).

The development of NGN and the migration to the internet platform requires ICASA to prioritise the development of a regulatory framework that will address competition and technological issues in the entire communications industry uniformly. As Noam (2006, p.71) has observed, as the internet becomes the main platform for most media uses, the regulatory rules for the internet become the rules for much of the media system as a whole. The regulatory rules for the internet are moving toward those of telecom. Therefore, television regulation will become telecom regulation.

The development of a regulatory framework that addresses competition and technological issues consistently throughout the communications industry should be considered by and inform the findings of the ICT Policy Review Panel and the findings of the Review of the Broadcasting Regulatory Framework which ICASA is currently undertaking.

6.3 The state of competition in the market

MultiChoice has a market share in excess of 95 percent (OECD, 2013b, p.4). The South African subscription broadcasting television market is effectively monopolised by MultiChoice (ICASA, 2012, p. 39). There are entrenched and intense barriers to enter the South African subscription television broadcasting market. This has resulted in three of the new licensees failing to enter the market, the new entrant struggling to survive, the incumbent using its first-mover advantage to fortify its dominance over the market, the incumbent threatening the viability of substitute services and the incumbent abusing its market dominance particularly in the area of access to premium content (OECD, 2013b, p.6).

These developments have resulted in MultiChoice, setting high prices for its services as there is no effective and sustainable competition in the market and there is no viable substitute market in the sector. This is supported by the findings of a study which indicated that 70% of those who do not subscribe to DSTV believe that the fee is too high (ICASA, 2007, p.133; OECD, 2013b, p.6).

ICASA had commissioned a market analysis study in 2003 and this study indicated trends in the global subscription television markets. One of the findings of that study was that the exclusive acquisition of premium content could be a crucial barrier to entry (ICASA, 2004, p. 42). This is evidenced by the Competition Commission investigating allegations of abuse of dominance relating to access to premium content against Multichoice (OECD, 2013b, p.6).

As early as 2004, ICASA (2004, p.42) was conscious of the fact that worldwide access to premium content across platforms is essential for competition in the market, for sustainability and success of the new entrants. ICASA (2004, p.42) had observed the regulatory ruling in the European Union which requires

dominant operators to make content available to competitors+. However, ICASA chose not to introduce an ex ante regulatory framework to address competition issues in this market.

These developments have created conditions of unsustainable competition which are contrary to ICASA's regulatory responsibility of ensuring that fair market conditions exist, such that all the participants are able to compete on an equal footing. The main purpose of regulating competition is ensuring effective and sustainable competition whilst protecting the interests of the consumer+ (ICASA, 2004, p.40).

6.3.1 Recommendation: Ex ante regulation of exclusive content broadcasting rights

Subscription television markets worldwide are on the verge of being monopolized or being highly concentrated (Matteucci, 2004, p.3; McPhillips & Merlo, 2008, 243; Nicita & Ramello, 2005, p. 372). This stems from a reality that a subscription television broadcaster which does not hold premium content rights provided by the major content creators has limited prospects of becoming competitive+(Ratshisusu, 2010, p.11). More so, the success and sustainability of a new entrant into the subscription television market is determined by the ability of new broadcasters to gain access to the content that consumers demand and to differentiate their offering from that of incumbent broadcasters+ (OECD, 2013a, p.17).

As a result ICASA should introduce ex ante regulations to address exclusive premium content acquisition, retention and sharing in order to promote effective and sustainable competition in the market and the entire broadcasting sector. Failure to address this issue will result in increased instability in the market, market failure, and prolonged exploitation of the consumers (Collins, *et al.*, 2001, p.6; ICASA, 2012, p.21).

Ex ante regulatory frameworks relating to exclusive content broadcasting rights in the subscription television broadcasting markets are promoted and applied by OFCOM, Commerce Commission of New Zealand and the European Commission (Nicita & Ramello, 2005, p. 377; OECD, 2013a, p.18).

The development of ex ante regulatory framework that addresses exclusive content broadcasting rights should be considered by and inform the findings of the ICT Policy Review Panel and the findings of the Review of the Broadcasting Regulatory Framework which ICASA is currently undertaking.

6.4 Bolstering competition in the market

The South African subscription broadcasting television market is effectively monopolised by MultiChoice which has a market share in excess of 95 percent (ICASA, 2012, p. 39; OECD, 2013b, p.4). There are entrenched and intense barriers to enter the South African subscription television broadcasting market. This has resulted in MultiChoice abusing its market dominance particularly in the area of access to premium content (OECD, 2013b, p.6).

Locally and globally subscription television broadcasters limit competition and the effects of convergence in the market by preventing the interconnection and interoperability of the STBs (Nicita & Ramello, 2005, p. 386; Ratshisusu, 2010, p.13). Failure by regulatory agencies to intervene decisively in addressing interconnection issues in the market can actually increase regulatory intervention over the longer term, entrench the essential facility characteristics of the STB and delay the development of competition in the market (Intven, *et al.*, 2000, p.1-21; Matteucci, 2004, p.5).

Interconnection and interoperability are the pillars of competition and promote convergence in the communications industry resulting in increased choice of services to the consumer (Melody, 1997, p. 29). Failure to regulate STB interconnection has resulted in consumer welfare being crushed in the market as there is no effective and sustainable competition resulting high prices (ICASA, 2007, p.133; Gillwald, *et al.*, 2010, p.9; NPC, 2012, p.190; OECD, 2013b, p.6).

In 2007 ICASA declared interconnection and interoperability of the STB as a matter of commercial arrangements not a regulatory matter therefore it would not intervene in the market (*Business Report*, 2007, September 13). Treating interconnection as a commercial arrangement between the incumbent and the new entrants exposes the new licensees to two crucial uncertainties that affect their investment strategies in this market.

These uncertainties are whether to bid and acquire premium broadcast rights without having already reached a critical mass of customers, or investing in building a distribution platform without having the certainty to gain ex-post access to valuable content+ (Nicita & Ramello, 2005, p. 378). These uncertainties have led to %a rational efficient+ new licensee avoiding to invest in this market (Nicita & Ramello, 2005, p. 378).

6.4.1 Recommendation: Asymmetrical STB interconnection regulations

One of the short-term interventions is for ICASA as the regulatory custodian of the subscription television broadcasting market, to intervene proactively in the market to promote competition through the development and promulgation of asymmetrical interconnection regulations for the STB. ICASA should not treat interconnection as a commercial arrangement between the incumbent and the new entrants as this has already %imposed unnecessary burdens on new entrants, and prevented the implementation of asymmetricalq regulatory initiatives that will open networks and markets to competition+ (Intven, *et al.*, 2000, p.1-21; *Business Report*, 2007, September 13).

The promulgation of asymmetrical interconnection regulations for the STB will change the business model applicable in this market from infrastructure-based competition; which requires the new entrants to commit significant sunk costs before they enter the market, to service-based competition which is aided by ex ante regulatory framework that addresses exclusive content broadcasting rights.

Asymmetrical interconnection regulations for the STB will release the new entrants' capital requirements from infrastructure to increased investments in the improvement of the quality of content, sound, picture and service which includes the development of sophisticated programmes schedules, the introduction of interactive services and increased diversity in the horizontal television bouquet (Matteucci, 2004, p.4; IDATE, 2010, p.17; ITU, 2012c, Module 7, 1.4).

Asymmetrical interconnection regulations for the STB will attract new investments in the market, the broadcasting sector and the entire communications industry. These new investments will improve the viability and sustainability of the new licensees and will enable them to attract larger

audiences and attract advertising revenue. This will improve consumer welfare and the value of this market as there will be credible alternative to the dominant operator and the range of services offered by this market will be expanded. In turn, this will also enhance the speed of migrating to a converged communications industry.

The development of ex ante regulatory framework to introduce asymmetrical STB interconnection in this market should be considered by and inform the findings of the ICT Policy Review Panel and the findings of the Review of the Broadcasting Regulatory Framework.

6.5 The effect of change in the licensing regime on competition and convergence

During the commercial satellite and cable subscription television broadcasting services licensing process in 2007 ICASA did not issue technology neutral licenses as required by the ECA. The reason for this misalignment was that ICASA had not developed a licensing framework congruent with the ECA. As a result subscription television broadcasting market in the country is limited to satellite and cable transmission and exclude NGN transmission platforms (ICASA, 2007, p. 34). This limitation of transmission platforms is contrary to ICASA's stated objective of attracting investment in the broadcasting sector (ICASA, 2007, p. 13).

This misalignment between the ECA and ICASA's decision resulted in the specification of the type of technology to be used in the market. This lack of technology neutrality has resulted in the segmentation of subscription television broadcasters according to distribution platforms.

The lack of technology neutral licensing framework poses a risk of the subscription television broadcasting market having three sets of licences; one for satellite transmission, the other for cable transmission and the new one for DTT transmission. This will raise unnecessary administration burden, increase uncertainty in the market and add more burden to the South African regulatory environment which is viewed as a major stumbling block to doing business in South Africa+(Esselaar & Gillwald, 2006, p.9).

ICASA announced in 2007 that it was currently developing a licensing framework in terms of Chapter 3 of the ECA. ICASA further indicated that it will comply with the requirements of section 2 (b) of the ECA with respect to technologically neutral licensing framework, and it will thereafter align all licenses issued prior to the new licensing framework with the new framework (ICASA, 2007, p.34). The market and the industry have been waiting for this alignment since November 2007 when the licensees were announced and there has not been an indication that this alignment will happen soon.

These old licenses issued by ICASA have not only limited competition, the development of convergence, and the promotion of interconnection and interoperability of networks and devices in the market. They have also offered the subscription television broadcasters double protection. That is protection offered by the ECA as it treats the entire broadcasting sector as different from other sectors in the communications industry and the subsequent protection from the effects of convergence in other sectors of the communications industry. This has resulted in the creation of a critical regulatory bottleneck to a fair, competitive environment (World Bank, 2012, p.11).

The costs associated with the granting, amendment and renewal of a license for subscription television broadcasting are steep and prohibitive and are contrary to the developments in the global communications industry such as the growth of UGC, user empowerment, consumers' ability to avoid advertisements resulting in the decline in advertising revenue and consumer sovereignty whereby viewers are empowered to determine the content that they want to view and also their own viewing schedules (Naughton, 2006, p.46; McPhillips & Merlo, 2008, p.246). Section 30 (1) of the Broadcasting Act, 1999, which is applicable to commercial broadcasting services stipulate a number of onerous conditions for commercial broadcasters; including subscription television broadcasters. ICASA (2005, p.56 . 58) emphasised the importance of the subscription television broadcasters adhering to sections 41, 42 and 46 (1) of the IBA Act. All these conditions impose extra costs on the new entrants.

Regulations on ownership limitations in the South African subscription television broadcasting are an anomaly as most of the OECD economies do not set foreign

ownership limitations on subscription television broadcasting (ICASA, 2004, p.12 . 13). These ownership limitations put a restriction on foreign direct investment (FDI) in the country, in the communications industry and are contrary to ICASA's stated objective of attracting investment in the broadcasting sector (ICASA, 2007, p. 13). These regulations limit the sources of income and expert relationships needed by the new licensees in order to pose a serious competition to the affluent dominant operator.

6.5.1 Recommendation: Technology and device neutral licensing framework

ICASA should align the subscription television licenses with the ECA through the development and promulgation of technology and device neutral licensing framework. This will promote interconnection and interoperability of networks and devices. It will also provide new entrants with an additional platform to promote their services, additional revenue base and will create a level playing field in the subscription television broadcasting market. This will lead to increased demand for alternative and cheaper distribution channels; which include DTT and broadband Internet. This will also ensure optimum allocation of resources as competition will come from cheaper alternative distribution platforms and devices (Nicita & Ramello, 2005, p. 385).

Technology and device neutral licensing framework has a potential of attracting new investments in the sector. This development might spur the penetration of local-loop broadband as other firms might be incentivised to lay more fibre through out the country. In turn, this will generate increased demand and competition for content that will be viewed on any transmission platform and can be viewed on the device preferred by the consumer in a converged communications environment.

There is an urgent need to review the current licenses that were issued by ICASA and the licensing conditions attached to commercial broadcasters in light of the positive effects of convergence in technology neutral communications industries globally and the imminent migration to the DTT platform in the country.

The development of technology and device neutral licensing framework for this market should be linked with the findings of the ICT Policy Review Panel and the

findings of the Review of the Broadcasting Regulatory Framework which ICASA is currently undertaking.

6.5.2 Recommendation: Removal of limitations on foreign ownership

Having aligned the subscription television licenses with the ECA as indicated in 6.5.1 above ICASA should then issue Electronic Communications Network Services (ECNS) licenses to replace the current commercial broadcasting service licenses (ICASA, 2007, p.11). This will remove the limitations on foreign ownership which are attached to the broadcasting service licenses but not attached to both the ECS and the ECNS licenses.

These foreign ownership limitations are an unnecessary stumbling block that further reduces the much needed income stream that a new entrant would need to invest in premium content to attract more subscribers and advertisement revenue. The multi-pronged purpose of the regulations on ownership limitations in the South African subscription television broadcasting market as were described by ICASA (2005, p.69) is currently achieved in converged communications industries without regulatory limitations on foreign ownership (Hitchens, 2011, p.220).

The migration from the current commercial broadcasting service licenses to the technology and device neutral ECNS licensing framework for this market should be linked with the findings of the ICT Policy Review Panel and the findings of the Review of the Broadcasting Regulatory Framework which ICASA is currently undertaking.

6.6 Heavy-handed regulatory approach versus light-touch regulatory approach

South Africa like most OECD member countries applies the light-touch regulatory approach in the subscription television market. Light-touch regulatory approach was advocated for this market by the Triple Inquiry Report that was commissioned by the IBA in 1995 (ICASA, 2007, p.12). The Triple Inquiry Report did not specify the reasons for recommending light-touch regulation for this market (IBA, 1995, par.16.2.2.2).

In the OECD countries barriers to enter these markets, particularly sunk costs, have been substantially reduced whereas there are numerous competition and technological barriers to entry (ICASA, 2004, p.32 . 45). The pace and intensity of competition in the OECD countries is rife and has led to increased consumer choice (Matteucci, 2004, p.5; ICASA, 2007, p. 12). On the other hand, the South African subscription television market has major challenges (ICASA, 2007, p.36; OECD, 2013b, p.6).

The OECD countries can afford to apply the light-touch regulatory approach in their markets as the barriers to entry have been addressed, the convergence process is entrenched and competition has been established in their national subscription television broadcasting markets. The advocacy and application of the light-touch regulatory approach in the South African subscription television market is not informed by literature (Bergman, *et al.*, 1998, p.8; Intven, *et al.*, 2000, p.1-21).

There is a general consensus that this approach is good for the market as heavy-handed regulatory approach might impede business development. However, this consensus is not informed by literature. The light-touch regulatory approach is proffered by the market as the industry has no confidence in ICASA's ability to promulgate extensive regulations to remedy inequalities in the market without causing regulatory unintended consequences (Waverman, 2006, p.158).

The lack of confidence in ICASA stems from its track record of interventions which have been mostly disappointing in the communications industry (National Planning Commission, 2012, p.190). These poor and disappointing interventions in the industry by ICASA are based on the regulator's acute lack of both financial and human resources (Teljeur, *et al.*, 2003, p.14).

6.6.1 Recommendation: Improve institutional capacity

ICASA should identify areas of both short-term and long-term interventions aimed at promoting competition and creating a converged communications industry. One of the areas where ICASA cannot intervene is in changing the applicable regulatory approach in the subscription television broadcasting

market as it has failed to apply the current regulatory approach by absconding from its regulatory responsibilities in this market.

ICASA should be more involved in this market as light touch regulation does not mean abdication of regulatory responsibilities by the national regulator. In the short-term ICASA should intensify the intensity of the applicable light-touch regulation without causing regulatory unintended consequences. This can be achieved by commissioning a full market analysis study and implementing the findings of that study (Bergman, *et al.*, 1998, p.8; Levi-Faur, *et al.*, 2005, p. 23; Reding 2006, p.5; Hayat, 2008, p.20; ITU, 2012a, Module 2, 1.3; ITU, 2012b, Module 6, 2.3).

However, for ICASA to increase the intensity of the of the applicable light-touch regulation without causing regulatory unintended consequences, and become a smartqregulator that ensures that there is effective and sustainable competition in the market it should be capacitated to fulfil its obligations (Radaelli & De Francesco, 2010, p.279; Teljeur, *et al.*, 2003, p.14).

Interventions to improve ICASA's effectiveness should be targeted at three areas that need immediate remedy. These are developing and maintaining the human resources and skills, providing ICASA with the required financial capacity and entrenching ICASA's independence (Scott, 2000, p.50 . 54; Teljeur, *et al.*, 2003, p.14; Horwitz & Currie, 2007, p.447; Gillwald, *et al.*, 2010, p.3).

In developing and maintaining human resources ICASA needs to find individuals with needed expertise, be provided with resources to enable it to offer attractive pay and benefit packages and develop a credible retention strategy as there is shortage of skills in the job market which places a premium on the required skills (Teljeur, *et al.*, 2003; Gillwald, *et al.*, 2010, p.3; NPC, 2012, p.191).

The second area of intervention should be aimed at addressing the lack of financial resources which impede ICASA's effectiveness in regulating the industry. In order to improve ICASA's institutional capacity its operating budget which is inadequate for its purposes and is determined by Parliament needs to

be reviewed to enable ICASA to meet its regulatory obligations (Teljeur, *et al.*, 2003).

The third area of intervention should be aimed at entrenching ICASA's independence as a regulator. This can be achieved by addressing the two areas identified above, which are developing and maintaining the human resources and skills at ICASA, providing ICASA with the required financial capacity and a review of institutional arrangement between ICASA and the Ministry. Currently the Ministry of Communications; which is the guardian of the state's absolute shareholding in various state-owned companies in the communications industry, acts as a competitor and a policy-maker for the industry. This arrangement distorts competition in the industry.

The Ministry has on many occasions overstepped its boundaries in the interdependent relationship between policy and regulation (Horwitz & Currie, 2007, p.447). The Ministry's interventions in the market have not only undermined ICASA's independence but it has rendered ICASA to be ostensibly superfluous+ resulting in policy and regulatory instability which have fostered monopolistic behaviour in the industry (Scott, 2000, p.50 . 54; Horwitz & Currie, 2007, p.447; Gillwald, *et al.*, 2010, p.3).

ICASA's interventions to increase the intensity of the of the applicable light-touch regulation and improve its institutional capacity should be linked with the results of the ICT Policy Review Panel and the results of the Review of the Broadcasting Regulatory Framework which ICASA is currently undertaking.

6.7 Areas of further research

The above discussion outlined a number of areas where there is a need for further research.

One of the areas for further research is the identification of areas for possible regulatory intervention in the short-term linked with the identification of skills that ICASA needs to acquire in the short-term in order to improve regulatory effectiveness and remove regulatory bottlenecks that hinder the development of

a converged communications industry. This will improve ICASA's reputation in the industry and give it confidence to address the industry.

The second area for further research is the identification of models that can be applied by ICASA and which are acceptable in the television broadcasting markets in order to reintroduce the Open Windows for new entrants in these markets. ICASA (2007, p.36) observed that subscription television broadcasting is embedded with high costs for advertising; more so for the new entrants. The combination of substantial sunk costs associated with advertising and the incumbent position to exploit its first mover advantages makes advertising more critical strategic barriers to entry+ (Park, 2009, p.44). In order to attract investment in the television broadcasting markets, assist the new entrants establish themselves, as was the case with M-Net, and bring stability in the market ICASA needs to identify models that can be applied in the market that will enable the new entrants to advertise their services equitably on all platforms, including the incumbent's network.

The third area for further research is the evaluation of the effectiveness of the regulatory approach as commercial television is currently witnessing a reversal of the initial pro-competitive trends resulting shrinkage in the number of competitors+ (Matteucci, 2004, p.4). This is global trend has been evidence in the local market by the failure of the licensed operators to enter the market. Thus, subscription television broadcasting services are on the verge of being monopolized or being highly concentrated (Matteucci, 2004, p.4; McPhillips & Merlo, 2008, 243; Nicita & Ramello, 2005, p. 372). This reversal in market structure increases the risks of regulatory capture and increases the likelihood of regulatory failure as the existing regulatory frameworks were developed for competitive markets.

6.8 Summary

This research study has identified that there is a direct link between regulatory approach, competition and convergence in the South African subscription television broadcasting market. From this research study it emerges that ICASA has not been effective in addressing competition and convergence in the market.

The findings from this research study indicate that there are numerous barriers to enter the South African subscription television market. These barriers are entrenched and have favoured the dominant operator to distort competition in all of the South African television broadcasting markets.

ICASA's attempt to liberalise the South African subscription television broadcasting market in 2007, through the licensing of new operators for this market, has failed to achieve the intended objective of promoting competition and convergence in the market. This liberalisation failed mainly due to ICASA's failure to address the barriers to enter this market which ICASA had identified prior to the licensing process.

ICASA's intervention in the market through the introduction of the South African Subscription broadcasting Services Regulations of 2006 did not address the promotion of competition and convergence in the market. This has resulted in the local subscription television market being insulated to the effects of convergence which have affected the communications industry globally resulting in increased competition and improved consumer welfare.

ICASA's failure to regulate the market is an additional barrier to entry and a risk to operators in this market. This has resulted in this market failing to attract the much needed investment and consumer welfare being diminished whilst ICASA is independently absconding from its regulatory obligations. This regulatory failure has resulted in the South African subscription television market; just like the entire communications industry, being an uneven playing field that favours the dominant incumbent. ICASA's abscondment and the resultant market and regulatory failures have raised concerns that ICASA has been captured by the dominant market operator.

There is preference for the light-touch regulatory approach which stems from the lack of confidence in ICASA's ability to promulgate extensive regulations to remedy inequalities in the market without causing regulatory unintended consequences. However, the light-touch regulatory approach should be intensified in order to address the lack of effective and sustainable competition and convergence in the South African subscription television market.

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