THE LICENCE AS A MECHANISM TO IMPROVE PERFORMANCE: THE CASE OF CELL C

by

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SUMMARY

The licence is a regulatory tool that regulatory use to assist in their regulatory functions. Licences restricts operator's' functions, but also serve as a guideline of acceptable conduct because a licence is a legally binding document containing prescribed conditions that the licencee must meet. If the licencee does not comply with these prescribed obligations and requirements, the licence may be revoked or the licencee may be penalized (Bladwin & Cave 1999). However, in order fro the mechanism of issuing a licence to be an effective mechanism of regulation, the regulator needs to regulate effectively in order to ensure that the licencee's performance is of acceptable standard.

The purpose of this study is to investigate the relationship between issuing a licence and the licencee's performance; to investigate whether the performance indicators, as defined by ICASA, are adequate, and to develop appropriate performance indicators in order to evaluate Cell C's performance. Issuing a licence to licencee does not guarantee that the performance of the licencee, such as Cell C, will be effective. Thus, the licencee needs to be evaluated.

The case study design has been used for this project. The methodology includes in-dept interviews, documentary analysis, and implementation evaluation research. The report concludes that Cell C has met its licence obligations, that licencing is coupled with effective mechanisms to ensure that the licencee complies with performance requirements, but that, in order for the licencee to improve its performance, effective regulatory intervention is needed.

Key words: Telecommunications, communications, regulations, regulator, licence, performance indicators, performance, mechanism

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CHAPTER ONE:
INTRODUCTION

1.1 INTRODUCTION AND BACKGROUND

In the modern world, telecommunications have become integrated into the social-economic fabric of everyday life by overcoming the obstacles of time and space and making instant access possible (Barnett, Salisbury, Kim & Longhorne 1999:45). The implication is that telecommunications play an important role in the transmission of voice, text, and audiovisual material while facilitating connections, such as through the Internet. The exchange of services and processing of information are also important characteristics of telecommunications in the modern world, which has consequently been branded *the information society* (Bornman, Lesame & Schoonraad 2001:327). Telecommunications, therefore, must necessarily play an important role in the economic growth and development of countries. Furthermore, telecommunications enhance each government's ability to provide security, address the needs of its citizens, and improve governance (Ndukwe 2003:3,7). Telecommunications in the modern world, therefore, have a role in transforming societies while enhancing the quality of people's lives (Ali 2003:114, Ndukwe 2003:3). However, as in the case of South Africa, telecommunications can also be used as an instrument of repression. It is therefore important to investigate various aspects of regulatory frameworks used for telecommunications, such as issuing of licences and their effect upon the general public who use telecommunications.

According to Chan, Laplagne and Appels (2003) licence-awarding mechanisms are policy tools used by regulators for allocating public resources to prospective applicants. Licence-awarding mechanisms are, in fact, an access control mechanism, which limits the right to provide telecommunication services, operate

telecommunications facilities, and use the frequency spectrum to only those successful applicants who have obtained a licence. The licence, however, also imposes restrictions on the licensee that the regulator deems beneficial to the end user (Hazelett 2004).

Regulators may use a variety of licence allocation methods, such as case-by-case judgment by the regulator, lotteries, auctions, comparative evaluation processes, and comparative hearings (Tyler & Bednarczyk 1993:669-671). However, each of the above-mentioned licence-awarding mechanisms has its own advantages and disadvantages, which will be discussed in detail in Chapter Two.

By issuing a licence, a regulator may hope to enhance competition, increase employment, create regulatory certainty, establish a framework for privatisation and competition, increase income and tax revenues, accelerate the attainment of universal service and access, or meet governmental policies (Shapriro & Varian 1998). However, the method selected for allocating a licence may be difficult, and what constitutes the ideal method is under debate (Lie 2004). Moreover, good practices must be used in order to ensure the success of the licensing process. Roadmaps for good practice include transparency, public consultation, license fees, balancing certainty and flexibility, and distinguishing licensing from procurement (Telecommunication regulation 2009). In South Africa, the awarding of the third cellular licence to Cell C (Propriety) Limited (Cell C) was hampered by allegations of corruption and political interference (Lesame 2000). Therefore, the performance of licensees must be investigated in order to verify whether a licence-awarding mechanism is effective.

Incidentally, once a licence is awarded to an applicant, for the sake of accountability and public interest, the licensee's performance is, in fact, assessed in terms of what in fact he/she has achieved using that was issued to him/her. Clear performance indicators need to be developed to consider the intangible

and non-financial indicators of the licensee's performance.

According to Likel (1999:1), research is needed to define the appropriate performance indicators. Using quantitative data to monitor effectiveness and efficiency, performance measurement suggests improved resource management and accountability (Tilbury 2006). Performance measurements, through the use of performance indicators, are used in order to monitor the regulator's governance and provide accountability for the lease of a public asset to a private company, such as Cell C. Furthermore, Cell C, despite being the smallest cellular service provider in South Africa, was issued a licence to increase competition in the cellular telecommunications marketplace and therefore benefit the general cellular-using public and to those who lack access to telecommunications in general.

1.2 PURPOSE OF THE STUDY

The purpose of this study is exploratory (Bless & Higson-Smith 1995:41), used when too little is known about a certain area – in this case, the correct performance indicators used to consider the performance of Cell C. According to Babbie (2002:79), who argues that exploratory studies are most typically undertaken for the following reasons: to satisfy the researcher's curiosity, to test the feasibility of undertaking more extensive research, to develop methods that will be employed in any subsequent studies, to describe processes, to explain the central concepts and constructs of a study, and to determine priorities for future research. Exploratory studies are useful when a researcher is breaking new ground, although the main shortcoming of exploratory studies is that they seldom provide satisfactory answers to research questions. However, these studies almost always yield new insights and ideas while fostering an understanding of the problems confronting the researcher. These benefits may lead to definite answers. The results, therefore, are not expected to be concise determinations, but rather guidelines for the achievement of a better

understanding of the problem situation at hand, simultaneously encouraging the discretion and creativity of the researcher (Malhotra 1996:86; Zikmund 2000:137; Sudman & Blair 1997:22; Babbie & Mouton 2001:80; Baker 1999:204; Kotler, Adam, Brown & Armstrong 2006:122).

This study addresses the relationship between issuing of a licence to Cell C and the performance of Cell C. The purpose of this exploratory design is to explore whether the mechanism of issuing telecommunications licenses is effective by considering the performance of licensees because the operator's performance is a reflection of the effectiveness of the regulator. As Wilson (in, NetTel@Africa 2003:28) states, "…if you have a poorly performing operator, you surely have a poorly performing regulator."

This study will focus on two main areas: an assessment of the correctness of performance indicators as adequate measuring instruments and the determination whether the issuing of a third cellular licence to Cell C has benefited the general cellular-using public. Therefore, one aim of this exploratory study is to assess the achievements of Cell C. The ensuing evaluation will thus attempt to indicate the effectiveness of the mechanism specifically that used for Cell C, of issuing licences in South Africa, by suggesting its weaknesses and problems, as well as its strengths and accomplishments.

In South Africa, the licensing process was guided by Telecommunications Act No. 103 of 1996, which has since been replaced by Electronic Communications Act No. 36 of 2005. In terms of Electronic Communications Act No. 36 of 2005 amended the pervious act by allowing the Regulator to grant the licence and not the Minister, but in accordance with the Minister's managed liberalisation process, licences would henceforth only still be granted in terms of an invitation to apply by the Minister (South Africa 1996; South Africa 2005). Nevertheless, the licensing process in South Africa, as described in both Telecommunications Act of 1996 and Electronic Communications Act of 2005, may still be lengthy and

detailed, since invitations for telecommunications licenses will only be accepted if an invitation was issued and published in the Government Gazette.

Government-created public resources are leased to successful applicants through the use of available licensing-award mechanisms. Selecting the most suitable applicant does not guarantee that that applicant will be able to deliver over the long term since the process of issuing a licence is only anticipatory rather than evaluative. The licence itself is a tool used for entry into the telecommunications market. A licence can both restrict and limit the commercial scope of potential applications. Furthermore, licences may serve as an anti-competitive safeguard and regulatory instrument. Issuing a licence does not guarantee that the licensee will comply and conduct as the regulator wishes (Baldwin & Cave 1999). Thus, the licence-issuing mechanism must be investigated in terms of its overall effectiveness. In particular, external assessors should evaluate the performance of licensees-in this case, Cell C. The value of an evaluation of Cell C's performance is not only to consider whether the company complies with its licence agreement, but also to indicate areas where performance could be improved. When the performance of a licensee, such as Cell C, in terms of a licence granted by a third party, the abovementioned issues for the benefit for everyday South Africans must be addressed. Furthermore, the regulator should be held accountable for issuing a licence to a licensee, with the guarantee of good governance. Furthermore, when research for this project was begun, no other existing research focused exclusively on the mechanism of issuing a licence, the issuing of a licence to Cell C, and the performance of Cell C.

1.3 THEORETICAL FOUNDATION

The general theoretical framework guiding this study owes a great deal too recent research and theories about performance management and performance indicators. The research of Sekoma (2002) and Pieterse (1999) was used to help

understand the importance of performance management for companies. Performance management is needed in order to ensure that the network operates effectively and that a high quality of service is maintained. Performance management involves the monitoring and control of factors affecting operations. Pieterse's (1999) research has indicated that quality is the differentiating factor between successful and average companies. By investing in quality, however, a company should not ignore intangible indicators such as human capital and customer interface (Sekoma 2002).

In order to provide a comparative baseline for determining the successes or failures of the research subject in this study, performance indicators have been selected. The performance indicators used in this study are based on the academic work and research of NetTel@Africa (2003), Milne (1997), the Productivity Commission (1999, 2001), Intven, Oliver and Sepúlveda (2000), and the Organisation for Economic Co-operation and Development (OECD) (2001). Although it is assumed that performance indicators contribute positively to such determinations, little empirical evidence indicates that this is the case. The reason why there is so little empirical evidence indicating the need for performance indicators is that explanations of the costs and benefits of performance measurement are constrained by the lack of clear theoretical foundations for many measurement tools and techniques. Moreover, much of the literature reveals an apparent preference for description and prescription (Holloway 2001). However, the resources selected for this study represent a reasonably wide spectrum of views held by well-respected authors. For example, NetTel@Africa is an international organisation comprising of governmental departments, regulators, academics, service providers, consumer groups and civil society.

The design of this study may be classified as research that is naturalistic, participatory, overt and taking place in a field setting. It consists of basic research insofar as it has been conducted in order to increase the body of knowledge in

the field (theory construction). It is abstract and conceptual, focuses on the processes underlying the international communications field, and is intended to further an understanding of the field. This research may also be viewed as applied research, as it will ideally help decision-makers to make practical decisions; the results will be applied practically to the problem-solving process (Smith 1988:179-181). Reflecting the above-mentioned theories, this research attempts to understand how the telecommunications licence that was issued to Cell C benefited the general cellular phone-using public. By using the abovementioned theories, the performance of Cell C is evaluated in terms of the licensing agreement, and the selected performance indicators are assessed as appropriate performance indicators.

1.4 METHODOLOGY

This dissertation of limited scope is an explorative and qualitative study that applies the case study technique. The goal of this case study is applied communication research. This research project is based on fieldwork conducted in Sandton, Johannesburg, between November 2006 and with supplementary interviews in 2007 and 2011, which was preceded by a review of literature between the months of May and July of 2006. Documentary research was done between the months of May 2006 and May 2007. The report draws on two primary sources of data: documentation and in-depth interviews. The qualitative content analysis method was used to analyse the text of the in-depth interviews. For the evaluation of Cell C's performance, the method of implementation evaluation research was used. The value of implementation evaluation research is that this method provides a format in which to evaluate Cell C's performance. Performance indicators were developed for this study in order to evaluate Cell C's performance.

1.4.1 In-depth interviews

The in-depth interview method may be described as conversation with a purpose (Marshall & Rossman 1995:80). Data was generated during in-depth personal and electronic interviews. To promote discussion and to facilitate the exchange of as much information as possible, an interview schedule with a set of semi-structured questions was used (Cooper & Emory 1995). A purposive sampling method was used for the in-depth interviews. Interviewees were selected based on their close involvement in and their understanding of the telecommunications industry and the regulator. Data were thus obtained from Paris Mashile, the chairperson at ICASA; Dr Tracy Cohen, a councillor at ICASA; Nomvuyiso Butyi, the manager of competition at ICASA; Mandla Msimang, the senior manager of regulatory affairs and the acting head of regulatory affairs at Cell C at the time of the interview, Leora Mertz, the manager of regulatory compliance at Cell C, and Dominic Cull, the founder of Ellips Regulatory Solutions and a Wireless Access Providers' Association (WAPA) regulatory advisor.

1.4.2 Review of documents

The analysis of documentary sources is a major data generation method used in social research, and this type of analysis refers to the gathering and analysis of documents produced in the course of every day events. Text-based documents are used by researchers because they enable aspects of the social world to be traced or interpreted (Mason 1996). In some instances, the documents are viewed literally as data themselves, while in other cases they need to be read and integrated into a larger body of evidence. Mason (1996) states that documents may serve as intellectual puzzles that need to be analysed in order to be understood. The most relevant documents reviewed for this project include newspaper articles, media reports, ICASA's annual reports from 2001-2006, Telecommunications Act No. 103 of 1996, Electronic Communications Act No. 36

of 2005, journal articles, and research reports. Appendix E provides a detailed breakdown of the sources used.

1.4.3 The data analysis process

Marshall and Rossman (1995:111) consider data analysis to be the process of bringing order, structure and meaning to the mass of collected data. For this study, the data performance indicators of service delivery, network expansion, consumer satisfaction, innovation, fair practice and alignment with ICASA's regulations were used as categories to assist in the analysis. As data were sorted by category, trends and relationships between these categories were identified.

1.5 STRUCTURE OF THE DISSERTATION

This case study report is arranged in five chapters. This chapter, Chapter One, provides a background of the research subject. The chapter also outlines the purpose of the study, a brief overview of the theoretical foundation of this study, and a description of the methodology used in this study.

Chapter Two is the literature review. The literature review provides a thorough overview of the need for and functions of regulations, the licence as a regulatory tool, the various licensing mechanisms, universal service and access to telecommunications, competition, the regulator, and the manner in which Cell C obtained its licence. Chapter Two concludes with a section on performance indicators that can be used to consider performance.

Chapter Three is the research problem and sub problems that this study aims to investigate.

Chapter Four describes the methodology used for this project. This case study reflects a three-pronged approach. In-depth interviewing is combined with document analysis and implementation evaluation research. This section concludes with a section on the data collection and data analysis procedures that were used for this study.

Chapter Five concludes with the findings and recommendations. This section also includes with a critical evaluation of this study.

CHAPTER 2:
LITERATURE REVIEW

2.1 INTRODUCTION

The review of literature is covered in this chapter. This chapter is divided into three sections: regulatory intervention and the issuing of licences, performance indicators for the mobile telecommunications industry, and a discussion of the case of Cell C.

The section on regulatory intervention and the issuing of licences starts with a discussion of the changing regulatory environment and the relationship between regulation and communications. The main focus of this section is, however, on regulation and the use of the mechanism whereby licences are issued to licensees. The different mechanisms used for issuing licences to licensees are discussed in detail in this section.

The second section focuses on performance management and performance indicators. In this section, the different performance indicators are identified and discussed in detail. Appropriate performance indicators used in order to investigate the performance of Cell C are also identified and discussed in this section.

The last section of this chapter deal with the case of Cell C. This section is divided into two sections, namely the manner in which Cell C obtained its licence and the performance indicators that ICASA has identified as important with regard to its licence agreement with Cell C. However, all three sections should be considered together, as they are all interwoven. However, the complex process in which Cell C finally obtained its licence contravenes South Africa's

commitments to the Fourth Protocol of General Agreement on Trade Services (GATS) (Cohen 2001:15).

2.2 REGULATORY INTERVENTION AND THE ISSUING OF LICENSES

2.2.1 The changing regulatory environment

Historically, state-owned incumbent operators have provided telecommunications services as a monopoly (Melody 1997). For example, in South Africa telecommunications services were provided by South African Post and Telecommunications (SAPT), a classic post, telephone, and telegraph monopoly. The SAPT was classified as a state business enterprise and operated out the office of the Minister of Transport and Communication. Consequently, the SAPT provided telecommunications and postal services, with the Postmaster General acting as regulator (White 2003:3). However, various interrelated factors, such as technological change, the convergence of telecommunications with computing and broadcasting sectors, deregulation, changing patterns of world trade, the globalisation of international companies, economic factors, pressure from stakeholders, and the end of the Cold War have led to liberalisation and the introduction of competition into the telecommunications sector (Joseph 1995:413).

Technological change, the driving force of Schumpeter's "creative destruction" was one factor that influenced the telecommunications service industry (Schumpeter 1942:82-85). Technological changes, particularly in the infrastructure of telecommunications equipment, such as the replacement of microwave circuits in long distance transmission by fibre-optic cables, the use of silicone technology, and the shift from mechanical switching systems to advanced digital-based packaged switching technology have resulted in a more sophisticated telephone system with greater capacity for wider variety of call transfer, message storing and control functions (Gutierrez & Berg 2000:866;

Dowling, Boulton & Elliott 1994:58-59). For example, fibre-optic cables have the capacity to carry 10 to 100 megabytes per second of information depending on the type of cable used, and satellites can offer at least 400 kilobits per second of bandwidth. Furthermore, new wireless technologies, such as cellular phones, have facilitated the growth of an ubiquitous environment that could provide mobile and personal communications virtually anywhere. Equally important is that these technological changes have transformed telecommunications from a switching to an information processing procedure at a time when information was becoming the most strategic and valuable resource in a fiercely competitive global marketplace (Chowdary 1992:591). Simultaneously, large business users formed effective lobbying groups that applied pressure on governments to improve the quality of service and the opportunity to compete. There was also pressure from international organisations for the liberalisation of the telecommunications sector. The World Bank, as part of its loan agreements, demanded that developing countries open up their markets (Horwitz 1994:368; Frempong & Atubra 2001:198).

The impact of innovation and new market players has placed pressure on developed countries to reform. Developed countries have also needed to reinvest in their own telecommunications to remain leaders in the telecommunications field, locally and internationally. However, some developed countries, such as the United Kingdom (UK), were plagued by an economic recession in from 1979 until 1982. The Thatcher-led government decided to privatise British Telecom (BT) in 1984 in hopes of stimulating the economy (Pisciotta 1999:334-335; Lesame 2000:29). Nevertheless, most, if not all, countries have needed to reduce external pressures, such as pressures from the international community to liberalise, as well as pressures from trading partners in the telecommunications sector. Countries also have needed to address requirements for investment in and the modernisation of their telecommunications infrastructures and to reduce government involvement in the provision of public services (Pisciotta 1999:334-335).

The combination of technological changes and market pressures has forced governments to change their oversight mechanisms for the telecommunications services industry (Melody 1999:9; Dowling et al 1994:60). However, with liberalisation and increased competition, there has been a corresponding need for regulation in the telecommunications (Melody 1997).

It was in fact the Nobel Prize Laureate George Stigler through his Economic Theory of Regulation that established a theoretical foundation indicating that the market would benefit more from the implementation of regulation than from social welfare. Stigler's Economic Theory of Regulation is based on the basic economic premise that people rationally promote their own self-interest and that coercive use of government powers as a means of distributing valuable benefits means that economic regulation becomes a product that is allocated according to the rules of supply and demand. Eventually regulation is supplied to those, usually the market, who value and accordingly pay the most for it (Landgrebe [Sa]:24).

However, a situation of regulatory capture, which is non-physical, can develop where "the regulator loses (or even never had) the independence to make professional decisions on their merits because of undue influence either from politicians or the regulated monopolies" (Melody 1997:18). The non-physical capture can manifest itself in varied ways, including favourable discretionary decisions; the regulator's reluctance to apply certain regulations; or even the regulator championing an advocacy role for the regulated industry. In other words, the control of the regulatory agency is from outside those entities, usually the businesses of a meticulous industry, that the agency is designed to regulate or from government. The agencies are then called captured agencies. The idea of regulatory capture has a palpable economic basis because groups or individuals with a high-stakes interest in the outcome of policy or regulatory decisions can be expected to centre their resources and energies in attempting to achieve the policy outcomes they fancy, while members of the public, each

with only a minuscule individual stake in the outcome, will discount it altogether. Yet, regulatory capture is a form of government failure, as it can act as an encouragement for hefty firms to produce negative externalities. In addition, a captured regulatory agency that serves the interests of its invested patrons with the power of the government behind it is often worse than no regulation whatsoever (Adams, Hayes, Weierter & Boyd 2007:1, Melody 1997).

2.2.2 Changes to the legislative environment and licensing framework post-2005 in South Africa

The primary Act of parliament regulating the electronic communications industry in South Africa is the Electronic Communications Act 36 of 2005 (ECA) which replaced the Telecommunications Act 103 of 1996 on 18 April 2006. The ECA is characistised as pro-competitive legislation in stark contrast to the Telecommunications Act of 1996 which was protectionist in that sought to protect the incumbent fix line provider Telkom from the effects of competition (Cull 2009:5). Furthermore the ECA is a sign of an increased liberalization of the telecommunications market in South Africa. However an implication of the change of legislative framework has the implication that the regulations promulgated under the Telecommunications Act of 1996 would have to be redone in terms of the ECA. In this transition period is that until those regulations have been promulgated, the regulation initiated under the Telecommunication Act of 1996 would still be enforceable (Thornton 2009).

Changes to the legislative electronic communications environment was needed, because of an increasing haziness between telecommunication and broadcasting technologies due to an ever increasing trend towards the convergence of telecommunications services with broadcasting and information technology. A further reason for changes to the legislation was to change the vertical tiers of networks and service providers to a horizontal structure thereby increasing competition in the sector. As such the ECA provides a framework for the licensing of electronic communications services, electronic communications

network (ECN) services and broadcasting services (Marishane & Shackleton 2009). This framework that the ECA provides is a technologically neutral licensing framework. In the past according to the Telecommunications Act 103 of 1996 specifically authorised the provision of a single defined service over specified infrastructure whereas the ECA provides two general licence categories, namely individual and class licenses as specified in Chapter 3 of the ECA. Individual licences are subject to more stringent regulation in comparison to class licences which are subject to 'light touch' regulation. Individual licences allow for the national provision of services whereas class licences are generally limited to a particular geographic region. The terms and conditions associated with individual licences are also more onerous than those applicable to class licenses. Licenses issued before 2005 are to be converted in terms of Chapter 15 of the ECA and remain valid and subject to their existing terms and conditions until converted by ICASA (Rice 2010).

Although the ECA increased the regulators authority and consequently its powers, it does fall short in providing the regulator with a full right autonomy. That is since in terms of the government's managed liberalisation policies the right to issue an invitation to apply for an individual electronic communications network service licence rest with the Minister of Communications (Rice 2010). Still, the ECA did change the requirements of section 34 of the Telecommunications Act of 1996 by granting the regulator to right to select the successful candidates from the applicants and not the Minister of Communications.

2.2.3 The relationship between issuing of licenses and communications

The rapid development and spread of media and Information Communication Technologies (ICTs) have led to an increase in international communications. International communications, being a sub discipline of communications, have in turn galvanised the processes associated with globalisation. Central to international communication and the processes of globalisation are supranational

institutions, such as the World Trade Organisation (WTO), International Telecommunications Union (ITU), the World Bank, and the International Monetary Fund (IMF), which dictate principles and standards of regulation to their member states (Bornman & Schoonraad 2001; Drahos & Joseph 1995:621). Consequently, these global institutions, in particularly the World Bank, influence domestic regulations.

The WTO was created by the eighth General Agreement on Tariffs and Trades (GATT) round of multilateral trade negotiations (also called the Uruguay Round) as part of a United Nations (UN) broken agreements. The WTO has called for the liberation of the telecommunications market, suggesting a programme whereby telecommunications services markets are opened gradually to competitive entry and increased foreign investment. Furthermore, the WTO, as custodian of multilateral trade system, especially its Negotiation Group on Basic Telecommunications (NGBT) is working to promote privatisation, competition, and market access within the global telecommunications industry (Tuthill 1996:91).

Hills (1993:27) states that the GATT established due to the perceived intention of the United States of America (USA) and their allies to impose the liberalised system of domestic telecommunications adopted in the USA on other countries. Through the liberalisation of service in the GATT, the right for governments to control foreign investment will be eliminated, thereby allowing foreign companies to enter domestic telecommunications markets. These companies must thus receive the same treatment and consideration afforded to domestic companies. Such moves will inevitably entail the potential for preventive measures targeting the ability of governments to utilise telecommunications for social rather than economic purposes, just at a time when social provisions are becoming important in both the USA and the UK (Xavier 1996:488).

Government commitments, particularly those referring to domestic regulation related to the issuing of licences for services, were included in the Fourth Protocol of the General Agreement on Trade in Services. South Africa is one of 69 countries that endorsed the WTO's liberation guidelines in 1997. Drahos and Joseph (1995:621) reveal that there are no detailed rules or models to which WTO member states may adhere. Instead, member states must adhere to principles and commitments, with a corresponding need to change their national regulatory systems (Cowhey & Klimenko 2001:16). Nevertheless, the WTO's liberation guidelines are "legally binding on governments and can be enforced through a dispute settlement mechanism administered by the WTO" (Tuthill 1997:784-785). Therefore, the WTO membership binds South Africa and other member states to an open trade system with requirements to adhere to specific principles when trading with WTO member states. These principles include freer trade through tariff reductions, non-discrimination against foreign players (i.e. most favoured nation status), market liberalisation, increased competition, and policy transparency (Tuthill 1997:784). Furthermore, one of the WTO's commitments was that it would henceforth be mandatory for member states to have an independent regulatory body (Drake & Noam 1997; Lesame 2000:29; Tuthill 1997:790). For example, if a licence is required, the regulator will publicise all licensing criteria, the period normally required to reach a decision on the applicants, and the terms and conditions of individual licences and will provide applicants with reasons for denial of licence upon request (Drake & Noam 1997).

The specific commitments affecting South Africa's telecommunications sector are listed in the General Agreement on Trade Services (GATS) Annex 1 of the WTO Agreement (Gillwald 2001:11). South Africa's WTO commitments under GATS may be generally understood as requiring a much more liberalised domestic telecommunications market, as per WTO principles. A non-exhaustive list of these commitments includes the following requirements: ensuring access to and use of public telecommunications transport networks or services offered within or across the borders of South Africa (including private leased circuits) by WTO

members; ensuring that relevant information on conditions affecting access to and the use of public telecommunications transport networks and services (including tariffs and other terms and conditions of service) is publicly available; providing information on the specifications of technical interfaces with such networks and services, and affording access to reasonable and non-discriminatory terms and conditions of use. The only WTO restrictions on market players are those that will be placed to protect the integrity of South Africa's networks, maintenance of state security, secrecy, or to frustrate efforts to circumvent WTO agreements (Gillwald 2002:11).

One characteristic of South Africa's offer to the WTO's Group on Basic Telecommunications is that South Africa will implement it as one phase of its "managed liberalisation" process (which is a more careful approach to circumscribed offers that only open certain market segments while at the goal to accelerate development and universal service to enhance social and economic activities in historically disadvantaged communities and to generate employment in the telecommunications sector). In terms of this liberation process, the authorities will examine the feasibility of the third mobile cellular operator by December 1998 and consider the issuing of a third cellular licence (Drake & Noam 1997:804). In fact, the only commitments that where met, was that regarding to mobile services by the issuing of a third licence (Thornton 2009:251).

The issue of a licence is the most important step for market liberalisation because it allows new entrants from other countries and particularly from non-traditional telecommunications sectors to enter the sector (Noam 1987:37; Lesame 2000). However, Hamelink (1998:102) states that telecommunications regulations, which include the issuing of licences, are characteristically restrictive. Indeed, the regulations seemingly favour standardisation, revenue sharing, the harmonisation of accounting practices, and the allocation of scare resources.

One benefit of the implementation of such standards is that the quality of service can be set at a reliable level. Standardisation also allows competitive entrants to offer a greater variety of services. For example, roaming is possible with the worldwide spread of standards, as standardisation allows for the interoperability of technologies and services (David & Steinmueller 1996:821; Ypsilanti & Xavier 1998:658). However, companies have a significant competitive advantage when their countries have created a system that has eventually become a worldwide standard. Funk (1998:426), for example, comments that the acceptance of GSM standards in much of the world have helped companies such as Nokia, Siemens, and Alcatel to become global leaders in switching equipment. If a standard is selected as a worldwide standard, the companies that have developed it may potentially operate in foreign countries with a subsequent increase in the companies' subscriber bases and a corresponding decrease in operating costs (i.e. the cost of infrastructure and cost of phones) (Funk 1998:419-420, 427).

The issuing of licences is perceived as a way in which the frequency spectrum may be managed. However, the mechanism of issuing of licensees tends to restrict ownership of and control over telecommunications operators (Hamelink 1998:102). Consequently, the issuing of licences leads to other issues, such as access to and the availability of telecommunications. Dr Ivy Matsepe-Caraburri (South Africa. Department of Communications 2005:7), the then-Minister of Communications, states that, with regard to issues of access and bridging the digital divide, the South African government must ensure a structure whereby information is available to non-elites. Similarly, Hamelink (1998:68) states that the standard of availability demands international co-ordination for telecommunications networks to be technologically compatible; common rules regarding access to and use of these networks must thus be adopted. As a result, decision-making reflecting a country's national interest could be determined or influenced by outside interest groups.

Given the global nature of communications and the lack of respect that communications technologies have for national boundaries, the ICASA must bear in mind international agreements and treaties, such as the WTO Agreement on Basic Telecommunications Services and the South African Development Community Protocol and Model Legislation on Transport, Communications and Meteorology, to which the South African government adheres (Drahos & Joseph 1995:635). The WTO is dominated by coalitions of countries, thus creating regionalism. Furthermore, large firms, non-governmental organisations (NGOs), and consumer groups also have an impact. However, only large players have a significant impact (Drake & Noam 1997:814). For example, The WTO is characterised by a hierarchy of players with certain states at the core (i.e. the USA, the European Union (EU), and Japan), other states at the semi-periphery, international and national industry associations, trans-national and national corporations, and international and national social movements. Although every player has an impact, an imbalance of power still exists. Those with the most power will therefore most likely impose their standards and principles in a way that generates economic or other gains for themselves (Drahos & Joseph 1995:619, 621-622). For example, as international business telecommunications traffic is dominated by large transnational national corporations (TNCs) and focused on major industrialised countries, such as the UK and the USA, they will thus have the most influence on other countries (Langdale 1989:501).

South Africa is also a member of the Southern African Development Community (SADC). The SADC is a regional agreement between 14 South African member states, with its primary focus being the regional integration of politics and economies. The Telecommunications Regulators Association of South Africa (TRASA) was created by SADC to pursue its goals of regional integration and economic growth through the promotion of accelerated development of the telecommunications sector. TRASA's objectives are to harmonise members' telecommunications regulatory environments; to create similar technical standards, network maintenance, performance standards, regulatory structures,

and universal service policies, and to facilitate a uniform level of understanding of regulatory matters by exchanging ideas, views, and experiences on all aspects of telecommunications regulations throughout Southern Africa. TRASA also aims to promote the establishment and operation of efficient, adequate, and cost-effective telecommunications networks and services in Southern Africa in order to meet the diverse needs of customers while being economically sustainable and maximising the use of scarce resources in specialist areas of telecommunications (Gillwald 2001:11; The Role of International Organizations in the ICT/Telecom sector [Sa]:46).

Globalisation thus affects communications policies, which include the mechanism of issuing telecommunications licences to licensees. The relationship between this mechanism and the performance of licensees suggests some of the battles that countries face as they absorb and adapt to the impact of globalisation and international communication. As liberalisation has undeniably increased the complexity of regulation in developing countries, regulations must at once deflect and encourage competition in the interest of adjusting to global liberalised environments. Yet countries still need to address the problems in their own countries and deal with the impact of outside influences (O Siochru 1999:3-9; O Siochru 2006). These influences include international influences from regional regulators such as TRASA and the EU, which want to harmonise regional regulations, international national organisations. At the same time, the WTO and ITU aim to standardise international regulations and financial organisations. Furthermore, the World Bank and IMF would like to increase international trade and are thus placing pressure on countries to change their domestic regulations and thus make their telecommunications structures compatible with regional and international framework. Moreover, governments still want to provide affordable access to telecommunications and services, leading to further policy conflict (Oodan, Ward, Savolaine, Daneshmond, & Hoath 2003:384; Monlouis 1998:637; South Africa. Communications Portfolio Committee 2003; Hills 1993:24). Therefore, globalisation calls for a reconsideration of the sustainability of national

restrictions that may no longer adequately serve the purposes for which they were developed (Ypsilanti & Xavier 1998:658).

2.2.4 The need for and function of regulatory intervention

The policies established by government cannot, on their own, regulate the telecommunications sector. An institutional vehicle is required to translate policies into rules and regulations, still, as the policies and legislation changes constantly the regulation environment should be dynamic. Regulatory commissions, where they have been created, have been part of the liberalisation process (Gutierrez & Berg 2000:865). The role of a regulator, according to Tuthill (1997:784), has been to manage a country's transition from monopoly to market.

An objective of regulatory intervention or the co-ordination of activities should be to create a framework that attracts network investment and that ensures that fair play prevails in the market place. To do this, there must be ways to compensate for possible market failure and market imperfections in order to limit abuses of market power and to improve economic efficiency (Pietersen 2005:11; Tuthill 1997:784). Indeed, investors demand protection from governments acting opportunistically and capturing future profits from sunken investments. Once an investor invests in a network, withdrawal of the investment may sometimes be very costly, and the investment may be "sunk," meaning that it cannot be reversed. Regulatory intervention also creates a framework that facilitates the co-operation of market players by addressing perceived barriers to entry, ensuring that fair play prevails, and policing anticompetitive behaviours, such as preventing dominant operators from imposing their own standards upon the wider industry, which could distort fair competition. As an incumbent with market power has little incentive to open any segment of the market to competition and is often in a position to reduce effective competition, regulatory intervention should be used in order to prevent this situation (Vogelsang & Mitchell 1997:57; Teljeur,

Gillwald, Steyn, & Storer 2003; Oftel 2003; Gillwald 2003:28; Demand from public or end users [Sa]:26).

Regulators, depending on their mandate, also need to balance the needs of investors with those of governments and consumers. Regulatory intervention is therefore needed to ensure that social and political objectives, as well as economic goals and technical requirements, are met (Baldwin & Cave 1999). Regulators need to consider the needs of the consumers by protecting consumers from poor quality of service and high tariffs and by properly monitoring and investigating complains arising from unfair business practices that emanate from ineffective competition (Lesame 2000:32; Tuthill 1997:784; Teljeur et al 2003).

Regulatory intervention may improve the performance of imperfect markets, but it could also do the reverse. Good regulatory intervention, in the form of regulations that create conditions for certainty along with conditions that are fair and bring about competition, could improve overall performance (Baldwin & Cave 1999:96).

Regulatory intervention may be divided into two main types of intervention: behavioural and structural. Behavioural intervention by a regulator is an attempt to modify the behaviour of a particular sector. Examples of behaviour intervention include price regulation, orders prohibiting collusive practices or agreements, and orders requiring interconnection of competitor's networks. For example, with behavioural intervention the regulatory intervention has the function to avoid unfair bundling activities and to prevent vertical price squeezing, which could result in unfair trade and anti-competitive behaviour from the dominant operator. Structural intervention, however, affects the market structure of the industry. Governments may, for instance, intervene in order to prevent a merger of two major telecommunications network operators within a market. Furthermore, a dominant supplier might be required to separate its operations into distinct corporate entities or to divest itself of lines of business entirely. The 1984 AT&T

break-up in the USA is an example of structural intervention (Fair Trade and competition policy [Sa]:7,16; Baldwin & Cave 1999:96).

Besides regulators through their regulations can become prescriptive and intervening in the market as they look to support economic growth and open up specific markets. Freiberg (2010) argued regulation produced by regulators is about 'influence', 'power' and 'control' that all have the same idea to them: how to get someone to do something that he or she would not otherwise do, or not do something that they otherwise would. That is since regulation acts as a conferral of protected rights (Baldwin & Cave 1999:34) by the state to authorise, permit, allow, recognise or legitimate a particular activity, status or premises in the public interest especially if the contacts grated are long-term contracts. Contracts, or regulation, in turn provide procedural mechanisms for adjudicating future contingency. As such regulation or the need and function, therefore, by a regulatory body is an means of an ongoing monitoring agent that continually defines the relation between consumers and producers over time in much the same way that common-law courts continually interpret rights and obligations of citizens vis-à-vis other citizens and the state.

2.2.5 The regulator: ICASA

ICASA is the result of Independent Authority Act no. 13 of 2000, which stemmed from the merger between The South African Telecommunications Regulatory Authority (SATRA) and the Independent Broadcasting Authority (IBA) (White 2003; Gillwald 2003:6; Lesame 2000:28). The merger of the broadcasting (i.e. SATRA) and telecommunications regulators (i.e. IBA) was undertaken in order to deal with the implications of rapid technological developments and convergence in the field of broadcasting and telecommunications (Lesame 2000:34). Furthermore, the White Paper indicated that in three years a third cellular licence would be issued, if appropriate, which was echoed in the Telecommunications Act of 1996. The authority governing SATRA did not enjoy the similar guarantee of independence as the IBA, although South Africa agreed

to abide by the principle of an independent regulator as stipulated by the reference paper appended to the Fourth Protocol to GATS. SATRA's problematic handling of the third mobile cellular licence led to a review of the councillors' accountability. ICASA is, therefore, also an attempt by government to restructure the regulating powers in the telecommunications sector, with IBA and SATRA dissolved and replaced by ICASA one day after Cell C had been awarded its licence by the Minister. ICASA will eventually be responsible for drafting future licences and for regulating broadcasting and telecommunications in the public interest (Lesame 2000:33; Cohen 2001:15; South Africa 1996).

ICASA is legislatively mandated to regulate the broadcasting and telecommunications sectors in the public interest. ICASA derives its mandate from various statutes, namely the ICASA Act of 2000, the Independent Broadcasting Act of 1993, the Broadcasting Act of 1999, and Telecommunications Authority Act No. 103 of 1996 (ICASA. ICASA overview [Sa]). ICASA's mandate reflects the Government's policy directives to expand the research of basic telecommunications services, to develop the level and quality of the efficient and affordable supply of telecommunications and broadcasting services, and the promotion of universal services and economic development in South Africa (South Africa 2000: sec. 3; Pietersen 2005:64; Markovitz 2001:10).

ICASA's functions are designed to protect end users by regulating the telecommunications and broadcast sectors in the public interest, encouraging investment while ensuring that governmental policies are adhered to and that a high technical standard is maintained. ICASA also aims to promote a controlled transition from monopoly to competition in the general telecommunications market and to create a level playing field. As such ICASA is responsible for setting the terms and conditions of the licences of new entrants in the market. ICASA also urges and promotes investment, which could aid in modernising the country's information infrastructure, and the fair ownership of telecommunications

services. Attracting investment in the communications market is also crucial for competition and for building confidence in the market (Lesame 2000:32; Independent Communications Authority of South Africa 2005:54; Intven et al 2000:2; Melody 1997:15). ICASA also must protect end users from unfair business practices and discourage poor service quality and harmful or inferior products. To this end, ICASA must set national standards in the form of rules and regulations that govern the provision of telecommunications and broadcasting services while monitoring and enforcing compliance by service providers to these standards (South Africa 2000).

ICASA must prescribe and regularly review a list of types of communications network facilities that are subject to mandatory interconnection obligations and to develop interconnection guidelines. ICASA is permitted, but not mandated, to prescribe frameworks for the setting of interconnection rates and for the charging of wholesale rates. ICASA is left to develop detailed guidelines for licensing criteria, licence applications, terms, and conditions, and the sharing of interconnection pricing facilities. Furthermore, a monitoring and complaints committee within ICASA has been set up to monitor licence compliance. ICASA is also empowered to establish an *ad-hoc* consumer code forum (Gillwald & Esselaar 2003).

Form a technical and administrative perspective, ICASA plans, controls, and manages the radio frequency spectrum and South Africa's number plan for optimal use. Furthermore, ICASA has to establish a human resource development fund for the telecommunications sector. In addition, ICASA has an advising function, as it advises the Minister of Communications regarding major issues affecting telecommunications in the event of enquiries, complaints, objections, and/or disputes (Lesame 2000:32). Similarly, ICASA sets goals for the administration and achievement of universal service in South Africa by applying requirements for licences to be granted to roll out services in under-serviced areas and ensuring that operators contribute to the Universal Service

Fund. ICASA, however, does not administer the Universal Service Fund, but merely receives monies on behalf of the Universal Service Agency. ICASA also promotes the advancement of disadvantaged persons and communities (Gillwald 2001:6; South Africa 1996) and promotes research on the development of telecommunication regulations and technologies. Moreover, ICASA is involved in the development of policies relating to consumer safeguards, service guarantees, performance standards, and consequences for breaches of operators' codes of practice. For example, research conducted by ICASA includes research on mobile public payphones, mobile tariffs and documentary research on consumer complaints received with a view to developing policies on operator performance (ICASA. ICASA Overview [Sa]). ICASA, furthermore, participates in international delegations in conjunction with the Ministry for Post, Telecommunications, and Broadcasting on issues relating to telecommunications and providing a forum for consultations with interested parties (Lesame 2000:32; ICASA 2005:54; Gillwald 2001:6).

For the mechanism of issuing licences to be an effective form of regulation, the regulator needs to monitor the performance of the licensee actively. The regulator must be able to ensure that the licensee is adhering to its licence agreement, which includes the social obligations and targets stipulated within the licence agreement for the set period. However, for the regulator to be an effective regulator, the regulator needs to have the ability to enforce compliance from licensees (Baldwin & Cave 1999). Van Audenhove, Burgelman, Cammaerts and Nulens (2003:101-102) state that the South African telecommunications regulator, ICASA, is restricted by a lack of resources and personnel. Ali (2003:17) also states that "…to date ICASA has not proven to be very effective as an independent regulator." Ali (2003:17), in particular, refers to the selection of the third cellular operator licence (i.e. which was awarded to Saudi Oger Limited-backed Cell C) and the introduction of a second national fixed line operator. For example, Dr Matsepe-Casaburri overruled ICASA's decisions, and even Telkom challenged ICASA's decisions in court (Lesame 2000). For example, a dispute

arose between ICASA and Telkom regarding the implementation of the new Rate Regime Regulations that was signed and gazetted on 26 November 2001. Telkom filed its tariffs with ICASA 13 days prior to implementation, thereby ignoring the legal requirements that tariffs must be submitted at least 30 business days before their implementation. ICASA rejected Telkom's claim, and in return Telkom refused to comply with ICASA's decision, subsequently publicising its intention to implement tariffs based on the 1997 Ministerial Determination. ICASA filled for an interdict in the Transvaal Provincial Division of the High Court to prevent Telkom from implementing its proposed tariffs without regulatory approval and to compel Telkom to comply with the Rate Regime Regulations of 26 November 2001. Telkom then issued a counterclaim contesting ICASA's new Rate Regime Regulations, declaring it as vague and that it should be set aside. The court ruled in favour of Telkom, citing that consumers would not be harmed or suffer as a result of Telkom's new tariff given Telkom's offer to reimburse consumers in the eventuality of a court finding against it. Furthermore, it was found that Telkom would lose revenue if the new tariff were not implemented (Independent Communications Authority of South Africa 2002).

The legislative change with the introduction of the new Electronic Communications Act (2005) does provide ICASA with significant powers to regulate competition matters in the telecommunications sector. ICASA have to promulgate the provisions of Chapter 10 of the Electronic Communications Act before they can enforce them. As the promulgation of regulations that require various detailed steps, as well as, significant financial and human resources to be implemented and that it is a lengthy process it has an unintended effect of sustaining the uncompetitive *status quo* of the telecommunications sector (Andric 2008:19)

However, according to Thornton (2009), the problem is not with the regulator per se, but with the Electronic Communications Act itself. Thornton (2009) argues that if one reads Chapter 10 of the Electronic Communications Act carefully and

analytically, one will realise that there are considerable problems with regard to its implementation both because it is feebly written and because definitions of certain terms that are used are very loose and do not lend themselves to easy or effective regulation and implementation by the regulator. Thornton (2009) further argues that if written carefully, the provisions of Chapter 10 of the ECA would foster a competitive environment. As a result, ICASA has not been able to enforce the provisions of Chapter 10 for more than two years since the Act came into force, because of the poorly written provisions.

2.2.6 Universal service and access to telecommunications

One of the objectives of the issue of licences is to ensure that social obligations, such as universal service, are met (Baldwin & Cave 1999). Ernberg (1997:3) defines universal access as "access to telecommunications services at acceptable people's living quarters." Universal access, therefore, implies that access to telecommunications should be within a reasonable distance of individual households, and that it should be shared communally between communities. Van Audenhove et al (2003:102) define universal service as "…access to basic services at an affordable price." Moreover, Mphahlele and Maepa (2003:220) claim that universal service is a prerequisite for effective participation in society. Noam (1987:113) defines universal service as a universal telecommunication service goal and suggests that public policy should ensure that telecommunications are available to most members of society. Thus, universal service is to aid individuals and communities with basic telecommunications at affordable prices. Universal service, therefore, implies ownership by an individual household, where the phone is shared between members of that same household.

The Efficient Research Pty (Ltd) (2004) study indicates that access to telecommunications in South Africa is unequal, as it is divided along racial lines and along urban and rural lines. Gillwald (2002:4) advocates that there have not

been any major strides or sustained gains in improving access to telephony over the last five years, resulting in an unequal distribution of telephones among whites and blacks. Gillwald's (2002) research argues that prepaid cellular services should be introduced in order to redress the situation of unequal telephone distribution. The Efficient Research Pty (Ltd) (2004), citing ICASA, indicates that the growth in the cellular market did not narrow the gap between white and black communities in term of fixed-line telephone access. The Efficient Research Pty (Ltd) (2004) study also indicates that affordability, employment; education, and age play a role in determining access to telecommunications services. However, the Efficient Research Pty (Ltd) (2004) study claims that access to telecommunications services is not a restricting factor, but that the restricting factors include the use of technology and services that are substandard and the lack of technological education.

Morris and Stravrou's (1992) study finds that there was, at the time of the research, no telecommunications infrastructure in most shantytowns in South Africa. However, the studies conducted by Morris and Stravrou (1992), Bekker and Eva (1997), and Eva (1998) all conclude that that there is a need for basic telecommunications in areas such as shantytowns. Morris and Stravrou's (1992) research findings reveal that shantytowns are similar to many formal working-class townships, and that they thus represent a neglected potential market. In addition, Gillwald's (2004) research, which assesses the performance of South Africa's telecommunications sector and the reform strategies adopted towards their respective national objectives, identifies mobile service as being a more effective technology for expanding universal services in South Africa. Consequently, the definition of access to telecommunication infrastructure should not restrict "basic" as meaning fixed landline only, but should also include mobile cellular telephony.

Van Audenhove et al (2003:102) write that "…mobile telecommunications could play a prominent role in attainment of universal service" by extending

telecommunications networks. Indeed, Gillwald, Kane and Esselaar (2004:20) advocate that mobile service has proved to be a much more efficient technology for providing access to telecommunications services than have fixed lines. However, by the end of 1999, universal service obligations were restricted to Telkom and not to Vodacom or MTN since their "…poor obligations in terms of community telephone obligations expired in the middle of 1999" (Van Audenhove et al 2003:141). Furthermore, Van Audenhove et al (2003) state that the willingness of private players to commit to universal service obligations may be more limited than under monopoly conditions. However, O Siochru (2005:1) cautions that mobile phones provide limited access to the internet, which subsequently makes Wireless applications protocol (WAP) and 3G elitist and only creates a greater social-economic divide between rich and poor. It should be noted that in South Africa basic mobile phones are relatively inexpensive and may be the best way to provide telephony to poor and rural populations. As Thornton (2009) puts it, "The reason we have regulation is because markets are not competitive and if they were we would not need regulation.

2.2.7 Competition

A primary *modus operandi* for licensing new telecommunications operators is to increase competition, leading to lower prices and better service as network coverage increases as well as speed and reliability of services offered (Bohlin, Gruber & Koutroumpis 2009). For example, the results of the study by Majumdar (2010) did conclude that encouraging the introduction of competitors had led quite substantially to the improvement of efficiencies for the incumbent firms. Van Audenhove et al (2003:101) state that "competition is thought to provide the basis for sustained growth and innovation in the long term." Competition encourages choice and thus a greater variety of products and services. At the same time, high-quality accessibility lowers prices while maintaining standards and stimulating growth. According to Ali's (2003) article, although the purpose of

competition was to reduce prices and increase quality of service, this did not occur in South Africa.

In fact, the duopoly between Vodacom and Mobile Telephone Networks (MTN) was characterised by a lack of competition and resulting high prices. In fact, the duopolies of Vodacom and MTN did little to improve competition, as their prices and services remained similar in the South African telecommunications market (Pieterse 1999:27; Hodge 2003:18). In the first four years after the introduction of Cell C to the market, there was no apparent evidence of lower and more competitive prices, which typically stem from increased competition in the market (South Africa. Independent Communications Authority of South Africa 2005a:6; Colloquium 2005:14; Stones 2005:1). As Regulate Online (2007) puts it, it has been years since Cell C entered the market but it still has less than a third of the customers of MTN and Vodacom. After the introduction of Cell C prices actually increased, suggesting a lack of real competition according to Ali (2003:126). Furthermore, the Communications User Association of South Africa (CUASA) questions whether the introduction of a fourth operator would have any real impact after Cell C failed in lowering prices. "As now well over 50% of the South African population are reported to have mobile phones, we have doubts whether or not any significant portion of the remaining market could be captured by a fourth entrant, given the likely extended period it would take to complete the process of awarding a fourth mobile licence and for this operator to become operational" (Cellular users still paying premium whilst waiting for ICASA hearings 2006:1). Using the Herfindahl-Hirschmann Index that measures the competitiveness of a market on a scale from zero to 10 000 and is calculated based on the sum of the squares of the percentage market shares of all the layers in the market, a monopolistic market scores 10 000 and a perfectly competitive market scores zero. The introduction of Cell C did drove the Herfindahl-Hirschmann Index down from 5 262 in September 2001 to 4 106 two years later (Gillwald & Esselaar 2003:74). Nevertheless, high telecommunications costs remain a major inhibitor to progress, since high

telecommunications rates inflate business costs, discourage investment, waste resources, retard development, and handicap the empowerment of the poor (Colloquium 2005:1). Nevertheless, Cell C and other mobile cellular providers (i.e. Vodacom and MTN) provide the underlying infrastructure and services to customers. However, the penetration of full mobility services are still significantly higher among the more affluent segments of the market, although community service telephones have helped expand telephone services into many rural areas (Gillwald & Esselaar 2003:65). Consequently, Cell C's performance needs to be investigated.

The Efficient Research Pty (Ltd) (2004) study examines South Africa's telecommunications costs by comparing them with those of other countries. The study collected its main data from the ITU. Although the study was conducted in only two weeks and lacked detailed information, the study concludes that South African telecommunications charges are more expensive that its price increases in recent years are higher than most other countries considered in the same study. Similarly, after complaints received from the CUASA, ICASA released its *Discussion document on mobile pricing*. Although the discussion document contains errors, such as typographical mistakes and incorrect data used to compare international prices, and does not investigate interconnection fees, it finds that the introduction of Cell C did not reduce prices in real terms (South Africa. Independent Communications Authority of South Africa 2005a; South Africa Independent Communications Authority of South Africa 2005b; Edmunds 2005). In addition, a study for Genetics Analytics, Hodge, Truen, Cloete and Biacuana (2007:9) compared South African prices to prices in 16 countries, six of which – Brazil, India, Mexico, Morocco, Thailand and Turkey – can be regarded as a "peer group" of countries at a comparable level of economic development, and eight of which – America, Australia, Denmark, Hong Kong, South Korea, Sweden, United Kingdom and Sweden – are international high performers in telecommunications. The study discovered the following: for the business mobile telephony basket, South Africa is the most pricey of the 15 countries surveyed,

and is 106.9% higher than the typical price Retail telephone costs were much lower, in that South Africa is only the eighth most expensive of the 15 countries surveyed, and is 6.1% lower than the average price. However the results of the study by Majumdar (2010) did conclude that encouraging the introduction of competitors had led quite substantially to the improvement of efficiencies for the incumbent firms.

Even though Pieterse's (1999) research concedes that the blame for lack of competition is not only due to the regulatory environment, the Van Audenhove et al (2003:101) research article suggests that, in order for competition to flourish, the state must not interfere in the telecommunications market, but should rather provide an "enabling framework." However, Gillwald (2002:25) mentions that competition can only be established and maintained if it is commercially feasible to do so and the regulatory environment needs to encourage it. For example, Ali's (2003) research article states that regulations (i.e. the Telecommunications Act no 103 of 1996, the Policy Directions of August 2001 and the Telecommunications Amendment Bill of 2001) were introduced to establish competition in the telecommunications market. Nevertheless, Melody (2003), which uses the 2001 survey studies from Ernst and Young and from BMI Technology, implicates the regulatory environment as the biggest inhibitor of growth in the South African telecommunications market. The mechanism of issuing licences is part of the context of the regulatory environment. Therefore, Melody (2003) declares that the South African government's practice of selectively awarding licences to specific operators that are protected by restrictions prevents competition.

There is a clear link between the regulatory framework of the telecommunications sector as well as actual competition itself. For example, Chapter 10 of the Electronic Communications Act (2005) read together with the Competition Act provides the framework for enhancing the competitiveness of the local electronic communications market. However it should be stated by definition that the

licensing regime itself maybe perceived as a barrier to entry. The result is such in South Africa where there is only one infrastructure and few operators that compete to offer services on the same infrastructure. This form of competition results in an oligopolistic market that is controlled by few operators. To ensure competition, regulators have to monitor access to the infrastructure by open network provisions and access regulations (Abdulaziz 2009:15), but also through pro-competitive license terms and conditions. However as Weisman (2010) indicates competitive policies that mistakenly protect competitors may give rise to a predicament of moral hazard, in which new entrants and incumbents develop an unnatural reliance on the regulatory process for their actual continued existence.

2.2.8 The licence as a regulatory tool

Licensing is only one element of the regulatory process; other elements include telecommunications laws, sector policies, regulations, guidelines, and directions. In addition, licensing is a relatively contemporary development in many telecommunications markets, including South Africa (Licensing and other regulatory instruments [Sa]:22). Regardless telecommunications licensing is a useful tool with which the state can control the allocation of valuable state telecommunications resources, prevent confusion in the industry and to regulate infrastructure exploitation (Abdulaziz 2009:16).

There are two types of licences in the telecommunications sector: individual licences and general authorisations. General authorisation is normally provided for paging and data service licences. It is associated with light or minimal regulation and allows a service provider, based on specific conditions which are defined in advance in general terms, to provide service without needing an explicit decision by the regulator; only the terms and conditions of such authorisation are expected (Xavier 1996:487). Furthermore, general authorisations are invariably cheaper to administer and conditions are easily

amended as compared to individual licences, and flexibility is a critical requirement for the telecoms sector where technologies and related services change rapidly (Types of licenses [Sa]:35). Individual licences are typically used for public network licences, cellular services, and radio frequency usage (Baldwin & Cave 1999). The issuing of an individual licence is at the discretion of the regulatory authority. A result of regulator-controlled entry is that there are usually only a few operators. The conditions specified for individual licenses are often elaborated, detailed, and customised. Consequently, an individual licence allows the regulator to pursue or protect national interest by defining elaborate conditions and objectives for the licensees. (Types of licenses [Sa]: 35; Baldwin & Cave 1999). Hong Kong's market-driven approach has fostered an innovative and competitive telecommunications sector that has invested in facilities and in the development of new services and products for a technology- hungry market. This arrangement is possible because virtually all aspects of the telecommunications sector in Hong Kong are fully liberalised. Furthermore, the telecommunications sector is not strictly regulated, creating an environment conducive to rollouts of multiple end-to-end telecommunications networks that can promote facilities-based competition in the market (Ma 2008:1). The EU has committed itself to WTO liberalisation process but has simultaneously allowed regulators to use licences to uphold national interests (Xavier 1996:488). Nevertheless, individual licences provide regulators with more responsibility and contain more obligations for the prospective licensee while enabling regulators, especially those living in developing countries, to meet pertinent national, social and economic obligations.

The licence is therefore a regulatory tool that can support some of a regulator's functions while securing sector reform and operator compliance with existing regulations (Freiberg 2010:19, Tuthill 1997:784). As mentioned above, the licence can also be a tool used by governments to exercise control over national markets for technical, political, economic or social reasons. Besides the large

investments, the licence can be by definition be a potential barrier for market entry.

Moreover, as licensing is an artificial restriction that denies access to new and possible innovative services, it may be viewed as creating unjustified discrimination. Nevertheless, licensing does provide a means to supervise access to the market by creating a framework for liberalisation. A licence signals the regulators' willingness to allow effective competition by allocating scare resources to an operator to enter the market and to provide telecommunication services (Wellenius & Rossotto 1999:4; Status report on European Union electronic communications policy 1999; European Commission 1997:39; Ypsilanti & Xavier 1998:656).

The mechanism of issuing licences also aims to ensure compliance and promote proper conduct among licensees over the long term. A licence is a detailed document or legally binding contact that is usually administered and issued by a government authority or regulator. The licence is used to confer authority on licensees, by committing them to a series of objectives and minimum conditions, prescribed by the regulator, for example the licensee is typically not allowed to transfer its license to another operator (Baldwin & Cave 1999:258). In turn, the licence, through the clarification of obligations and requirements for both the licensee and the regulator, could potentially benefit all stakeholders with a clear understanding of what the service provider is required to do and not allowed to do. Nevertheless, licensing gives operators a monopoly to exploit the frequency for a fixed period of time and therefore it creates asymmetry within the industry between holders (incumbents) and non-holders. In theory, the frequencies will be relocated to another operator again when the license expires, in practice, this has not occurred yet (Abdulaziz 2009:32).

The obligations that operators must uphold generally include technical terms and specifications to avoid uncertainty, the scope of the licensee's activities, network

rollout and service targets, social obligations, empowerment conditions, interconnection, terms and conditions for providing a service, provisions for protecting consumers, provisions of mandatory services, including emergency services, to consumers, and a licensee's right to use the frequency spectrum (Collins 2004:7; Frempong & Atubra 2001:200). Therefore, a licence may serve as an important tool for expanding infrastructure investment and to promote social obligations.

In addition, by clearly defining the rights and obligations of the licensee and regulator, a licence may be used as a tool to increase confidence in the regulatory system. In turn, regulatory certainty will likely attract new operators and investment to the market (Licensing and other regulatory instruments [O]:22). Licences may also be used by the government to raise funds.

Most importantly, the licence is a legally binding document that contains prescribed conditions that the licensees must meet or else face revocation of their licences (Baldwin & Cave 1999). As a result, the licence commits the licensee to the prescribed conditions and provides the regulator with enforcement powers. The licence may stipulate these enforcement powers, such as providing the regulator with the powers to request otherwise private information. Licences may potentially empower the regulator with the ability to request publications of equipment specifications. The licence could, furthermore, provide the regulator with the power to ensure that auditing is undertaken by independent auditors in view of accounting separation (Nielinger 2004 :18). The licence, however, does not provide the regulator with management powers, and the commercial risk remains with the licensee or applicant (Baldwin & Cave 1999:142-149). However, to determine whether licensees have met prescribed conditions, the licensees' performance must be investigated.

In South Africa, the licence is so important that the legislator has made it a criminal offence to operate a telecommunications system without a licence

(South Africa 1996). Furthermore, in South Africa, the government's priorities are to promote universal access to services, protect consumer interests, ensure technical standardisation and efficient use of the frequency spectrum, empower the historically disadvantaged, and promote competition and economic development (South Africa 1996:sec. 54-55). The licence is used to pursue these governmental objectives.

Although South Africa, a developing country, still favours the licensing process, the European trend favours minimal licensing conditions and eventual elimination of the licence requirement. This trend is recognised in the European Union Directive 97/13/EC of the European Parliament and of the Council of 10 April 1997 on a common framework for general authorisations and individual licences in the field of telecommunications services, as well as the 12 July 2000 licensing proposal (i.e. *Proposal for a Directive on the authorisation of electronic communications networks and services)*, which favours minimal licensing conditions with the eventual elimination of the licensing requirement (Licensing and other regulatory instruments [Sa]:20; Knieps & Zenhäusern 2010). Xavier (1996:487) states that the telecommunications market needs to become developed and that competition needs to increase before licensing can be gradually removed, if not entirely abandoned. Xavier's (1996) statement leads to the relevance of the study: whether the mechanism of issuing licences to selected licensees, particularly in light of issues such as the scarcity of resources (i.e. frequency spectrum), public interest, and expanding universal service and access objectives, is an appropriate regulatory instrument to be used by a regulator.

Chapter 3 of the Electronic Communications Act sets out the licensing framework which ICASA is charged with implementing. However the Act has stopped short of prescribing a licensing process and has enabled the regulator, ICASA, and, in certain circumstances the Minister of Communications, to prescribe the process for Telecommunications licensing. ICASA is often left with the task of crafting

licensing processes in order to accommodate the dictates of policy. While this allows for a measure of flexibility and responsiveness in the licensing processes, it also engenders a lack of certainty in the regulation of the industry. The framework that has been provided thus far is not adequate for the objects it is intended to achieve. Furthermore with the transition from technology-specific licenses to the concept of technology-neutral licenses have aggravated the situation.

2.2.9 Mechanisms for awarding licences

Mechanisms for awarding licences are policy tools used by regulators for allocating public resources to prospective applicants (Chan et al 2003). The licence issued to the new licensee grants the new licensee rights to provide a service and/or use the frequency spectrum, but also imposes restrictions on the licensee that the regulator deems to benefit end users (Hazlett 2004). In addition the licence allows a government how many licences will be issued.

Regulators use multiple methods, such as case-by-case judgement by the regulator, lotteries, auctions, comparative evaluation processes, and comparative hearings for allocating licences (Tyler & Bednarczyk 1993:669-671). Case-by-case judgement is a systematic method used in countries where public officials use their own discretion for granting licences to applicants (Tyler & Bednarczyk 1993). A lottery is a method whereby resources are randomly allocated to those who apply. An auction is a market process that involves a seller dealing with bids from different potential buyers and usually selecting the highest bidder (Chan et al 2003:30). Comparative evaluation processes or “beauty contests” are a formal process for evaluating different rivals’ detailed proposals by using a formal scoring design reflecting pre-defined evaluation standards. Comparative hearing or comparative bidding is similar to the beauty contest, but the hearings are held in public (Tyler & Bednarczyk 1993:670).

Each of the abovementioned mechanisms for awarding licences has its own advantages and disadvantages. For instance, case-by-case judgement by the regulator is a quick and inexpensive approach. However, this option may give the judges too much power. Case-by-case judgement by the regulator may consequently be criticised for the lack of procedural measures to ensure that the regulators make unbiased and suitable decisions since there is no formal review process. Instead, there are only limited obligations to issue reasons for a decision (Tyler & Bednarczyk 1993:670).

2.2.9.1 Lotteries

Lotteries are quick, cheap and transparent method for allocating licences. The lottery method, however, leaves too much to chance, limits public accountability, and encourages applicants to submit a large number of applicants, specifically small businesses that would not otherwise stand a chance to win, as resources are randomly allocated to those who apply. Chance decides whether a capable applicant will be assigned the resource. Furthermore, the qualifications of the bidders may be disputable if bidders are not pre-screened (Tyler & Bednarczyk 1993:670; Anandalingam 2001:4). This occurs particularly if the bidders' motivation amounts to mere economics. In fact, in New Zealand, current legislation (i.e. the Radio Communication Act of 1989) allows for the resell and transfer of licenses (spectrum trading), and a technology-neutral approach could reward bidders with no experience in the telecommunications industry and no intention of operating a telephone business to speculate and then resell their lottery prices to productive users. A resale could lead to a delay in allocations and a loss of government revenues (Geradin & Kerf 2002:38; Chan et al 2003:8; Tyler & Bednarczyk 1993:670; Milgrom 2004:3). In other cases, such as NextWave Communications in the USA, companies cannot find a buyer for their licences and must file for bankruptcy since they cannot afford licence fees (Anandalingam 2001:4).

2.2.9.2 Auctions

Auctions can be utilised by governments to build markets and thereby harness the competitive and informational benefits that markets can offer by allocating resources to the highest pre-qualified bidder quickly and at a relatively low cost (Xavier 1999:816, Frieberg 2010:14). The argument for using the 'price system', via an auction, to allocate spectrum licences is based on economic efficiency arguments that: it eliminates the rent dissipation associated with 'beauty contest' awards; assignment of licences is made to most productive suppliers; and generated public revenues displace taxes (Madden, Sağlam & Morey 2010). The auction method is also fair and transparent, with the minimal possibility of corruption. With the auction method, bids are observable and verifiable by a court, and therefore the final allocation is less likely to be legally contested, as compared to other selection procedures. Furthermore, auctions are a market mechanism that may be designed to generate a particular outcome (Chan et al 2003:vii). Indeed, in an auction there is price competition, as the players determine the price they are willing to pay for a licence, with the licence issued to the highest pre-qualified bidder. However, Chan et al. (2003: vii, 2) declare that auctioning public resources does not fit the ideal model of perfect competition for two reasons. First, the rationales for entrusting resources to the public sector may preclude the alignment of private and public interest. Second, many government auctions are thin markets in which there are too few bidders to ensure competitive bidding.

The auction method has advantages and disadvantages. An advantage of the auction method is that although the final decision rests with the contestants and not with the regulator, the government benefits by receiving capital (Working party on telecommunications and information services policies 2001:10,12). A further advantage of an auction is that it can be an efficient mechanism to make allocations without requiring governments to have accurate prior knowledge of resource values or costs. Therefore, where no market has previously existed and

there is an information gap in determining the resource values and production costs, auctions is a method of mimicking market forces to solve these resource allocation problems by promoting competition among bidders. Indeed, those who place a relatively high value on the goods on sale will generally be willing to bid highest for it. The asking price is based on the seller's cost of supplying the good, and the bidding competition will consequently lead to the market value of the goods. Once the auction has been completed, the auction price may then serve as a guide to the value for future resources of the same type (Chan et al 2003:1, 5,7; Laffont & Tirole 2000). In addition, auctions have a significant advantage over beauty contests since they are more efficient and allocate licences to those applicants who value them the most and not to those whom the regulator favours. Indeed, these actions eliminate politics from the process, generating certainty and incentives to invest (Noam 2005:66).

There are, however, two main disadvantages of the auction method. First, the auction method could lead to high license fees, which could hinder the efficient use of the licence, lead to financing constraints on the rollout of new networks and services and the promotion of competition, although the Vickrey auction is an exception since it solves this problem. In addition, Burguet and McAfee (2009: 193-194) argues that auctions are "…optimal even when the firms are financially constrained, provided the auction price is not too large a fraction of the firms' resources". Second, the success of auctions depends very much on their design, which is a complicated task (Organisation for Economic Co-operation and Development 2001:13). Furthermore, if auctions generated large capital for the government, this arrangement could lead to the overpricing of licences, as in the case of most third-generation (3G) licences awarded in Europe (Tyler & Bednarczyk 1993:670). Consequently, the high costs of the licence are transferred to the end-user, whereas the additional capital could be better used towards the rollout of new networks and services in low-income areas and the promotion of competition. (Issuing of licenses [Sa]:36). Other possible problems with high licence fees are that they could limit rapid spectrum use while hindering

the rollout of new networks and services and the promotion of competition (Working party on telecommunications and information services policies 2001:13).

As they use auctions as a policy tool, governments need to understand the auction environment for a particular application and adapt the auction design to that environment. There are four basic forms of auctions, namely, English, Dutch, first-price sealed bid, and Vickrey auctions. English and Dutch auctions are examples of open auctions. Open auctions require all bidders to be present (physically or digitally) at the same time and place, offering bidders the opportunity to observe the behaviour of other participants. In the English auction, also referred to as the ascending bid auction, the auctioneer calls out increasing bids, starting low and successively raising the price until one bidder remains. At every price point, bidders indicate how much they are willing to pay, and bidders may watch the behaviour of other bidders. The last bidder wins the resource at the final price (Anandalingam 2001:8; Milgrom 2004:9). According to Ausubel (2008:5), the English auction leads to fewer arguments and cleaner results. In Dutch auctions, or descending bid auctions, the auctioneer starts from a given high price and progressively lowers the asking price until a bidder accepts it. The first bidder who accepts the current price wins. According to Ausubel (2008:5), the Dutch auction is explicitly dynamic since there is nothing that can happen that would lead any other bidder to want to change his or her strategy while the auction is still running.

First-price sealed bid and Vickrey auctions are examples of sealed bids. Sealed bids are submitted by post or electronically, with no opportunity for information feed-back. Interestingly, some of these differences do not matter to rational decision-makers. With first-price sealed bid auctions, each bidder submits a single bid independently, and the resource is sold to the highest bidder, who pays the winning bid. The implication of first-price sealed bids is that bidders are required to guess other bidders' valuations. An advantaged of first-price sealed

bid auctions is that it is simple and only requires all interested parties to submit a single bid. Furthermore, this type of auction is economically efficient, as the licence is awarded to the bidder who claims to value it the most. The problem with this type of auction is that a bidder may overpay (Anandalingam 2001:7). In the Vickery or second-price seal, each bidder submits a sealed bid. Then the licence is awarded to the highest bidder for the price equal to the second-highest bid or the reservation price if only one qualifying bid is made. Vickrey auctions are both economically efficient and truth revealing. Furthermore, Vickrey actions are supposed to reduce “winner’s curse” by allowing the winner of the auction to pay the second highest bid. Another advantage of the Vickrey auction is that it duplicates the outcome of an ascending bid auction with small bid increments but does not require bidders to assemble together or the hire of agents to represent them in their absence. Equally important is that, in this auction type, each bidder needs to determine his/her own reservation price and bid accordingly (Anandalingam 2001:7-8; Milgrom 2004: 9-10). The disadvantages of the Vickrey auction are that there is no guarantee that the bidders will reveal their true value for the resource and that there may be large gaps between the willingness to pay and the actual payment (Kwerel & Rosston 2000:262). For example, in the 1990 auction in New Zealand, the winning firm’s bid was 100 000 New Zealand dollars, and the second-highest price was six New Zealand dollars. Furthermore, although illegal in terms of the auction rules, there is an incentive to collude and lower the bids, and therefore the resulting implication is that bidders are engaging in a secondary market (Anandalingam 2001:3,7). However, all the abovementioned types of auction environments may, on average, yield similar revenues (Chan et al 2003:vii,13,50).

If the government or regulator selects an auction with a faulty design, poor performance may ensue. Therefore, the success and effective use of an auction, as an effective policy instrument depends on the ability of the government or regulators to understand auction design issues and their implications for the pursuit of policy goals. Thus, the government should know how to solve practical

problems related to how to properly design and implement them (Chan et al 2003:vii,1).

Game theory plays a central role in auction design. Game theory is concerned with the strategic decision-making of bidders in situations similar to adversarial games such as chess or poker. It analyses the complex web of rivalries and co-operation among a small number of players with a mix of conflicting and common interests. Game theory, therefore, clarifies how bidders will act and the strategies that they will adopt (Chan et al 2003:1-2).

Auction design thus specifies trading rules used in order to translate bids into prices and specific allocations. In other words, auctions are engineered towards a desired direction or outcome. An ideal outcome is an efficient allocation where resources are allocated to those who value them the most, not necessarily rewarding the bidder who pays the highest value. For the auctioning of licences, primarily since it involves the future delivery of services, efficient allocation also means that that the contract is likelier to be carried out and the service will be provided at a high level by the winning bidder. However, like other market mechanisms, auctions deliver an ideal outcome only under the assumption of perfect, strong market competition. According to Chan et al (2003:vii,2) any auction form may achieve efficient allocation, under these conditions. However, there are factors that impact efficient allocation, such as the truthfulness on the part of the bidders and the manner in which licences have been packaged (Maskin 2001; Milgrom 2004:7-8). The seller must thus design an auction well to in order to maximise societal benefits of a scarce resource and to ensure that economic rent is obtained by the public rather than by shareholders (Spectrum allocation auctions and comparative selection produces 2001:4).

An advantage of auctions is its tendency to allocate resources to those who are most capable of using them. Only bidders with high valuations for resources on offer are usually willing to bid high and thus likely to acquire the resources.

Bidders are best able to assess resource values based on available private and public information, taking into account their own productive capabilities and business risks (Chan et al 2003:8).

2.2.9.3 Comparative evaluation processes

The comparative evaluation method, or beauty contest, is a formal process where the government or regulator invites rival applicants to submit business plans that are then evaluated. The regulator uses a formal scoring scheme with clearly defined pre-announced evaluation criteria to award the licence at a fixed price to companies. In most cases, the criteria will be published in advance, and applicants will attempt to show how their applications meet the criteria better than the other applications (Tyler & Bednarczyk 1993:670, Abdulaziz 2009:81). Indeed, weight is given for each set of criteria, such as evidence of financial resources, technical capability, business plan, range of service commitments, and the possibility to include local empowerment initiatives, with the winning operator being the applicant with the most points (Issuing of licences [Sa]:36). The weighting system reflecting the relative importance of each criteria is based on a country's own needs, with some aspects demanding a higher score than others. Therefore, the comparative evaluation method allows the regulator to match specific sector-oriented objectives with the operator responsible for achieving them (Tyler & Bednarczyk 1993:670).

An advantage of the beauty contest method for the regulator is that the regulator remains in control. The final decision, which includes both price decisions and allocations decisions, lies with the regulator (Working party on telecommunications and information services policies 2001:10). Furthermore, the comparative evaluation method encourages applicants to provide the regulator with detailed information about themselves. However there is the risk that applicants may want to hide information (Tyler & Bednarczyk 1993:670). Moreover, the alleged favourable information provided by the applicants to the

regulator may conceal the applicants' true private information. Furthermore, applicants may make attractive promises to the regulator that they may not be able to guarantee. Furthermore, the regulator must rely on these promises in an unknown environment (Working party on telecommunications and information services policies 2001:19-20).

Nevertheless, the comparative evaluation method has the advantage of taking into account non-economic and subjective factors. The comparative evaluation process could therefore include social objectives, as defined by the government (Lie 2004).

Although each applicant should be treated in an objective and non-discriminatory manner, a judgement needs to be made in order to select a winner; hence, by definition the selection process is subjective. This subjectivity may, in turn, compromise equity, and, as such, beauty contents could encourage corruption. Nevertheless, comparative selection procedures that are not based on established economic principles may still be deemed as unbiased since a uniform standard is used to judge the merits of all applicants (Working party on telecommunications and information services policies 2001:10,19).

Other disadvantages of beauty contests are that they may also be time consuming because of the need for careful evaluation of the criteria and expensive for both regulators and bidders. Furthermore, the comparative evaluation method lacks transparency and may be subject to bias, abuse, and corruption, as the evaluations are made in private meetings (Tyler & Bednarczyk 1993:670; Working party on telecommunications and information services policies 2001:20). A result is that the outcome is more likely to be contested by losers, as NextCom contested ICASA's decision regarding the third cellular licence. In addition, beauty contests do not provide governments with large economic benefits, since a predetermine licence fee is set. Finally, comparative evaluation methods may be criticised for entailing unsuitable or unquestionable

regulatory intervention in the selection of winners and losers (Tyler & Bednarczyk 1993:670). Also notable is that as the 3G European experience has shown, commitments to future investments maybe renegotiated (Burguet & McAfee 2009: 193-194).

2.2.9.4 Comparative hearing

In the comparative hearing method, the regulator and/or government uses set criteria to select a winner. However, in the comparative hearing method, bidders are required to propose how they intend to use the resources on offer. Based on these proposals, the different applications are assessed. A resulting disadvantage of this process is that it is "extremely time consuming" (Tyler & Bednarczyk 1993:670).

2.2.9.5 A mixture of approaches

Tyler and Bednarczyk (1993:671) state that a further mechanism of awarding licences is by a mixture of approaches. The regulator, therefore, may use parts of one method for the advantages that it may offer but supplement it with aspects of another method to counteract the disadvantages of the first method. For instance, a regulator may pre-select the most qualified applicants to form a short list (i.e. as in beauty contests) and then apply either a lottery or auction to select the licensee. For example Italy adopted a hybrid approach using a beauty contest and followed by an action (Abdulaziz 2009).

2.3 PERFORMANCE INDICATORS FOR THE CELLULAR TELECOMMUNICATIONS INDUSTRY

2.3.1 Definition of the term "performance"

Folan, Browne and Jagdev (2007:605) may pronounce that performance is one of the least understood ideas, the word performance is an adjective derived from the English verb perform. The word performance furthermore "can mean anything from efficiency to robustness or resistance or return on investment or plenty of other definitions never fully specified" (Lebas 1995:23). While Folan, Brown & Jagdev (2007:607) have defined performance as "action of executing or interpretation", Wholey (1996:2) argues that "performance may relate to economy, efficiency, effectiveness, cost-effectiveness or equity". Xavier (1991:139) defines performance as the efficiency of the relationship between input and output. In economic terms, performance is the cost-effectiveness of the resulting effect of the input and output reactions achieving a specific effect or objective. The nature of performance assessment is, therefore, how well the input is being used to achieve the desired objective. As such, performance is boundary-less, but still indicates the weighed results of combined activities or investment over a given time period.

2.3.2 Performance management

Performance indicators for the cellular telecommunications industry need to be placed in the greater context of performance management. Performance management is needed to ensure that the network operates efficiently and that service quality is maintained in a cost-effective manner. Performance management should manage performance-influencing factors such as service technology, organisational climate, managerial processes, staff characteristics, client characteristics, the introduction of new technologies, staff reductions, and environmental factors (Roycroft & Garcia-Murrilo 2000:952-955; Network

performance management [Sa]). Performance management therefore involves the monitoring and control of factors affecting operations.

Sekoma (2002) compiled a survey on South African technology companies (e.g. Telkom). The purpose of the study was to investigate how South African technology companies undertake performance management and act on the results. The findings show that most companies (including Telkom) rely on financial measures only, indicating that when the profits are down for a given current financial year, the company is considered to have performed below average. If the licensees' profits are reduced, then its corresponding performance is also lowered. Sekoma (2002) states that using only performance measurements that focus on short-term production goals aimed at increasing operational efficiency in terms of financial indicators are biased towards providing maximising shareholder values, such as profit. Indeed, critical measurement indicators, such as human capital and customer interface, which could give a company a competitive edge, are ignored. Similarly, Pieterse's (1999) research findings recommend that companies should actively developing creative points of view regarding the potential evolution of operational functionality that involve core competencies and consumer interfaces. Furthermore, Pieterse (1999) advocates a new strategy paradigm: an appropriate marketing positioning strategy. In an appropriate marketing positioning strategy, quality is the differentiating factor between a successful and average company.

The performance and competitiveness of a company is reliant on the reliability, availability and productivity of their production facilities. To guarantee the company reaches the preferred performance, maintenance managers need a excellent track of performance on maintenance process and maintenance results. This can be achieved through development and implementation of a meticulously defined performance measurement framework and performance

indicators that are capable to measure important elements of maintenance function performance (Senatore 2010:12).

2.3.3 Performance indicators to measure performance

Baker (1999:329) states that evaluation studies should require a comparative baseline for determining the success or failure of an entity. In this study, indicators serving as measurable evidence are used as a comparative baseline.

Baker (1999:104) also suggests that multiple indicators make the measurement instrument more likely to have a higher consistency and reliability. Furthermore, Baker (1999:104) claims that more complex concepts should have multiple indicators because they are more likely to cover all the dimensions of the concept. Therefore, performance indicators have been developed, derived from academic and expert literature such as NetTel@Africa (2003), Milne (1997), the Productivity Commission (1999,2001), Intven et al (2000), and the Organisation for Economic Co-operation and Development (OECD) (2001) (Telecommunications regulations: institutional structures and responsibilities 2000), to assist the evaluation process of Cell C's performance.

It is important to evaluate Cell C's performance because it's supposed impact, as that of the third cellular licensee (although the smallest in terms of market size), was to increase competition in the telecommunications market, particularly since there was little competition between the duopolies of Vodacom and MTN. However, Cell C's impact on South Africa's telecommunications market had a wide range of critics, such as academics, business user groups, and even members of government, who believed that Cell C's introduction did not yield the desired results.

Performance indicators, furthermore, serve as empirical evidence of Cell C's value to the end-user (Stewart & Carpenter-Hubin 2001:1). Performance

indicators act as structured scales to measure the unit of analysis: Cell C's performance. Scales are a measurement instrument based on a set of interrelated indicators. Scales also consider how each item is addressed and which patterns the answers provide (Baker 1999:131).

NetTel@Africa (2003), identity service delivery, network expansions, consumer satisfaction, reasonable profit margins, innovation and fair practice are used as performance indicators. This set of performance indicators is similar to those identified by Milne (1997), the Productivity Commission (1999,2001), Intven et al. (2000), and the Organisation for Economic Co-operation and Development (OECD) (Telecommunications regulations: institutional structures and responsibilities 2000). However, a further performance indicator could be added, namely compliance with the regulator's regulations, as the licensees' performance should be evaluated in terms of the current legal framework.

Performance indicators will be used in this study to evaluate Cell C's performance in terms of its licensing agreement only. Furthermore, performance indicators only consider performance but do not allow for rewards for improving performance (Heinrich & Laurence 2000:75). Xavier (1991:137) declares that performance indicators serve "…to encourage and assist improved performance". However, for performance indicators to be effective in influencing decisions, they should be managerially relevant and useful to strategic and decision-making tasks, as performance indicators may suffer from problems related to comparability and interpretation.

Xavier (1991:138,148) states that external entities (e.g. governments, regulators, or researchers) play an important role in the quest to develop appropriate performance indicators for mobile telecommunications investigations that are both useful and understandable. However, Xavier (1991:150) states that the development and effective use of performance indicators depends upon access to relevant and reliable information. Xavier (1991:150) also writes that "…external

assessors [should be allowed] to inspect, ‘on site’, the way their [service provider’s] data are compiled from starch.”

Telecommunications encompass price and quality components. Price and quality are interrelated. Furthermore, in a competitive market there is a desire to enhance both price and service competition (Productivity Commission 1999:155). However, a mobile operator, subject to price cap regulation could increase profit by lowering the quality of service. Similarly, increased quality may lead to higher prices. For instance, Milne (1997:179) claims that “…an easy way for a price-capped company to achieve its target prices is to cut costs without worrying too much about service quality.” As a result, this arrangement would be of little value to the end-user (Corones 1992:223). Quality, therefore, comes at a cost (Intven et al 2000:30,32; Baldwin & Cave 1999:251,254), but only when all other variables remain constant For example, in many industries, such as information technology, reduced prices and increased quality occur in tandem.

Furthermore, Roycroft and Garcia-Murrilo (2000:948) state that quality, as a performance indicator, is problematic, because “…service quality is a multidimensional concept.” In fact, quality includes both objective and subjective indicators (Boyland & Nicoletti 2000:18). Therefore, service quality may be measured using subjective and objective indicators. Objective indicators of service quality refer to an operator’s technical standard and those key characteristics considered relevant to individual aspects of service quality, such as variety, reliability (the service being in working order when needed), and serviceability in quantitative terms. Subjective indicators measure consumers’ perceptions of service quality in qualitative terms by means of user satisfaction surveys and an analysis of customer complaints (Productivity Commission 1999:153). Baldwin and Cave (1999:254) observe that regulators prefer to consider only measurable items, such as objective indicators. Although quality is difficult to define, consumers must compare the service quality of mobile

operators and endeavour to be informed about consumers receive in exchange for their payments.

In isolation, price may also be a misleading performance indicator. Some customers may be willing to pay for high-quality services, whereas other customers may be satisfied with a lower quality of services and goods for less money (Roycroft & Garcia-Murrilo 2000:947). Therefore, quality of service refers to the non-price attributes that customers associate with telecommunications services. However, customers still require continuous, reliable services that meet their requirements.

Roycroft and Garcia-Murrilo (2000:949), citing Kridel, Sappington and Weissman, state that the level of service quality may result from explicit regulator rules or managerial decisions in response to broad regulatory incentives. In addition,, Roycroft and Garcia-Murrilo (2000:949) also write that "…there is still a concern that inadequate regulation could result in the decline of quality." However, the availability of low-quality (low-priced) products is not a problem per se, if that is what the market demands.

Furthermore, Corones (1992:3) suggests that the performance element of the structure-conduct-performance paradigm refers to the results of a given structure-conduct pattern. The result is that performance indicators reveal the output provided by a mobile network (i.e. its quality performance in relation to price) and the end user's satisfaction (Productivity Commission 2001:81; Xavier 1991:139).

2.3.4 Performance indicators used to evaluated Cell C's performance

The data collected from the different sources outlined below (see section 4.4.1) will be interpreted against the developed performance indicators. Performance indictors in used to judge Cell C's performance in terms of its licensing

agreement include technical service delivery, equity consideration, network expansion, innovation, fair practice, and alignment with ICASA's regulations. However, since end-users have not been interviewed, customer satisfaction will not be used as a performance indicator. In addition, reasonable profit margins will also not be used as a performance indicator since Cell C does not yet have to comply with existing regulatory accounting requirements. Furthermore, Cell C is a private company that is not listed on the JSE, so there are no annual reviews available. Nevertheless, different sources of data, including secondary sources such as newspaper articles and primary sources, such as interview(s) at Cell C and ICASA, will be interpreted against established performance indicators. Therefore, a holistic view of Cell C's possible performance gains and losses in a variety of categories is achieved.

2.3.4.1 The technical service delivery

Mobile phones communicate with base stations if they are in range. The message is transmitted through radio signals to the nearest base station when the call is initiated. Calls are then routed via the fixed or mobile network to their destination. A central feature of mobile networks is their ability to transfer calls between base stations. The relaying of calls permits users to move within the network coverage area. Furthermore, since the network tracks mobiles within a given cell, the call is automatically relayed to another cell once the user reaches the border of a cell (Productivity Commission 2001:65).

The ability from where a call is made to where it is terminated is measured as the technical service delivery that has two main aspects: network availability and the transmission quality. Network availability is the amount of time the network is available, indicating the amount of network downtime when users are unable to access the mobile telecommunications network. Network availability largely depends on the capacity and strength of the radio signal and how well the network manages call relays to a better channel when a signal is degraded either

because the handset is too far from a base station or because of interference. The extent of the down time of a network can be subject to a range of factors, from staff workload and experience, may influence recovery times, as well as time that needed to identify and repair flaws. However, a call may also fail because of network congestion or the failure of network equipment or equipment on a customer's premises such as a faulty handset. Call failures can be decreased by modernising networks despite the fact that continuous maintenance costs could in turn inflate service tariffs (Milne 1997:183; South Africa. Independent Communications Authority of South Africa 2005a; International benchmarking of remote, rural and urban telecommunications services 2001:76; Boylaud & Nicoletti 2000:18). Congestion is usually greatest during peak periods and may vary for different services. Innovative marketing strategies, such as special rates, may also produce network congestion (Productivity commission 1999:172).

Transmission quality is the quality if the call when a network is available. The quality of a call maybe exposed to issues such as noise interference, echo in the speech, the call maybe dropout or the call maybe subject to technical issues such as post-dial delay that will devalue the quality of a call. Call congestion refers to the failure of the mobile network to accept a bid to establish a call. Call dropout means the discontinuation of a call by the mobile network during the call due to a weakening of the radio signal, weak coverage, interference or other network related issues. Post-dial delay refers to the time that elapses between dialling and connection. Connection delays occur because the network needs to establish the location of the mobile user before a connection can be made (Productivity Commission 2001:65,75; Yan 2001:523,527; Xavier 1991:144). What is important to take note of is the higher the amount of problems experienced during the making of a call would indicate a low level of quality and the higher the over the success rate of call would indicate a higher level of quality.

Roycroft and Garcia-Murrilo (2000:949) writes that trouble reports may be used as an indicator of transmission quality. Roycroft and Garcia-Murrilo (2000) also state that companies may underreport trouble, but if the manipulation is systematic, observational trends will still emerge.

One also needs to take note what Roycroft and Garcia-Murrilo (2000:947) state "…in competitive markets, service quality is determined by market forces." As mentioned above, some mobile users prefer high-quality services and are willing to pay higher prices; however, other mobile users prefer lower-quality goods at a lower price (Roycroft & Garcia-Murrilo 2000:947).

2.3.4.2 Equity considerations

Equity considerations have two main dimensions, firstly the provision of universal services and universal access and secondly empowerment of historically disadvantaged populations in South Africa through the provision of investment opportunity. Universal services and universal access is a way to address the digital divide especially from a public access point of view as well as the legacy left behind by Apartheid policies that favoured the investment within the white communities. Nevertheless, the right to communicate is a fundamental right enshrined in the Constitution of the Republic of South Africa of 1996. The Constitution of the Republic of South Africa of 1996 establishes the right to freedom of expression, including the "freedom to receive and impart information or ideas". The freedom of expression has been interpreted to mean not only the right to speak and to be heard, but also the right to access the means to speak and to be heard.

"Universal service" and "Universal access" is defined respectively in the Electronic Communications Act, 36 of 2005 (ECA) as "the universal provision of electronic communications services and broadcasting services as determined from time to time in terms of Chapter 14" and "universal access to electronic

communications network services, electronic communications services and broadcasting services, as determined from time to time in terms of Chapter 14". (ECA). There is a relationship between universal services and universal access, as you can not have universal services without universal access. For example, universal service is depended on a reliable connection and reliable internet at an affordability price to every person no matter where in the in South Africa. What is important is that universal services should be provided in a transparent, non-discriminatory and competitively neutral manner and are not a burden to the service provider in terms of South Africa's obligations with the WTO principles.

To surmount the wrongs of Apartheid policies and the uneven distribution of wealth among South Africans, the empowerment of historically disadvantaged populations in South Africa were encouraged. The empowerment of historically disadvantaged populations in South Africa can be done through the provision of minimum shareholder targets.

2.3.4.3 Network expansion as a performance indicator

Network expansion as a performance indicator refers to the amount of area coverage needed to allow sufficient radio signal strength to make and receive calls. Therefore, coverage and penetration provide an indication of the extent to which the public has access to mobile services and the extent to which the population uses such services (Productivity Commission 2001:68).

The coverage is the geographic area in which calls are made and received. The installation of more base stations in new areas may increase the geographic area. The service area may also be expanded by installing equipment that can extend the range of coverage provided by each base station (Productivity Commission 2001:69,80). Coverage is measured as either the percentage of landmass covered or percentage of the population covered. However, the

number and location of base stations that are financially viable largely predetermine coverage (Productivity Commission 2001:69).

Domestic roaming arrangements may improve coverage levels for users. Roaming agreements provide end users with increased coverage by providing them with access to other mobile networks (Productivity Commission 2001:72). Network expansion must be measured against an even distribution of service quality (Milne 1997). The network rollout requirement, including community service obligations, must be viewed with regard to network coverage and universal access and universal service obligation.

2.3.4.4 Innovation as a performance indicator

Innovation refers to the act of introducing something new, such as an idea, a product, a service, an application, a method, or a device which could lead to opening new markets or lead to new value for the customer. The innovation does not need to be groundbreaking or earth-shattering, but must merely be an improvement on an existing offer. Although innovation may encompass a commercial dimension, the real value of innovation is that it ideally increases human productivity, and for innovation information and knowledge are required. Therefore, innovation represents the proportional rate of change of knowledge and information. To increase innovation, there must thus be a high rate of knowledge change (Varma 2009:1; Van Cuilenburg & Slaa 1995:649). An implication of innovation for the consumer is that new services and applications allow for more flexibility in consumer choice. Furthermore, service providers must ensure that its network can support their new services and applications.

Innovation may be divided into process innovation and product innovation. Process innovation refers to an increase in more efficient production by offering the same offer at a lower price. Product innovation entails offering consumers

with new choices and opportunities with regard to information and communication (Van Cuilenburg & Slaa 1995:649).

Roycroft and Garcia-Murrilo (2000) state that the introduction of new technologies could improve network reliability and thus reduce the number of trouble reports. Yet Roycroft and Garcia-Murrilo (2000) have found that new technologies could also introduce other problems, such as the retaining of maintenance staff. However, the introduction and harmonisation of standards such as the use of GSM in South Africa have limited the introduction of innovative technologies that could have potentially revolutionised the telecommunications industry.

2.3.4.5 Fair practice as a performance indicator

Fair practice is related to the performance indicator of innovation, as services must indiscriminately be provided to all customers (Corones 1992:224-225). Furthermore, the service provider must ensure interconnection from other service providers. In order to provide a smooth platform in order to facilitate network interconnection, guidelines in the form of clearly defined principles of interconnection and obligations are needed (Yan 2001:529).

The service provider must act in the best interest of the consumer. Indeed, the resale of customers' details without prior written consent must not be allowed. Furthermore, new services and applications must enhance consumer security. Although not a legal obligation, the service provider must ensure protection against applications such as mobile phone viruses and spam. Furthermore, in terms of the Films and Publications Act of 1996 and the Films and Publications Amendment Bill of 2006, the service provider should also ensure safeguards against pornography (Gillwald 2001). In terms of R18 restrictions (which includes visual presentations, descriptions or representation of explicit sexual conduct, sexual or domestic violence or extreme violence), it is illegal to expose children too (South Africa. Department of Home Affairs 2006:8-9). Moreover, the Films

and Publications Act of 1996, especially schedule 1, outlines the criteria for an XX rating for publications with explicit sexual conduct that violates the right to human dignity or degrades a person or constitutes incitement to cause harm. Such materials are prohibited according to the Film and Publications Act of 1996. Furthermore, the possession and distribution of child pornography, which are also prohibited by the Film and Publications Act of 1996, was affirmed by the Constitutional Court in 2004, when De Reuck challenged the constitutionality of the provisions of the Film and Publications Act relating to the possession and distribution of child pornography since they allegedly limit the rights to freedom of expression and privacy. The Court, however, issued the unanimous judgement that any infringements of these rights is considered to be reasonable and justifiable *(*Milo, Bopape, & Matidze 2008:1).

2.3.4.6 Alignment with ICASA's regulations as a performance indicator

Regulators uses legal instruments, such as licences, regulations, general laws and social obligations, to reduce their financial burden and any problems associated with the lack of highly skilled data collection personnel in order to function effectively as monitors and enforcers. Furthermore, the licence binds the licensee to the stipulated conditions and at the same time provides the regulator with enforcement powers to ensure that the licensee abides by these rules. If necessary, the licence may be revoked from the licensee (Baldwin & Cave 1999), although licence revocation may not always be in the best interest of the end users. In addition, legal enforcement may fail to identify the best ways to improve performance; this approach may also lead to resentment, hostility, and a lack of co-operation. Therefore, Baldwin and Cave (1999:99) suggest that "…the trick of successful regulation is to establish a synergy between punishment and persuasion." In order for telecommunication regulations to be effective, they must rely upon voluntary compliance, although voluntary compliance may be guided by self-interest (Tyler & Bednarczyk 1993:674-675).

However, a regulator could enforce its decisions, if necessary, by imposing contract-based measures, such as fines. For example, the licence granted to Cell C section 5, especially section 5.1.1, makes provision for fines levied against Cell C by the regulator (South Africa. Independent Communications Authority of South Africa 2001:sec. 5,5.1.1).

Therefore, in order to ensure a competitive environment, regulators must ensure that operators comply with the regulators' regulations. One mechanism to enforce rules is by conducting tests to measure the performance of operators, with the result being that that regulators may define performance indicators that include performance targets used in order to measure performance. This observation is important because an operator may exercise creative compliance. Creative compliance is the process whereby those who are regulated find loopholes, thereby still technically obeying the rules while violating their intent (Baldwin & Cave 1999:103). Nonetheless, creative compliance may sometimes be the only way out of an otherwise impossible situation.

2.4 THE CASE OF CELL C

2.4.1 The manner in which Cell C obtained its licence

The awarding of the third cellular provider licence turned into a debacle, with legal complications and allegations of corruption and political interference. The manner in which Cell C finally obtained its licence is, therefore, difficult to evaluate due to the diverse factors influencing the process (Mbendi 2002; White 2003:7). Cell C was awarded its licence through the use of a beauty contest mechanism, with the implication that some information, such as business plans, was kept confidential. The licence-awarding process took an extended period of time, from 1998 until 2001, because of consultants that were appointed late, the inquiry by the Audit-General and the yearlong legal battle. As a result, the licensing process was drawn out for 18 months (ICASA 2002:13; Gillwald

2003:7). In addition to the delays, because of the consultative process there were allegations of political interference and corruption, resulting in a final court case that was settled out of court. Therefore, there are no public records from the court case available to investigate.

The process of licensing South Africa's third cellular provider began in early 1998, when South African Telecommunications Regulatory Authority (SATRA) launched an enquiry into the feasibility of licensing a third cellular provider, in terms of sections 29 (9) and 37 (2) (b) of Telecommunications Act, no 103 of 1996. In July of the same year, SATRA announced that a third cellular provider would be feasible. SATRA initially proposed the introduction of two new cellular provider licences. According to Teljeur et al. (2003:15) SATRA's proposal was based less on economic feasibility of the local market than on the belief that, owing to the exclusivity and restructuring of the incumbent in preparation for competition, the granting of a third licence would be the only serious opportunity for foreign investment. In addition, a new licensee could handle some of the labour that Telkom was shelling. However, due to pressure from some of the major investors that two new licences would dramatically reduce the attractiveness of the market for potential new investors, potential applicants were invited to compete for only one new licence (Teljeur et al 2003:15).

Then-Minister for Posts, Telecommunications and Broadcasting, Jay Naidoo invited applicants in terms of section 34(2)(a)(ii) of the Telecommunications Act of 1996, by means of a notice in the Government Gazette number 19806, on 26 February 1999, to apply for the third mobile cellular telecommunications licence that was referred to as "GN 314/1999 *GG* 19806". The invitation to apply specified the information that each applicant needed to apply requiring mobile cellular telecommunications and included the evaluation criteria (with a large focus on provisions for applicants from historically disadvantages groups, as required by the Telecommunications Act of 1996 and the licence conditions envisaged by the Minister of Post, Telecommunications and Broadcasting and

the National Licensing Act (Butyi 2006). Historically disadvantaged groups included natural persons and juristic persons. For natural persons, the disadvantage amounted to discrimination based on skin colour, thus including African, Indian and Coloured South Africans, but not Whites, except for women and people with disabilities. Juristic persons refer to those entities that controlled by members of historically disadvantaged groups and with more than 50 percent of shareholders belonging to said groups (South Africa. Independent Communications Authority of South Africa 2001:3). Furthermore, applicants had to complete a form and adhere to certain rules regarding the proper procedures. For instance, applicants needed to deliver their applications to the Minister by hand within three weeks of the invitation date (South Africa. South African Telecommunications Regulator Authority 2000). Applicants who did not adhere to the process could be disqualified. For example, the Zintatu consortium was disqualified because it did not deliver a complete application and failed to pay the application fee.

The Telecommunications Act of 1996 did not indicate which mechanism of issuing a licence should be used. SATRA, nevertheless, employed a comparative evaluation bidding mechanism (i.e. a beauty contest, see section 2.2.9.3) or the ST0017 tender process, which was the same formula used to license Vodacom and MTN (Steyn, Gillwald & Teljeur 2003:18; Butyi 2006).

The criteria for considering the applicants' applications were derived from the Telecommunications Act of 1996, specifically section 2, which describes violations of the Act, and the regulators' recommendations as published in the Government Gazette Notice No 20090 of May 1999. The main criteria that were weighted most heavily were business plan and investment strategy (44%), empowerment strategy (25%), impact on the telecommunications industry and consumer (7%), technical plan (13%), and universal service potential (11%). The criteria placed a large emphasis on investment in the telecommunications sector. With an empowerment share of 25 percent, it was the largest empowerment deal

in South Africa at that time. The criteria did not stress rollout projections in rural areas or the use of advanced technical applications, such as 3G, although this licence included the first exclusive use of the 1800 MHz band.

In addition to these criteria, the regulator also needed to consider all applicable information within its statutory decision-making powers. The regulator had to ensure that all applicants were afforded a fair opportunity to present their cases and to remark on each other's applications. In addition, the Telecommunications Act of 1996 abided the regulator and the laws of South Africa to be independent, impartial, transparent, and development-oriented and to perform their functions fairly, equitably and devoid of bias. (South Africa. South African Telecommunications Regulatory Authority 2000). In order to perform SATRA's own evaluation of applications, a number of committees, structured according to certain evaluation criteria, were established. The committees were instructed to analyse applicants and not to rank them. Section 22 of the Act requires these committees to be chaired by a councillor. However, this was not the case, as staff members chaired these committees and thereby contravened sections 21 and 22 of the Act. (South Africa. Auditor-General 2000:7-8).

On 14 July 1999, the bidding process ended with nine bidders. Two bidders, Afrozone and Spatial Cellular withdrew their applications in July and in October, respectively. As mentioned above, Zintatu Consortium was disqualified. Consequently, the main bidders were Africa Speaks which was owned by Crown Castle International, SB Telecom, Nextel, Nextcom, which was owned by Distacom, Cell C, which was owned by Saudi Oger and the local CellSaf consortium, Telia/Telenor, Five Mobile Networks, which was owned by Israeli company GTIB-Elgadcom, and Khuluma 084 Cellular/NextCell, which was owned by Mobile Systems International and Telecel (South Africa. South African Telecommunications Regulatory Authority 2000). After the applications were received, public hearings on the applications began on 20 September 1999 and closed on 15 October 1999.

The regulator identified the strengths and weaknesses of each applicant against the evaluation criteria on an applicant-by-applicant basis. SATRA made use of two consultants, Al-cent/CLC and BDO Spencer Steward, at the cost of more than R3 million of taxpayer's money, to act as advisors to the council. These consultations were commissioned to provide a non-comparative analysis of key aspects of each applicant based on information provided by the regulator that excluded information obtained in the public hearings in September and October 1999. For example, BDO Spencer Steward studied the business and financial plans of each applicant (South Africa. South African Telecommunications Regulatory Authority 2000; Powell 2000:5). In addition, SATRA mandated a consulting firm, Grant Thornton Kessel Feinstein (GTKF), to audit the decision made by these two consultants (Cohen 2001:16). Furthermore, the regulator made use of its own technical assessment team (Powell 2000:5).

Although the empowerment criteria counted for 25 percent of the total criteria, information on the shareholders remained unknown. For instance, the Audit-General could not obtain information since files were missing in the Registrar of Companies. Where a trust had an interest in the third cellular licence applicant, no further investigation was undertaken to determine the identity of the trustees of those trusts because obtaining this information would have been difficult and time-consuming. As trusts were not registered as companies, access to information would have been difficult (South Africa. Auditor-General 2000:11-13).

An assessment of the relative merits of each applicant was then done by awarding scores to each applicant's criteria based on the weight attached to each criterion. Indeed, the process was completed on a criterion-by-criterion basis instead of on an applicant-by-applicant basis. This approach was apparently chosen in order to ensure impartiality, although the councillors, in terms of the Telecommunications Act, were the only panel members allowed to

evaluate the applicants and to decide on the preferred bidder (South Africa. South African Telecommunications Regulatory Authority 2000).

SATRA released a scorecard indicating that Cell C had 76 points, putting Nordic-led bidder Telia-Telenor second with 69 points, NextCom third with 64 points, Khuluma 084 fourth with 61 points, AfricaSpeaks fifth with 57 points, and FMN Five Mobile Networks sixth with 33 points. Three applicants were short-listed, and Cell C was recommended as the preferred bidder on the deadline, 29 February 2000, because Cell C had achieved the highest score (Butyi 2006). Cell C, according to a statement issued by SATRA, had a sound and viable business plan, with the financial resources from its foreign and empowerment partners to implement its business plan. Furthermore, Cell C's empowerment aspect was described as impressive, and it was demonstrated that the company could compete effectively with the incumbent competitors. Cell C, in addition, had illustrated a commitment to contribute to the achievement of universal service aims, with its well-planned, coherent community service obligations and a universal service budget of 0,4% of its annual revenue and a desire to create new job opportunities (South Africa. South African Telecommunications Regulatory Authority 2000; Third South African cellular license tender 2001).

Both White 2003:11) and Butyi (2006) maintain that the Minister grants the licence. The regulator should only recommend the licence conditions and evaluate applicants. The regulator determines whether applicants meet the criteria by indicating each applicant's strength. As a result, in March 2000, then-Minister Dr Matsepe-Casaburri announced that Cell C was the winner, based on SATRA's recommendation that Cell C was the preferred applicant. On 22 June 2001, Cell C was issued its cellular mobile telecommunications licence, which concluded the licensing process of South Africa's third cellular network operator and the manner in which Cell C had obtained its licence. The licence allowed Cell C to provide mobile cellular telecommunications services within the frequency bands of the global system for mobile communications (GSM) 900 and

1800 MHz for 15 years. In addition, Cell C was allowed to interconnect with any public switched telecommunication services (PSTS) licensee and was awarded the right to connect to fixed terminal equipment and mobile terminal equipment (South Africa. Independent Communications Authority of South Africa 2001:6; South African yearbook 2002:11).

Therefore, the process whereby Cell C obtained its licence started when the Minister issued an invitation to interested parties to apply for the mobile cellular telecommunications licence. The regulator compiled the recommendations and evaluated each applicant using a comparative evaluation mechanism. Public hearings were held, and the regulator then submitted its recommendations to the Minister. The Minister made the final selection, awarding Cell C the third cellular licence. However, the terms of ICASA's dictated that ICASA needed to monitor the licensee's performance. ICASA, as part of its role to monitor Cell C's performance, included performance indicators in the licensee agreement.

In addition, the awarding of the mobile cellular telecommunications licence to Cell C is a good example indicating where the disadvantage of this particular awarding mechanism for issuing a licence (i.e. comparative evaluation bidding) outweighs the advantages, particularly if it is not implemented adequately. In other words, a comparative evaluation mechanism can be accused of lacking transparency, encouraging politicisation and strong interest groups can influence decisions. Furthermore, a comparative evaluation mechanism can be subject to corruption, bias, and the process can be accused of subjectivity, abuse, being slow and time consuming. The possible implications of this kind of licence award mechanism are that it can lead to litigation, it does not provide the government with large economic benefits, and it can discredit the competency of the regulator. (Pieterse 1999:41-42; Working party on telecommunications and information services policies 2001:10, 19-20; Tyler & Bednarczyk 1993:670; Licensing and Approvals [Sa]: 25).

The implications of the third licensing were that it led to litigation by the losing bidders and damage to the credibility of the regulator. That is since NextCom launched a court interdict on 5 June 2000 to suspend the final determination made by the regulator and declaring it to be of on force, and to delay the Minister from acting upon final recommendations by the regulator pending a review. (ICASA 2001:18). Furthermore, Cohen (2001:15) comments that the Minister sought leave to appeal in the Pretoria High Court in August of the same year, on the basis that she was drawn into the licensing process to ensure that SATRA adjudicated in a fair and transparent manner. Although the courts and rival bidders interpreted its as executive interference, the then-Minster claimed that it was only good governance. Then-Minister also threatened to take the matter to the Constitutional Court for a decision as to whether the High Court in fact had the power to prevent her awarding the licence before the then-Minister had officially named the winner. NextCom later withdrew only that part of the interdict preventing the then-Minister form announcing the winner (Cohen 2001:15). On 19 January 2001 ICASA filed an affidavit in the High Court to asked the court to set a side Nextcoms interdict and to find that there was no irregularities in the SATRA bidding processes (What's up with the third cellular license? 2001:2). Nevertheless, NextCom withdrew from the case before any judgment could be made (Lesame 2000:33).

Financially the comparative evaluation mechanism did not provide the government with a large return. To demonstrate, Cell C paid nothing up-front but R 100 million over 12 equal instalments beginning in the third year of commercial operations or the equivalent of $2,2 per capita which is a relative small licence fee per capita compared to Morocco's second mobile licence which sold at $39,47 per capita and more in line with either smaller markets or where regulatory risk is generally perceived to be higher. A per capita price of $2,44 was paid for the MTN's mobile licence in Nigeria, $0,01 per capita by MTN in Uganda licence and Vodacom's $2,74 per capita in Tanzania (Gillwald 2003:7).

Lastly, the comparative evaluation bidding mechanism used by the regulator undermined its credibility and perception of competency, with Teljeur et al. (2003:18-19) stating that it resulted in regulatory failure. Furthermore, the negative perception of political and regulatory risk arising from the controversial third licensing process also raised international concerns with regard to further foreign investment in South Africa (Cohen 2001:15-16; Gillwald 2003:9; Steyn et al 2003:24).

By mixing approaches, as which Tyler and Bednarczyk (1993:671) refers to, and what is mentioned in section 2.2.8.5, it could allow a regulator to select the strongest aspects of one mechanism of issuing a licence and combine it with the strengths of another method. The implication is that mixing methods could reduce the disadvantages of the one method, by minimising it. For example, the third licence could have been issued with a combination of a beauty contest and followed by an auction method.

2.4.2 Performance indicators as defined by ICASA

The performance indicators that ICASA defined relate to Cell C's licence. The performance indicators are of two main types, namely those that adhere to service requirements and obligations.

2.4.2.1 Service quality

To determine service quality, the regulator uses the following technical performance indicators: network availability, call completion rate, grade of service, and call quality. The regulator defines network availability as the availability of the network over a period of time (i.e. 24 hours a day and seven days a week for the first two years) and by percentage (i.e. a minimum of 95 percent). The regulator defines the call completion rate with the stipulation that a peak hour (i.e. any hour of the day in which the base stations and network carry the most traffic) should be maintained at 95 percent over a 12-month period. The

regulator defines grade of service with the stipulation that the probability of blocking across all Cell C lines is less than two percent during a peak hour over a period of one year (South Africa. Independent Communications Authority of South Africa 2001). Fault clearance is the measure of service reliability, while call failure measures network reliability. Fault clearances provide a measure of service responsiveness, meaning the time to restore a fault in the service. To ensure effective fault clearance, the operator should have an updated emergence response plan that describes trouble reporting and service restoration procedures, fault levels, and related response procedures (South Africa. Independent Communications Authority of South Africa 2001).

In terms of emergency services, ICASA measures the number of Cell C's emergency phone numbers. In terms of emergency restoration and disaster recovery, ICASA measures the number of emergency response centres and the amount of personnel at these centres. The response plan is measured in terms of trouble reporting, service restoration procedures, fault levels, and related response procedures (South Africa. Independent Communications Authority of South Africa 2001).

2.4.2.2 Customer service

In terms of customer service, the availability of the customer service code of conduct is important. In addition, the number of customer service representatives is measured (South Africa. Independent Communications Authority of South Africa 2001).

2.4.2.3 Equity performance

Equity performance indictors are defined in terms of the Telecommunications Act of 1996 and section 10 of Cell C's licence. In terms of the licence, Cell C is obligated to have a percentage of owners from members of historically disadvantaged groups. A minimum of 40 percent of shareholders should be from historically disadvantaged groups in South Africa. If the shareholders are

companies, then 50 percent of the companies must reflect historically disadvantaged groups South Africa. Furthermore, 40 percent of the member of the board must consist of members of these groups. However, the equity performance indictor was amended, with black empowerment shares being reduced to 25 percent (South Africa. Independent Communications Authority of South Africa 2001; South Africa 1996).

ICASA, furthermore, sets investment targets. These targets refer to the rollout of network and community service obligations. Each network is classified by its geographical coverage, area population coverage, and rollout plan. These network requirements concern network coverage and universal service obligations. Network geographic coverage is defined as follows: within five years of operations, Cell C should cover eight percent of the geographic area of South Africa. In addition, Cell C, with its provision of domestic roaming services, needed to cover 40 percent of the geographic area of South Africa (South Africa. Independent Communications Authority of South Africa 2001). In terms of area population coverage, Cell C needed to cover 60 percent of the population within five years of operations. Through domestic roaming agreements it needed to cover 80 percent of the population within one year of operations. The regulator defines rollout in terms of a rollout plan, and Cell C needed, within two years of operations, cover six percent of South Africa and 40 percent of the population. Within five years, Cell C needed to cover eight percent of South Africa and 60 percent of the population. The regulator determines compliance with the rollout commitment by using a measurement parameter of the minimum signal strength of 96dBm based on the service availability of 90 percent of the geographic area and 95 percent of a given time period in a specific area. The measurement is taken outdoors with stationary handheld terminal equipment (South Africa. Independent Communications Authority of South Africa 2001).

In terms of community service obligations, the regulator makes use of targets that need to be achieved. The rollout of the community service telephones

(CSTs) is evaluated in a manner that is different from the approach used to evaluate Cell C's network rollouts. Community service telephones are terminal equipment placed in under-serviced areas according to ICASA's approval. The service obligations set by the licensing agreement include the construction, operation and maintenance of CSTs in under-serviced areas. An under-serviced area refers to any area (i.e. city, town, township, shantytown, village or human settlement) where less than 10 percent of its inhabitants have access to public switched telecommunications services as of 22 June 2001, and where CST rollouts are needed. The targets are based on a timetable, and within two years of operations, Cell C needed to install 2000 CSTs.

Within three years, Cell C had to install 12000 CSTs, with the number climbing to 22000 CSTs within four years, 32000 CSTs within five years, 42000 CSTs within six years, and 52000 CSTs within seven years. To determine whether Cell C has adhered to its community service obligations, the regulator makes use of performance indicators such as universality, accessibility, the extent to which the CSTs are usable and maintained, and the ability to meet the need of historically disadvantaged persons (South Africa. Independent Communications Authority of South Africa 2001).

2.5 CONCLUSION

Chapter Two provides a detailed discussion of the need for regulations and the different mechanisms that a regulator can select when issuing a licence. It has also been stated that a licence is a mechanism used by regulators in order to regulate the telecommunications industry. However, as part of monitoring and ensuring that the licensees are in fact adhering to the conditions of the licence agreement, their performance needs to be evaluated. Performance indicators are therefore useful to consider the performance of the licensee.

The introduction of managed liberalisation into South Africa, partly due to external and internal pressures, has led to reforms of the telecommunications industry in South Africa. This obligation specifically reflects South Africa's commitments to the Fourth Protocol of GATS, which stipulates a commitment to introduce an additional market player in the mobile telecommunications sector. The licence has thus become an important instrument used by the regulator to allow controlled access to the South African telecommunications industry and to ensure compliance from the licensee.

However, the issuing of licence to Cell C was a lengthy and complex process. Although the idea was to increase competition in the telecommunications industry, predominantly between Vodacom and MTN, this solution did not achieve the desired effect. Rather, there were allegations of political interference, corruption that led to a review of the regulator itself. Furthermore, the licence agreement between the regulator and Cell C indicates the type of service that is expected from the licensee. These expectations or performance indicators, as defined in the licence agreements, are only the minimum expectations that the regulator demands from Cell C.

In the following chapter, the research question and sub problems will be stated.

CHAPTER THREE
RESEARCH PROBLEM AND SUB PROBLEMS

3.1 THE RESEARCH PROBLEM

How has the mobile cellular telecommunication services licences issued to Cell C, by ICASA benefited the general cellular phone-using public based on an investigation of the performance of Cell C from 2001 to 2005?

3.2 THE SUB PROBLEMS

1 What were Cell C's performances, as indicated though weaknesses and problems, as well as its strengths and accomplishments, from 2001 to 2005?
2 Did the licence itself reflect appropriate conditions as an effective mechanism or was the "performance" of Cell C due to other extraneous factors?
3 How has the issuing of a third cellular licence to Cell C benefited the general cellular-using public?
4 Overall, can the assessment of the correctness of the selected performance indicators be viewed as adequate measuring instruments?

3.3 CONCLUSION

The research question will guide the research, with the sub problems aiming to give clarity to the research question.

Next the methodoly will be discussed what was used in this study.

CHAPTER FOUR
METHODOLOGY

4.1 INTRODUCTION

This chapter describes the methodology used in this research project. The aims and objectives of the study will be discussed initially. The research method will subsequently be discussed. The research methods used in this study were the case study, triangulation, in-depth interviews, document analysis, and implementation evaluation research. The data collection procedures and data analysis procedures are also described. This chapter concludes with a discussion of the researcher's compliance with research ethics.

4.2 THE AIM AND OBJECTIVES OF THE STUDY

The aim of this dissertation of limited scope is to investigate how the mobile cellular telecommunication service licence that was issued to Cell C by ICASA, has benefited the general cellular telephone-using public. The aim of this study is restricted to the period between 2001 and 2005.

The objectives of this study are to investigate the relationship between issuing a licence and the licensee's performance, to investigate whether the performance indicators, as defined by ICASA, are adequate, and to develop appropriate performance indicators to evaluate Cell C's performance.

This study attempts to find answers to the following research sub-questions: What were Cell C's performances, as indicated though weaknesses and problems, as well as its strengths and accomplishments, from 2001 to 2005? Did the licence itself reflect appropriate conditions as an effective mechanism or was the "performance" of Cell C due to other extraneous factors? How has the issuing of a third cellular licence to Cell C benefited the general cellular-using public?

Overall, can the assessment of the correctness of the selected performance indicators be viewed as adequate measuring instruments?

4.3 THE RESEARCH METHOD

The goal of this case study was applied communication research. The research methods used in this explorative and qualitative study involves a case study, with a triangulation approach to in-depth interviews including telephone and e-mail interviews, documentary analysis, and implementation evaluation research. Cresswell (1998:15) describes qualitative research as an inquiry process "…of understanding based on distinct methodological traditions of inquiry that explore a social or human problem. The researcher builds a complex, holistic picture, analyzes words, reports detailed views of informants, and conducts the study in a natural setting."

Leedy (1993:139-144) mentions that qualitative research is a feasible investigative approach because it allows the researcher to gain a holistic view of what is being studied. Furthermore, although qualitative research uses mainly words as researchable data, unlike in quantitative research, which uses mainly numerical data, the qualitative researcher can incorporate the use of quantitative data. In addition, the objective of qualitative research is to investigate areas where limited information exists, as is the case with Cell C, a private company, and to describe relations that are applicable to the units of analysis (Du Plooy 2001). In this study, the research question indicates a relation between the licence issued to Cell C and the company's performance or what it has achieved (i.e. the unit of analysis). The qualitative approach, therefore, was selected since this approach provides insights and an understanding of the mechanism of issuing a licence and the licensee's performance by systematically investigating complexities and interwoven aspects of the topic. In addition, the case study as a qualitative approach allows for an investigation of the complex interrelationship among all aspects, rather than the statistical analysis of the quantitative

approach (Stake 1995:37). The qualitative approach has also enabled this researcher to make use of a triangulation approach to data (i.e. verbal, non-verbal and statistical), yet it still provides a highly reliable indication of the relationship between the mechanism of issuing a licence and Cell C's performance.

4.3.1 Case study

In a case study, a variety of methods may be used. This study uses a single case study to investigate the research problem. The case study is an example of qualitative research (Lemon 1997:33; Wimmer & Dominick 2000:124). Yin (1989:23) defines the case study as an empirical inquiry that uses different sources of evidence to explore a contemporary phenomenon within its real-life context where the distinction between the phenomenon and context are unclear. Furthermore, case studies have a specific character and are a valuable method of investigating practical real-life problems (Wimmer & Dominick 2000:174). Consequently, the investigation of the effectiveness of a licence issued to Cell C has been evaluated according to the current telecommunications framework. In addition, Baker (1999:321) describes the case study not as a specific method of social research, but rather as a research strategy that focuses on a single institution, such as a company like Cell C, to illustrate an issue in detail. Furthermore, Welman and Kruger (2001:178) state that case studies lend themselves more aptly to the investigation of cases, which do not fit into a particular theory, such as this study. As there is no established standard, clearly defined performance indicators are used to evaluate the performance of a telecommunications company. Nevertheless, the case study is useful for the researcher to understand the dynamics of a single bounded system or phenomenon, since it provides detail about the organisation (Huysamen 1995; Wimmer & Dominick 2000:124). The case study, therefore, studies the interrelationships over a set period of time in their natural setting, employing multiple methods of data collection, both quantitative and qualitative, to gather

information about an entity (Yin 1989:23). Indeed, the case study allows for the use of any research methods needed in order to address a particular issue (Neumann 2000:322). Therefore, in this study, research methods such as the in-depth interview, document analysis and implementation evaluation have been incorporated into the case study.

The use of multiple data sources can increase the reliability of the study, as the use of different data sources indicates that the data are representative of a true and full picture of what the researcher is attempting to explore (Wimmer & Dominick 2000; Leedy 1993:144). Moreover, as the topic is examined from several different perspectives, the reliability of the results increases (Wimmer & Dominick 2000:110).

Furthermore, case studies aim to facilitate an understanding of the differences and idiosyncrasies of a particular case. The result is that case studies have a heuristic character. The heuristic character of case studies, therefore, allows for new insights and knowledge to be gained (Wimmer & Dominick 2000:125).

A case study methodology was selected because Wimmer and Dominick (2000:124-125) cite a number of advantages associated with it. It facilitates the gathering of a wealth of information about the research topic. The case study method can suggest why something has occurred. Furthermore, this approach, within a qualitative framework, affords the researcher the opportunity to deal with a wide spectrum of evidence. Documents and systematic interviews may be incorporated into the study. This method also involves a methodology that allows the researcher to undertake field research in a real-life situation where the researcher can be objective since the studies are totally outside of the control of the research (Wimmer & Dominick 2000).

The abovementioned advantages outweigh any possible disadvantages of the case study, namely difficulties with generalising findings, its time-consuming

nature, and the non-standardisation of measurements and non-comparisons (Mouton 2000:150; Neumann 2000:30). Case study methods also have limited reliability since their findings cannot be replicated. However, Yin (1989:38) claims that a case study allows for analytic generalisation. Nevertheless, a corrective measure to overcome the low repeatability of this case study entails that each step in the research design has been carefully documented (Neumann 2000:323). Furthermore, as the case study methodology aims to explain the differences and idiosyncrasies of a particular case in all its complexity without any experimental control or manipulation used by the researcher. Furthermore, case studies provide in-depth knowledge about and possible new insights into a phenomenon (Baker 1999:321-322; Huysamen 1995).

As mentioned above, a case study may be time-consuming, as the researcher must deal with a wide spectrum of evidence. Furthermore, this approach may also be time-intensive not only because of the time allocated to the collection of evidence from diverse sources, such as printed documents to interviews, but also to the reading and interpretation of volumes of reading material. However, even if the collection and reading of the collected data require extensive period of time, the construct validity of the research increases with the use of more data (Wimmer & Dominick 2000:125). Similarly, as a chain of evidence is established, construct validity will increase since the research measurements that are used correspond to the research concepts (Kotzab, Seuring, Müller & Reiner 2005:243). Therefore, large volumes of data and the process in obtaining these sources should not be viewed as a weakness, but rather an advantage towards the increased validity of this research.

Yin (1984:33) states that case studies are useful for informing policy, since an examination of processes, problems and programs may lead to a greater understanding of an effect and may improve the practice. Therefore, even though a generalisation of the study may not be appropriate, the study should be a solid example in its own right.

To sum up, the research method used for the case study allows the researcher to investigate a single organisation (i.e. Cell C) within the context of the existing legislative and policy framework. Therefore, the case study methodology permits the researcher to investigate Cell C. The case study method also allows for the investigation of the current legislation and policy framework, since Cell C's performance is influenced by the legislation and regulation in which it operates. Furthermore, the nature of a case study allows the researcher to investigate interrelationships with other methodologies.

4.3.2 Triangulation

Triangulation refers to the use of multiple methods, which can be both qualitative and quantitative and may be combined to create a useful strategy in order to understand the nature of the research problem comprehensively from multiple viewpoints (Wimmer & Dominick 2000:49, Leedy 1993:139). Consequently, a variety of evidence is gathered from different sources in order to address the relevant question more effectively (Baker 1999:255).

As mentioned above, the case study method uses different research methods, such as in-depth interviews, document analysis, and implementation evaluation research methods. Therefore, a methodological triangulation approach is used. Methodological triangulation refers to the use of two or more methods of data collection used in a single study (e.g. a case study) (Leedy 1993:143).

An advantage of using triangulation is that weaknesses and the problems that result from a single method study may be overcome. In addition, triangulation was selected because it is useful for addressing concerns about validity or the extent to which one finding is congruent with reality (Baker 1999:256; Du Plooy 1997:42; Wimmer & Dominick 2000:126). Therefore, the combination of different methods in the case study of Cell C should have improved the reliability and

validity of this study. For example, information gathered by means of in-depth interviews have been combined with information form other sources in an attempt to achieve a fair and balanced understanding of the complexity of issuing a licence to Cell C in order to increase competition for public benefit. Equally important given the wide range of issues raised in this study, a single research method would have been inadequate to address the sub questions.

4.3.3 In-depth interviews

In-depth interviewing, or intensive interviews, is a technique of field research and a qualitative methodology (Pitout 1997:105) was used to investigate the research problem. Neumann (2000:372) describes in-depth interviews as a “speech event” that is more like a friendly conversation than the stimulus/response model found in a typical survey research interview. However, unlike a friendly conversation, the in-depth interview has an explicit purpose.

Compared to other methods, an advantage of in-depth interviewing is that it elicits a wealth of details that may be recorded, particularly regarding responses on sensitive issues. In-depth interviews have provided the researcher with a detailed background about the reasons why respondents gave specific answers. Therefore, elaborate data about the respondents’ opinions, recollections and motivations may be obtained (Wimmer & Dominick 2000:122; Pitout 1997:112). Indeed, the in-depth interview method has provided the researcher with the opportunity to gather primary data directly from interviewees from both Cell C and ICASA. These data have been either published or unpublished and may be used to answer the subsidiary questions in detail. In other words, a face-to-face in-depth interview has allowed for the recording of both verbal and non-verbal communication. Listening to the verbal communication, the researcher must watch for markers (i.e. a passing reference made by a respondent to an important event or statement). “Earlier you mentioned that…” or “Could you tell me more about that?” (Neumann 2000:372). Furthermore, the researcher needs

to ask the respondent to elaborate on unclear answers that the interviewees might make (Neumann 2000:372). Neumann (2000:372) state that request such as “I’ll like to ask you about” or “Could you look at this and see if I’ve written it down right?” may be used to clarify any unclear statements that interviewees may make. Moreover, the interviewer must not only listen to what the respondent is saying, but must also listen to the non-verbal aspects of answers because non-verbal answers may alter an underlying message substantially (Breakwell, Hammond & Fife-Shaw 2000:244).

The in-depth interviewing method allows for the customisation of responses and questions to individual interviewees. In-depth interviewing allows the interviewer to form questions based on each respondent’s previous responses (Wimmer & Dominick 2000:122). Neumann (2000:373) identifies descriptive questions, structural questions, and contrast questions as three types of questions used in an in-depth interview. For example, descriptive questions are ideal for learning more about Cell C. However, the interviewee may become fatigued or bored during the interview. Du Plooy (2001:176) recommends that some throwaway questions should be included. Throwaway questions are questions that are not related to the focus of the research. Furthermore, questions that are overly complex or double-barrelled should be avoided (Pitout 1997:113). Pitout (1997:113) states that if the researcher believes that the interviewee is not providing a sufficient amount of detail, the interviewer may probe for more information, thereby encouraging the interviewee to expand on his or her answers by asking questions such as “How come?” “Where?” “How often?” or “How many?”

Although in-depth interviewing is a flexible research method, since it can be used at any stage in the research process, it cannot be generalised (Breakwell et al 2000:239). Indeed, in-depth interviews usually make use of non-random samples where each respondent may answer differently, so this method does not allow for standardisation (Pitout 1997:114). Although Breakwell et al. (2000:247) find that

there is no evidence that the data obtained from in-depth interviews are less valid or reliable than data collected using other research methods.

In-depth interviews are characteristically brief interactions due to the duration and the question-and-answer type of conversational exchange between the interviewer and interviewee (Du Plooy 2001:175). However, to correct this briefness, the response (i.e. verbal and non-verbal) must be recorded, but the note-taking or tape recordings should not inhibit the interviewee's contribution.

For ethical reasons, the researcher must explain the purpose or reasons for the interview. Equally important, the interviewee must understand why the interview is being conducted (Pitout 1997:113).

A researcher, however, should not ignore the possibility of sensitivity or bias between the interviewer and interviewee (Wimmer & Dominick 2000:122). Although this researcher is educator, he is inexperienced as an interviewer. Furthermore, this researcher was automatically limited by characteristics that he could not control, such as gender, cultural identity, race, accent, and demeanour. The fact, therefore, that the researcher is a white male Afrikaner, could influence the interview, since the interviewee may have preconceived notions about white male Afrikaners. Equally, the interviewee may dislike or distrust the interviewer, which could influence the respondent's willingness to participate and to answer reliably (Breakwell et al 2000:247-248). Breakwell et al. (2000:249) states that, although interviewer effects cannot be eradicated, they may be controlled. Mechanical methods of recording interviews, such as audio recording, allow for a non-biased viewpoint. Furthermore, the record is permanent and open to verification by other researchers (Breakwell et al 2000:249). However, the interviewer and the interviewee may still influence each other.

Interviews, as a data collecting method, vary from being completely unstructured to completely standardised and structured (Welman & Kruger 2001:158). In this

study, the different interviews did not follow a precise interview schedule, but exceeded it in order to obtain more in-depth responses. Nevertheless, the same procedure was applied to all interviews. This approach was adopted in order to promote discussion and facilitate the exchange of as much information as possible. Therefore, semi-structured interviews were used for this study. Semi-structured interviews or partially structured interviews are a combination of completely unstructured and completely structured interviews (Welman & Kruger 2001:161; Cooper & Emory 1995; Du Plooy 2001:177). Semi-constructed interviews were selected was because the discussion about Cell C's performance was sensitive and there was an assumption that companies such as Cell C could refuse to share information related to their performance. A semi-constructed interview, furthermore, provides the researcher with enough scope to move in unanticipated directions (Du Plooy 2001:177). Welman and Kruger (2001:161) state that semi-structured interviewing allows for flexibility in the manner which data is collected. Instead of being standardised and controlled, this approach is active and entails an open dialogue, but still leaves the interviewer in control. Indeed, semi-structured interviewing allows the interviewer to use probes in order to clarify vague responses or to request an elaboration of incomplete answers. Welman and Kruger (2001:161) states that probes such as "Why?" or "Could you elaborate on this?" could be used.

Breakwell et al. (2000:247) suggest that the respondent may also be unable to answer questions accurately if they cannot recall or do not understand the question. Respondents may also not be able or willing to provide information, since the information may be classified. To overcome these problems and to increase the validity of the study, other types of data complemented the data obtained from in-depth interviews. Answers were verified via e-mail interviews (although telephonic interviews could have also been used), which in turn increased the validity of the study. Similarly, the information obtained in an interview at ICASA was crosschecked in an interview with Cell C.

According to Breakwell et al (2000:244), telephone interviews yield data that are similar to information gleaned from in-depth interviews, although this claim is perhaps not true since non-verbal communications cannot be observed, and complex questions are more difficult to understand on the telephone. However, telephone interviews are cheaper and faster than in-depth interviews. Furthermore, telephone interviews are sometimes the only option available to the researcher. An alternative to telephone interviews is e-mail interviews. E-mail interviews may be used as follow-up interviews or when they are the only option available to the researcher (Breakwell et al 2000). E-mail interviews cost less than in-depth or telephone interviews, and since an e-mail interview involves typing, it is directly printable, unlike the other verbal interview techniques, and thus allows for data referencing at a later date (Breakwell et al 2000:244). However, Welman and Kruger (2001:188) state that questions about sensitive issues, such as Cell C's performance, are better asked in in-depth interviews rather than telephone interviews. Therefore, interviewing is only used after most supporting documents have been studied. However, e-mail interviews provide the researcher with the opportunity to ask the interviewee additional questions that the researcher may not have considered before the in-depth interview.

For this study, five in-depth interviews were conducted with three members of ICASA (Paris Mashile, Dr Tracy Cohen, and Nomvuyiso Butyi) and two members of Cell C (Mandla Msimang and Leora Mertz) at their offices. Four e-mail interviews were also conducted held with Dr Tracy Cohen (ICASA), Mandla Msimang (Cell C), Leora Mertz (Cell C) and Dominic Cull (Ellipsis Regulatory Solutions). After the respondents were identified, they were contacted by both phone and e-mail. Each respondent received an e-mail with a brief description of the topic and the nature of the project and a request for his/her consent to participate in the project. The face to face interviewees were working at either ICASA or Cell C at the time of the interviews. The interviewees were also selected to represent a variety of managerial positions and had the required levels of knowledge and experience. These individuals agreed to participate, and

the interviews were scheduled and rescheduled for their convenience. Additional information was provided to interviewees upon request. The in-depth interviews were semi-structured interviews, since a list of questions had been compiled before each interview as a guide to be used throughout the interviews. The use of semi-structured interviews allowed for flexibility, and additional questions were subsequently added when needed as a response to the interviewees' verbal and non-verbal responses. The in-depth interviews were recorded, and notes were taken of the interviewees' verbal and non-verbal communications. The recordings of the various in-depth interviews were transcribed within a week after each interview. E-mail interviews were used in order to clarify responses given by the various interviewees during the interviews and/or to provide an alternative perspective

4.3.4 Document analysis

Document analysis is the practices of examining a single document or a set of selected documents in order to investigate the research problem (What is document analysis 2001:1). Wimmer and Dominick (2000:117) state that existing documents may serve as an important source of data for the qualitative researcher. Furthermore, document analysis is useful for an investigation of decision-making approaches, strategic planning, and resource allocation (An evaluation toolkit for e-library development 2004:1).

Documents are ready-made sources consisting of primary and secondary data that may easily be assessed. Documents include materials in the broad sense of any communications, such as newspapers, books, and periodical articles. Wimmer and Dominick (2000:117) identify two forms of documents available for analysis, namely public and private documents. Public documents are documents such as newspaper reports and government documents. In contrast, private document are documents such as faxes and personal letters. However, private documents are usually confidential and not available to the public.

The researcher must consider the representation, authenticity and credibility of any data from documentary sources (Deacon, Pickering, Golding & Murdock 1999:39). The researcher must question the authenticity of the document by considering whether the document is an original and not been not translated or copied and by considering the context in which the document was written, its author, the location of the document, and whether the article has been peer reviewed. For documents to be credible, they must be true and factual. Newspaper reports may not be entirely credible since they contain biases and distortions as a result of editing. Therefore, the credibly of documents indicates the accuracy of documents and whether they are error-free. It is therefore recommended that primary data, as a first choice, should be used before secondary data (Deacon et al 1999). Primary data are data collected for the first time and are original in character. For example, primary data are collected during in-depth interviewing. Secondary data, including data published in books, magazines, dissertations, and newspapers, have been previously collected by someone else (Du Plooy 1997:42).

Document analysis was selected as a suitable method for analysing data and obtaining information. The advantage of document analysis as a method is that it overcomes the difficulties of obtaining the willing participation of respondents, such as where access to potential interviewees is restricted or denied (Deacon et al 1999:15). Therefore, document analysis has been useful for providing details, needed in order to answering the sub-questions. Furthermore, document analysis provides the researcher with research that has already been conducted and thereby makes the research more economical. For example, this method of document analysis provides details of how Cell C obtained its licence. Furthermore, document analysis is also useful for crosschecking information that is provided in in-depth interviews (Deacon et al 1999).

A disadvantage of document analysis is that some documents may be sensitive and thus not available to the researcher (An evaluation toolkit for e-library development 2004:1). For example, information about how Cell C obtained its licence is partially restricted. Indeed, the information is not accessible mainly because the court case between Cell C and Nextcom was settled out of court (Lesame 2000). A further weakness of document analysis is that documents may be missing or subjects may be unwilling to make private documents available. However, document analysis is only a supplementary data collection method (Wimmer & Dominick 2000:116-118).

In this qualitative study, documents such as annual reports, policy documents, newspaper articles, on-line sources, and journals were analysed using document analysis methods. An interpretive approach was adopted, meaning that the researcher became an integral part of the data. As such, unless the researcher plays an active role, no data exist. The measurement instrument in interpretive research is, in fact, the researcher (Wimmer & Dominick 2000:104).

4.3.5 Implementation evaluation research

Mouton (2001:159) proclaim "…implementation evaluation research is a form of applied research aimed at assessing whether interventions have been well conceptualised and properly implemented." Smith and Glass (1987:31) define evaluation as "…the process of establishing value judgements based on evidence." Evaluation is thus a systematic assessment of the worth or merit of some object. Furthermore, evaluation research employs many of the same methodologies used in traditional social research, but this method of evaluation recognises the political and organisational context.

Mouton (2001:158) suggests that implementation evaluation research aims to answer the question whether an action has been implemented as designed. In other words, an implementation evaluation may be used to monitor the fidelity of

the performance of a licence holder, such as Cell C, in terms of the issued licence. Evaluation research is therefore suited for this study since evaluation research monitors the effectiveness of a policy or regulation instrument, such as the issuing of licences, by measuring the licensees' performance. Since the Cell C's licence has not yet expired, a summary evaluation would be inappropriate. Furthermore, an evaluation of a licensee's performance does not require continuous feedback on a policy, and the implication is that formative evaluation would also be inappropriate (Baker 1999). Instead, the value of implementation evaluation research is that this method provides a format used in order to evaluate Cell C's performance. Therefore, by developing appropriate performance indicators, Cell C's performance could be evaluated to indicate whether it meets or does not meet its obligations, as indicated in the licensing agreement.

4.4 DATA COLLECTION PROCEDURES AND DATA ANALYSIS PROCEDURES

4.4.1 Data collection procedures

According to Mason (1996), it is more accurate to speak of data generation than of data collection because nearly all qualitative perspectives discard the idea that a researcher can be a completely unbiased collector of information about the social world. Instead, the researcher is viewed as actively constructing knowledge about that world according to certain principles. This qualitative study combines different data generation methods (or data collection methods), namely a review of documents and in-depth interviewing.

In the qualitative approach is selected for this research, the researcher is an integral part of the data. Without the active participation of the researcher, no data exist. The measurement instrument in qualitative research is the researcher; no other individual may serve as a replacement, although the unit of analysis or

element of study for which the information was collected, is Cell C's performance (Wimmer & Dominick 2000:104).

Two types of data were collected for this study: primary and secondary data. Indeed, this study used multiple sources of data collection. Such sources include the triangulation of quantitative data (numeric) and qualitative data (textual, verbal, and nonverbal). Wimmer and Dominick (2000:182) suggest that multiple sources may help with the case study by improving important characteristics of the research process, namely reliability and validity. Primary data were collected through in-depth interviews with five respondents. Secondary data, such as newspapers articles, were used to verify the primary data and to provide more in-depth knowledge of data obtained from primary sources.

Documentation such as newspaper articles, media reports, research articles, annual reports, and articles available online and from the University of South Africa (Unisa) Library were collected (see Appendix E). Cell C's annual reports were not used because Cell C is not a quoted company (i.e. listed on the JSE) and is therefore not obligated to publicise its financial status (Angelopulo & Du Plessis 1997:159). Documents were selected based on their relevance to the topic and were limited only by the researcher's open-mindedness and creativity (Leedy & Ormrod 2001:158). Documents were useful for gathering many types of contemporary and historical data since they are paper-based evidence. For example, newspaper articles were obtained from SA Media reference databases and accessed using the Unisa website.

4.4.1.1 Sampling

A purposive sampling approach was adopted for this research project. A purposive known group or judgemental sampling is a type of non-probability sampling procedure, which is useful where a criterion for admission to the sample exists. A purposive sample is chosen with the knowledge that it is not representative of the general population (Wimmer & Dominick 2000:84). This

approach is convenient and economical when a key population characteristic may be clearly identified (Reinard 2001:298).

This researcher used the purposive sampling method since the units selected were especially qualified to aid in the investigation (Du Plooy 1997:63). People were identified as suitable candidates from different sectors within South Africa and abroad, from within the academic sector, research entities, business, government and governmental agencies and form the legal professionals. The candidates represented the spread within the universe which had possible knowledge of the research topic. MTN and Vodacom, which are key observers of the South African telecommunications scene and could therefore raised different questions and different perspectives where approached, but they both declined to share information. Some declined to take part citing lack of current knowledge regarding the research topic. The following individuals where willing to be interviewed were: Paris Mashile, chairperson at ICASA, Dr Tracy Cohen, a councillor at ICASA, Nomvuyiso Butyi, the manager of competition at ICASA, Mandla Msimang, the senior manager of regulatory affairs and the acting head of regulatory affairs at Cell C at the time, Leora Mertz, the manager of regulatory compliance at Cell C and Dominic Cull, the founder of Ellipsis Regulatory Solutions.

4.4.1.2 Research settings

Five interviews were conducted with six respondents, and one interview had two respondents present. The one interview at Cell C in which two interviewees were interviewed together took place at the interviewees' request. Furthermore, interviewee appointments at ICASA were made individually and through the use of telephone calls and e-mail. The appointment with the interviewees at Cell C was made by e-mail. All interviews were conducted in English during the day and at the offices of each respondent. The interviews were conducted in a relaxed atmosphere. The respondents were at ease with the interviewer and provided detailed answers to the questions. Some respondents even volunteered the

names of contacts who might be useful for the study. A further e-mail interview was made with Dominic Cull.

The procedure used by this researcher in order to creating a rapport with the interviewees was to send each interviewee a letter compiled by a course leader within the Department of Communications at Unisa and a personal letter from the researcher before each interview stating the nature of the research and the importance of the research study to the field of communications and to the researcher's needs (Wimmer & Dominick 2000:122). When a respondent requested the type of questions that this researcher was planning to ask, those questions were e-mailed to that respondent. When a respondent required more information regarding the type of performance indicators that this researcher intended to use, that information was e-mailed to them. This researcher believes that this approach allowed him better access to information, since most companies tend to resist sharing information when it concerns their performance. Furthermore, the author indicated his need for the interview to be recorded for the process of analysis and interpretation. No respondent contacted before 2010 rejected this request.

An interview guide (see Appendices A and B) was used in the research. According to Deacon et al. (1999:65) an interview guide is useful for maintaining control over the interview. The research questions were based on the literature chapter and the research methods. Throughout the various interviews, the researcher made use of markers and asked the interviewees to elaborate on aspects when this researcher needed more clarifications. Probing questions were used to obtain more detailed information from the interviewees. The researcher also used throwaway questions when the interviewer noticed that the interviewees were becoming bored and tired. Throughout the interview, the researcher avoided aggressive questioning, expressed the questions in a way that would not provoke resistance, and assumed an understanding attitude in order to obtain co-operative responses from the interviewees.

The duration of the interviews ranged from half an hour to nearly two hours. All except one interview was conducted in Sandton, Johannesburg. Three of the interviews were conducted at ICASA's offices in Katherine Street, Sandton. The interviews with the Cell C staff were conducted at the same time at their offices in Rivonia Road, Sandton. The face-to-face interviews were conducted between 11 November 2006 and 7 December 2006. Follow-up interviews were conducted, via e-mail interviews with Dr Tracy Cohen, Mandla Msimang, and Leora Mertz. However, only Leora Mertz responded because Mandla Mismang had been laid off due to staff restructuring at Cell C. The follow-up e-mail interviews were completed on 21 December 2006 and 17 April 2007. An email interview was also conducted with Dominic Cull on 18 February 2011.

This researcher, in addition to preparing digital voice recordings of the interviewees, also made notes during the interviews of key words and non-verbal communications of all five interviewees. In addition to the face-to-face interviews, four interviews were conducted by e-mail with Dr Tracy Cohen and Leora Mertz as follow-up interviews, and an additional interview with was conduced via email with Dominic Cull on 18 February 2011.

4.4.2 Data analysis procedures

Analysis is the process of labelling and decontextualising data, sorting them into themes, concepts and patterns (Mouton 2001:108). The objective of analysis is to understand the different constitutive elements of the data by investigating the relationships between concepts and to determine whether any trends may be identified in the data. Marshall and Rossman (1995) indicated that a sharp awareness of the data, a focused concentration on those data, and an openness to slight, unspoken undercurrents of social life are needed in an analytical process. In a case study, the researcher may start to analyse the data at any time during the data collection process and establish preliminary conclusions.

The conclusions, in turn, may influence the type of data that the researcher is collecting. As such, the researcher needs to look for a trend in the various sources of data (Wimmer & Dominck 2000:106; Mason 1996). Thus, this researcher integrated and collected data from the transcribed interviews and the documentary sources at the end of the data collection stage.

All the interviews were initially transcribed; the notes were attached to each transcription and then catalogued. All the information obtained from the interviews and follow-up interviews were compared with information collected from documents. However, since qualitative research has a flexible character, documents (Leedy 1993:144) were added and exchanged by the researcher in order to allow this researcher to gain greater insight. Documents were added and exchanged by the researcher since, within the context of a qualitative approach, the researcher is an integral part of the data and the data analysis procedure (Wimmer & Dominick 2000:104).

The data analysis was guided by the research question and the subsidiary questions. To evaluate Cell C's performance for the period between 2001 and 2005, performance indicators were used. These performance indicators reflected the following categories: technical service delivery (the technical quality of transmission and network availability), equity considerations (universal service and universal access, and empowerment of historically disadvantage populations), network expansion (area covered and domestic roaming), innovation (new technologies and services, research and development and alliance), fair practice (no discrimination, available interconnections, and actions in the best interest of the consumer), and alignment with ICASA's regulations (fines, meting targets and creative compliance) (see section 2.3.3). In determining the different categories, the researcher was guided by the research questions, the research objective, and a review of the existing literature on regulatory intervention and the issuing of licenses, as well as performance indicators for the telecommunications industry.

While there are software programs available for the analysis of qualitative data, this researcher used the time-consuming manual method of cutting and pasting (Stake 1998:75). To ease the process of cutting and pasting, data were fed into a computer under each of the different performance indicators. Each performance indicator was represented by a specific file. The performance indicators were then divided into different sections. After the completion of each file, this researcher evaluated it separately. The other result sections were treated similarly.

4.5 RESEARCH ETHICS

All the interviewees volunteered to participate (Pitout 1997:124) in this research project. Although Reinard (2001:296) recommends that interviewees should provide written consent to be interviewed and for the interview to be recorded, in this study participants provided verbal consent to be interviewed and for the interviews to be recorded.

Pitout (1997:124) states that the information provided by a subject should remain confidential. However, all interviewees provided verbal permission to reveal their identities for this study.

Although not all the participants of the study were not aware that the interview transcripts could be published, this researcher believes that the information collected in the in-depth interviews is in the public interest and should be published. The three interviewees at ICASA were public officials at the time of the interviews. Two interviewees had been nominated by the public and elected as councillors at ICASA by the government's Communications Portfolio Committee. One interviewee, Paris Mashile, was appointed by the President as chairperson of ICASA. Therefore, since these participants were nominated by the public and appointed by the government, their opinions should perhaps be made

public. As for the two interviewees at Cell C, most of the information that they provided was already public domain since it was available on their website. In addition, Cell C leases public property, and the company's performance regarding that public asset is of public concern. This researcher thus decided to publish the interview transcripts. However, parts of the original interviews were removed to protect the various interviewees. The deletion of parts of the original interviews was based on the non-verbal communications of the interviewees, which included the tones of their voices, and verbal communications that could lead to defamation of an organisation or person, loss of standing, employment and self-esteem. Caution was therefore required in order to minimise these risks.

As this research is qualitative and because the researcher is an integral part of the research, this researcher must remains unbiased. All information gathered from interviews was the fairest possible representation of events.

As this research used data obtained from printed material, such as newspapers and research journals, care was taken not to process the data incorrectly. By endeavouring to provide an accurate representation of the data from the original sources, the researcher has attempted to prevent errors from negatively influencing the results. In addition, no data were tampered, with fabricated or altered to suit this study. When someone else's work has been used, this author has given due credit (Wimmer & Dominick 2000:74-75).

4.6 CONCLUSIONS

This chapter has described the methodology used for the research project. This chapter has briefly dealt with the aims and objections of the research. The research method has been discussed at length along with the data collection procedures and data analysis procedures. The data collection procedures included in-depth interviews and documentation, while the data analysis made

use of categories in the form of performance indicators. This researcher's compliance with research ethics has also been noted.

In the next chapter the findings and recommendations of this study will be discussed.

CHAPTER FIVE
FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

This final chapter details the findings and conclusions of the study, which are based on the reviewed literature, stakeholder interviews as well as document sources and are aligned with the research question detailed in Chapter One as well as the aims and objectives of the research project. Several recommendations are also listed in this chapter. This chapter concludes with a critical evaluation of the research process and details the limitations of the research project.

5.2 FINDINGS AND CONCLUSIONS

In determining how the mobile cellular telecommunication services licences issued to Cell C has benefited the general cellular phone-using public, based on an investigation of the performance of Cell C from 2001 to 2005, one first needs to address the sub problems stated in Chapter One. The sub problems aid to the primary research question as stated in 3.4.1 by providing a greater conceptual clarity around the conceptual and investigative framework that was employed. The sub problems further buttresses the research to tighten the focus.

Below is an outline of the research findings and conclusions of the study, as aligned to the sub problems of the research question outlined in Chapter Three.

5.2.1 Cell C's performances from 2001 to 2005

Cell C's performances from 2001 to 2005, is summarised in Table 1. There is however issues of interest that needs deeper discussion and these will be

discussed under different headings which are directly referring to the different performance indicators as indicated in Table 1.

Performance Indicators	Strengths and accomplishments	Weaknesses and problems	Comments
Technical service delivery • technical quality of transmission • network availability	• Success rate of 98 percent • Call quality was 98 percent in 2004 and 97,20 percent in 2005 • Call congestion or grade of service was 0,50 percent in 2004 and 0,20 percent in 2005 • Peak hour completion rate was 99,20 percent in 2004 and in 2005 • Network availability in 2004 was 100 percent, and in 2005 it was 99,80 percent • Newer network than others	• Needed more base stations • Network availability is dependent on the roaming agreement with Vodacom	• Quality service report to ICASA from 2004 only • Figures cannot be confirmed • Figures are misleading (e.g. drop call rates)

Equity considerations • universal services and universal access • empowerment of historically disadvantaged populations	• 52 000 CSTs • Most successful empowerment company	• Lack of interest in Cell C shares • Did not comply with other universal service obligations (i.e. providing sim cards and 125 000 handsets, internet access obligations, providing computers)	
Network expansion • area covered • domestic roaming	• Roaming agreement with Vodacom • Population coverage of 60 percent • With the roaming agreement population coverage of 90 percent Increased network		• Targets were not that honourable." • Roaming agreement between Cell C and Vodacom has allowed Cell C to roam on Vodacom's network, but not vice versa

	infrastructure (e.g. 2004 460 new sites, 41 base station controllers, 2 021 base stations, 5 862 new base station transmitters, and five mobile centres. Base stations increased in 2005 by 150, with base station transmitters increasing to 13 092).		
Innovation • new technologies and services • research and development • alliance	• Introduce per-second billing • Conducts six different research studies every year	• Not making use of spectrum effectively • Debatable investments technologies (i.e. EDGE)	• Very little competition that has an effect on prices and quality Service is similar with same network technology
Fair practice • no discrimination • available interconnections • actions in the best interest of the consumer	• First operator to blacklist stolen handsets • Signed the Code of Good Practice	• Price taker and not in a position to negotiate the terms of interconnection. • No filters on its network. But	• Discrepancy in the way pre-paid and post-paid consumers are treated. • Discrimination can be fair or

		also does not provide adult material, and its content offerings are limited.	unfair
Alignment with ICASA's regulations • fines • meting targets • creative compliance	• No known fines • Committed to 52 000 CSTs	• Applying creative compliance (i.e placement of CSTs)	• Cell C's trials on WiMax were stopped ICASA lacks capacity and funding

Table 1: Summary of Cell C's performances from 2001 to 2005 measured against performance indicators

5.2.1.1 In terms of technical service delivery

Mashile (2006) confirmed that ICASA monitors compliance by making enquiries and determining which parameters have been set. Although Cell C started providing ICASA with quality service reports from 2004 only, it was the *USAO Compliance Review of Licensees for ICASA* by BMI-TechKnowledge and Mkhabela Huntley Adekeye Inc (2010:22) that was commissioned by ICASA that indicated that ICASA do not keep records of the records, such as the compulsory regular compliance reports which contained an annual roll-out plan and a repair and maintenance report. In fact, Butyi (2006) stated that "we [ICASA] are just accepting licencing obligations report to say they bid on targets that they have set, they are within the targets." Therefore the figures provided by Cell C cannot be verified. It would therefore seem that ICASA is in fact applying regulatory oversight, because of it is partly due to capacity problems within the regulatory body which in turn is aggravated by alleged lack of funding (Cohen 2006).

5.2.1.2 In terms of equity considerations

There are two sets of community service obligations that Cell C needs to adhere to in terms of its licence and the amendment to its licence in. These community service obligations include the construct, operate and maintaining of 52000 Community Service Telephones (CSTs) in under-serviced areas over a specific time table, as well the community service obligations that was added when Cell C's licence was amended on 14 June 2005 to include its 3G licence. The second set of community service obligations include the provision of 2.5 million sim cards in under serviced areas as identified by ICASA with in five years of the issuing of the spectrum licence, the provision of 125 000 handset with in five years according to a implementation plan approved by ICASA, with in three year of the issue of the spectrum licence make provision for internet access to 140 Institutions for People with Disabilities (IPWDs), the provision of internet access to 5000 public schools within eight years of issue of spectrum licence and to provide 1400 terminal equipment such as personal computers to IPWDs and public schools (Independent Communications Authority of South Africa 2007:19-20). Besides Cell C's CSTs obligations and to some degree the provision of internet access to 5000 public schools within eight years none of the other community service obligations seem to be complied with (BMI-TechKnowledge & Mkhabela Huntley Adekeye Inc 2010:22). The issue of Cell C's CSTs will be discussed below in terms of Cell C's alignment with ICASA's regulations.

In 2005, Cell C reduced its original Black Economic Empowerment (BEE) share that stood at 40 percent, when CellSaf (the BEE partner) sold 15 percent to the Saudi company Lanum, leaving the BEE component at 25 percent. The transaction of shares took place after the waiting period and left the BEE partner CellSaf with an unencumbered shareholding and since CellSaf was under pressure by Saudi Orger that no longer wished to guarantee CellSaf's loans with Amalgamated Banks of South Africa (ABSA) and Citibank (Absa shareholders contemplate the give and take 2005:1; Butyi 2006). Cohen (2006) did point out that the sale of shares was acceptable; "it was just it didn't violate law, so it was

commercial." What is of interest is that there was no interest within South Africa for Cell C shares. Nevertheless, the Cell C BEE component with a remaining 25 percent is still South Africa's largest BEE deal (Cohen 2006).

5.2.1.3 In terms of innovation

When Cell C received its licence in 2001, it also received the rights to operate with in the 900MHz and 1800MHz bands in terms of the spectrum licence issued to Cell C by ICASA. In fact, ICASA applied asymmetrical regulations in retrospect to the issuing a licence to Cell C, since Cell C was the only operator that had rights to make use of the 1800MHz band. The opportunity Cell C had to use the 1800MHz band would have allowed them to differentiate itself from its competitors (i.e. Vodacom and MTN) by being the first company to offer advanced services, but Cell C made the choice to focus on the cheaper 900MHz band and focusing on the pre-paid market. Cell C could therefore not act as competition against its rivals by attracting any major corporate and heavy data subscribers from the other operators (Naidoo 2005).

As in the case of Germany, where all the operators use the same network technology, such as GSM, the outcome is that all operators' services are likely to be very similar (Gerpott, Rams & Schindler 2001:250). In South Africa, Cell C's services are similar to what is offered by other operators (Butyi 2006), although Cell C did introduce some new services such as per-second billing which allows for the cheapest call tariffs within the market compared to per minute billing. Therefore Cell C can be regarded as process-innovative. Nonetheless, the South African mobile communications market, despite the introduction of Cell C, resembles a narrow oligopoly.

Furthermore, Cell C's selections of investment technologies are debatable. For example, Cell C's selection of EDGE for data applications has been a costly

exercise, as Cell C should have used the opportunity to invest in 3G directly instead of first starting with EDGE. Furthermore, Cell C should have learned from the experience of Vodacom, which had lost revenues with its strategy of investing in EDGE before 3G (Wills, Pater & King 2005:56). In fact Cell C's reluctance to make use of the 1800MHz band effectively and investing thus in advanced technologies as such 3G indicates its lack of confidence in the South African consumer. Even though David and Steinmueller (1996:821) state that an innovative producer benefits by gaining a lead over its rivals by distinguishing services that may be technically incompatible, but the subscribers select them because they may improve performance or meet an idiosyncratic need. Moreover, Butyi (2006) in fact pointed out that the South African market is different than most, but very similar to that of Hong Kong in terms of the consumers need for the latest technologies and services. Nevertheless, Cell C focused on the less profitable pre-paid sector.

5.2.1.4 In terms of fair practice

It is debatable if the current differential treatment involving pre-paid and post-paid consumers constitutes discrimination, particularly against the backdrop of section 3.1.5 of Cell C's licence, which clearly state that Cell C must provide all aspects of its service without discrimination. However, it should also be clearly stated that Cell C is not alone in this regard, but is acting in similar way as to Vodacom and MTN in terms of its treatment of pre-paid and post-paid consumers.

Nevertheless, in terms of the views of the discrepancy in the way pre-paid and post-paid consumers are treated Cell C and ICASA stands on different sides of the pond. The interviewees at Cell C stated that there is a difference between the pre-paid and post-paid billing structures and that that was not an unfair or discriminatory treatment of low-end and high-end consumers. Their argument was that pre-paid billing system is more expensive because it is based on real time, whereas post-paid contract subscribers' bills are consolidated at the end of

the month. However, the interviewees at Cell C admitted that there is a higher risk factor involved with pre-paid than with post-paid consumers (Msimang & Mertz 2006), that is since post-paid consumers are contractually locked-in for a fixed period and pre-paid consumers may in fact migrate to another operator after their airtime has been completed. In contrast all the ICASA's respondents were in consensus that there is an unfair discrepancy in the way pre-paid and post-paid consumers have been treated. However, the interviewees at ICASA did not agree as to whether this discrepancy constituted discrimination. However, the interviewees at ICASA did not agree as to whether this discrepancy constituted discrimination although Cohen (2006) believed there was and Butyi (2006) indirectly stated that it does as the pre-paid consumer paid in advance but is disadvantage by paying a higher tariff for the same service. Interesting enough Cohen (2006), mentioned the difference between prepaid and post-paid structures, with regard to the situation in India prepaid and post-paid is apparently are the same rate of eight cents per minute questioned the reason for the difference between pre-paid and post-paid tariffs. Besides operators make more on contracts, since it is mainly businesses that have contacts for their employers (Buyti 2006).

Nevertheless, Cell C is a price taker and not a price maker, since it is not in the position to negotiate the terms of interconnection. Cell C can also not legally lower its retail tariffs lower than the set wholesale rate of R 1,25 per minute. Cell C is therefore depend on the other operators to lower the interconnection rate.

Although Cell C signed the *Code of Good Practice* agreement, together with MTN and Vodacom, thereby endeavour to take reasonable steps to protect children from accessing unsuitable mobile content by have mechanisms in place to protect its subscribers, it does not have filters on its network (Providers want to control cell porn 2005:8; Marais 2005:23; Msimang & Mertz 2006). On the other hand, Cell C does not provide adult material, and its content offerings are limited,

thus reducing by default its subscribers to possible exposure to spam and pornographic material.

5.2.1.5 In terms of alignment with ICASA's regulations

All three interviewees at ICASA were not aware of any fines set against the operator, infringement by the operator or if steps where taken against Cell C. However, Cell C was forced to end its Wi-Max trials (i.e. a wireless broadband technology) in 2006, by ICASA, since it did not have the right to make use of the 3.5GHz frequency which was reserved for fixed-line operators (i.e. Telkom, NeoTel and Sentech) only (Marais 2006:5).

In terms of the Cell C licence, Cell C was obliged to roll out 52000 CST in 7 year, from 17 Nov 2001 to 17 November 2008, based on its submission of roll out plans prior to deployment of such CSTs in under serviced areas that Cell C has identified for such purposes to ICASA. Cell C determined prospective locations for the positions of CSTs with reference to the October 2001 Census by Statistics SA, which included a study of nationwide fixed line teledensity in South Africa. 18 December 2003 ICASA approved the method used by Cell C to determine where to place its CSTs as well as the proposed roll out on the Vodacom network, after the same plans where rejected by ICASA on 19 August 2003 citing inadequate information. Cell C indicated that it could not obtain information of Telkom, nevertheless, the Cell C roll out plans where approved.

In 2004, MTN reviewed ICASA's approval of the Cell C roll out plans for the placement of CSTs by referring the matter to the High Court. On February 2001 the High Court handled down judgement, in favour of MTN citing that ICASA had not properly applied its mind to the matter and that ICASA had to review and set

aside the their approval of 18 December 2003, consequential in that ICASA had to review Cell C CST roll out plan anew (Independent Communications Authority of South Africa 2007:20).

The issue at hand is economical benefit due to unclear regulation by state and the regulator: CSTs interconnection rate is R0,06 per minute, compared to interconnection rate of R1,25 per minute during peak periods and R0,77 per minute during off-peak periods. Ignoring the complaint that Cell C made regard to the Competition Commission's Tribunal for adjudication and resulted in the judgment of the Tribunal that the conduct of MTN of charging Cell C the commercial interconnection rate in the same areas where it charges Vodacom CST rates amounts to price discrimination which is prohibited by section 9(1) of the Competition Act (Beachhead 2007).

MTN's review of the ICASA approval of the Cell C roll out plans for the placement of CSTs did indirectly indicated to a flaw in the regulation and governmental policy with a licence what made reference to a definition (i.e. definition of Under Serviced Area) that was unclear, subject to different interpretations and consequently subject to abuse and one could argue creative compliance on the part of Cell C with economical benefits of lower interconnection rates payable by Cell C to other operators (UCASA 2008). As Cohen (2006) affirms that "the only issue that we had resulting from that was a question of interconnection costs. That is since CSTs get to interconnect at a lower rate, and there is a fair amount of dispute in the industry if whether or not Cell C had under-serviced areas or not. And that has now become a main dispute between the operators themselves for interconnect and well between Cell C and COMPASA [Commercial Payphone Association of South Africa], the public payphone association."

Definition of under serviced area as stated in the Cell C licence (ICASA 2001):

> Any city, town, township, shanty town, location, village or human settlement or any part thereof where less than 10% of the inhabitants of the area have access to PSTS exchange line at the date of the issue of this licence and where it is necessary to roll out Community Service Telephones to address the reduction of geographical disparities through proportional distribution of such phones and shall, in any event, not be areas territory that are listed in Annexure A2.

This definition of under serviced area as stated in the Cell C licence is problematic and that was highlighted by the High Court judgement that lead to the *ICASA Inquiry into the definition of Under Serviced Area in the Cell C licence* on *30 July 2008.* A full clarification of the findings of the review by ICASA will not be handled here, however, it should be pointed out that ICASA (which includes its predecessor SATRA) and government failed in its mandate, by creating definitions, such as the definition of under serviced area as stated in the Cell C licence, that could and did lead to misuse of the opportunity, as such provided to them, such as in the case of Cell C did in terms of placement of CSTs in questionable under serviced areas where Cell C would only be subject to a flat and favourable interconnection rate of R0,06 per minute which was regulated by ICASA and could not be changed (Butyi 2006; Msimang & Mertz 2006).

Limitations to what and where should constitute as under serviced area was made challenging due to a lack of a structured mechanism such as a schedule for the placement of CSTs in the Cell C licence as where the case with Vodacom and MTN licences to enables proper adroitness of these obligations and guarantee that these community initiatives are geographically dispersed in a way that addresses areas where access is needed (Butyi 2006; TechKnowledge & Mkhabela Huntley Adekeye Inc. 2010:25; ICASA 2008. In addition the Annexure A2 as stated in the definition did not form part of the Cell C licence nor was ever supplied (ICASA 2008). Although the findings in February 2009 of the ICASA

enquiry concluded that the non existence of Annexure A2 terms the balance of the definition following the words “of such phones” maybe treated as *pro non scripto* (ICASA 2009:25,46). As Butyi (2006) interpreted the situation “so, if it’s silent, I do what I can do.” The regulator also lacked a reliable measurement instrument, opting for the *2001 October Census* for data, although the definition itself referred the operator using data from their licence date (i.e. 21 June 2001). Besides the argument that ICASA stated that there would be minimal changes in terms of fix line penetration the October 2001 Census was the only reliable source of data (ICASA 2008). The definition as constructed by governmental agents therefore lacked insight into what was to be expected practically from the operator.

MTN (ICASA 2009:29) described the Cell C licence as anachronistic during the public enquiry into the definition of under serviced area as stated in the Cell C licence. That is since the regulator of the day which constructed the Cell C licence was not forward looking in terms the developments in the telecommunications sector such as the uptake of mobile phone technology in South Africa. For example, the case Vodacom referred to that the definition created by governmental agents refers to an illogical reason to include fixed lines only, excluding payphones although the Telecommunications act 103 of 1996 includes payphones as part of fixed lines, and excludes mobile phones especially if there is penetration of 92% by SIM and almost 70% by population in that areas (ICASA 2009:26).

Besides the definition issue relating to the Cell C CSTs, what was found was that “…Cell C considers CST requirements in terms of its national network rollout…” targets (Msimang & Mertz 2006). It was also mentioned by Butyi (2006) that national roll out target of Cell C not very praiseworthy to start with. Nevertheless, one of the main purposes of a licence is to ensure that an operator invests in a solid and reliable network, so that the goal of 100 percent coverage for all people can be reached. The interpretation by Cell C to consider CSTs as part of and not

separate from its national network rollout targets allows Cell C to a minimal network investment, which in it self constitute creative compliance on part of the operator.

5.2.1.6 The combined findings of the performance of Cell C from 2001 – 2005

Aspects of the Cell C licence are problematic in that they are lacking clear definitions due to weak writing and insufficient awareness paid to the details within the contact and lack of foresight, such as show above. The implication is that the performance or the outcome of the expectations of the licence issued to Cell C is limited to what is contained within the licence. Furthermore, the lack of monitoring compliance of the terms and conditions of the licence by the regulator, ICASA, which is suffering from capacity and funding issues according to Cohen (2006), has worsened the state of affairs.

The lack of verifying the performance of Cell C, by ICASA, as mentioned above, amounts to the performance of Cell C from 2001 until 2005 as dubious. Nevertheless, in the ICASA Annual report for the financial year 2008 until 2009 (2009:36) a diagram is presented indicating the percent of complaints received against the different telecommunications operators. Vodacom and MTN stand at 19 percent and 18 percent respectively Cell C, which is the smallest mobile operator in 2008 with an estimated market share of about 15 percent, has a complaint rate of 19 percent which is similar to Vodacom which was the largest mobile operator. The result is that the performance of Cell C can only be regarded as unsatisfactory.

5.2.2 Did the licence itself reflect appropriate conditions as an effective mechanism or was the “performance” of Cell C due to other extraneous factors?

As mentioned in Chapter Two, a licence is a legally binding contact or lease agreement in which the government and/or regulator lists of series of objectives and minimum conditions, prescribed by the regulator, that the licensee has to obey in return for allowing the licensee to offering a service within a particular bandwidth on the limited spectrum frequency, for a specified time period (Baldwin & Cave 1999:258; Abdulaziz 2009:16; Collins 2004:7; Frempong & Atubra 2001:200). The contents of the licence would inform the licensee what they are allowed to do and what they are not allowed to do. For example, the licence issued to Cell C, did provide the operator with authority to provide telecommunications services with in set out frequency spectrum, but also limited the operator to predefined service requirements and quality standards it had to had to maintain. Furthermore, in terms of the schedule of commitments, as specified in Annexure A of Cell C’s licence, it defined the operator’s commitments in terms of national roll out (i.e. network geographical coverage and area population coverage) as well as its community service obligations. However, according to Butyi (2006) Cell C’s rollout targets are not that commendable. However, the question is if the licence itself reflects appropriate conditions as an effective mechanism or was the “performance” of Cell C due to other extraneous factors?

In terms of if the licence is providing the appropriate conditions as an effective mechanism to increase competition in the telecommunications sector that cannot be said as accurate as there is very little competition that has had an effect on price and quality. Rather three main factors which are separate from the licence agreement, namely: the operator’s competitors, the regulator and its intervention and enforcement actions and as well as the general cellular phone-using public has an impact of the “performance” of Cell C.

The regulator has the function to act with the use of regulations to artificial create the condition for competition if there is no competition. In fact, if there were pure competition there would be no need for a regulator.

ICASA introduced different measures that ensure that competition are can be stimulated and protection is provided to the end-users which has an extraneous impact on the performance of an operator. Regulatory policies such as to make recommendations to the Minister for the feasibility of another market player to enter the sector (Mashile 2006), creating regulations such as type approval, handset subsidies enquiry, and mobile number portability to stimulate competition by afford telecommunications users the right to choose an operator or a service provider, and/or to change location without losing their numbers and another example is the awarding of under-serviced area licences (USALS) that was geared at improving teledensity in the country's rural areas but also acted as direct competition to the operators such as Cell C in that they can roam, but still offer reduced call rates to their subscribers and the use of enforcement and monitoring (Independent Communications Authority of South Africa 2007:13; Msimang & Mertz 2006; Hodge [Sa]).

Additionally, ICASA monitors by making enquiries, by discovery if the predetermine parameters are adhering to (Mashile 2006). Moreover, if the parameters are not adhered according to Mashile (2006): "… there is a logical consequence. A contract, is a contract, is a contract, because the licence is a contract. So, if you break a contract there is consequences and they are spell out in the licence." However, similarly as what Abdulaziz (2009:32) declares that in theory frequencies can be relocated to another operator after a license expires, although in practice, this has not occurred yet, one could also make the statement that in theory, a licence maybe revoked, although in practice this has not occurred yet. ICASA has to date mainly only revoked radio licences for example ICASA revoked the operating licence of Radio Grahamstad in 2009 for

contravening its licence condition b not broadcasting for a year and not informing ICASA of such (Independent Communications Authority of South Africa 2009). The main reason why mobile operator's licences will not be revoked is because of the large investments that are "sunken" (Vogelsang & Mitchell 1997:57). The removal of such as large investment would also cause investor uncertainty amongst investors, especially international investors. Nevertheless, BMI-TechKnowledge and Mkhabela Huntley Adekeye Inc. (2010:4) did indicate: "it does not appear that monitoring and evaluation of the operators' compliance with the USAOs was ever their response to our questions that they have submitted compliance reports to ICASA but that no response (feedback) was given by ICASA." Furthermore, the study did clearly remark that there was no proof of whether licensees such as Cell C complied or if the annual compliance reports of the licensees that are provided to ICASA in terms of legislation and the licence of the operators to be where cross checked by ICASA. Then again neither the Telecommunications Act 1996 nor its regulations, not the ECA of 2005 makes specific provision for monitoring of compliance with USOs. As such Cell C has not submitted any official documentation regarding USOs according to the BMI-TechKnowledge and Mkhabela Huntley Adekeye Inc. (2010:22) report.

However, in terms of Cell C's licence there was monitoring which the Authority could or should do (ICASA 2001). However, the BMI-TechKnowledge and Mkhabela Huntley Adekeye Inc. (2010:22) indicated that there was no documentation to suggestion that it was done and stated that Cell C saw no signs of any evaluation by ICASA. ICASA suffers from inadequate capacity (Cohen 2006), resources and a lack of enforcement power resulted in the regulator sidelining many important issues as it is forced to prioritise work, and then performing a less than adequate job on those issues it does focus on (Hodge [Sa]).

In other words, even though ICASA has designed a number of regulations designed to protect consumers (i.e. End-user and Subscriber Service Charter

Regulations, Code of Conduct Regulations) as well as to regulate price (Call Termination Regulations) – all of these essentially form part of Cell C or any other licensee's licence. The major issue here is that ICASA is not in a position to enforce these regulations in a meaningful manner. For instance, under the End-user and Subscriber Service Charter Regulations Cell C should may not have a dropped call rate higher than 3% averaged over 6 months. Although Buyti (2006) declares "…drop calls are a result of number of reasons." Cull (2011) declares that: "anyone using a mobile service in SA knows that the rates are higher than this but all three MNOs [mobile network operators] report rates lower than 3% and these appear to be accepted by ICASA without further consequence."

There were fundamental changes to the legislative structure with the introduction of the ECA in 2006 and cancellation of the Telecommunications of 1996. Yet, despite the ECA attempt at creating a horizontal licensing framework, without a fundamental shift in policy the market remains structured around vertically integrated incumbent operators, now with effective duopolies in both the fixed and mobile market, despite the entrance of a very marginal third mobile operator. Policy and regulation influences the nature of competition and the ability of companies to compete. The vertically integrated fixed-line incumbent retains dominance over the backbone, while competing own stream with its competitors, inducing the kind of anti-competitive behaviour that has seen it brought before ICASA and the Competition Commission. While in the mobile market, the effective duopoly has resulted in price matching, poor service quality and other uncompetitive behaviour associated with duopolies. Furthermore, mobile operators are interdependent, as they are structurally linked in the form of cooperation agreements (on, for example, the termination of voice and data traffic as well as roaming relationships). This interdependence is a well-known characteristic of oligopoly (and duopoly) markets. Furthermore, an oligopolistic market is more likely to have a structure conducive to coordinated effects, as operators are aware of common interests and anticipate one another's behaviour. While ICASA has indicated its dissatisfaction with the quality of mobile

services in particular and has threatened to take action, but to date none has been taken. Meanwhile networks have become more and more congested with increasing numbers of subscribers. Along with ICASA not been unable to monitor the large incumbent operators and the level of competition in the market. The introduction of competition, together with effective regulation, would likely erode excessive returns on investment accruing to these firms, resulting in higher output and a reduction of wage premiums paid by these firms. This is likely to result in increased employment in the sector, as well as other sectors using the output of infrastructure industries with weak competition, such as telecommunications, as inputs (Comninos, Esselaar, Gillwald, Moyo & Naidoo 2010; Theron & Boshoff 2006:14).

In addition the mechanism of issuing a licence and the consequently binding contract that is creates does not guarantee compliance, and in Cell C's case did not guarantee compliance and did not delivered the desired results that was expected. Many underserved areas remain without services and in some instances there are rural areas where access to basic and/or advanced communication services have deteriorated (USAASA). For example the BMI-TechKnowledge and Mkhabela Huntley Adekeye Inc. (2010:9) report commented that Cell C did not comply with the universal service and access obligations, such as the provision of 2,5 million sim cards in under serviced or unserviced areas as identified by ICASA within five years, because of there was no proper consultation between Department of Communications and ICASA and as there was no impact assessment before the allocation of the obligations resulting in the implantation to be impractical. In terms of the licence as an effective mechanism measured against Cell C's community service obligations it would appear that Cell C only adhered to the terms to the licence's social obligation commitments where it received a financial return on investment. For example, in none of the community service obligations that was added with the amendment of Cell C's licence, with the inclusion of a 3G licence, where not fully complied with, although Cell C's CSTs obligations where complied with. That is since none of community

service obligations from the amendment of Cell C's licence provided Cell C with a financial return on investment (Cull 2011/02/18), but the structure of the CSTs allowed a return on investment (Msimang & Mertz 2006).

Furthermore, Cell C questioned the regulatory discourse that was used in its licence agreement after it was issued to them. It is rather strange that an operator can sign an agreement and then afterwards declare that the terms and definitions used in such a binding agreement are unclear to them (ICASA 2009: 83). For example, the definition of key concepts such as "rural areas", "target areas", "needy persons" where questioned. Then again blame should be pointed to the regulator which provided unresearched obligations and lack of coordination between interest parties for the implementation of universal service and universal access obligations referred to in the amended licence of Cell C. To elaborate, ICASA withdrawal from the Gauteng Online schools connectivity venture. ICASA and the Department of Communications first worked together in the allocation of schools to ensure just allocation of schools, but with ICASA's abandonment as it produced difficulties and uncertainty with the roll-out process as there is no distinct and appropriate channel to pursue (TechKnowledge & Mkhabela Huntley Adekeye Inc. 2010:4,23).

Nevertheless, the regulator, ICASA, is captured as it lack the resources to fully implement its functions even though the ECA provides it with more power it still lacks funds and human resources to skilfully and effectively address the problems and systematically work through the workload. Instead of just focusing on what it deems as a priority as mentioned before.

It should also be mentioned that the licence itself cannot guarantee a 100 percent outcome as what was expected when the licence agreement was formulated. Licenses are for long periods, such in Cell C's case of 15 years and nearly 10 years on Cell C still has not even come close to be an effective competitor with only about 15 percent of the market share or was the expected

outcome in terms of targets set in the Cell C licence effective in enforcing compliance from the operator Cell C.

5.2.3 The benefit that that general cellular phone-using public received since a licence was issued to Cell C

There are different benefits the general cellular phone-using public received with the rights of a third mobile operator to offer services, although all would not necessary be apparent at first glance. These benefits for the general cellular phone-using public, which also include and does not exclude government, are meeting governmental policies, to increase income and tax revenues for government, to accelerate the attainment of universal service and access, to increase employment, to enhance competition and to provide consumers with choice and thus a greater variety of products and services. In addition, the introduction of competition, jointly with effective regulation, would likely erode excessive returns on investment accruing to these firms, resulting in higher output (i.e. performance) and a reduction of salary premiums rewarded by these firms. This is likely to result in increased employment in the sector, as well as other sectors using the output of infrastructure industries with weak competition, such as telecommunications, as inputs. (Shapriro & Varian 1998; Comninos, Esselaar, Gillwald, Moyo & Naidoo 2010).

Government did benefit from the licence was issued to Cell C in terms of increase income and tax revenues. That is since the issuing the third mobile licence to Cell C, the South African government raised R 100 000 000,00, which is payable over a 12 years period. However, the government with their policy of managed liberalisation aimed to accelerate the attainment of universal service and access. That is since, the main value of issuing a licence to contractually ensure that the licensee is to increase the telecommunications infrastructure and services to customers with regard to national network rollout. The goal would be 100 percent coverage and where all people in South Africa would be able to gain

access to modern telecommunications. However, the penetration of full mobility services is still significantly higher among the more affluent and urban segments of the market (Gillwald & Esselaar 2003:65).

In South Africa, the complexity of the digital divide does not just have an economic flavour, but a political dimension as well which was created by Apartheid policies that benefited mainly white urban areas in South Africa. Although CSTs have helped expand telephone services into many rural and mainly black areas (Gillwald & Esselaar 2003:65), its impact is limiting if not disappointing (USAASA 2008).

As such a large part of the population in South Africa lacks access to advanced communications services as such access to Internet, thereby excluding them from the benefits associated with being in information society and enhanced quality of people's lives (Ali 2003:114, Ndukwe 2003:3). Nevertheless, Cell C has a commitment to spend R1billion over 10 years in respect of Joint Economic Development Plan (JDE) it has entered into with ICASA. This JED places obligations on Cell C to assist the government in economic development through job creation, local exports, boosting foreign investment, forging international linkages, R&D, training local personnel, establishing regional headquarters in South Africa and developing local value added technology. The BMI-TechKnowledge and Mkhabela Huntley Adekeye Inc. (2010) report did indicate that there is no information as to this Joint Economic development Plan (JDE) between Cell C and ICASA, therefore one can not make a meaningful conclusion on the value of the Joint Economic Development Plan.

In theoretical terms the introduction of a further market player should increase effective competition in the telecommunications sector leading to lower prices and better service as network coverage increases as well as speed and reliability of services offered (Mashile 2006; Bohlin, Gruber, Koutroumpis 2009; Cohen 2006), but this did not occur in South Africa with the introduction of Cell C (Ali

2003). The respondent state that: “Yes there are three competitors, but with of those three competitors what is it what they are offering what is different? What makes them competitive except for their colour and branding, what is it?” (Butyi 2006). Whereas Cohen (2006) declares that there is very little competition that has an effect on prices or quality.

Nevertheless, as indicated in Chapter One, the introduction of Cell C did drove the Herfindahl-Hirschmann Index down from 5 262 in September 2001 to 4 106 two years later (Gillwald & Esselaar 2003:74), but that was marginal as prices remained high. Buyti (2006) did state that the interconnection rate increased with the inclusion of Cell C up until the moment the Minister said Cell C was the licence winner. “1994, 1995, 1996, 1997, 1998, 1999 and a bit of 2000 interconnection was sitting at 20 cent” (Butyi 2006), because of a cohesion between the other operators MTN and Vodacom.

Cell C also lacks the power be an effective competitor in the sector with still only an estimated market share of about 15 percent. There could be argued that Cell C was disadvantaged since it is a late introduction to the telecommunications market in South Africa and that the earlier entrants had time to establish subscriber bases and to reduce unit costs (Theron & Boshoff 2006). Still Cell C was offered opportunities to become a market leader as it was the only operator that had exclusive rights to the 1800MHz frequency band which it did not utilised. Nevertheless, the introduction of Cell C as an additional market player did drove the incumbent operators to the improvement their efficiencies (Majumdar 2010), as seen in Vodacom and MTN – increase of prepaid markets prior to the launch of Cell C.

Cull (2011/02/18,2009) stated that there was very little evidence of consumer benefits of the introduction of Cell C to break the Vodacom/MTN duopoly. The facts behind the lack of impact could be blamed on the economic realities of launching a new mobile network operator and the acceleration of the

interconnection rate to R1,25 by Vodacom and MTN and the delays in the Cell C launch due to legal wrangling. The result, although there should be an increase in greater choice and thus a greater variety of products and services benefiting the general cellular phone-using public. However, although there were marginal new offerings that Cell C produced, such as per second billing, the services remained similar to its competitors this logically reducing benefits for the general cellular phone-using public.

5.2.4 An assessment of the correctness of the selected performance indicators used to investigate the performance of Cell C as adequate measuring instruments

In this research study technical service delivery, equity consideration, network expansion, innovation, fair practice, and alignment with ICASA's regulations where used as performance indicators, serving as measurable evidence, used as a comparative baseline for determining Cell C's performance. The performance indicators, customer satisfaction and reasonable profit margins where not applied, because of limitations of within the research and lack of access to certain information. In addition, as mentioned before, multiple indicators make the measurement instrument more likely to have a higher consistency and reliability and more complex concepts should have multiple indicators because they are more likely to cover all the dimensions of the concept (Baker 1999: 104).

The performance indicators that were applied in this research study were derived from academic and specialist literature such as NetTel@Africa (2003), Milne (1997), the Productivity Commission (1999,2001), Intven et al (2000), and the Organisation for Economic Co-operation and Development (OECD) (2001) (Telecommunications regulations: institutional structures and responsibilities 2000), rather than simply adopting them wholesale from the licence. The performance indicators are also appropriate to the mobile telecommunications and South Africa's specific socio-economic environment. In other words, the

performance indicator of equity consideration would be badly chosen for a review of an operator's performance in Hong Kong where social obligations are not placed as part of the terms and conditions of a licence. Therefore, overall the performance indicators can be viewed as suitable measuring instruments to measure the performance of an operator's, such as Cell C).

5.3 RECOMMENDATIONS

In determining how the general cellular phone-using public have benefited from the mechanism of issuing licence, the study, based on the literature, as well as findings of the study, recommends the following:

5.3.1 Providing a licence that reflects appropriate conditions as an effective mechanism to increase performance

The licence is a legal document that provides the operator with exclusive rights to a scare public resource, for a long period. It is, therefore, vital that the licence is flexible enough to allow for unforeseen changes to take place without negatively impact the possible benefits it may provide for the general cellular phone-using public. To make the licence more flexible, commitments that are subject to change needs to be treated separately as regulations and not be included in the licence agreement, as were the case with the Cell C licence. In fact, the main reason according to Butyi (2006) why the regulator issues a licence to a licensee is to force the licensee to build infrastructure in return for an exclusive use of the frequency spectrum.

Obligations and network roll out target should be fixed and therefore placed in the licence agreement (BMI-TechKnowledge & Mkhabela Huntley Adekeye Inc. 2010). Other issues such as quality of service should be set out within code of conduct applicable and consistent amongst to all licensees (Buyti 2006; Thornton

2009:254) and be treated as equal to all and should be transparently applied which is in fact more inline with the WTO obligations as mentioned in Chapter One.

5.3.2 Strengthening regulation and improving diligence, while still remaining forward thinking

For the mechanism of issuing a licence to be effective the legislative framework needs to be conducive to effective competition and there needs to an effective regulator that will monitor effectively the terms and conditions positioned in the lease agreement. Although the ECA in terms of Chapter 3 provides an enabling framework (Van Audenhove et al 2003:101) for licensing, whereby ICASA has more powers, it needs to increase monitoring and enforcement of operators licence conditions. However, the ECA does not grant ICASA with more funds, but more responsibilities. ICASA's funding and capacity issues need be reviewed, to increase its standards thereby regulation in the public interest effectively.

Comninos, Esselaar, Gillwald, Moyo & Naidoo (2010) clearly state:

> Institutional arrangements that compromise the autonomy of ICASA to regulate the sector effectively are reflected in its non-performance in the critical areas of competition regulation, licensing, interconnection and frequency. ICASA has been characterised by stagnation, litigation and incapacitation. No additional competition regulations have been issued since March 2008. Apart from Neotel, no new licences have been granted, no spectrum regulations have been finalised and no interconnection regulations have been issued. As a result of the Parliamentary Portfolio Committee's intervention to bring down the cost of

> interconnection, ICASA has laid out a schedule to issue interconnection regulations by June 2010 through the EC Act Chapter 10 market definition and dominance assessment process. Its failure to issue any regulations in over 18 months, and the continued attrition of qualified staff, suggests that this is going to be a tough deadline to meet.

Nevertheless, the mechanism of issuing a licence can aid a regulatory intuition such as ICASA to perform its duties. That is since terms can be placed in the agreement forcing in the operator to provide information the regulator needs to make knowledgeable decisions. However, greater thought should be provided once a licence document is constructed. As shown in the research, the Cell C licence lacked clarity on terms and definitions, resulting in the principle goals that government had not to materialise. Clear definitions are needed; however, the wording of the document need still be forward looking, as a licence is normally valid for long periods of time wherein many technological and/or socio-economical developments can occur.

5.4 CRITICAL EVALUATIONS AND LIMITATIONS

As mentioned above, this case study used a non-probability sampling method, and the case was limited in scope to Cell C. Although the results of a case study can be replicated, they cannot be generalised for a wider population. The results of this dissertation cannot be generalised to represent the world, since it is intended only to represent the case (Stake 1998:104).

To increase the validity and reliability of this research project methodological triangulation has been used. The combination of in-depth interview documentary analysis and implementation evaluation research has helped to overcome the weaknesses and the problems of a single-method study (Wimmer & Dominick 2000:126). Equally important, given the wide range of issues raised in this study, a single research method would be inadequate to address all the subsidiary

questions. In addition, the triangulation of data sources has helped to provide a fair and balanced understanding of the complex procedure whereby Cell C was issued a licence in order to increase competition for the benefit of the general public. The publication of all interview transcripts has also increased the reliability of this study.

The selected sample size maybe seen as problematic as it is restricted to three different entities only. A considerably larger sample, with a better spread within the universe would be advantageous. That is since the larger the sample size, which represents view points from different sectors of the community would provide the researcher with more of a balanced view of the unit of analyse but also over come the greatest danger associated with qualitative research that of bias. Although all aspects was taken to increase the sample size, the lack of interest form possible professionals that where knowledgeable about licensing was not forthcoming. Nevertheless, the use of other primary sources, such as Annual Reports, provided a much needed wider perspective on the unit of analyse.

Furthermore, interviewer bias has been neutralised by an analysis of documents and texts. According to Mouton (2001:166), this analysis is likely to reduce mistakes associated with interactions between the researcher and respondents. The triangulation of multiple sources has allowed the case study data to be less prone to idiosyncrasies derived from any single source, such as a mistaken interviewee or a biased document (Wimmer & Dominick 2000:110).

The limitations of this study pertain to the narrow scope of the research. This study is also limited to the type of data to which this researcher had access and the respondents who were willing to be interviewed. For example, in this study, a reasonable profit margin was not used as a performance indicator in order to evaluate Cell C's performance. Indeed, a reasonable profit margin was not used because Cell C is a private company and, as a private company, is not obligated

to share information, specifically referring to their profit margins. However, the availability of funds to a company may affect its performance, but this availability has not been investigated for this study. Furthermore, consumer satisfaction has also not been investigated for this study. Nevertheless, this case study of Cell C has evaluated the effectiveness of the mechanism of issuing licenses by attempting to identify not only its weaknesses and problems, but also its strengths and accomplishments).

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APPENDIX A: LIST OF INTERVIEW QUESTIONS REFERRED TO CELL C

Company: Cell C

Name: ……..

Job title:……..

Contact number:……

E-mail address:……

Address of interview:……..

……..……..

Interview date:……

Questions used in an interview with Cell C:

1 What measures have Cell C taken to improve its quality of transmission?

[In other words referring to call dropout, post dials delay, call congestion, noise and/or echo in the speech quality of transmissions]

2 What measures have Cell C taken to improve its network availability?

[In other words, referring to call connection failure rates, fault restoration times and emergency response centre.]

3 In which language(s) does Cell C offer its services? (Indicate the services as well).

4 To what extent have Cell C made provision for its customers' preferred language?

5 How is simplicity dealt with by Cell C? Is information about the charges per services provided in a clear and understandable language?

6 How does Cell C inform the illiterate (the uneducated) about the cost of phone calls, new services, products, SMS and advantages of free access to emergency services?

7 What kind of network and organisational support does Cell C provide for its consumers? For instance, is there a customer service representative available?

8 Does Cell C conduct research periodically to determine how Cell C can improve its customer service?

(If yes) By whom and how do they do it?

(If no) For what reason does Cell C not conduct research to determine how it can improve its customer's service?

9 Have you [Cell C] been awarded awards for service delivery and customer service, if so, by whom and when?

10 However, to determine consumer satisfaction the factor of loyalty (i.e. the amount of new customers remaining over time one-year period) must be measured.

11 Would you say that Cell C's new customers (pre-paid, post-paid) are new users of mobile phone or have migrated from other operators?

12 Have Cell C measured the amount of customer lost to other service providers and/or remaining over about a year?

(If yes, please indicate.)

What could be the reason(s) for customers leaving Cell C?

13 What have Cell C done to encourage loyalty?

14 What is Cell C's current equity considerations structure?

15 Does Cell C maintain any community service telephones?

(If yes) to what extent is Cell C ensuring that community service telephones are usable, maintained and meet the needs of the users?

16 Does Cell C treat low end users the same as high end users or do Cell C discriminated between these two groups?

17 What is the network situation currently? [Therefore referring to coverage what allows for domestic roaming.]

18 What current domestic roaming arrangement does Cell C have, and with whom?

19 Does Cell C make a difference between service quality in urban areas and rural areas?

20 What is Cell C planning in terms of network expansion (e.g. mergers)?

21 Questions to determine provision for innovation:

22 What products are offered to low income earners?

23 Can airtime be obtained from any banks' electronic services?

(If only some) Which banks are included in the future provision of these services?

24 What future services and applications is Cell C planning?

[Mergers, alliance formation and agreements]

25 What sets Cell C a part form its competitors?

26 Why are lower income consumers (i.e. pre-paid user) subject to higher prices, whereas contract users on higher end tariff plans are charged lower rates?

27 Should ICASA regulate retail tariffs?

28 Is the price of mobile voice services justifiable and are consumers getting value for money?

29 What measures have Cell C taken to reduce harm to the consumer?

[That is referring to issues such as code of good conduct, adult content and spam.]

30 What, if any, measures have Cell C taken to inform (educate) consumers of applications that is available for the end-user that can for instance provide parental control?

31 In Cell C's view, should there be more regulatory intervention or more regulatory oversight (i.e. softer regulations) by ICASA? Moreover, why?

(If more regulatory oversight/softer regulations) What regulations should ICASA amend or remove, and why?

(If more regulatory intervention) What current regulations should ICASA amend or what new regulations should be introduced?

[Note: Number portability (i.e. mobile number portability in particular) requires more and stronger regulations, therefore self regulations (i.e. softer regulations) will be ineffective. Furthermore, note the implications of mobile number portability in regards with interconnection and Facilities Leasing (FL) guidelines]

32 Why did Cell C apply for declaring Vodacom and MTN as dominate operators if Cell C it self is making strong inroads in partially the pre-paid mobile market?

33 In Cell C's view is the existing legislative and policy framework adequate for a

competitive environment between operators that is beneficial for the end-user?

[In other words, have the introduction of a further mobile operator (i.e. Cell C) lead to increase competition in the mobile telecommunication market? If not, why not?]

APPENDIX B: LIST OF INTERVIEW QUESTIONS REFERRED TO ICASA

Organisation:ICASA

Name: ……..

Job title:……..

Contact number:…….

E-mail address:…….

Address of interview:……..

……..……..

Interview date:…….

Questions used in an interview with ICASA:

1 What was the main criteria why Cell C was awarded its licence?

2 Why was only Cell C (third operator) given roll out obligations and not Vodacom or MTN?

3 How does the licence issued to Cell C insure that interconnection is met?

4 What is ICASA doing, if any, to ensure that Cell C's quality of service is inline with its licence obligations?

5 Does ICASA offer the end-user a mechanism for addressing complaints about lack of quality of service?

6 If so, what powers if any does ICASA have to correct the problem?

[Education of the end-user]

7 In regard to lack of quality of service, have ICASA taken acting against Cell C? If so, what steps where taken?

8 Why did ICASA allowed Cell C to reduce its black empowerment share of 40% by selling 15%?

9 In retrospect, what lessons have ICASA learned from the mechanism of issuing a licence to Cell C? What changes or alternative mechanisms of issuing a further licence will ICASA use in the future?

10 Should ICASA regulate retail tariffs?

11 Is the price of mobile voice services justifiable and are consumers getting value for money?

12 Is the discrimination between pre-paid and contact tariff structures in line with the objects of the Telecommunications Act?

13 Is there in ICASA's view any justification for regulatory intervention for pre-paid services?

14 If any, what steps are ICASA taking?

15 It has been argued that ICASA is not efficiently and effectively regulating mobile prices. What have ICASA done to improve the current state of affairs?

16 Should there be more regulatory intervention, and if any in which particular areas?

17 Are the current regulatory policies protecting the end-users? If not, what is ICASA doing to protect the interest of the end-user?

18 Have ICASA levied and fines against Cell C during 2001-2005, and if so, what were the extent of these offences?

19 You refer to mobile tariffs in your discussion document on mobile prices, are you referring to wholesale or retail tariffs?

20 Why do you believe that section 27 enquiry was the appropriate mechanism to address pricing and competition concerns in the mobile telecommunications market?

21 Why did ICASA not taken action with sections 44, 45, 46, or 89(1)?

22 Is ICASA of the opinion that in real terms there is still no competition between the three mobile operators? If so, what is ICASA planning to do (particularly referring to Cell C) to address this concern?

23 Which aspect of the government policy needs revising, if any, and why?

24 Have ICASA taken steps, if any, against Cell C regarding its performance for the period 2001 until 2005? If so, what steps where taken?

25 Is the structure of ICASA resulting in it being an ineffective regulator?

APPENDIX C: TRANSCRIPTS OF INTERVIEWS

Company or organisation:	Independent Communications Authority of South Africa (ICASA)
Interviewee:	Nomvuyiso Butyi
Job title:	Manager of competition
Place of interview:	164 Katherine Street, Sandton
Date of interview:	6 December 2006

Jacques Dippenaar (researcher): “What was the main criteria why Cell C was awarded its licence?”

Nomvuyiso Butyi (interviewee): “Okay. First, there was that in the invitation to apply by the public by the Minister and then there were requirements that were placed that people had to be in terms of ownership, control for instance so many x number black people had to own. X number South African that had to own that and that a company for a period of years. I think it is three years. I just can’t recall that exact number of years. And the other requirement that is always critical of national licences, because an implication of the National Licences Act, is you roll infrastructure in x amount of years and then there is a time table that is suppose to be part of our licence - you shall rollout in terms of this time table. So, Cell C was amongst the, I think, the three people that was sort listed. Three people that was short listed and out of those three then the Minister choose Cell C. Because we, how beauty contest work in the telecoms act, the Minister issues an invitation to apply we hold public hearings and hear the matter based on the invitation to apply as issued by the Minister and then we then make recommendations to the Minister as to how is the most appropriate.”

Jacques Dippenaar: “How did how verify the ownership of the company that applied, especially if for example of black empowerment groups? How did you ensure that the ownership are in fact black?”

Nomvuyiso Butyi: “Right, you start with a framework. You say 20 percent of this shall be owned by foreign investors.10 percent of this company shall be owned by local based company. Five percent this shall be owned by people with Broad-based Economic Empowerment. So, that is the criteria when they are doing their applications. So, there is that criteria. So, they have to meet those requirements and whoever, for instance I am bringing so much money to South Africa, I am bringing so much in terms of infrastructure and knowledge. I am going to, you actually five percent in term of BEE. I am going to make it 10 % so kind of things. They also determine to actually who actually wins the bid. I don’t know if know there was a court case during the Cell C licencing thing?”

Jacques Dippenaar: “Yes.”

Nomvuyiso Butyi: “So, some felt that they were offering a better deal compared to Cell C and the Minister was wrong in her final awarding of the licence. So, for us we just evaluate these are the two people or three people that are meeting the criteria and this one is strong here and strong here and you just highlights where each person is strong. Because we do not make the final call of who gets licenced.”

Jacques Dippenaar: “Why was only Cell C given rollout obligations and not Vodacom and MTN?”

Nomvuyiso Butyi: “If you say rollout, rollout in terms of the community telephones?”

Jacques Dippenaar: “Yes.”

Nomvuyiso Butyi: “They also have. When they were licenced in 1992 and then in 1994 they were given rollout obligations, but they were lesser. For example, MTN had about 8000 and Vodacom had about 20000 and that one will always based on the fact that when MTN and Vodacom were licenced they did not…South Africa as a country did not expect to have more than 500 000 subscribers by 2000.”

Jacques Dippenaar: “So they underestimated the market.”

Nomvuyiso Butyi: “Yes, in 1994 we underestimated it. But now for instance with 3G licecning thing, the 3G 1800, and all of them have it. What we are basing them on par in terms of obligations. Unfortunately, Cell C had a 52000 community service telephones to rollout compare to the other two and MTN had the least number. Now you see that they actually, between MTN and Vodacom is there have actually exceeded there amount of rollout, especially Vodacom, MTN not so much.”

Jacques Dippenaar: “Why do you think so?”

Nomvuyiso Butyi: “I think, okay, for MTN, I don’t think they really see the whole social obligations thingy. I don’t think that they aren’t more in turn with it. And remembering that MTN is more in fact a South African company, so where or not that it is social or political correct, it is not that so important overall is in fact a local company. Vodacom they always aim to please, but that is just me.”

Jacques Dippenaar: “How does the licence issued to Cell C insure that interconnection is met?”

Nomvuyiso Butyi: “The licence states the requirement that they shall interconnect.”

Jacques Dippenaar: “Is it detailed?”

Nomvuyiso Butyi: “No it is not detailed. The detail is in the legalisations.”

Jacques Dippenaar: “Is it adequate?”

Butyi: “Ja, in a way. They just put an obligation. First the Telecommunications Act put an obligations to interconnect on Telkom and then other people that entered interconnection agreement will have to notify the Authority. Now, in 2000 we published guidelines, and in those guidelines the obligation to interconnect was put on any one who has a national licence in terms of the regulations. So, Cell C by default had that obligation to interconnect when they came into the picture. It is not, remember whatever is in the contract, what ever is in the licence cannot be inconsistent with the Act and the regulations. The licence is just part of what is there. It just mentions that they have will have right to interconnect. I think it is about two lines, if not one. So, the other intentions provisions are in the legislation and in the regulations.”

Jacques Dippenaar: “Even with convergence?”

Nomvuyiso Butyi: “No with convergence, it is different. But what is happening it still in the old regulations that still needs to be repealed were it comes to convergence. It would depend where each person are in terms of their licence category. But I said in respect, like now most major licenses are vertical intergraded. Now with the Electronic Communications Act they will be horisontally integrated. With the layer, there is a layer that will be required to be interconnected. This one, okay says we must prescribe regulations that facilitate the conclusion of interconnect agreements, that one is easy. Then there are two,

that the interconnection agreement principles must provide a framework which may include a reference interconnection offer that is clear. And then you go further, three says the provision of electronic communications facilities to establish points of interconnect. So, if you have electronic communications facilities licences, if you belong into, well part of your licences this person will not interfere. Like, Cell C will not have one licence, they will have multiple licences. In respect of that category of the licence they are obliged to offer interconnection. If they choose not to have that licence category, then they will not be obliged to interconnect. But all interconnection agreements are log into other categories they are suppose to notify the Authority of but they will not be depending on which category they belong, they will not be, they might not, be placed under an obligation to interconnect."

Jacques Dippenaar: "Can you act is they do not want to?"

Nomvuyiso Butyi: "Yes. If for example, remember there are different categories. Say if you are unable to interconnect, why it is not coming feasible for you to do it, is it the request are unreasonable. That is the third one. But, there are three things a party can refuse to interconnect on. One, any of these is it feasible, unreasonable, and I forgot the third one. Then you required to interconnect with any obliged party. Bearing in mind that interconnected receptacle and the most instances interconnection cannot be unreasonably refused and the major thing normally is on the interconnection rate."

Jacques Dippenaar: "What is ICASA doing, if any, to ensure that Cell C's quality of service is inline with its licence obligations?"

Nomvuyiso Butyi: "Okay, what is happing, they have their licence, they report to us. The started to report last year in terms of how they are meeting their quality of service levels and in terms of their network rollout things like that and how many emergency numbers, if it exists. So, for now, except Lee-Ann can say

something different. In respects to that, they haven't been we are just accepting licencing obligations report to say they bid on targets that they have set, they are within the targets. Remember that their targets are not that honorable."

Jacques Dippenaar: "What do you mean by that?"

Nomvuyiso Butyi :"It is for example, for a people always confuse things such as drop calls and say I have so may drop calls from a this network operator. But now drop calls are a result of number of reasons. I am driving the highway, at peak hour there is a base station for from where you are, you understand. But we look at to respect of this base stain, how many drop calls have there been in that base station and if we see that they are unrealisablely high then that person will be required to rollout more cells in that respect of that area. So, some people who assume that the moment that I have drop call every time on the N1 high ways, that is Jan Schoemann, there is a problem. They don't take into account that peak hour a lot of people are making calls and the things that are happening. And I don't care about that I just want to make a phone call at the time I want to make a phone call at and I don't want to except drop call at any giving point."

Jacques Dippenaar: "Does ICASA offer the end-user a mechanism for addressing complaints about lack of quality of service? Here can I go and complain?"

Nomvuyiso Butyi: "Consumer Protection. There is Consumer Protection and I know that they have handled quite a number of complaints, but I am not sure about Cell C. But I know about Telkom."

Jacques Dippenaar: "How does Consumer protection handle complaints?"

Nomvuyiso Butyi: "Let me tell you how it is done, from what understand. Consumer Protection is not an enforcement leg. It is more question of - Jacques

has logged a compliant with us against Vodacom. We will send that complaint to Vodacom for Vodacom to address that issue. If Vodacom fails to address that issue, we will see how many complaints we receive and maybe escalated to an enforcement issue. I am just honest with you, that is what is happening. It is like ADSL, I don't know if you know what is happening to ADSL. Once we started to complain, then a number of people that sending the stuff to Telkom. Telkom say this is not our fault and staff then the complaint and there have been a 190 is a huge problem which indicates a huge problem and hearing were held and then findings where done by Consumer Protection that we as policy we not necessary agree with, but that is how they dealt with the complaint. That they [Consumer Protection] are not an enforcement leg."

Jacques Dippenaar: "So you actually answered by next question. What powers if any does ICASA have to correct the problem?"

Nomvuyiso Butyi: "We do actually. It is just that now in terms of the new ECA. Because first in terms of the ECA I think that they, who ever is that, have now recognised that the consumer protection measures that where there increase are not adequate. As a result there is an introduction of the consumer council thing that will comprise mostly of consumer groups, not only business people, also normal people. Calls are going to be made for normal people from all the nine provinces and that all nine provinces will have to be presented and then business will have to be represented and then there will be some councillors that will do that and advise ICASA on how to handle consumer complaints. Then you have the two legs inspections and educating of complaints. All complaints can be taken to the ICASA and now if you feel ICASA is not adequately dealing with the complaint you have Complaints Compliance Committee. That can comprises of an ex judge, it's more like the BMSC. There decisions will be final and full stop. So, that one puts in more powers that pressures that complaints have to be taken seriously."

Jacques Dippenaar: “In regard to lack of quality of service, have ICASA taken acting against Cell C? You have already answered my question.”

Nomvuyiso Butyi: “Okay, what is now for Cell C where we are sitting, we have never received a compliant against Cell C in respect of quality of service. Although Consumer Protection may have thing to the contrary, and based on their licence obligations report that we have that also report on quality of service there is nothing sinister that is out of ordinary in respect to that.”

Jacques Dippenaar: “I’ll like to ask you, do you think quality of service should be in the contract or is it better to have it separate as part of regulations where it can be charges easier?”

Nomvuyiso Butyi: “For me quality of service should be consistent amongst every one. Then you have to separate things that goes with that. I don’t put something for you because you are Jacques and then some else gets licenced and I think I failed with Jacques when I have to stick to this one. Do you understand? So, for me that is something that should be separated, that is dealt with and that will always change as time goes on. But licence obligations, no.”

Jacques Dippenaar: “Why did ICASA allowed Cell C to reduce its black empowerment share of 40% by selling 15%?”

Nomvuyiso Butyi: “They were allowed to. They had a pre-write were in they where they we supposed to have black economic empowerment shareholders, but up to that period if people wanted to sell their shares they could, to anyone. So that is essentially what happened. “

Jacques Dipenaar: “In retrospect, what lessons have ICASA learned from the mechanism of issuing a licence to Cell C? What changes or alternative mechanisms of issuing a further licence will ICASA use in the future?”

Nomvuyiso Butyi: “Asking the wrong person.”

Jacques Dippenaar: “Should ICASA regulate retail tariffs?”

Nomvuyiso Butyi: “Ja.”

Jacques Dippenaar: “Why?”

Nomvuyiso Butyi: “Because, that is actually what affects the consumer. The consumer don’t care about interconnect. Consumers don’t care about wholesale pricing and we exist in public interest. Retail prices need to be regulated is based on that.”

Jacques Dippenaar: “Earlier you mentioned about interconnect charges. All the cell phone companies have to connect to the landline provider [Telkom] and in 1994, 1995 the interconnection charges increased by 500%.”

Nomvuyiso Butyi: “No. The year would be 2001 up until the moment the Minister said Cell C was the licence winner. 1994, 1995, 1996, 1997, 1998, 1999 and a bit of 2000 interconnection was sitting at 20 cent.”

Jacques Dippenaar: “Is that high?”

Nomvuyiso Butyi: “That is cheap. That was fine. Do you know what is sitting now … R1.27. “

Jacques Dippenaar: “That is an increase in seven years.”

Nomvuyiso Butyi: “Yes, seven yeas. There was an increase period where interconnection which increased substantially up and until 2002 the Authority felt

it is too much these people cannot be allows to do that. Anyone will tell you that just as Cell C was introduced in the market, when the Minister said that I am planning Cell have the mobile operator licence.

Jacques Dippenaar: “Up went the charges.”

Nomvuyiso Butyi: “The other people. Nothing to do with Cell C.”

Jacques Dippenaar: “Is the price of mobile voice services justifiable and are consumers getting value for money?

Nomvuyiso Butyi: “Having been around Africa. Nope. Go to Kenya, go to Tanzania, go to Cameroon and check. When I went to Kenya I was roaming and I though, I would have money to spend. I brought a sim card from a sister company of Vodacom. I used airtime, a 1000 Kenyan shilling at that time which is R100. I used that airtime to call my husband in South Africa and he is a pilot. He went to London and I still called him when he was in London to his London number, because he has another sim card when he is there. And I used the 1000 Kenyan shillings. I arrived on Saturday morning and I left Friday afternoon and I still had about 300 Kenyan shilling left.”

Jacques Dippenaar: “So are you saying that there is a problem?”

Nomvuyiso Butyi: “Yup. I am not saying to you go to America, UK, I say go to Kenya, Tanzania, Cameroon those call go far. “

Jacques Dippenaar: “Because in the *Discussions Document on Mobile Pricing* they didn’t use Kenya as an example.”

Nomvuyiso Butyi: “I know. Because at that time people where not aware what was happening in Africa…”

Jacques Dippenaar: “Did they ignore Africa?”

Nomvuyiso Butyi: “Ja. Okay what happens is in Kenya for instance, you have to write them an email and request the information. And like most African countries, when you actually get that information when they get it. It is impossible. Look, take for example developed countries that have is almost like South Africa in terms of behaviour, became South Africa we put everyone wrong. I was project manager for number portability, still am. People would say, everyone analyst is say that number portability is not going to be successful in South Africa. I am saying to them, we cannot make that announcement, because South Africa is a unique market. South Africans, we always said in 1994, 1995 before my time, before your time because you are younger than me. We said that are not going to reach 500000 by 2000. By then we would were in million in 2000. Millions, millions, millions of subscribers and we were innovators and we introduced new things, such as prepaid and everything else, like that. But statistics in western countries indicated that no one in African countries it cannot be rollout, it’s too expensive. By the time people move to Africa they already learned that the South African market is quite unique. The same is we cannot say, because in the UK it is a success, because in the America, it will accept here. South African are more like the people from Hong Kong. They like to bring things that are the coolest handsets, things that have not been seen, doing the coolest things ever. So if there is something that is a trend, we like to follow it. So now if you look at Hong Kong. Hong Kong has how many operators – the more operators that there are licenced interconnection goes down. Because automatically business tells you there is another persons licenced I should gap as many of these people that are out there can. How I do that, I have to decrease may retail, offer them more handset if that is allowable. And in order for me to decrease my retail tariffs. Also applicable is that interconnection decrease. Watch this space my friend, were are going to get a decrease in interconnection.”

Jacques Dippenaar: “Is the discrimination between prepaid and contract tariff structures in line with the objections of the Telecommunications Act?”

Nomvuyiso Butyi: “A prepaid consumer is a low risk costumer. You know that, if you are a prepaid customer? Contract consumer can get out without paying their contract, just think about it. They have to get an issue order for you to pay your contract, but for your, you paid in advance. You are supposed to be getting benefits because you are paying in advance, but you are not. They have consistently denied this that prepaid is more expensive than postpaid, and they are saying the cost benefits to postpaid through by an advanced and they get the bucks and reductions and subsidised calls. Prepaid people don’t really need it, because in actual respect, prepaid people do not make calls, they send call backs. When they make calls, it is in exceptional circumstances, but university students like yourself I know they call a lot of calls, like my sister-in-law which 19 or so. So, I know that there the anomalies.”

Jacques Dippenaar: “Don’t operators make more on contracts?”

Nomvuyiso Butyi: “Yes, they make more money – why? Who owns contracts? Its people, it is mostly corporate. They get a bulk of their money from corporate. This cell phone number I gave you belongs to ICASA. ICASA pays as of the 31 March 2006, remember not everyone has a cell phone, it’s paid by the company. I have an allowance of 1000.00 bucks. My manager has R3000.00 and the GM up, and up, and up. Its not a matter of there are making money out of cooperates, but they make the bulk out of cooperates. Ja, this is how it happens. My friend up here ,Rarshish, does not have a wife, doesn’t have a girlfriend and only phones his mom. He forfeits all his minutes. We have to say Rarshish give us your phone I have to call whoever. He forfeits that like after every 60 days, he forfeits. They take that money without his consent, do you understand - they just take it. But if you are prepaid and you get that money you will use it, there is no doubt about it. Cell phone for me is like a cash card corporate.”

Jacques Dippenaar: “With the consumer Protection Bill that is coming an act one of these days will that make lock-in illegal?”

Nomvuyiso Butyi: “No. The Consumer Protection Bill is proposing that lock-in are not really legal, but you should they inform the person how long they will be locked and what is the terms attached to that. So, it is not really abolishing it. So, it is making it clearer and it’s actually says – remember most people that like my mom. Mom is a housewife she wanted a contract. I then offered to pay for the contract and asked if she thought that the phone was free and I told her that there is no ways that the phone was. The moment that I cancel the contract I will have to pay for that phone. So, continue with the contract for 24 months and she wasn’t in aware and most people are, not aware. So, the Consumer Protection Bill are trying to address that. And then us, in terms of handset subsidies thing, we are saying handset subsidies there is nothing wrong with that, give people handsets. We have seen that, helps especially with your secondhand phone you can give that to your little brother, our house help, who ever – its fine. But now we can I now opt not to take the handset, I want cheaper rates because you saying the handset is subsidised with the call of calls. Now we are not following the same agreement as prepaid, we want to know the rational for prepaid, this is the rational for postpaid. Prepaid the initial rate for prepaid R2.85 in 1994. The rational before, let me just burst you bubble, universities where offered a rate of 16 cents per minute per call in 1994. Did you know that?”

Jacques Dippenaar: “No.”

Nomvuyiso Butyi: “All universities -16 cents, think about that. That is nothing. So at one point there, I think was because people posted 1994 where licenced by the Director–General of Post and Telecommunications and he brokered the deal with mobile operators to offer it to universities at a better deal for a couple of years. I think it expired in 1997, 1996. Can you image getting calls for 16 cents a

minute, not per second. Per second was not introduced. The anomaly of prepaid still baffles me, because prepaid was based on a business plan. A business plan that did day that 1994, 4000 South Africans were going to belong to postpaid, to prepaid. They based the price of a loaf of bread then, can you believe it was R3,50, I didn't know. That poor South African know how much a loaf of bread is and a minute for a call costs shall be equivalent a loaf of bread, remember that it was tabled in Parliament and this was brought. The business plan was based a that, by MTN and Vodacom. Remember we are talking about politics 1994. People that know now that, ja, a loaf of broad is cheap and it was a concept of telecommunications cost and all those things. Like you and I sitting here we would argue that the costs of telecommunications costs and all those things, but now, but then no unrealistic. That was the bases of the business plan."

Jacques Dippenaar: "Is there in ICASA's view any justification for regulatory intervention for pre-paid services?"

Nomvuyiso Butyi: "Not now, not now. I am being honest. Not now. This is the challenge let me tell you resale is high, but what is it that we can sort out the authority is for interconnect. That is the thing, interconnect is supposed to inform retail."

Jacques Dippenaar: "So, there are no steps at yet?"

Nomvuyiso Butyi: "No."

Jacques Dippenaar: "It has been argued that ICASA is not efficiently and effectively regulating mobile prices. What have ICASA done to improve the current state of affairs?"

Nomvuyiso Butyi: "Retail prices are regulated at CPI [consumer price index] it is in terms of their licence, unfortunately. That is the issue, if CPI they can make

increases of whatever is CPI is applicable at that time. So, if you are taking about efficiency criticise the CPI."

Jacques Dippenaar: "In terms the Chart of Accounts and Cost Allocation manual why does Cell C only have to admit so late?"

Nomvuyiso Butyi: "What is happens is that late entrances is always given leeway Like for two years they don't have to be requirement to submit obligation report. For two year you are not required. You know you are not required, even for MTN and Vodacom they had a number of years before they had to submit. The same was for NeoTel, NeoTel will not be required to submit for the first two years of operations, I think."

Jacques Dippenaar: "So until you wait for them to submit, you don't have the information."

Nomvuyiso Butyi: "No."

Jacques Dippenaar: "Do you have information?"

Nomvuyiso Butyi: "No, we don't. Okay let me say this. You create category obligations and you want for that person to establish themselves before you require them to have call information available. The court of producing report not for us initially for ICASA to analysis itself in revenue we hire one consultant – one consultant is 2.2 billion. For operators, for do cost justifications cost and to ensure that it is right they will have to need about seven people. It is a lot of money to take on a practice on day one. It doesn't really add value to them, it adds value to us. But do is on the day you are licenced. It has worked in other countries , they have said that up and until such a time that you reach the market share of 45 percent you will be required to report on call accounts before that time there is no obligations on you to submit call accounts costs."

Jacques Dippenaar: “If I can go back to ICASA’s mandate, which states that you should regulate in the public interest. But then you are not regulation in the public interest you are regulating in the interest of the operator.”

Nomvuyiso Butyi: “It is also in the public interest. Remember that we also it public interest. We should be able to balance business and the consumers and the two should be able to balance these two. And in order to for Cell C or any other late entrant to have a proper business case you cannot put unreasonable obligations on them. The only obligations that do make sense are in terms of rollout, because of the extent of the coverage. That is the least that we expect. That is what you want them to spend money on, more than content. Because people have to be connected before that you ensure that prices are achievable. In actual effect, Cell C is the taker of price and not price setter. Just look at whatever situation their calls goes to the other people. It is only in respect to community service telephones, because they are the large portion of community service telephones.”

Jacques Dippenaar: “Should there be more regulatory intervention, and if any in which particular areas?”

Nomvuyiso Butyi: “For me, I always say interconnection and I still that is the price that is not intervening enough. Unfortunately, it is not what the man in the street would like to hear. But in order for things to be sorted out you need to sort out interconnect. You need to have cheaper interconnection so that people could get price and I don’t think that we are not giving enough attention to do. The mobile pricing thing, for me was premature. Because you cannot start with retail prices without this process - the problem is here. And if you have transcripts of our public hearings, everyone can say ICASA retail is here even the people say that is not in the mobile industry, like you internet service providers, IS, internet solutions that was they were saying. So, that is what is critical, look at wholesale

then you will see people getting better prices, that is the first thing. Second thing that I would say to you is that you meet to boost up on and think that I have picked on is consumers. Consumers issue especially in respect to service, what makes you think what people are of stuck out here. South Africans are easily to accept things that they don't necessary understand."

Jacques Dippenaar: "Do you think operators are offering what people want?"

Nomvuyiso Butyi: "Consumers want voice. They want SMSs, but now at what price. Why is it in order for me to get cheaper calls I have to join postpaid? Why?"

Jacques Dippenaar: "They what to lock you in."

Nomvuyiso Butyi: "Exactly. I want the same prices please, without the big cell phone, I want a small cell phone so that I can make calls and send SMSs, that's all. Look at my phone, I don't have an expensive phone. I don't have the phone that open up like this. I don't want the keys … I don't even understand those things. I want cheaper calls, please."

Jacques Dippenaar: "Are the current regulatory policies protecting the end-users? If not, what is ICASA doing to protect the interest of the end-user?"

Nomvuyiso Butyi: "One that I know is type approval - the handset in terms of the functionality of the phone. We has issues before for, an example, there would grey phones comes from other markets and you find that the thing is not working. So, it is a Nokia or an Ericsson handset, so now we are saying that when you bring in a cell phone into the country and you say it can do certain things, it needs type approved by ICASA. If you say this cell phone can make a call send, can send an SMS, can do, can do, can do this or other it has to do that. And my personal favorite, my project, my baby - number portability. For me, yes it was in legislation, now you see that people are actually when I want to port my number I

can port my number. You don't know may people cried foal from that. And you will be shocked that consumers, that is people who have made business plans sole business plan solely based on, and you had a great business plan solely based on all the number on MTN, on this call routers, on those kind of things. So, end of the day that the consumers prevails."

Jacques Dippenaar: "Have ICASA levied fines against Cell C during 2001-2005, and if so, what were the extent of these offences?"

Nomvuyiso Butyi: "They didn't committed any offence. Nothing."

Jacques Dippenaar: "And the issues of MTN withholding interconnection money form Cell C because it claimed that Cell C was abusing regulation?"

Nomvuyiso Butyi: "No still with the Competition Commission. Remember with us it is a question of the interconnection rates have been agreed with on. The fact that now MTN is saying they are not going to pay the interconnection rate is a separate issue."

Jacques Dippenaar: "It was said that Cell C was taken unfair advantages of the regulation to install CSTs which was supposed to be more rural areas, but was taken into urban areas."

Nomvuyiso Butyi: "That is the thing. MTN misconstrued the definition of under-serviced area."

Jacques Dippenaar: "What is an under-serviced area?"

Nomvuyiso Butyi : "An under-serviced areas is unfortunately been defined as an areas that have less than 10 percent in terms of the telecoms and their Cell C

licence, less than 10 percent teledensity And then teledensity is defined as one: number of landlines, that is the first thing for residential use. “

Jacques Dippenaar: “But that is a problem.”

Nomvuyiso Butyi: “Yes, that is the thing. Cell C did not create the regulations. If I was Cell C I would also take the same opportunity .I did not create them. It was written in the law and if the law is in favour and I have to rollout 52000 community service telephones, I would choose same. And with the Cell C licence there was no schedule as to where they are to rollout, unlike the other two. Because the other two licences mentions go to Palagora go to Amansitoti or something like that. This is if they say East London, this area in East London by the township…rural areas rollouts, with them it didn’t. So, if it’s silent, I do want I can do.”

Jacques Dippenaar: “Why wasn’t there detail then? Who didn’t specify it?”

Nomvuyiso Butyi: “Between ICASA and DOC we both failed in our mandate.”

Jacques Dippenaar: “You refer to mobile tariffs in your discussion document on mobile prices, are you referring to whole sale or retail tariffs? Because there was only a talk of mobile prices.”

Nomvuyiso Butyi: “It was retail.”

Jacques Dippenaar: “Why do you believe that section 27 enquiry was the appropriate mechanism to address pricing and competition concerns in the mobile telecommunications market? “

Nomvuyiso Butyi: “Okay section 27, from what I understand, although I was not part of the committee. Section 27 first searched the thing, you ask questions –

what is the real problem. Can we make he problem smaller or bigger. What do you think we can do. Can we create regulations? What is that we need to develop moving forward, what? So, it is a start, it is not the end. Then after section 27 enquiry, you come up with findings and then you say: at ICASA this is what I will be doing. So, section 27 enquiry will was appropriate in those circumstances, especially with that CUSAU never lodged a complaint in term of section 100, it was just a concern what they had."

Jacques Dippenaar: "Beside this business consumer group are there any private consumer groups?"

Nomvuyiso Butyi: "Individuals can complain. For example, Mr. Vinnie Naidoo he complaint about prices. It was on person and we managed to escalated it up and till we call public hearings with Vodacom and MTN and took us as to court and we are still in court with them. So, unfortunately."

Jacques Dippenaar: "You don't have mechanism to deal with it out of the courts?"

Nomvuyiso Butyi: "In terms of the telecoms act no, in terms of the ECA, yes. That is since anything related to price so on, interconnect, the triple 'c' is the Consumer and Complaints Committee and decisions as final say pending a court of lower deciding otherwise. So, that one is clear and precise to the point. So, whatever you have to exhaust all the all internal mechanisms and that finding is done, is finalised, you cannot try and say I go to the courts that is you cannot spied the process up and until it is finalised."

Jacques Dippenaar: "And going to the courts eats up you budget."

Nomvuyiso Butyi: "That is what they do. They take us to court."

Jacques Dippenaar: “Why did ICASA not taken action with sections 37(4), 43, 44, 45, 46, or 89?”

Butyi : “Ask the Minister for she was supposed to do a feasibility study on the fourth mobile. For us, we would have preferred that by 2005 there was a fourth mobile. But we couldn’t do anything without the Minister. I don’t know, even CEO kept going on, even our pervious CEO through to the ministry that proposing for a fourth licence, even through the convergence process. But there is nothing that we could do with out the Minister doing a feasibility study and all that. She wrote the law.”

Jacques Dippenaar: “Is ICASA of the opinion that in real terms there is still no competition between the three mobile operators? If so, what is ICASA planning to do, particularly referring to Cell C, to address this concern?”

Nomvuyiso Butyi: “Competition, you talk to Vodacom about it there is enough competition. MTN we are competing. For me, no, there is none. Yes there are three competitors, but with of those three competitors what is it what they are offering what is different? What makes them competitive except for their colour and branding, what is it?”

Jacques Dippenaar: “They are actually the same.”

Nomvuyiso Butyi: “Actually, they are the same. They can come up with account interconnection call charge of 50 cents left, but they are only competitors in name, for me. And now moving forward what are we planning to do I have no idea.”

Jacques Dippenaar: “Mobile number portability will that help?”

Nomvuyiso Butyi: “We hope so, that is we keep praying for. We hope so. But now with number portability for it to work they need to lower interconnection charges so that people enjoy that benefit of low retail tariffs. Now what you see is they all introduced tariffs that, like you get 50 cent over weekend and stuff like that and if you use so much minutes you get a free handset, things like that. But is that what people really do want? Come January 2007 we will see reductions of interconnection.”

Jacques Dippenaar: “Which aspect of the government policy needs revising, if any, and why?”

Nomvuyiso Butyi: “For now because of ECA, everything. Every regulations we came up with in terms with the old telecoms act needs revising, absolutely everything. In terms of the ECA those regulations remain in force up and till held, we had reviewed them. You have to revise them. ICASA will not remain in its current form, forever. Mobile number portability, no. Remember it passed last year in 2005. They will be reviewed.”

Company or organisation:	Independent Communications Authority of South Africa (ICASA)
Interviewee:	Dr Tracy Cohen
Job title:	Councillor
Place of interview:	164 Katherine Street, Sandton
Date of interview:	6 December 2006

Jacques Dippenaar (researcher): 'What was the main criteria why Cell C was awarded its licence? That is just s background question."

Dr Tracy Cohen (interviewee): "Ja. I am not quite sure, although I remember writing about it myself, I can't actually recall the details."

Jacques Dippenaar: "Not a problem, the answer is in the SATRA reports. What is ICASA doing, if any, to ensure that Cell C is meeting its licence obligations as stipulated in its licencing agreement?"

Dr Tracy Cohen: "That is an ongoing enforcement issue. Just on a side note, if you are very interested in the details you should talk to Lee-Ann Cassie who is our Manager Monitor and Enforcement person. I don't know if she have been put on your agenda."

Jacques Dippenaar: "No."

Dr Tracy Cohen: "She is not a councillor, but she is the person that is exactly involved in the licencing obligations monitoring. I think we just need to distinguish between two types of licence obligations, the is licence obligations that were part of the licence, the original licenses which where the CSTs and they undertook to

provide, I think 57000 CSTs and there is the licence obligations that come as a result of the 2001 Amendment, in which they were given access to 3G and all of

that. The latter is still were much under a cloud involving the DoC [Department of Communications] the three operators, although I am not actually quite sure if Cell C got obligations if it was only MTN and then Vodacom. I have to check that. But in terms of licence obligations in respect of the original licence, they were not actually frosted to undertake universal service obligations. I am just taking about the CSTs now, the rest of there licence obligations in terms of their payment fees, licence fees etcetera are done on an annual basis. They under took to provide, I think about 57000 or 52000 CSTs, which was more than the other two operators. The only issue that we had resulting from that was a question of interconnection costs. That is since CSTs get to interconnect at a lower rate, and there is a fair amount of dispute in the industry if whether or not Cell C had under serviced areas or not. And that has now become a main dispute between the operators themselves for interconnect and as well between Cell C and COPASA the public payphone association."

Jacques Dippenaar: "I had a meeting with your Manager of Competition and she said that the reason why they [Cell C] got away with it was because of referred that Telkom [landlines] and not mobile technology and based on that they could go away with it. Do you agree with it?"

Dr Tracy Cohen: "No, because of I don't think they are connected. I mean it is a question of they put phones in areas that are that are defined an under-serviced or not."

Jacques Dippenaar: "So you define under-serviced as being landline or mobile."

Dr Tracy Cohen: "Cell C only has mobile."

Jacques Dippenaar: “The regulations with government.”

Dr Tracy Cohen: “I don’t know what regulations you are taking about. I don’t see how those regulations are to apply to Cell C.”

Jacques Dippenaar: “Did MTN take Cell C to court?”

Dr Tracy Cohen: “Yes.”

Jacques Dippenaar: “And was MTN withholding interconnection fees?”

Dr Tracy Cohen: “Yeah, yeah.”

Jacques Dippenaar: “So you agree with that punt?”

Dr Tracy Cohen: “Well, I am not sure what regulation you are talking about.”

Jacques Dippenaar: ‘I need to check that.”

Dr Tracy Cohen: “I am not familiar with.”

Jacques Dippenaar: “I am cross-checking as well.”

Dr Tracy Cohen: “Ja, sure.”

Jacques Dippenaar: “Have ICASA taken step, if any, against Cell C regarding its performance for the period 2001 until 2005? If so, what step where taken?”

Dr Tracy Cohen: “You need to check with enforcement and monitoring. I am not aware of them contravening anything.”

Jacques Dippenaar: “Why did ICASA allow Cell C to reduce its black empowerment share of 40 % by selling 15 %?”

Dr Tracy Cohen: “I think different people have different views. They, CellSaf that owned that full component of the 40 % was incumbent by severe debt. The main motivation, my main motivations on my side in approving the applications was that in allowing the Saudi company that brought the remaining 25% and showed that CellSaf withholding the 15% unencumbered, which then one are interpretation. They were the most successful empowerment company in the country to date. So it was a dilution, but it made it a 15% unencumbered shareholding as pose to a 40% with the incumbent shareholding situation. But different people will have different views of those to why they the action was finally approved. In essence it was just it didn’t violate law so it was commercial.”

Jacques Dippenaar: “In retrospect, what lessons have ICASA learned from the mechanism of issuing a licence to Cell C? What changes or alternative mechanism of issuing a further licence will ICASA use in the future?”

Dr Tracy Cohen: “Well, that will obviously all change with the new ECA, so, I mean, it is a totally different licencing framework. Heavily different licencing framework and the specific lesson learned with licence, I think, you should chat to people how was around at the time. In terms of the licence mechanism those are dictated by the licence provisions. So you are not every going to get a cellular licence again, you are going to get an electronic communications network licence and an associated frequency licence, spectrum licence. The one thing that is interesting is that were a cell phone operator from one licence they now will have to operate off three licences to perform same one will converted.”

Jacques Dippenaar: “Will it be technology neutral, or will the licence be based on the services?”

Dr Tracy Cohen: “No, under the old licence framework you had a service so if you are offering a mobile service you get a licence to offer mobile services. Under the current framework we have network licence and service licence and spectrum licenses. Because they are operating from network they will get a network licence, regardless if they will get a using a fixed, mobile or a combination. It is not linked to which you a fixed line service or a mobile service. They need a service licence under the new framework and a spectrum licence. So from an operational point of view they could potentially more of a burden on them, which we are checking how they interpreted but they will have to comply with different licenses as supposed to comply with one.”

Jacques Dippenaar: “But it makes it more complex, then, by having more and more licenses. You don’t think that there will ever be a change to a general authoritarian by removing the licence all to getter?”

Dr Tracy Cohen: “I think our idea with ECA in that they hoped to create a situation in which they this is unified licence but the end result has been that of a switch from vertical licence to horisontal licence that you now have that operators now have to hold multiple horisontal licenses. So I those are policy discussions that no I don’t think that in the near future that we are going see a revision to the ECA.”

Jacques Dippenaar: “Is the price of mobile voice services justifiable and are consumers getting value for money?”

Dr Tracy Cohen: “I think service are the price are still very high. I can’t give you accurate for scientific reasons in terms of bench marking because it very difficult.”

Jacques Dippenaar: “Why?”

Dr Tracy Cohen: “Because it is very difficult to do that. I think that when you, you get to look at two factors the one is when you get the percentage of household spent on phone services – yes it is high. And when you look at the fact that the majority of services particularly that of Cell C’s subscriber base, it is no longer justifiable that there is that there is such a difference between prepaid and postpaid rate. It was justifiable originally, but given the original cost involved in this ongoing service we found it very hard to be believe that you are not screening prepaid and postpaid coming closer in line with another. Obviously, I can’t talk on in to much detail we have a process the way on mobile prices which is still not public.”

Jacques Dippenaar: “Do you see discrimination between prepaid and postpaid?”

Dr Tracy Cohen: “Ja, ja.”

Jacques Dippenaar: “Is it a fair discrimination or an unfair discrimination?”

Dr Tracy Cohen: “Well said that there are cost associated with operation with prepaid you know the operation of costs, cards, vouchers and all of that, but they are declining cost and in India for example, there is apparently prepaid and postpaid are the same rate of eight cents per minute. It is not uncommon for them to be a premium on prepaid, but not such an ongoing one with such a variant between the two.”

Jacques Dippenaar: “While we are talking about mobile price, in your discussion document you didn’t mentioned any African countries. Why not? Because Kenya is actually cheaper than South Africa.”

Dr Tracy Cohen: “Ja, what we thought. What we tried to benchmark there, although it was done incorrectly was we where benchmarking against each of our

criteria was countries that have one fixed line operator and two incumbent with a new entrant. That was why we pick the countries that."

Jacques Dippenaar: "Are the current regulatory policies protecting the end-users? If not, what is ICASA doing to protect the interest of the end-user?"

Dr Tracy Cohen: "You know, it is a very general question, so I will answer it well generally. The current regulatory framework in theory protects the end-user. In practice I am not sure that we are that successful, but in terms of the ECA there is our well in place our consumer affairs]that will require that the entire approach the you the end-user be looked and hopefully we will have sort of faster response rate. It also depends on what by protecting the end-user, price in terms of quality"

Jacques Dippenaar: "Price, quality and health as I noted in the new act."

Dr Tracy Cohen: "My airtime is gone, we should be able to help with that sort of thing but we can't."

Jacques Dippenaar: "Not even the consumer compliant."

Dr Tracy Cohen: "No,no,no. I they are overwhelmed. I think there is about three people who work in that department and that they are absolutely overwhelmed with 100's complaints a week, waiting and our line installation and various other things, so."

Jacques Dippenaar: "Should there be instead of going to the courts a mechanism where you can go and complaint and have that organisation actually enforce the ruling?"

Dr Tracy Cohen: "Ja, that is technically what at least there is a that we can but we just don't have the resources to that is why I say that if you look at the new

ECA you will see much more focused effort an consumer protection. That will hopefully being the associated resources to enforce it no law and regulation are great, but in theory but if you don't have the personal and the skills to enforce it you don't have effective law and regulations."

Jacques Dippenaar: "Have ICASA levied and fines against Cell C during 2001 until 2005, and if so, what were the extent of these offences?"

Dr Tracy Cohen: "Against you have to check with licencing and enforcement, but I don't believe that they have been fined at all. Ja, ja."

Jacques Dippenaar: "Is ICASA of the opinion that in real terms there is still no competition between the three operators. If so, what is ICASA planning to do particularly referring to Cell C to address this concern?"

Dr Tracy Cohen: "I will not say that there is no competition. I would say that there is really very little competition that have an effect on prices or quality. So, this is a subject of what were are dealing with, the mobile pricing study and we will be publishing very shortly a firstly is mobile fixed CellSaf termination market for comment and remedies and which we think will effect will have some effect on bringing down prices in mobile. But will also, before we take any action we have to define the market as required by the chapter 10 of the ECA. So we are in a process of defining the wholesale market now, they will be out for public comment. We will also be publishing a document that is a bottleneck in it's the mobile termination on a phone network. So, it is easier to impose a some set of competitive measure on that. But in terms of if a process required by ECA you now have to go through a market definition process, you need to define significant market or dominations and only then can you attach regulatory measures. The likelihood that Cell C been caught in that it impede termination is small since that have about what two percent of the market, so it will not really

effect Cell C, it would effect Vodacom and possibly MTN. And if not be deemed dominate."

Jacques Dippenaar: "But there was some where that said that all three operators should be classified as dominant operators."

Dr Tracy Cohen: "On there own networks in terms of termination but in terms of general, but in terms of other market you could not really draw the same conclusion."

Jacques Dippenaar: "Cell C did ask that Vodacom and MTN be deemed a dominant operator."

Dr Tracy Cohen: "No. I think with was Cell C. We got a request from an individual Surin Naidoo."

Dr Tracy Cohen: "Jacques Dippenaar: 'He was also the one that complaint that the interconnection charges went up by 500%."

Dr Tracy Cohen: "Ja."

Jacques Dippenaar: "So, if you what to bring down retail down, you need to bring interconnection down."

Dr Tracy Cohen: "Ja."

Jacques Dippenaar: "How would you bring interconnection down, more operators?"

Dr Tracy Cohen: "Ja, you try and set off some kind of pricing system. At the moment interconnection is determined on commercial negotiations on mobile

prices bases. If you are dominate in the market you define the terms of that negotiations. So what we want to do is bring in some kind of pricing model that is close to costs that is based on methodology of long running incremental cost which allows cost and disallow others and the provides a scientifically mathematical method calculations how you would reach a price for interconnect, rather than based on the product of that negotiations where you got essentially uneven barging partners as in the case of Cell C for example. And then once you set up a cost based whole sale system then it will would be very unlikely that not to pass that on at a retail rates, because it will out the consumer. So they will not be able to say that will can charge R1,27 for connect then they accentually charging 50 cents, or for what ever the case may be."

Jacques Dippenaar: "When we over talk about mobile phone or pricing that we have to talk about operators, such as Telkom, also since Telkom is one who actually or most calls go through Telkom."

Dr Tracy Cohen: "Ja, Telkom is very involved in the interconnection situation. But Telkom get very little at the interconnection fee between the other operators between MTN and Vodacom."

Jacques Dippenaar: "Just for interest, the new operator NeoCom."

Dr Tracy Cohen: "NeoTel."

Jacques Dippenaar: "NeoTel , when they actually stating to operate will it bring interconnection charges down?"

Dr Tracy Cohen: "Any presence of real competition the market should be able to have that effect, but they are so small at the moment that and are so of terms of their roll out that we don't expect any real pressure from them on price. We think that our call termination will have more effective before they do."

Jacques Dippenaar: “Which aspect of government policy needs revising, if any, and why?”

Dr Tracy Cohen: “It is not just a question of what needs revising, it is a question of what needs policy. We don’t have a broadband policy and we need one. And I think we also need to revise at some point the approach to managed liberalisation because it is just not delivery that what it should deliver. So, I think that we have to do a revision of our whole approach to competition and the business of controlling market access should be removed. If people want to come into the market and invest in creating an infrastructure creating competition they should be allowed.”

Jacques Dippenaar: “If we can go back to the horisontal the layers of licences.”

Dr Tracy Cohen: “Ja.”

Jacques Dippenaar: “Therefore, that also need revision then.”

Dr Tracy Cohen: “Ja, because the network service licenses can only grant when the Minister invites the applicants so she contains control of how the infrastructure market is liberalisation all other aspects of the market to some degree but in terms of actual access infrastructure if is still controlled in market entry and market structure is still.”

Jacques Dippenaar: “So, does ICASA needs much more independence?”

Dr Tracy Cohen: “No, it is not so much about us. Although rather more general political will increase competition or not. It would even if it was up to us the licence infrastructure to provide will out the ministers and they still needs at to governmental policies that said that we want to open our market beyond in this

incremental managed liberalisation. So, it is not so much about our independence but about general governmental policy being more targeted of competition. The Electronic Communications Act have the implications that all the policies even the mobile price policies needs to change. No, nothing have the implication the anything needs to be changed. But implies that be covered and that negotiation be re-examined in light of all these new changes. But it does not necessary that we have to look at price or any thing like of that."

Jacques Dippenaar: "My last question. Is the structure of ICASA resulting in it being an ineffective regulator?"

Dr Tracy Cohen: "It is a tricky one. One it's a top heavy structure without a doubt. It is probability ineffective in its sizing. It has gone through one merger and effectively going through another with the moment with the postal. Does our structure make us ineffective? First I suppose one should say are we on ineffective regulator, in some respects we are not effective in other respects we are very effective. I am just taking the question apart because there is different parts to it. In the areas that we are effective, only then can you look at if there is a structural issue or a fact that there is not enough arm at law to compel effectiveness from operates."

Jacques Dippenaar: "The background to the question was based on how I see it. You have the staff from the bottom from the interns to the highest level of staff. Then the layer of the councillors and then the chairperson on top. The councillors all the decisions the staff makes they can veto them, all based on their expectations where they come from the projects they are working with it want to give policies then they can. Do you agree or disagree with my observation?"

Dr Tracy Cohen: "No. Think your question is very complex question because you really need to look at the nature of how you design an institution. The choice is made to go for a collegial style system where it will be broadly representative of

the population. So, yes there is a element of a limit of background and education that impacts on discussion making. But from a governmental point of view you have to think about the regardless of the size of the councillor the councillor two or ten. And I think a smaller councillor would be more effective than a nine member body. I really do think if is too large. But in terms of corporate governance this is not ineffective. Decisions that made by staff in the organisation can be vetoed by a broad, particularly a time executive board now your really need to think about the council. A lot of the time decisions are vetoed or not approved because they are not correct or they are filled with factual errors. So, councillors operated to act as a balance for… as set of fresh eyes on a decision when it comes to. You know when a recommendation comes it is the companies by a memorandum a motivation and all the supporting documentations. You look at it with fresh eyes and you find either problems or where there is no problems it is approved. So, from a governmental point of view the structure is not problematic. It is more a question of the right staff are in the right position and whether the size of the council is an effective size for discussion making. But in terms of the actual structure between an operational staff and a strategic staff and decision-making staff its not it may not be the best system in the world but from a governmental point of view there is nothing wrong with it."

Jacques Dippenaar: '"Just going back, you mentioned that funding is a problem."

Dr Tracy Cohen: "No, I didn't say anything about funding the regulator."

Jacques Dippenaar: "You said if you had more funds, because there is only three people working in the complaints section."

Dr Tracy Cohen: "Oh. I think I meant more capacity. But linked to funding. There is no dough that we need more money. That is a given. Our budget is a under the R200 million, it is very small."

Jacques Dippenaar: “But the licence funding does not goes to ICASA, but to the government.”

Dr Tracy Cohen: “We have a budget appropriated by parliament for that purpose. Yes, so we get a cheque for 2007, any money we collect in terms of the licence s funneled into through a different channel.”

Company or organisation: Independent Communications Authority of South Africa (ICASA)
Interviewee: Mr. Paris Mashile
Job title: Chairperson
Place of interview: 164 Katherine Street, Sandton
Date of interview: 6 December 2006

Jacques Dippenaar (researcher): “What is ICASA doing, if any, to ensure that Cell C is meeting its licence obligations as stipulated in its licencing in its licencing agreement?”

Paris Mashile (interviewee): “Well naturally you would just have to monitor from time to time, if Cell C is meeting it licence obligations.”

Jacques Dippenaar: “How do you monitor?”

Paris Mashile: “By always making enquiries, by finding out whatever parameters we set, and then always going back to them, to those parameters.”

Jacques Dippenaar: “And if they don’t fulfill does parameters?”

Paris Mashile: “Well, there is a logical consequence. A contract, is a contract, is a contract, because the licence is a contract. So, if you break a contract there is consequences and they are spell out in the licence.”

Jacques Dippenaar: “Have ICASA taken steps, if any, against Cell C regarding its performance for the period 2001 until 2005? If so, what steps where taken?”

Paris Mashile: “No, I don’t know if any steps where taken against Cell C. “

Jacques Dippenaar: “It is only the customer service that is slightly a problem.”

Paris Mashile: “Which of course goes to the consumer affairs department - all gets resolvable. From time to time, no organisation will be perfect. It is not something that is unique to Cell C alone, there are also similar problems occurred with others, at time to time, and they are resolvable as a point in time when a complaint are raised.”

Jacques Dippenaar: “In retrospect, what lessons have ICASA learned from the mechanism of issuing a licence to Cell C? What changes or alternative mechanisms of issuing a further licence will ICASA use in the future?”

Paris Mashile: “No I think the broad outlined is the same to every individual licence that we award, except that they could be rules here and there particularities of small differences, but the broad brush is that the licence are very similar in important respects. Very, very similar in important respect. In fact they more template except here and there they suite a particular consequence relating individual licence.”

Jacques Dippenaar: “The new Electronic Communications Act have the implications that the licences will be horisontal and you will have multiple layers of licenses. You will have a network licence and so on. Does this make it more complex?”

Paris Mashile: “No, it makes it easier, because it breaks out the particular arenas. Because if you have a vertical integrated company it could serve as a way of creating some or other anticompetitive practices for instance if you are a wholesaler and you also have a retailer you can squeeze out the competing

retailer. So by breaking down into horisontal or making sure that each and every unit should account for its business."

Jacques Dippenaar: "Is the price of mobile voice services justifiable and are consumers getting value for money?"

Paris Mashile: "Well, that is not for me to say. Except to say that there are of course complaints here. And I think that the most important questions that you need to ask is when you say the price are is justifiable. You can also say is that are the benefits more than the costs. In other words, do you get quality of service for the price that you pay? In other words, if you go for a low price you can say a Mercedes Benz is more expense that an Volkswagen, but you may find that the Mercedes Benz give you far much more value not just giving since respecting it is expense, but because of having quality that add in it so it is, it can only been seen in one respect. And that respect is: do the benefits out way the costs? That is how I think is you should be looked. Say, look – it is the lowest price but then you may say I am not happy with the quality of service. Well say it will fetch a bit of money to get that quality. So, it is a philosophical question, well you understand. It is a question of, in the final analysis, like me point it one way – it is what the consumer is satisfied. It is whether there is value for money, in the end of the day. What ever these monies that some say that there is value from the money that I am expending. That is what are talked about, but regard to other issues issue of whether if on the greatest schema of things the price is high etcetera some people would argue it is quite high compare to other countries similarly position countries such as ourselves which is a developing economy and the market is still growing and we are still inducing competition and of course, the regulator will have to stimulate competition it where competition does not exist. It is not like the develop market, like in Europe; you know we are still trying to get new competitors into the market. Then with competition then the price will probably come down."

Jacques Dippenaar: “You just mentioned that the regulator acts to counteracts if the situation is not right. For example, if it is felt that interconnection charges being too high, what steps will the regulator take?”

Paris Mashile: “Yeah, o yes. The regulator will step in and there is already a committee that is been set up, enquires have already through in etcetera all the protagonists have come to put their case before we will wave the evidence that what have been accuse that we can we can find out what the findings tell us which way to go. But we certainty where we do have situations where we recognise that prices of telephones will never comedown as long as the interconnection price is too high. So that is why we got to tackle every thing. So, we could look at it from the point of view of a it a company being sufficient market player than we could say, well necessary they should be cost based the interconnection charges should be cost based in the sense that no other extremist cost should any person how want to interconnection should suffer. It should be more or less activity based costing. Do tell me what is the cost of you interconnection. Don’t tell me about marketing, and how much you paid you CEO etcetera. What are the elements involved in the interconnection costs, what is the cost? Then we can agreed to top it up, with such, with so on. I think that we can do go and then there is of course the significant market players we have a roll to play there by saying: look you are imperfection to competition and therefore we will have make sure that we move in. Because the regulator steps in where there is no competition and impose certain raise, shall I say constrains.”

Jacques Dippenaar: “Are the current regulatory policies protecting the end-user? If not, what is ICASA doing to protect the interest of the end-user?”

Paris Mashile: “No, they certainly are. The question is just the application to ensure that what have been put on paper is implemented and put to practice. I think the ECA [Electronic Communications Act], in it self, is broad enough to ensure that consumer interest are taken into consideration, by way of us

monitoring, looking at anti-competitive practices and all complaints that consumers are came and Complaints and Compliance Committee to which everybody could resort to. A consumer, us and even competitors in the field can resort to. To say, you know, we are been not dealt with accordingly by the competitors or the consumers can came and say you know what I don't like the costs - I am not happy with the quality of service etcetera and all that. And this matter can be taken to the Complaints Compliance Committee."

Jacques Dippenaar: "Was the interest of the end-user not properly protected between 2001 and 2005 with the Telecommunications Act, since the ECA only came into affect in 2006?"

Paris Mashile: "No, you can't say that. Well, not to the extend of what would be realised with the ECA, because now we have the Complaints and Compliance Committee, which have more power."

Jacques Dippenaar: "Is ICASA of the opinion that in real terms there is still no competition between the three mobile operators? If so, what is ICASA planning to do, particularly referring to Cell C, to address this concern?'"

Paris Mashile: "There is competition. The question is if it is effective competition. You got three players in the field, right. So, they are competing in principle, right. But is that competition effective and the question is what do you mean by effective. Are the consumers deriving benefits from the costs they lay out of terms of those uses? Or are the prices coming down. It is a question of quality and if price is coming down. So, may there are people that could argue, but I guess right now we are introducing a lot of measures so ensure that where there is competition is actually stimulated, for example the mobile number portability. We are also going to look at handset subsidies, because we believe that there is hidden costs that the consumer is not aware. So, we want to create a transparency. If your are saying someone operators been subsidies then you -

how much is that handset, how much is the airtime? If the market clearly say the handset is zero price the airtime is so much. If I came and say, okay, I have my handset it should be 25 what I am paying for. What we have been realising from what have been happening so far is that the people, the operators came and say we will give you handset subsidies so much, so much and you get lock in a 24 month contract etcetera and you don't realise that the cost of that cell phone is loaded on the airtime. So that what you then can say is that can you be transparent and tell me precisely if it did not get your cell phone, how much will you charge me in term of airtime. So we what that kind of transparency where I can came and say, this is my customer premise equipment, just like a telephone you have at home, that does not need to be Telkom but comes from somewhere but I need to connected. So, they tell us how much it cost if I have my own consumer premise equipment. Because it is a cell phone is not held as with the consumer premise equipment. And then they should say bring your equipment you should significantly different in amounts from on that get a subsidised cell phone because you know it is not subsidised, that is loaded airtime. So those are the type of things that we are bring in through a hearing in that we had to words last several months that should now came to fruition in that we will tell them now these are the regulations pertaining to handset subsidies, because first and foremost and they must also recognised that their licenses are about services. And services is intangible. It is not about products. A cell phone is an intangible thing and it is not a product. We do not licence them to sell products, we licence them to provide services so they must make a distinction between that. They may be using it as a variance of getting customers etcetera, but their licence is not pertaining to them but to cell phone. So that will be very, very clear when that in terms of the licence that the they cannot come back and say no you are denying us of our right in terms of the licence the licence never talked about just sell cell phones excreta. The same we tell Telkom. Telkom if you provide a line to this person then you must, you are free to insist that they use your phone. That is no more the case. That is since you want to create competition in the market. So that they can buy Siemens phone, I can buy a phone form some other place and

connect it there. The same is for cell phones. So that is for in it self will happen, also regard to the handset subsidies where you the contract that people enter into, for some reason, I don't know by which law of nature it is always been determined that the contract should be 24 months. We don't understand how that magic of 24 months. Why can't it be six months? Why can't it be one month? Why can't it not be 12 months? Why can't it be eight months? That will help actually because, since we have mobile number portability I could say, I am not sure which of these operators which I like to try and see which one providers the best service. Let me try this out this one for six months so that if I am not happy I can port out. Unlike wee you lock yourself into a 24 month contract and a six moth down the line you are not to happy you end up realising that if you got to break that contract you going to pay penalties. You know it becomes too much a sum and too much for you to suffer. Let forget if I have to pay the rest of the 18 months, or rest of the contract, I may just as well stay. So you are now not a loyal consumer, but a captive consumer. Because you are there through some or other marketing mechanisms for which now you realise that no now you know you have to wait for the process. So, handset subsidies should be include in the question of cell phones, contracts ranging six, twelve and operators must be ready and willing to consider those. And that will help mobile phone number portability, because you have no sooner will you realise that in six months that you don't like the service, and of course and you will be able to move out unlike the 24 months contract. So, that is the kind of things that we are looking at. So, what I am really saying is that from the point of view of emerging economy like ours when there is no fully fledged competition and we don't have many players in the market etcetera. So, we are trying our level best to introduce them and the ECA will help in a great deal in that particular respect. We will insist through regulation to simulate competition where there is no competition like you mentioned interconnection, we will wave, and mobile prices will wave into that we will look at this and significant market players and impose obligations etcetera and all that."

Jacques Dippenaar: “Is there a discrimination between pre and post paid?”

Paris Mashile: “Well there are differences.”

Jacques Dippenaar: “But are there discrimination?”

Paris Mashile: “Well, it depends from which angle you are coming from. You will say the prepaid he is paying about twice per unit time for a call and why should that be the case. They have their argument, operators have their argument into why that should be the case. But we find very, very shall I say – it is unfair, because the prepaid really deals with the poorest of the poor. So why should they be paying so much for a minute to communicate. I think this goes back to your our obligations, became our objective in terms of our mandate is to fulfill a certain social objectives in as much as companies will achieve economic gains excreta and all kind of things. We want to have a kind of a … all people getting a measure of satisfaction, a win-win situation if I would be putting it that way. So, we acknowledge the fact that as regulators that prices of prepaid is quite high. And something needs to be done about it. And maybe things of nature where we could introduce as much competition as possible or some other operator could see the advantage if they can bring prices down and of course through economies to scale. I tell you prepaid people do not obviously for reasons of cost of being so high do not, they use their phones, their airtime at times very economically, because it is expensive. That is why they will wait for off peak period. But what happens when you have a necessity to talk to because of an emergency, death in the family or something, to some relative that is far off and that peak period, which means that you suffer those consequences. So, we would like to see a little bit of competition in that field, for those prices to come down.”

Jacques Dippeanaar: “But before you bring prices down, you need to bring interconnection charges down.”

Paris Mashile: “Of course, of course. There is no doubt about it, because prices can never go below the interconnection charge. So, if you can work on the interconnection charge that is where the fat fee is then we believe that there will be not, does not matter if how much, how low you come at the price, but if you have to interconnect with someone and the interconnection charge are that high you can only charge that plus something. Well, on net because you are not interconnecting with anybody but with in yourself. So there you of course. So all net charges should really come down and then we can look at interconnection in that regard. We could say, well it is not people of the service provider who talk exclusively to themselves, they also talk to other network operators and because of that, the only obstacle is interconnection. And we will be looking into that – seriously. And we don’t have to blink actually.”

Jacques Dippenaar: “Well although my focus is on licencing, I have selected a mobile licence, but banking, landline such as Telkom’s fee excreta will all benefit from an lower interconnection fee and help to bring price slightly down.”

Paris Mashile: “It should. It should. Like I said if you have deal with interconnect, you have dealt with 80 percent of the problem.”

Jacques Dippenaar: “What is ICASA then doing?”

Paris Mashile: “No, there is a committee that is there are hearing that are you must have talked to Dr Cohen?”

Jacques Dippenaar: “Yes, she said that they are currently working on finalising it. Which aspect of government policy needs revising, if any, and why?”

Paris Mashile: “No. I think it is still early days to wanting to which government policy needs to be revised, because we have to put inplace the ECA and see how it falls out, and what are the shortcomings or where changes can happen. It is not cast in stone, so if can be amended. So it is a living document, as it where. So, from our point of view to time when there are certain things to be we think that we can comment to the Minister to ease up issues that will help us do effective regulations, we will make recommendations to the Minister. But the ECA is still have got to firm it self up, be put into place and see what consequences arises.”

Jacques Dippenaar: “Should there be more liberalisation of the market?”

Paris Mashile: “To a certain extend the ECA addressing that, in the end of the day. It is broken down. It is no longer vertical integrated system it is separate operator, separate service provider, separate form other frequency and all that. So, as I have pointed out we will have a whole resale as well as a retailer. Separate in terms of the businesses. The whole seller will account for its own activities, separate obscurity. To avoid market squeeze of the competitor, because you as the wholesaler could sell, say, a cost per unit, say of R1,00 to the retailer. The retailer to the consumer market will say okay I want R1,80 for an example. Your competitor can say I am buying at R1,00, I am going to sell for R1,50, right, so it competitively effectively. Right, you are selling R1,80, they are selling R1,50, but then the wholesaler could say no, I am increasing the wholesale price to R1,40. You are selling at R1,50, you are being squeezed. It is no longer R0,50 it is now 10 cents profit that you are making. But regard to your retailer all that many goes to company it doesn’t matter how you move the slide. Even if they sell at R2.00 all the money goes to the same company. And it is not making distinction. So, this one is squeezing out of business. So, we want to avoid that to say if you know are sell to every body R2,00 let that business show that viability on its own and let it not be subsidised by that. Stand up on its own

entity in terms of its own cost, it management exacta and cooperation and say we are profitable or we are not profitable. That is cross subsidisation."

Jacques Dippenaar: "Is the structure of ICASA resulting in it being an effective regulator?"

Paris Mashile: "The question is, are you saying that we are right now an ineffective."

Jacques Dippenaar: "I am referring to the ICASA structure of having your staff level and then the level of councillors. Is that making it ineffective?"

Paris Mashile: "No, it is not making it ineffective. Certainly not making it ineffective. It will make it more effective, with the new dispensation maybe before there could have been confusion of differences. The roles of the councilor are properly laid out. The ICASA Act says that the council is responsible for the organisations and in running the organisation it will appoint a CEO to assist it in an executive tasks. That is really what it is. So it is the one and the same thing. It is just that the rolls are very, very clear. For example, the CEO in regards to PMCA's remains the principle so all the financials that relate to ICASA will be handed by the CEO and no councillor will be involved in that, even if they may have oversight. That creates governance, proper governance. We have that now with regard to tender processes. Every councillor can say you must appoint that not this one, because I have to find out the same. But if some one comes and say this is what we have, we have gone through the supply check management and this is what we recommend in terms of the preverbal procurement, the section 217 of the Constitution, and you know National Treasury regulations, the PMCA excreta the and all that then we know that … if you distinguish sort of segregate those role then you get what is known as proper accountability and you make sure that the no other individual can have the powers to make a decision. We check. So we check them and they check us."

Company or organisation:	Cell C (Proprietary) Limited
Interviewee:	Ms. Mandla Msimang
Job title:	Senior Manager: Regulatory Affairs
Interviewee:	Ms. Leona Mertz
Job title:	Manager: Regulatory Compliance
Place of interview:	150 Rivonia, Sandton
Date of interview:	7 December 2006

Jacques Dippenaar (researcher): “What measure have Cell C taken to improve its quality of transmission? I am referring here to call drop out, post dials delays, call congestion, noise and echo in the speech quality of transmission.”

Leona Mertz (interviewee): “In terms of our licence we got
Are you familiar with our licence?”

Jacques Dippenaar: “Yes.”

Leona Mertz: “Okay, in terms of our licence and our performance indicates, okay let’s start with, in terms of our licence we have to rollout eight percent of the geography of the country. That is eight percent geographic coverage rollout network. That is supposed to cover 60 percent of the population. Okay, so that is our requirement in terms of our licence. What Cell C have done is that we are almost at 30 percent, we are at 28 percent plus minus, ja. So, say by 28 percent of geographic coverage. So, we exceeded our licence obligations in terms of the last years well from very early we exceed our licence obligations in terms of

population coverage we were 60 percent of the populations and just with Cell C's network what we covered. What we are covering at the moment a bit more that 70 percent of the population. What we also then signed a roaming agreement with Vodacom, which brings us right up to 90 percent of the population."

Jacques Dippenaar: "When we come back to quality of the quality of transmission."

Leona Mertz: "Okay, so that is just a background of in terms of our network. In terms of our licence, I just grab our quality service report."

Jacques Dippenaar: "How to you actually monitor call drop out, post dials delays and call congestion noise."

Mandla Msimang (interviewee): "The actual technical measures?"

Jacques Dippenaar: "Yes."

Mandla Msimang: "We only get the information for the technical service delivery guys. I'm not sure what actual measure they use."

Jacques Dippenaar: "So they actually report to you?"

Mandla Msimang: "Yes, then we check compliance with the actual obligations. Do you know how they actually measure the technical quality of transmissions?"

Leona Mertz: "Well we are at 98 percent success rate. We have two service reports that we submit on an annual basis."

Mandla Msimang: “Basically there are certain standards, in terms of GSM standards, that we that we have to comply with and those were when ICASA drawn up our licence it just say that we had the meet GSM standards. So, whatever, I wish I could show you the actual technical processes that we use compliance with those particular methodologies.”

Leona Mertz: “Okay here it is. Okay, our network availability is in percentage is 99,98 percent.”

Jacques Dippenaar: “For which year is that?”

Leona Mertz: “2005.”

Jacques Dippenaar: “Have it gone up or down?’

Leona Mertz: “Because 2004 was the first one we submitted our format change a little because the guy didn’t really know first year that we actually started to doing was 2004.”

Mandla Msimang: “Because we not did have to submit any quality reports for the first two years. It was for our network the get up and running.”

Leona Mertz: “Ja. Its the same. They actually said it was a 100 percent in 2004. In fact if you look at it from January it was a100 percent. 99,9 percent in January 2005. So it fluctuates between a 100 and 99 percent.”

Leona Mertz: “On a monthly basis.”

Mandla Msimang: “On a monthly basis.”

Leona Mertz: “Busy hour, completion rate is 99,1 percent.”

Jacques Dippenaar: “So that is above the 95 percent requirement.”

Leona Mertz: “Ja, that is five percent above the requirement. Okay, then our grade of service should be less than two and busy hour rate service and it is 0,6 percent

and it should be less than 2 percent.”

Mandla Msimang: “In fact it actually improved 0,2 in 2005.”

Jacques Dippenaar: “So you improved.”

Leona Mertz: “Yip, we improved. Ja.”

Jacques Dippenaar: “The question in terms of noise and echo in speech?”

Mandla Msimang: “They fall in call quality. And it is supposed to be … it is not defined in our licence but our own standard and the GSM standard is about 97 percent.”

Leona Mertz: “In 2004 it was 98,5 percent.”

Mandla Msimang: “Now it is 97,2 percent.”

Leona Mertz: “It went down a bit.”

Mandla Msimang: “Maybe more subscribers?”

Leona Mertz: “Then grade of service it was in 2004 0,5 percent.”

Mandla Msimang: “What did you say it was?”

Leona Mertz: “0,5 percent.”

Mandla Msimang: “0,5 percent.”

Leona Mertz: “It also improved and when busy hour call complementation rate is in 2004 was 99,2 percent and 99,2 in 2005. It remained the same.”

Jacques Dippenaar: “What measure have Cell C taken to improve its network availability?”

Leona Mertz: “You know why it is down, its probability Vodacom made a balls up on their network and blamed it on Cell C then all interconnection stopped. “

Mandla Msimang: “But the difference is marginal 0,2 percent drop.”

Leona Mertz: “It was almost a day people could not interconnect with Cell C Vodacom and say they are biggest operator if you look at the network explanations then our would most call have most calls are terminated on Vodacom they got biggest basis, bigger subscriber basis.”

Mandla Msimang: “Also if you look at the beginning, network availability in terms of all the figures we gave you 2004, 2005 building more base stations and relying less on the roaming agreement over the last five years. It is currently about 85 percent of Cell C’s network traffic is now its own network and 15 percent on Vodacom’s network. But there is still the full backing of having Vodacom’s network.”

Jacques Dippenaar: “In which language does Cell C offer it services.”

Leona Mertz: “Okay, we offer five languages.”

Mandla Msimang: “English, Afrikaans, Zulu, Sotho and I don’t know the last one. Call problem between Johannesburg and Durban 14 million calls in 2005.”

Jacques Dippenaar: “To what extent have Cell C made provision for its customers’ preferred language? You are limit to five languages and if some comes to you with a different language do you accommodate them?”

Leona Mertz: “We generally accommodated, ja, definitely. There will be somebody in the call centre that speak that language. So that is our approach.”

Mandla Msimang: “Or they will be transferred to somebody that will be able to help them.”

Leona Mertz: “They will even translate if somebody is not fluent in a specific language as the manual for their phone. And our people even explain to them what is written in the brochure, manual of the phone. “

Mandla Msimang: “We also do the same for people with disabilities. If you need something explained or need something contract explained to them.”

Jacques Dippenaar: “And deaf people, since they use SMSs.”

Leona Mertz: “Deaf people use the SMS system. Ja, it is a problem. But for deaf people, generally, that they can read. But it is something that we are working on. At the moment. We are currently releasing a product to the market by January. All our subscriber agreements and as well as our Code of Conduct on to disk for blind people. But for deaf people it is almost identical for literate people, because if deaf person can read its fine, and if they can’t it becomes a problem.“

Jacques Dippenaar: “How is simplicity dealt with by Cell C? Is information about the charges per services provided in a clear and understandable language?”

Leona Mertz: “It is something we are committed to. For example, for advertising, because that is how we get our people. We are committed to the Advertising Authority and they we actual received a letter of congratulation, for we are the clearest operator in terms of our advertising, our product and our prices.”

Jacques Dippenaar: “How does Cell C inform the illiterate (the uneducated) about the cost of phone calls, new services, products, SMS and advantages of free access to emergency services?”

Mandla Msimang: “It’s on request, so if they call the call centres and if somebody need and explanation on the service we help.”

Leona Mertz: “And that is a free call and we actually go t better call answering rates in our call centres than Vodacom and MTN.”

Jacques Dippenaar: “You did have a problem with call centres?”

Leona Mertz: “Earlier last year.”

Mandla Msimang: “Yes, 2004 until 2005 but then we put in place new systems we increased staff and I think we are also training also changed. So we actually turned it around.”

Leona Mertz: “Actually just before the SABC [South African Broadcast Corporation] come on I think Vodacom was the worst.”

Jacques Dippenaar: “What kind of network and organisational support does Cell C provide for its consumers? For instance, is there a customer service representative available?”

Mandla Msimang: “Outside the call centres?”

Jacques Dippenaar: “Do you just have the call centres?”

Leona Mertz: “We have account managers, but they are for corporate. “

Mandla Msimang: “They will actually go to the site.”

Leona Mertz: “And that person is responsible for them and is always available to them. Whoever that corporate is, he is always responsible to sort out any problem the customer complains about, anything they need.”

Mandla Msimang: “And then, also for CST we actually have people that go out but for the normal commercial services will rely on the call centres.”

Jacques Dippenaar: “And if you don’t get help at a call centre, what is the process?”

Mandla Msimang: “You can go to any of the Cell C shops, you can, it depends if Cell C is Nashua. Then you can go in to a Nashua services provider. Or you can complain to Cell C. Or you could complain at ICASA. But mostly they send it back to us, so it is mostly an administrative process.”

Leona Mertz: “They don’t do any solving of problems.”

Jacques Dippenaar: “Does Cell C conduct research periodically to determine how Cell C can improve its customer service?”

Leona Mertz: “Ja, we do about six different research studies every year.”

Jacques Dippenaar: “By whom and how do they do it.”

Mandla Msimang: “Well, we have in-house research market research teams and we also use Markinor what they call market and other research in-houses survey and last year and this year we did and own biggest survey ever were we network I think it was about 4000 people that where in that. It was just generic survey about the different network and customer services.”

Leona Mertz: “And also brand awareness.”

Mandla Msimang: “If the price would drop by 10 percent, would you switch? And also compared to not only Cell C subscribers but mobile subscribers generally we just want to see what you will do. Leave stay on Cell C network?”

Jacques Dippenaar: “So that is more marketing research and not technical.”

Leona Mertz: “No, it is part of it.”

Mandla Msimang: “The network coverage considerations we find out what the consumer experiences with respect to the network. On a technical side we tested a new service like the Y95. We already got normal GSM, just continues maintenance of the system.”

Leona Mertz: “Because you obviously. While we here is because we want the customers marketing perspective. So if from a marketing perspective, but we still need to sort out the technical aspects.”

Jacques Dippenaar: “Have you [Cell C] been awarded awards for service delivery and customer service, if so, by whom and when?”

Leona Mertz: “By 2003, we won.”

Mandla Msimang: “For call centres.”

Leona Mertz: “Ja, for the best customer service centre in the country. But we have to check who we won it form.”

Jacques Dippenaar: “And you did mentioned that you did get a recommendation from the Advertising Authority.”

Leona Mertz: “Well from a marketing perspective, we almost every year we have won about six Loerie awards. We have very good advertising.”

Mandla Msimang: “In terms of email service delivery, we need to found you form the call centre guys because I wouldn’t exactly know.”

Jacques Dippenaar: “Would you say that Cell C’s new customers (pre-paid, post-paid) are new users of mobile phone or have migrated from other operators?”

Leona Mertz: “Mostly migrated from other operators.”

Jacques Dippenaar: “Mostly migrated from which operators?”

Leona Mertz: “Mostly MTN.”

Mandla Msimang: “Ja, mostly MTN. Because when you look at the penetration in South Africa there are a few people that can afford and want mobile phones that aren’t already on MTN or Vodacom. So they usually have an experience with one of the two before they move to Cell C.”

Jacques Dippenaar: “Is it more prepaid or postpaid?”

Mandla Msimang: “Mostly postpaid. Mostly all. There is a few new that have entered the market that never had a cell phone before, they are prepaid and old prepaid costumer that have churned.”

Jacques Dippenaar: “Have Cell C measured the amount of customer lost to other service providers and/or remaining over about a year?”

Leona Mertz: “We do measure that, but I don’t think have that on hand.”

Jacques Dippenaar: “The Yankee Group did say that the 2005 your churn rate was about 25 percent, which is what they say is high. Do you agree with that?”

Mandla Msimang: “Ja, but churn rate. When you look at subscribers in particular churn rate there is no consistence.”

Jacques Dippenaar: “We got to break the customers up into prepaid and post paid.”

Leona Mertz: “And apart from that Cell C to ensure effective case of number you have to ensure and if the number have not be active an our network our have to turn it back so that you can re-issue it.”

Jacques Dippenaar: “So are there more prepaid users that get lost.”

Leona Mertz: “Well, yes.”

Mandla Msimang: “Because you can’t real churn a post paid until refund is done.”

Leona Mertz: “But there is no consisted measure of that Cell C uses a 120 day inactive your number. We take it back we carotene it for three months and we reissue it. Vodacoms waits between seven months and two years. So, they got a huge number of inactive numbers on their network. Not been used for two years they sill regard it as active subscriber on their network.”

Jacques Dippenaar: “So when we talk about active subscribers, we should talk about market share.”

Mandla Msimang: “Not one of us are using the samething. An active subscriber is someone who used the phone in the last two months. In Vodcom you could have been on the network for a year, minimum seven months and not use the phone and you actually not using the phone, but you are still using the phone. “

Leona Mertz: “They [Vodacom] still counts.”

Mandla Msimang: “So your churn is lower because you are still have people hanging onto your network that aren’t churned. But in Cell C’s terms they would have turned. So, that is hard on to compare across.”

Leona Mertz: “The Adsecret is apparently the most effective.”

Mandla Msimang: “But also the definition that Cell C churn is the one we logged with ICASA and I think it is the most efficient of churn would look like.”

Leona Mertz: “MTN also uses the same as Cell C, but they did not used to. I think they changed last year.”

Jacques Dippenaar: “What have Cell C done to encourage loyalty? What have Cell C done to encourage loyalty?”

Mandla Msimang: “We have the friends and family.”

Jacques Dippenaar: “Your companies, service products anything that keep your customers loyal.”

Mandla Msimang: “I think it is mark product and services we have friend and family that encourage groups of people get a discount or a special rate of 75 cent in a user group. That encourages more people and more people to loyalty to the Cell C network. And we are the only one’s that have that.”

Jacques Dippenaar: “What other benefits do you offer?”

Mandla Msimang: “The biggest benefits off the friend and family is the cheaper call rates.”

Leona Mertz: “Cell C’s impact on the market started with per second billing we started with. We started with roadside assistance. We started with Medical 1804.“

Mandla Msimang: “Funeral plan.”

Leona Mertz: “Like lots of added stuff that we you don’t just get a mobile service you also get lifestyle benefits.”

Mandla Msimang: “There is are other loyalty program that we are launching now, I can’t think what it is called.”

Leona Mertz: “Do you want us to send u a list of our loyalty programs?”

Jacques Dippenaar: “What is Cell C’s current equity considerations structure?”

Mandla Msimang: “In terms of empowerment, we the highest levels is 15 percent CellSaf and, sorry, 25 percent CellSaf and 15 percent Lanum, 60 percent SaudiOrger. CellSaf is the BEE partner. On licencing it was 40 percent CellSaf, the BEE partner and 60 percent SaudiOrger. But in 2005, mid 2005, we sold the BEE of 15 percent shareholders share. But in exchange that covered the entire

cost of the 40 percent. Now they have 25 percent unencumbered shareholding. So they own nothing on it."

Leona Mertz: "So, whatever profits they get, they can keep."

Jacques Dippenaar: "Can they [CellSaf] increase their percentage later or let some other black empowerment group to come in?"

Mandla Msimang: "If any one of the shareholders"

Jacques Dippenaar: "Because there wasn't anyone that was interested in the shares."

Mandla Msimang: "At the time, ja. If anyone sells then the right of first refusal goes to the other shareholders, with the BEE groups already there. If none of the BEE groups wanted it there is no requirement in terms f the licence itself. The licence was in fact amended that the minimum BEE 25 percent. We exceed it and we would be happy to but have just to go below it we need to change our licence."

Jacques Dippenaar: "Does Cell C maintain any community service telephones?"

Leona Mertz: "Yip."

Jacques Dippenaar: "To what extent does Cell C ensure that community service telephones are usable, and meet the needs of the users."

Leona Mertz: "We are the only operator that submit a thick monthly report, well besides the Munchy report we submit a report to ICASA every month to show exactly where our CSTs are and then also repairs. What is the requirements they got? A 24 hour hotline operator that they CSTs can just call anytime and we will

go and sort it out and see what ever is required. And we submit a very thick data basis report that shows every call trouble call that was logged."

Mandla Msimang: "We have on a different level 52000 CSTs. We met our obligations this year. Three years a head of schedule and our CST market is, I think, the most successful one. MTN has 7000 payphone, but most of them don't even work. Vodacom that 22000 they had to rollout. They did a similar CST model, but didn't but I think ours, okay, but the features of ours are unique in terms of the revenue share of the actual operator and the entrepreneur the centre of communities we service. What else is there, there's like the service budgeting thing."

Leona Mertz: "If I look at this [data file] most are resolved in the same day. In a couple of hours. The maximum that I can see here, I give you on average maximum is seven days but every tenth page. But the most few two days are day to resolve."

Jacques Dippenaar: "But there was a problem with MTN withholding your interconnection charges and other group also had a problem."

Mandla Msimang: "COPASA, but they settled that."

Jacques Dippenaar: "Because I am getting two stories for ICASA. One said good luck for you, you have read the law and the law states that you can do it. The other said no. And the one says that teledensity is landlines only, while the other said it includes cell phones."

Leona Mertz: "While they should read our licence."

Mandla Msimang: "The licence is fixed. There is dispute with MTN. But that is not even while the dispute the definition."

Leona Mertz: “They are not even disputing the definition.”

Jacques Dippenaar: “What are they disputing?.”

Leona Mertz: “They are disputing were not the definition. But where it [CSTs] are situated.”

Jacques Dippenaar: “But where you situated it is not it based on the definition.”

Leona Mertz: “Yes.”

Mandla Msimang: “They don’t like the definition. They except that this is the definition. We can actually show you the definition.”

Leona Mertz: “What we did is we went to the CSSR, we got maps, we asked them show us where in the country where is less than 10 percent teledensity
We got maps based on those maps we submitted to ICASA we said these are the areas.”

Mandla Msimang: “Where less than 10 percent of the inhabitants of the area have access to PSTS, Public Service Telephone Services, exchange lines at the date of this licence and where it is necessary to roll out community services. So they are saying that what I think the fight is here is where it is necessary to roll out community centres. So, what they are saying is 10 percent teledenisty, I don’t know, say Hillbrouw, then it is no necessary not to roll out. If there is less that 10 percent. Yes less than 10 percent then we go to Hillbrouw. But they say not, if you live in a city. There is no part here that it can’t be in a city just say that teledensity they doing a rural-urban split, but there have never been a discussion about being in rural areas.”

Jacques Dippenaar: “Is benefits of you [Cell C] placing CSTs, less interconnection charges.”

Mandla Msimang: “The interconnection charges are less.”

Jacques Dippenaar: “Do you set the charges?”

Mandla Msimang: “No, we are not allowed to. It is a fixed rate of 90 cents”

Leona Mertz: “It approved by ICASA and you can’t change it.”

Mandla Msimang: “And that is the debate, the whole thing is the more CSTs you have the more traffic you get and the less money you get. Vodacom will get, because they get a fixed rate of six cents instead of R1,25. So, they try to stop the number of CSTs from growing, because the more CSTs then they get R1,25. But they are CSTs.”

Leona Mertz: “In fact, Vodacom have exceeded their CSTs rollout.”

Mandla Msimang: “We have no clue where they are, they have not raised the question.”

Leona Mertz: “They are protecting it. Cell C is doing it in terms of its licence. Submitting all of the information to ICASA but we are not allowed to.”

Jacques Dippenaar: “Does Cell C treat low end users the same as high end users or do Cell C discriminated between these two groups?”

Leona Mertz: “We are not allowed to in terms of our licence.”

Jacques Dippenaar: “What is the network situation currently? You did mentioned it before.”

Mandla Msimang: “From when?”

Jacques Dippenaar: “Form 2001.”

Leona Mertz: “When we started roaming on Vodacom.”

Mandla Msimang: “Yes, we started with zero bases station and roaming on Vodacom and we expanded. “

Leona Mertz: “We only have 2004 and 2005 for you. In 2004 we had 460 new sites. We activated 41 base station controllers. We had 2 021 base stations. We had 5862 new base stations transmitters and we had 5 mobile centres.”

Mandla Msimang: “So we increased the base stations by about a 150, 148 in 2005 and 13092 base station transmitter.”

Jacques Dippenaar: “Based on complaints, if any, have ICASA ever approach you stating that you need to built another cell here or an other cell there, to improve quality of service?”

Leona Mertz: “No, because we already exceeded eight percent that they wanted us to cover and 28 percent of the geographic. So, unless they change our licence they can’t really came to us and say although you must only cover eight percent of the country and although you are covering almost 11 percent of. We obviously, if there is need, we consisting to estimate to see where are there groups of people where there are positional traffic that we like to cover. But if there is three people there it is generally not base stations, a base station is an expensive thing.”

Mandla Msimang: “They have about, I think about two instance where the Minister got involved in some sort of letter, I don’t know on what basis, she wrote that there is no bases stations no MTN, no Cell C, not Vodacom, she had written letters to three of us that these communities do not have the coverage and on the basis of these we went out our way to ensure that they got helped. Then there is also USALS which are less than five percent of teledensity.”

Leona Mertz: “And they are roaming.”

Mandla Msimang: “And they are roaming.”

Jacques Dippenaar: “When the new act [ECA] coming there is a section referring to health, which impact on where you can place your towers.”

Leona Mertz: “Well, we had a meeting with the Department of Health a month or two ago, about if all our equipment everything we do is ICNIPP complainant. ICNIPP is the standard that and is endorsed by the World Health Organisation and Health Department that agrees that nothing, no equipment ICNIPP have ever show any health of risks to any one using it no any communications equipment currently that we are offering are ICNIPP complaint. From the base stations, and the different elements there of handset and handheld devices. Everything is ICNIPP compliant.”

Mandla Msimang: “We all are signatories to MoU and we impose ICNIPP compliance on ourselves and the three mobile operators we are all do the same.“

Leona Mertz: “The problem is that is currently not written into any legislation that we need to comply to ICNIPP. But because we are all members of the GSM association, so that is why we Department of Health to make it legal.”

Jacques Dippenaar: “What current domestic roaming arrangement does Cell C have, and with whom?”

Mandla Msimang: “Just with Vodacom.”

Jacques Dippenaar: “Just with Vodacom, and when is it going to expire?”

Mandla Msimang: “It is renewable, but it was for 10years, so it should be to about 2011.”

Jacques Dippenaar: “So it is renewable. Will you be thinking of renewing it?”

Mandla Msimang: “I don’t know by this stage, probably. But I don’t know at this stage. I can’t give you answer. “

Jacques Dippenaar: “What is the benefits of actually having a roaming agreement , if any?”

Mandla Msimang: “It was very important to us in the beginning, because it allowed us to, I think. It was quickest launch of any mobile operator because we launched in months from getting our licence and it allowed us to have national coverage before we even had our own network. So initially, it was important, now it only allows us to provide network, particularly in remote area were we don’t put our own stations. But people still have services through Vodacom. It expands our coverage.”

Leona Mertz: “It expands our coverage and also assists Vodacom to run their base stations more efficient.”

Jacques Dippenaar: “Does Cell C make a difference between service quality in urban areas and rural areas?”

Mandla Msimang: “No, we are not allowed to.”

Leona Mertz: “They are treated as equally.”

Jacques Dippenaar: “What is Cell C planning in terms of network expansion?”

Leona Mertz: “Well, we our whole network is currently 100 percent of our network is currently EDGE capable.”

Mandla Msimang: “And we got our 3G licence. So we are looking at that. We are doing trails on WiMax now.”

Leona Mertz: “So, we are also looking at EDGE 2, that is it.”

Jacques Dippenaar: “What products are offered to low income earners?”

Mandla Msimang: “What products to lower income earners? All of our products and tariff packages are starting at a low - per second. We have the smallest unit prepaid recharge voucher of the ‘Half Tiger’ at R5,00 so even if you only have R5,00 you can allow top up. Our contracts starts at value chat, which I think, is a hundred Rands a month. And we also contracts if you have an old handset and just want a contract. We where the ‘First value chat’ product that we offer. So you don’t have to pay the hand subsidies costs. “

Leona Mertz: “Sorry, can I just go back when you asked if we have any roaming agreements Virgin is roaming. Isn’t ?”

Mandla Msimang: “No, they aren’t roaming. “

Leona Mertz: “So what are they doing?”

Mandla Msimang: “The infrastructure change, but they aren’t roaming, roaming.”

Jacques Dippenaar: “When it comes the Mobile Number Probability, when you charge your number and go to other operator the one that move away does not charge you all the one that you end-up with can charge you.”

Leona Mertz: “ Ja.”

Jacques Dippenaar: “Then, does Cell C charge.”

Leona Mertz: “No.”

Mandla Msimang: “We don’t charge you for ported to us. We charge you new service our going to get If you get a contact you pay what you would have paid anyway. Not because you ported so In fact Cell C decide not to charge so the other also don’t charge.”

Leona Mertz: “The donor can’t charge. We don’t charge then the other started also not to charge. We made a press statement. “

Jacques Dippenaar: “Can airtime be obtained from any banks’ electronic services?”

Leona Mertz: “I think so.”

Mandla Msimang: “Ja, from all the banks.”

Jacques Dippenaar: “What future services and applications is Cell C planning?”

Leona Mertz: “I don’t know. I think that is a secret.”

Mandla Msimang: “Inside information. We still have not decided our, well we are working on our 3G obligations. We did went the like the others, we left the 3G licence.”

Jacques Dippenaar: “Why?”

Mandla Msimang: “I think we where focusing on our core network. So we got our licence and working on that I think that Vodacom and MTN between them doesn’t have, I don’t think, more that 40000 3G subscribers between the two of them.”

Leona Mertz: “Ja, new network new base station, new everything, very expensive.”

Jacques Dippenaar: “What sets Cell C a part form its competitors?”

Leona Mertz: “We are the consumer campaign.”

Mandla Msimang: “That is what we tried to be and we also try to be as simple as possible, simple explanation about are products. Simple. Access to our services in terms of prices we try to be the cheapest especially for low end users and our CST department sets us apart from the rest. And our CST offerings.”

Leona Mertz: “Our ads are very good.”

Jacques Dippenaar: “They do say that people market doesn’t provide the people with what they want – basic voice and something extra, such SMSs, do you agree?”

Mandla Msimang: “And that is what I think what Cell C is trying to be. That’s why we are not we have EDGE, because that is a good data offering. We don’t, partially because we don’t have the money to invest in, and just because consumer subscribers showed that much of getting all that fancy kind of stuff. Cell C tries to be as mush as simple and mean and offer - our focus is voice and basic data.”

Jacques Dippenaar: “Why are lower income consumers (i.e. pre-paid user) subject to higher prices, whereas contract users on higher end tariff plans are charged lower rates?”

Leona Mertz: “There were a whole I don’t know if you have access to it, but if you look at ICASA’s website they had a whole inquiry on mobile pricing and this topic was discussed intensively. Just have a look at these and see the operator’s answers to that. But from our point of view it is not that big anymore, but it is more expensive billing system because it is real-time because with a contract subscribers you consolidate at the end of the month. With prepaid, as the person speaks is doing the billing calculations. Apart from the, just to our planning and protection services, stuff. If it is a contract subscriber you know I have this currently to spend so you can do your planning based on that rather prepaid you

don’t know and to keep some body active on your network it cost you money in just fro them even if they make not make or make a few calls, whatever they costs you money to run to have an active number on the network.”

Jacques Dippenaar: “It have been said that prepaid is in fact is a lower risk than postpaid which is a higher risk.”

Mandla Msimang: “It is not a higher risk anymore, because of credit rating.
If you didn’t do such an intensive credit rating it would be a higher risk. But people that have contracts are people with credit rating. So, and if they don’t pay theirs it is an R120.00 a month. And it your don’t pay then there is legal recourse.“

Leona Mertz: “The risk is keeping the number active.”

Mandla Msimang: “In three months they will make only one phone call, and you paid to keep them active for two months.”

Jacques Dippenaar: “Should ICASA regulate retail tariffs?”

Leona Mertz: “No.”

Mandla Msimang: “No, they should regulate wholesale tariffs. Because we have a problem with.”

Leona Mertz: “And they should regulate handset subsidies.”

Jacques Dippenaar: “Interconnection charges is too high it started in 2001, when Cell C was announced it when up by 500 percent.”

Leona Mertz: “Before we entered the market.”

Jacques Dippenaar: “Oh, just before you entered the market 500 or 512 percent.”

Leona Mertz: “Six times.”

Mandla Msimang: “Ja, and that was so that was I cant think what the number was, but what ever the interconnection charges rate was, think it was 25 cents. In 2000 there was two factors: Cell C entered the market and before interconnection guidelines was finailsed before because MTN and Vodacom didn’t have to logged their interconnection agreements with ICASA until 2000. One of the guidelines was that but you could add to that they also know that the licence process was on the way. So, it was to their advantages to , I think pure speculation, nothing factual it was mostly likely to their advantage to determined the rate for that and since then it have been moving up ever since. We cannot question what was there before, because it was never formally regulated and when Cell C entered the market, they what interconnection was ready at 121, I think, and been rising to.”

Jacques Dippenaar: “Are the guidelines for interconnection charges adequate?”

Leona Mertz: “No. We have made submissions a year ago to ICASA, but nothing happened.”

Mandla Msimang: “They need to deal with the whole major operator. In the new act it is now called the dominance of significant powers. They have to go through that market study to determine who is dominate to determine how to interconnect, probably on a assymmetrical basis in order to resolve that. But the ECA make it more clear before ICASA got challenged Cell C, but the ECA makes it clearer than now that they have the powers to do that.”

Jacques Dippenaar: “Is the price of mobile voice services justifiable and are consumers getting value for money?”

Leona Mertz: “I think so, they did a study where they compare our retail tariffs like global study we tell right about in the middle. Your fixed lines is regarded as one of the successful top 10 most expensive but for mobile retail price.”

Jacques Dippenaar: “In ICASA’s mobile price discussion document did not used any African country for example Kenya. The retail tariffs are much lower compared to South Africa. “

Mandla Msimang: “We can’t lower the R1,25 so when you say can ICASA regulate retail price, they can’t directly about if they want to they could address wholesale, interconnection fees so that is why it is justifiable the interconnection what the floor is for retail rates. “

Jacques Dippenaar: “What measures have Cell C taken to reduce harm to the consumer?”

Leona Mertz: “In terms of?”

Jacques Dippenaar: “I am referring to security of the consumer, spam, adult content”

Leona Mertz: “What we have done Cell C and MTN blacklisting stolen handset right from the day we entered the market. Which Vodacom then joined. Some say about more than 800000 cell phones is stolen handset network. People have been killed for these things. Vodacom joined a year ago and signed a blacklisting agreement with business against crime. What we operate so we really been losing revenue to protect people having blacklisting. Black listing stands it cannot work on your network so that person will have to be on one of the other networks.”

Mandla Msimang: “And with all three of us blacklisting they can’t use it at all in South Africa. Then there is no point of stealing it. And on the content stuff we undertake it to provide content filter by the end of next year. We don’t provide any x rate content through our WAPs. We have WAPs that actually provide the content services using own network services which is the but they we have agreements with them and MoU that we don’t allow them to provide any adult content on our network.”

Leona Mertz: “The problem is that Vodacom is. I sound terrible but they got filters on their network. But the only thing it filters is X18 material. But X18 material is illegal to provide without a licence. Currently no virtual or mobile operator can contain a licence because we have to have a physical premises where you can operate from So, having filter without in what it is any advent illegal is quite stupid. So, that is why we don’t have filters since we are not allowed to X18 on our network.”

Mandla Msimang: “But next year there is a suppose to make an amendment to the Film and Publications Act that might it possible and once we actually the Interception and monitoring, so when we actually know subscriber, ID number, the agents, in order for it to work you need to know what and for how you are filtering it for. The most effective way to register subscribers the law requires that what the law says but it have to the Act have not been enacted as yet. Every prepaid subscriber and contract have to register on paper and that piece of paper have to be stored at and when the police comes to use saying for all 40 million people in South Africa this is the guy and we have to do that within a set time frame, because they are looking for. So we say it is much more efficient to do that by capturing it electronically and then you will have a registration agents that can assist solution where you give us the information day to day basis what they haven’t changed to low as.”

Jacques Dippenaar: “When the police come to for information, do they have to pay for the information?”

Mandla Msimang: “No. they don’t pay for it, but there is provision for them to pay for it and we proposed the tariffs for it but they approved it. So, we get it for free.”

Jacques Dippenaar: “What, if any, measures have Cell C taken to inform (educate) consumers of applications that is available for the end-user that can for instance provide parental control?”

Mandla Msimang: “We don’t have any right now. So there is nothing that we can do.”

Jacques Dippenaar: “But you don’t provide any adult content.”

Leona Mertz: “No, we do provide adult content, about just not x18 content. We don’t, we allow the WAPs to do. Because we can’t tell them not to because we have the Constitution. If is not X18 because they don’t have a licence if fact the Publications Board 6 December all ISP which is one of the points of access Act must stop providing X18 because they don’t have a licence.”

Jacques Dippenaar: “In Cell C’s view, should there be more regulatory intervention or more regulatory oversight (i.e. softer regulations) by ICASA? Moreover, why?”

Leona Mertz: “May be more oversight not more intervention.”

Jacques Dippenaar: “What should they [ICASA] amend or remove, and why?”

Mandla Msimang: “Interconnection”

Leona Mertz: “Handset subsidies, something that they are not doing anything about.”

Mandla Msimang: “At least they did the draft regulation on handset subsidies as, but they need to finish it Interconnection they did daft regulations on and finish it and probably do a market study in terms of the ECA and divide the market mobile and fix termination and all of that. They need to be more a better oversight of things that just ain’t sticky in their act like interception and monitoring, we did precipitate in any of that stuff. But it is their operators that are involved. The a film and publication stuff they don’t precipitate if that mobile operators need to make their cases even if it is up to so mobile operator have to make their think that we in prove operators but actually licence.”

Leona Mertz: “Like the Consumer Protection Bill.”

Mandla Msimang: “The Consumer Protection Pill, the DTI is doing a lot of things that is already a repeat with what is already in out licence the consumer calls comply with in terms of the ICASA regulations. ICASA is there to say what we exactly we doing.”

Jacques Dippenaar: “You are offering broadband, right? There is currently no broadband policy.”

Mandla Msimang: “But the policy would only define the target the goals.”

Leona Mertz: “The quality of service. Our licence tells us what he quality of our service should be GSM standard.”

Jacques Dippenaar: “Will you agree that MNP requires more regulatory intervention?”

Mandla Msimang: “The implementation of it.”

Jacques Dippenaar: “Yes”

Leona Mertz: “For handset subsidies that would be more beneficial before it come out of the implantation of the regulations.”

Mandla Msimang: “But I think it is regulatory intervention but it is to foster competition and so it is not. So, I think that the market would need regulatory intervention because there is MNP. Now it is just technical and operational stuff that operates.”

Jacques Dippenaar: “Why did Cell C apply for declaring Vodacom and MTN as dominate operators, if Cell C it self is making strong inroads in partially the pre-paid mobile market?”

Leona Mertz: “No. post paid.”

Mandla Msimang: “The declaration of MTN and Vodacom as dominate operators what in terms of interconnection lower the, because the implication would that they hade to interconnection.”

Jacques Dippenaar: “Would you ten be able to increase you revenues?”

Mandla Msimang: “We would be able to increase our revenue, will offer lower tariffs and the network will be more competitive than became then we will have a floor what we can charge 50 cents a minute and just increase our competition.”

Jacques Dippenaar: “Currently, there is the idea that all three operators should be declared dominate operators. Do you agree with that statement?”

Mandla Msimang: “It depends on how you define the market? If you just because they say the bases fro for that is that everyone has 100 percent control of the network and we can only term. You control termination on you network logically it makes sense. But then you have the influence that you have on the market to

that. Maybe we all do control our networks but that is not strictly the definition of dominance."

Leona Mertz: "Or the measures that use to regulate should not be equal to everybody because we cannot do what we want if we what to increase our tariffs we can to R6,00 if would be we don't know what impact on the market. If Vodacom, does that it may in fact impact the market so you have to look at in terms of your broader market."

Jacques Dippenaar: "With the new ECA Act, you need different licence. Do you think it would be more of a burden?"

Leona Mertz: "We still need more clarity on that."

Mandla Msimang: "We did have a meeting with ICASA yesterday when we asked. It is going to be so a complex process that in according to the law."

APPENDIX D: E-MAIL INTERVIEWS

- Follow-up e-mail interview with Dr. Tracy Cohen (ICASA Councillor), 21 December 2006

Jacques Dippenaar: “Whilst compiling the transcript of the meeting there was an area that I need clarity on. In particularly you response to the second question (i.e. What is ICASA doing, if any, to ensure that Cell C is meeting its licence obligations as stipulated in its licencing agreement?) As part of your response you said "... fair amount dispute in the industry whether or not Cell C has their phones in under service areas or not. It is that is now becoming a source of major dispute between operators themselves for interconnect as well as Cell C and COPASA… “

”Can you please clarify what you refer to? Have Cell C in the regard of CSTs foliated aspects of its licencing agreement or any other regulatory decisions? The dispute you refer to have been a dispute regarding the placement of CSTs, but as I understand it under service areas are areas with a teledensity of less than 10% landlines (and does not include mobile phones) per population and where there is a need for it. In addition, Cell C in according to its licence has to submit an annual rollout plan to ICASA for CSTs that specify both under service and community centres where CSTs are to be installed. Surely, the placements of Cell C’s CSTs are therefore approved by ICASA.”

Dr. Tracy Cohen: “The CST question is one that affects MTN, Vodacom , Cell C and COPASA. This is from an interconnect point of view and a competition point

of view.

’Have Cell C in the regard of CSTs foliated aspects of its licencing agreement or any other regulatory decisions? If I understand the question correctly, you are asking if Cell C have violated any of its licence conditions with respect to the placement of CSTs. This is tricky to get into on email, as there is a larger context you need to understand. I suggest a chat with Vuyo Batyi to clarify. We are not commenting on

the matter either way at present. The dispute you refer to have been a dispute regarding the placement of CSTs, but as I understand it under service areas are areas with a teledensity of less than 10% landlines (and does not include mobile phones) per population and where there is a need for it. In addition, Cell C in according to its licence has to submit an annual rollout plan to ICASA for CSTs that specify both under service and community centres where CSTs are to be installed. Surely, the placement of Cell C's CSTs are therefore approved by ICASA.’ Yes. But I can't comment further on email.”

- Follow-up e-mail interview with Leora Mertz (Manager of Regulatory Compliance), 17 April 2007

Jacques Dippenaar: “What measures have Cell C taken to improve quality of transmission? In other words, referring to the technical details such as call drop-out, post dials delays, call congestion, noise and/or echo in the speech quality of transmission, annually from 2001 until 2005.”

Leora Mertz: “Cell C has specific targets set out in its licence – it is required to meet a service availability of 90%and 95% of the time measured outdoors with stationary hand-held Terminal Equipment. Cell C has consistently exceeded these requirements.”

Jacques Dippenaar: “In which language(s) does Cell C offer its service? (Please indicate the services as well)."

Leora Mertz: “Cell C offers all its customer services in at least English, Afrikaans, Xhosa, Zulu and Sotho – we accommodate all 11 official languages where possible.”

Jacques Dippenaar: “Have Cell C been awarded awards for service delivery and customer service, if so, by whom and when? “

Leora Mertz: “Yes, Cell C received an award in 2003.”

Jacques Dippenaar: “Have Cell C measured the amount of customer lost to other service providers and/or remained over about a year? “

Leora Mertz: “Confidential information.”

Jacques Dippenaar: “The list of loyalty programs, and please indicates the date when these programs were started or ended.”

Leora Mertz: “Cell C does not have any loyalty programs at the moment.”

Jacques Dippenaar: “What amendments from 2001 until 2005, if any, besides section 9.1 (i.e. content of communications) and sections 10 (i.e. transfer of licence, shares, ownership and control) where made to Cell C’s licence? “

Leora Mertz: “Cell C’s licence was amended to include its 3G licence obligations (Internet Connectivity to 5000 schools and 140 Institutions for people with disabilities as well as 10 pieces of terminal equipment for the Institutions for people with disabilities). There is a further requirement that has not been finalised with ICASA – the distribution of 2,5 million SIM Cards and 125 000 handsets in the market. “

Jacques Dippenaar: “What impact will or does the Electronic Communications Act have on Cell C’s licences? “

Leora Mertz: “Cell C will receive 2 licences – Individual Electronic communications network and an Individual Electronic Communications Service licence. Cell C will comment on the draft licence published to ensure that it does not get less favourable terms and conditions.”

Jacques Dippenaar: “Does the domestic roaming arrangement Cell C have with Vodacom allow Vodacom to roam on Cell C’s network?

Leora Mertz: “No”

Jacques Dippenaar: “To what extend are ex and current Cell C customer’s information, such as contact details, held private? “

Leora Mertz: “Cell C has to keep the information as confidential unless it obtains written permission from the subscriber – it is a licence condition.”

Jacques Dippenaar: “When did Cell C started with per second billing?”

Leora Mertz: “Cell C was the first operator to start with per second billings, shortly after its launch.”

Jacques Dippenaar: “What is the benefit of per second billing compared to per minute billing for the end-user?”

Leora Mertz: “Customers actually save a lot of money paying on a per second basis.”

Jacques Dippenaar: “What was Cell C network/service availability figure for 2003? “

Leora Mertz: “Exceeded 90%”

Jacques Dippenaar: “Community Service Telephones (CST):
What was the amount of CSTs installed by June 2002 in under service areas?
What was the amount of CSTs installed by June 2003 in under service areas?
What was the amount of CSTs installed by June 2004 in under service areas?
What was the amount of CSTs installed by June 2005 in under service areas?

Leora Mertz: “Cell C exceeded the requirements in its licence and met the 52 000 target in November 2006.”

Jacques Dippenaar: “In terms of CST roll-out, did Cell C have to submit any specific reports to ICASA for prior approval of where Cell C planned to install CSTs in particular areas? “

Leora Mertz: “Cell C submits monthly roll-out reports.”

Jacques Dippenaar: “What was Cell C’s coverage in 2002 in percentage terms of South Africa and of the South African population respectively?
What was Cell C’s coverage in 2003 in percentage terms of South Africa and of the South African population respectively?
What was Cell C’s coverage in 2004 in percentage terms of South Africa and of the South African population respectively?
What was Cell C’s coverage in 2005 in percentage terms of South Africa and of the South African population respectively?
What was Cell C’s coverage in 2006 in percentage terms of South Africa and of the South African population respectively? “

Leora Mertz: “Cell C has over 60% geographic coverage and over 95% population coverage (including roaming). In terms of its licence Cell C is only required to cover 8% geographically (however we are covering almost 30% of the country geographically) and 60% of the population (however we are covering more than 70% of the population.) Approximately 84% of Cell C’s traffic is carried on its own network.”

Jacques Dippenaar: “Does Cell C include CSTs with national network roll-out or are the two roll-out plans handled independently of each other?”

Leora Mertz: “Cell C considers CST requirements in terms of its national network roll-out.”

- Company or organisation: Ellipsis Regulatory Solutions
  Interviewee: Dominic Cull
  Job title: Founder
  Date of interview: 18 February 2011

Jacques Dippenaar: The question is if ICASA is accomplished to fulfill its regulatory functions, particularly referring to the issuing of licenses for the increase of competition and consumer protection with regard to mobile telecommunications in particular?

Dominic Cull: The licensing of a third mobile network operator (MNO) arose from SA’s obligations as a signatory to the Telecoms Annex to the WTO Agreement. This took place at a time in SA when the Telecommunications Act of 1996 was in force and licensing of communications network providers was very tightly controlled under the Govt policy of “managed liberalisation”.

The rationale for the introduction of Cell C was to break the MTN / Vodacom duopoly. Although we are seeing recent evidence of the benefits of this up until half-way through 2010 there was very little evidence of consumer benefit from the introduction of Cell C. This was primarily as a result of the economic realities of launching a new MNO + the escalation of the termination rate to R1.25 by Vodacom and MTN and the delays in the Cell C launch due to legal wrangling.

Jacques Dippenaar: Did ICASA fulfil its duties in licensing Cell C – probably yes.

Dominic Cull: Referring to the broader market bear in mind that after the Altech decision and the licence conversion process there are approximately 530

licensees entitled to provide mobile telecommunications services in SA so the barriers are more economic than regulatory.

Jacques Dippenaar: What value to you think have the introduction of Cell C as the third mobile operator lend it self to the general cellular phone-using public, if any?

Dominic Cull: See above. Although the benefit has been small to date Cell C's efforts in the last 6 months indicate that they are no longer happy with 10% market share.

Their current campaign is hugely significant as it is one of the first times that an incumbent operator has competed in the SA market based on price and this is of obvious benefit to consumers of mobile communications.

Jaccques Dippenaar: In terms of Cell C's alignment with ICASA's regulations do you think that Cell C has violated any of its license conditions with respect to the placement of CSTs in areas that were disputed by MTN and other stakeholders?

Dominic Cull: I cannot really comment on this other than to state that there was a clear commercial imperative for Vodacom, MTN and Cell C to comply with their universal service and access obligations (USAOs) in respect of CSTs and this led to all three operators exceeding their targets. The same commercial attraction led to the dispute with MTN and ICASA is better placed to comment on who was right and who was wrong in this situation.

Jacques Dippenaar What in your view(s), do you think that a license should be used as a measure to improve performance for example that of a service provider such as Cell C?

Dominic Cull: I do not really understand this question. There are a number of regulations passed by ICASA designed to protect consumers (End-user and Subscriber Service Charter Regulations, Code of Conduct Regulations) as well

as to regulate price (Call Termination Regulations) – all of these essentially form part of Cell C or any other licensee's licence.

The major issue here is that ICASA is not in a position to enforce these regulations in a meaningful manner. Example: under the End-user and Subscriber Service Charter Regulations Cell C should not have a dropped call rate higher than 3% averaged over 6 months. Anyone using a mobile service in SA knows that the rates are higher than this but all three MNOs report rates lower than 3% and these appear to be accepted by ICASA without further consequence.

APPENDIX E: LIST OF DOCUMENTS

Annual reports:

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