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CHAPTER 1

INTRODUCTION AND RESEARCH SUBJECT

1.1 INTERNATIONAL TELECOMMUNICATIONS ENVIRONMENT

The global revolution in information and communication technologies (ICTs), especially telecommunications technology and the resulting explosion of demand for telecommunications services have generated severe pressure for change in the structure of the telecommunications industry. Developed as well as developing countries are battling with various models to reorganise telecommunications services to achieve higher growth, greater independence and increased commercial discipline of operating entities.

Countries worldwide have reformed or are in the process of reforming their telecommunications industries. The reform process in the telecommunications sector is characterised by new laws and policies, and the establishment of regulatory agencies to implement these laws and policies in a new dynamic international environment. Changes in the role of regulatory institutions are underway, as well as the development and implementation of several new regulatory rules such as licensing, interconnection, numbering, pricing, universal service, and rights-of-way (ORGANISATION for ECONOMIC CO-OPERATION and DEVELOPMENT (OECD) 2000:4).

The Reference Paper on the World Trade Organisation (WTO) agreement on basic telecommunications services contains many important pro-competitive regulatory principles such as interconnection, universal service, licensing, the allocation and use of scarce resources among others. Article 5 of the Regulatory Reference Paper refers to the nature of the regulatory body. It states that the regulatory body should be separate from, and not accountable to, any supplier of basic telecommunications services (Samarajiva 2002a:1; OECD 2000: 7-8; Intven 2000a:5; ITU-D 2001:2).

As telecommunications becomes ever more important to commercial success and as more and more players become involved, the conflict among interests becomes stronger and more complex. Thus, new mechanisms must be created that can

reconcile these conflicting interests realistically in the new converged technological environment and in a way that is enforceable and credible to the parties involved.

Thus regulatory reform has emerged as an important policy area worldwide. For regulatory reforms to be beneficial, the regulatory regimes need to be transparent, coherent, and comprehensive, spanning from establishing the appropriate institutional framework to liberalising network industries, advocating and enforcing competition policy and law and opening external and internal markets to trade and investment (OECD 2003:3)

The fundamental objective of regulation under the public utility principle is to ensure that all citizens have affordable access to services. The government of the day determine the public policy objectives as well as the associated political processes which mandate the regulatory agency to devise optimal ways of achieving the stated policy objectives (Samarajiva 2002a:1; Melody 1997: 16).

The objectives of telecommunications regulation differ from one country to another. Governments in most countries view telecommunications as an essential public service. “Even after the deregulation of telecommunications networks, governments retain a regulatory role to ensure that telecommunications services are supplied in a manner consistent with national perceptions of the public interest”, (Intven 2000a:1). In developed countries regulation tends to focus primarily of the consumer and keeping prices as low as possible. However, in developing countries, the public interest rationale focuses mainly on securing access for those citizens who do not receive services at all (Gillwald 2003a:24). Chapter 3 provides a more detailed discussion on accepted telecommunications regulation objectives.

The rapid technological developments and the challenge of the convergence of technologies are also testing long held notions about the role of the regulator and strategies to achieve equitable delivery of services. Many countries worldwide have recognised the importance of establishing a regulatory authority to foster competition in the ICT sector in a fair and transparent manner. A critical regulatory challenge is to ensure that measures are in place to protect consumers and competitors against anti-competitive cross-subsidisation, use of competitor’s information with anti-competitive results, and withholding of relevant technical and commercial information essential to business.

Another important institutional change is the growing involvement of competition authorities in telecommunications regulation. As competition has developed, the role of competition authorities has increased in the telecommunications sector. However, the growing involvement of the competition authority raises the issue of inconsistent jurisdiction in the sector which may create problems for market participants in making business decisions (OECD 2000:9). The South African experience is briefly discussed in the next section.

It is within this international context of telecommunications regulatory environment that this report seeks to determine how the institutional arrangement of the Independent Communications Authority of South Africa (ICASA) is established and whether the regulator is sufficiently empowered to implement its constitutional mandate.

1.2 THE SOUTH AFRICAN EXPERIENCE

In South Africa both the state and the market play a strong role in driving the telecommunications environment. Here, the main challenge continues to be the need to ensure the socio-economic development of all people through affordable access to services as well as the economic development of the country through a well-developed, technologically sound and appropriate telecommunications infrastructure. In most developed countries the main policy concern is focussed on extending broadband capacity universally because the telecommunications network provides a virtually universal basic service, and the policy concern is focussed on extending broadband capacity universally. However, in South Africa as in most developing countries, basic telephone network connections do not extend to the majority of the population (Melody, Currie & Kane 2003:30). Only eleven in every 100 South African households in urban and peri-urban areas have access to a fixed-telephone line. In the rural areas, 1 in every 200 households has access to a fixed-telephone line (Monteiro 2005:20).

Information and communication technologies (ICTs) contribute approximately 6 percent to South Africa's gross domestic product (Derby 2005:5). The last decade has witnessed the unprecedented growth of the first two mobile licensees – Vodacom and Mobile Telephone Networks (MTN), and the introduction of a third mobile

operator – Cell C. The mobile cellular market has grown with over 30 percent of the total voice telephony market share by 2001, and more than 3 times the number of subscribers than the fixed network. The success of the mobile market in South Africa has provided Vodacom and MTN with a launch pad to the rest of the continent. (Gillwald 2003a:2; Gillwald & Esselaar 2004:11).

Despite the successes scored in the last decade, the telecommunications sector continues to be plagued by problems such as high prices, super-profits, job losses, licensing delays and minimal foreign investment. The cost of communicating in South Africa remains unacceptably high by international standards. President Thabo Mbeki, in his state of the nation address in February 2005, called it “unacceptable” that fixed-line telephone rates in South Africa are 10 times higher than those of developed countries (Mbeki 2005:10). Recently, the President made the same point when he said that telecommunications charges in South Africa are five times higher than those in India (Wessels 2005:10).

Meanwhile, Deputy Minister of Communications, Roy Padayachee has publicly admitted that the high cost of telecommunications services in South Africa is having an adverse impact on the economy. He described South Africa’s telecommunications sector as one characterised by growth, but growth accompanied by high retail prices, super-profits and job losses (Monteiro 2005:20). Needless to say, a major factor in the high cost of retail communications services is Telkom’s monopoly. In the absence of significant competition, Telkom has persisted in exploiting its monopoly position by increasing prices. Gartner – the international research firm – ranked South Africa at level four on the liberalisation scale. Level one means a fully liberalised market while four means that the country is only beginning to open up its telecommunications market (ITWeb 2005:1).

However, the South African government has indicated that it is serious about further liberalising the telecommunications sector. Recently, government officials have publicly stated that they are looking at different options to force Telkom to charge affordable prices for lines running into homes and offices to make it easier for other operators to compete with the incumbent. Lyndall Shope-Mafole, Director-General of the Department of Communications, confirmed that “unbundling the local loop” – allowing other operators access to the final section of a phone line - would be critical

to lowering the price of telecommunications and increasing competition (Wessels 2005:10). Meanwhile, Paris Mashile, the new chairperson of ICASA, has reiterated the regulator's call for the high price of telecommunications in both fixed line and mobile to come down. He said the price of communications should come down to where universal access can be achieved across the length and breadth of South Africa (Harrison 2005:3).

The statements by government officials come in the wake of the imminent licensing of the second network operator (SNO). The six SNO shareholders have finally signed an agreement and are waiting for ICASA to award them a public switched licence which will allow the SNO to offer a wide range of services equivalent to those offered by Telkom. ICASA has said that the operator would get its licence in November 2005 (Mochiko 2005a:5; Morris 2005:3). Meanwhile in preparation for competition Telkom has affected an average price cut of 3 percent on all its services (Wessels 2005:10; McLeod 2005c:38).

1.2.1 The Independent Communications Authority of South Africa (ICASA)

ICASA was created in terms of chapter two of the Telecommunications Act of 1996 which saw the merger of the South African Telecommunications Authority (SATRA) with the Independent Broadcasting Authority (IBA) in 2000. These two agencies were merged in ICASA in response to the rapid developments in technology, and to facilitate effective and seamless regulation of telecommunications and broadcasting and to accommodate the increasing convergence of technologies (ICASA 2004c:1).

ICASA's legislative mandate reflects government's desire to expand the reach of basic telecommunications services, and to improve the level and quality of service provision. As such, ICASA is the implementer of the state's public policy objectives: to ensure affordable access to telecommunications services and to modernise information infrastructure. The accepted regulatory policy objectives for the telecommunications sector include among others: the promotion of universal access to basic services; the protection of consumer rights; the fostering of competitive markets to promote the supply of telecommunications services quality services at affordable prices (Intven 2000a:2; Melody 1997:15).

It is against the background of the preceding sections and in the light of the imminent overhaul of the regulatory environment governing telecommunications in South Africa to create a framework for liberalised and consequently affordable services that the author has chosen to study the regulator and to gain a better insight into ICASA's state of readiness to implement its constitutional mandate. The regulatory challenges that lie ahead would need an effective, well-resourced and highly-skilled regulator. Thus the importance of an independent and capacitated regulator cannot be overemphasised.

South Africa as the strongest economy in Africa plays a significant leadership role in the continent. This means that other African countries which are tired of following the dominant western model, will look towards this country in search of answers to their own situations. Thus, given the country's political stability, its economic might, its resources in terms of finance, intellectual expertise, skills and experience, South Africa has a moral obligation to get it right by building a strong, independent, responsive and innovative regulator that can become the beacon of hope for other regulators on the continent.

1.3 RESEARCH METHODOLOGY

This dissertation of limited scope is a cross-sectional, explorative and qualitative study which applied the case study technique. The goal of this case study is applied communication research. This research project was based on fieldwork conducted in Johannesburg and Pretoria between the months of April 2005 and May in 2005, preceded by the review of literature and documentary research between the months of April 2004 and June 2005. 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.

1.3.1 Aims and objectives

The aim of this study is to determine how the institutional arrangement of the Independent Communications Authority of South Africa (ICASA) is established and whether the regulator is sufficiently empowered to implement its constitutional mandate

Another important aim of the study is to identify the many challenges to be met in the future by the regulator and to provoke innovative thinking about regulation in an imperfect world. For, an independent, proactive regulatory agency is vital for the success of institutional reforms that will not only yield better results in terms of connectivity, quality of service, affordability and innovation, but will enable the people of this country to actively participate in the knowledge society. This is the major motivation for this case study that addresses ICASA.

The objectives of the study are: to examine the institutional arrangement of ICASA; to establish the organisational structure including staffing and financing of the regulator; to determine to what extent the institutional arrangements empower the regulator to implement its constitutional mandate.

1.3.2 Research questions

The overall research question seeks to determine how the institutional arrangement of the Independent Communications Authority of South Africa (ICASA) is established and whether the regulator is sufficiently empowered to implement its constitutional mandate.

This study attempts to find answers to the following research sub-questions: How were ICASA and its mandate established? What kind of governing body is ICASA? How independent is ICASA's decision making? Does ICASA have the necessary resources?

1.3.3 Data sources

The documentation used includes ICASA's annual reports of 2003 and 2004; the ICASA Act, 2000, the Telecommunications Amendment Act, the Competition Act, newspaper articles from 2002 to date, journal articles, magazines, case studies by the International Telecommunications Union (ITU) as well as research reports. Section 5.5.2 provides a detailed breakdown of the sources used.

The purposive sampling method was used for the in-depth interviews. Respondents were selected for their close involvement in and understanding of the

ICT/telecommunications industry and the regulator. The respondents in the in-depth interviews included: Professor Alison Gillwald, a Research Director of the Witwatersrand University Learning Information Networking and Knowledge Centre (LINK), which she founded in 1999 after serving on the inaugural council of SATRA; Izaak Coetzee, a senior manager for regulatory economics and statutory reporting at Telkom and a former employee of both the regulator and the Department of Communications; Edwin Thompson, an executive member of the Communication Users Association of South Africa, (CUASA), and the operations manager of UUNET (SA) an international Internet-based converged communications provider; Duncan McLeod, an experienced journalist who specialises in ICT and telecommunications issues, also the technology editor of the weekly business magazine “Financial Mail”; Devan Naidoo, the general manager for telecommunications regulatory affairs at the DoC, and lastly, Michael Markovitz, a media specialist and advisor to Mandla Langa, the former chairperson of ICASA.

This study is intended to be of limited use not only to ICASA and the DoC, but also to those concerned with the information and telecommunications sector in South Africa. The report attempts to contribute to the body of knowledge on the telecommunications regulatory environment in the country. It is a humble contribution to the discipline of international communication specialising in the field of telecommunications that could be used as a building block for further work in the area telecommunications regulation by future post graduate students.

The author has adhered to all the relevant ethical obligations and rules of social research. Appropriate measures have been taken to ensure informed consent, voluntary participation and respect for the privacy of the respondents (see Chapter 5).

1.4 REPORT STRUCTURE

This case study report is arranged in six chapters. As has already been mentioned chapter 1 – the current chapter – introduces the research subject of the dissertation of limited scope. It briefly looks at the international environment followed by the South African context. The chapter also gives a description of the research methodology used including the motivation for the research by sketching the main challenges faced by ICASA in regulating a telecommunications industry beset by

historical problems. Chapter 1 then concludes by laying out the structure for the rest of the dissertation of limited scope.

Chapter 2 presents the first section of the literature review. This chapter covers mainly the theoretical approach on which the study is based. It also defines key terms and concepts in the context of telecommunications.

Chapter 3 is a continuation of the theoretical section. It provides a thorough overview of regulatory standards starting with the history of regulation; accepted telecommunications regulatory objectives; the core principles of an effective regulator as well as issues relating to independent regulation. This chapter further gives a brief description of the different models of telecommunications regulation. It also pays special attention to regulation in the context of developing countries, which differ from that of developed countries. Chapter 3 also covers pressing regulatory issues for developing countries such as the promotion of universal service and universal access. It concludes by briefly looking at some of the problems encountered by other regulators and lessons that can be learnt from the experience of other countries.

Chapter 4 covers the key areas concerning ICASA's institutional arrangements. It examines the areas of the regulator's mandate, general functions and duties as well as its legal status. The independence and credibility of the regulator is discussed including the current capacity and resources of ICASA.

Chapter 5 describes the methodology followed in conducting the case study. It defines its focus, scope and data collection and analysis.

Chapter 6 covers the research findings, conclusions, recommendations, critical evaluation and limitations of the study.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

The review of literature spans chapters 2 and 3. Chapter 2 covers mainly the theoretical approach on which the study is based. It describes both the historical and the current situation of network industries with a special focus on telecommunication. This chapter briefly deals with the factors that motivated the liberalisation of telecommunications markets and looks at the vital role that telecommunications play in driving economic development. Telecommunications regulation as public policy is discussed briefly. Chapter 2 also defines key terms and concepts such as “state” and “market”, and the relationship between these two. The purpose is to illustrate that while the liberalisation of telecommunication markets is a reality, the role of the state has not disappeared. Instead, to flourish and operate efficiently, markets need a legal and regulatory framework that only governments can provide. Other key concepts in the context of telecommunications such as “regulation”, “liberalisation”, “privatisation”, “universal access” and “universal service” are also examined.

The literature review of telecommunications regulation prepares the ground for an examination of the institutional arrangement of the South African regulator, ICASA, to implement policy objectives. It also helps to determine how the regulator’s organisational structure including resources is organised and to what extent these arrangements empower the regulator to implement the goals set out in formal policy.

2.2 THEORETICAL FRAMEWORK

The case study of the South African telecommunications regulator is grounded on a theoretical model based on public policy considerations as applied in the network industries, of which telecommunications is typically one. Historically, most countries depended on government ownership and political control to promote access to network infrastructure services such as telecommunication, water and sewerage, transportation and electricity. It was widely believed that network infrastructure industries could not be entrusted to the signals, motivations and penalties of the free

market, and that state resources were needed to finance large investments in service coverage. Network infrastructure industries represented a special class of business, in some countries called public utilities, or “business affected with a public interest”. The case for “natural monopoly” driven by public policy and regulation was widely accepted in telecommunications and other infrastructure sectors until the reform movement of recent years (Melody 2002b:5-6).

Network infrastructure industries are generally inhibited by various kinds of market failure and market imperfection, which demand regulatory intervention or coordination of activities that are of fundamental importance for the social performance of infrastructure. Since the early 1980s, all over the world, network industries have been increasingly exposed to the “dynamism of the market”. In developing economies, the performance of state-owned monopolies suffered from low labour productivity, deteriorating facilities and equipment, poor service, chronic revenue shortages, inadequate investment and non-payment. Infrastructure inefficiencies constrained domestic economic growth, impaired international competitiveness and discouraged foreign investment (Kessides 2004:2; Melody 2002b:7; Gillwald & Abrahams 2005:3).

Recognising the performance problems of vertically integrated, state-owned, monolithic network utilities, nearly all developed and many developing countries implemented far-reaching institutional infrastructure reforms. These reforms entailed a combination of competitive restructuring, privatisation and the establishment of regulatory mechanisms (Kessides 2004:3; Melody 2002b:7).

The reform movement started with some regulatory decisions by the United States (US) Federal Communications Commission (FCC) in the late 1960s, which allowed “foreign” attachments to the American Telephone and Telegraphy Company (AT&T) network. It also allowed new operators into the market to supply specialised long-distance services. This was followed by further telecommunications liberalisation policies in the US and many other countries. The process is still underway in other countries (Melody 2002b:7-8). According to the World Dialogue on Regulation (WDR 2002:1), the challenge of the telecommunications reform is to cast aside obsolete regulations that protect monopolies and restrict network access, and to create new regulations that will provide a solid base for information infrastructure development,

electronic services innovation and productive applications everywhere. Chapter 3 looks at the historical background and policy objectives of telecommunications regulation in more detail.

Generally, there is consensus that the liberalisation of publicly regulated network industries tends to stimulate technological innovation and leads to cheaper and better services and better system performance. Furthermore, shifts in governance structures have a fundamental impact on the economic, the organisational and the technical performance of network industries (Kessides 2004:1-17; Fink, Mattoo & Rathindran 2002:18; OECD 1999:18). However, even after the liberalisation of telecommunications networks, governments retain a regulatory role to ensure that telecommunications services are supplied in a manner consistent with national perceptions of the public interest (Intven 2000a:1). This paper focuses primarily on telecommunications as a network infrastructure industry, a special “business affected with a public interest”.

The following section briefly looks at the role of telecommunications in the economy. This is followed by a section on telecommunications regulation as public policy.

2.2.1 The role of telecommunications

Until the early 1960s, telecommunications was often considered a service mainly consumed by the elite for mostly trivial purposes. It used to be regarded as a natural monopoly and a relatively straightforward public utility. Economies of scale, political and military sensitivities and large externalities made telecommunications a typical public service. During the 1960s and 1970s, however, policy makers gradually began to recognise telecommunications systems as essential infrastructure for economic development. It was shown that telecommunications services played a major role in a wide range of economic production and distribution activities, the delivery of social services and government administration. These services also contributed to improving quality of life and achieving social, political and security objectives (Melody 2002b:5-6; Intven 2000a:1; James 2001:3; Saunders, Warford & Wellenius 1994:304-305).

The telecommunications sector is now widely considered to be a strategic investment that is vital to maintaining and developing competitive advantage at the level of the nation, the region and the enterprise. Telecommunications constitutes the core of, and provides the infrastructure for, the information economy as a whole. From the standpoint of the user, telecommunications facilitates entry to the market, improves customer service, reduces costs and increases productivity. Telecommunications infrastructure, historically considered a national asset, a natural monopoly and a relatively straightforward public utility, has now become the backbone of an interconnected world economy that requires speed and efficiency of information transfer, thus the impetus to restructure (James 2001:3; Collins & Murrone 1996:21; Saunders et al 1994:305).

As an international infrastructure, telecommunications is the “nervous system” of an emerging global information economy. The industry has grown into a highly sophisticated “intelligent network” that carries valuable services and products in the form of information. Countries and firms that lack access to modern systems of telecommunications cannot effectively participate in the global economy. Telecommunications also holds a strategic position in the building of a dynamic and flexible national economy because it cuts across and integrates social and economic activities. According to Petrazinni (1995:2), in the developing world telecommunications is now a fundamental prerequisite for any national or large-scale growth project.

As has been indicated in Chapter 1, many countries have implemented far-reaching reforms over the past two decades. Many state-owned telecommunications operators were privatised and a movement of pro-competitive and deregulatory telecommunications policies swept the world. New market-based approaches to the supply of telecommunications services were introduced in many countries.

The movement towards a global liberal telecommunications regime required a shift to a different regulatory approach. Thus, the 1990s witnessed a trend towards establishing independent national regulatory agencies (NRAs) to pursue the objectives of telecommunications reform, namely ensuring access to widely available and affordable services and rapid network modernisation. Melody (2003b:1) confirms that, during the 1990s, NRAs were the major vehicle for promoting

liberalisation and the extension of networks to meet universal service objectives. However, in recent years, the most developed countries have been looking further than the conventional telecommunications network and services. They are looking at broadband access to the network, and internet penetration and usage (Melody 2003b:1). In developing countries, on the other hand, the adoption of prepaid mobile services by poor people in rural and urban areas has created unprecedented growth in mobile telephony. In many developing countries mobile penetration exceeds fixed-line penetration and has much broader geographic coverage. Melody (2003c:8) predicts that the major vehicle for universal access to voice and related services in the future will be mobile.

2.2.2 Telecommunications regulation as public policy

Parsons (2001:3) points out that the notion of public policy presupposes a sphere of life which is held in common. He reckons that the public is made up of that dimension of human activity that is regarded as requiring governmental or social regulation or intervention.

The modern meaning of the word “policy” is that of a rationale, a manifestation of considered judgement. “Policy is an attempt to define and structure a rational basis for action or inaction” (Parsons 2001:14). Thus, public policy is concerned with how issues and problems come to be defined and constructed, and how they are placed on the political and policy agenda (Parsons 2001:XV). He emphasises that the concepts “public” and “policy” have not been static but have undergone change in theory and practice in recent years.

Regulation as public policy refers to the diverse set of instruments by which governments set requirements on enterprises and citizens. Regulation involves the use of laws, orders and rules issued by all levels of government and by non-governmental bodies to whom governments have delegated regulatory powers. The three main categories of regulations are: economic, social and environmental regulation (Kirkpatrick, Parker & Zhang 2004:5; OECD 1999:18).

State regulation is in itself neither good nor bad, for it can produce both “good” and “bad”. Regulation can promote economic and social welfare but can also lead to

significant economic and social costs. Therefore, it is the principles upon which regulation is based and the ends that it achieves by which it should be judged. Thus, the challenge is not more or less state regulation, but to choose the right set of economic development and social equity policies and regulations (Kirkpatrick et al 2004:5; Gillwald 1998:2; Mody & Tsui 1995:196).

In telecommunication, regulation is the implementation and enforcement of rules and regulations of telecommunications by a regulatory authority. The regulatory function influences the distribution of private costs and benefits, the extent to which affected private interests understand the impact of administrative choices, and the ability to rely on the information and incentives generated in external labour markets to address agency problems (Melody 1997:21).

Regulation prepares the ground for competition and continues to foster it (Melody 1997:19-20). If regulatory arrangements are weak, governments will run the risk of lessening their ability to align telecommunications policies with national economic and social policies.

Widely accepted telecommunications regulatory policy objectives include: promoting universal access to basic telecommunications services; protecting consumer rights, including privacy rights; fostering competitive markets to promote the efficient supply of telecommunications services, good quality of service as well as advanced services at affordable prices; preventing the abuse of market power by dominant operators; and increasing telecommunications connectivity for all users through efficient interconnection arrangements (Intven 2000a:1; Melody 1997:15).

The objectives of telecommunications regulation may differ from one country to another. For example, most developed countries have extensive infrastructure and near universal penetration of telephone services. In these countries regulation tends to focus primarily on the consumer and keeping tariffs as low as possible. In addition, several developed countries have extended the universal service definition to include the opportunity for internet access at reasonable cost, and others are considering it (Melody 2003b:11).

In developing countries, the main focus is on securing access for those citizens who do not receive services at all (Gillwald 2003a:24; Kessides 2004:50). Regulation, according to O Siochru (1996:9), must simultaneously deflect, encourage and stimulate competition in the interests of adjusting to a global liberalised environment while creating “alien” incentives to provide universal service for social and long-term development.

The telecommunications sector remains a special “business affected with a public interest”. Thus, governments in most countries view telecommunications as an essential public service, as the ability to communicate cheaply and effectively is regarded as a basic right of citizens if they are to fully participate in the economy and in society. Intven (2000a:1) posits that even after the liberalisation of telecommunications networks, governments retain a regulatory role to ensure that telecommunications services are supplied in a manner consistent with national perceptions of the public interest. However, the nature and scope of regulation that is established will have to fit the characteristics of the industry. How this regulation develops and is applied must be determined by actual market circumstances (Melody 1997:15). The role of regulation in developing countries is examined in more detail in Chapter 4.

Regulation as a creator of synergy and a catalyst for growth is most appropriately considered to be a public policy, given that, in the end, regulation is always a form of governmental intervention. Thus, state intervention must be rooted in public policy objectives, for which regulation, ultimately, is only the means towards an end, but never an end in itself (Finger & Voets 2003:5). As such, regulation is part and parcel of the dynamic of national development by private enterprise, but directed in some fashion by the state. Melody (2002b:7) posits that regulation has always been about balancing special privileges and responsibilities to achieve policy objectives. Therefore, the regulators are the instruments of implementation. They are implementing policy that directs and constrains them, but also implies that they should be proactive and innovative to ensure the policies are actually implemented effectively. Melody (2003c:13) stresses that proactive regulation will provide feedback to policy makers on the effectiveness of policy implementation and the need for changes in policy as the dynamic market environment changes. “The

effectiveness of any regulatory strategy must be judged by its ability to expand access to basic services” (Kessides 2004:50).

In conclusion, suffice it to mention that a competitive market, coupled with effective regulation, can go a long way toward ensuring universal access/service. As has already been mentioned, one of the main telecommunications regulatory objectives is the promotion of universal access to basic telecommunications services.

The terms “universal access” and “universal service” and other important concepts such as “market”, “state”, “liberalisation” and “privatisation” are defined and described in the following section.

2.2.3 Definitions

Market

The concept “market” is defined as a system of exchange in which the demands of buyers interact with the supply by sellers. In free markets, this system determines the price (Scruton 1996:334). Markets are a set of transactions by agents on a range of goods and services. In a modern economy, all economic activity, from the production and sales decisions of the smallest farmer to those of the largest corporation, relies on markets (Eggleston, Jensen & Zeckhauser 2002:62-63).

In free market economies, resources are allocated by the “invisible hand” of the market according to consumer demand. The market is the organisational framework that brings together those who supply and those who demand a product, followed by trade at an agreed price. In an ideal completely free market, the price will fully “empty” the market, as buyers and sellers will agree on price and all goods will be sold. Decision making about what is produced is left to the market. If the demand for a product increases, the price will rise and producers will be induced to supply more and vice versa. Thus, market prices act as signals to producers to supply more or less of a commodity according to the changing profitability of production. The efficiency of markets relies on prices acting as signals, on suppliers responding, and on the mobility of the factors of production to enable supply to be forthcoming (Thirlwall 1999:219-220).

Apart from its allocative role, the market also has a creative function, notes Thirlwall (1999:220). This function produces the dynamic forces that lead to technical progress, innovation and ultimately investment. However, the stringent conditions needed for markets to perform their allocative and creative functions optimally are unlikely to be satisfied in any economy, least of all in developing countries, as no markets are perfectly competitive. Many markets are run by a few dominant firms whose market power can be (and sometimes is) used to the detriment of consumer welfare and overall industry performance. Market power is generally defined as the power to unilaterally set and maintain prices or other key terms and conditions of sales without reference to the market or to the actions of competitors (Intven 2000b:5).

There is nothing in the market mechanism that guarantees an equitable distribution of income in society, or directs adequate resources away from present consumption to build up resources for a higher level of consumption in the future. Thus imperfect markets and market failures will remain a feature of society. Market failure happens when resources are misallocated, resulting in waste and lost value (Intven 2000b:5).

The state intervenes in the operation of a market-based economy for several reasons, including to respond to market failures, to limit abuse of market power and to improve economic efficiency. The type of intervention may be behavioural or structural. In the case of behavioural intervention a public authority or regulator tries to modify the behaviour of a particular firm or operator through regulation of their behaviour. Structural intervention affects the market structure of the industry. For example, governments may intervene to prevent a merger of two major telecommunications network operators (Intven 2000b:5).

The efficient functioning of markets depends on an effective supporting institutional structure. Therefore, the effectiveness of telecommunications markets depends on the creation of a solid legal foundation and an independent, competent and effective regulatory system. A main task of the regulator is to ensure fair competition between the incumbent and new entrants and to restrain the incumbent's abuse of market power in intermediate and end-user markets (NERA 2004:17).

State

“State” is a contested concept about which there are rival and incompatible theories. According to Castells (1997:305), the theory of the state has been dominated by the debate about institutionalism, pluralism and instrumentalism. Institutionalists of the Weberian approach highlight the autonomy of state institutions. Pluralists explain the structure and evolution of the state as the outcome of a variety of influences in the continuous formation and reformation of the state. Instrumentalists including Marxists regard the state as the expression of social actors who pursue their interests and achieve domination, be it without challenge within the state or as the unstable result of struggles, alliances and compromise.

The state is “the continuous administrative, legal, bureaucratic and coercive systems that attempt not only to structure relationships between civil society and public authority but also to structure many critical relations within civil society as well” (Mody, Bauer & Straubhaar 1995:293). The state is a central actor with survival and consolidation interests of its own. In the past, military and administrative power guided the expansion of states. In contemporary capitalist society, the political power of the state is increasingly determined by its economic wealth. A major part of the modern state’s activity involves guiding, advising, encouraging and subsidising national capital toward profitable chains of production and distribution that cut across old political (national sovereignty-based) boundaries. Virtually all industrialised countries have benefited from state intervention and continue to do so (Mody et al 1995:184). Barry (2000:66-78) defines the state according to two distinctions: the economic theory of the state and the communitarian or organic theory of the state.

Economic theory of the state

According to Barry (2000:66-67), the state is regarded as an agency for the production of public goods, which agency will be used only when market transactions fail to deliver what individuals want. A public good is defined as a good that, when consumed by one person, does not reduce the amount available for others, such as clean air. Individuals are identified as anonymous utility maximisers instead of members of pre-existing social organisations that determine their goals and values. The assumption is that, in a free market, exchanges between individuals will lead to an efficient allocation of resources. The state deals only with individual values and

ends, and denies that a collective entity can have a purpose apart from individual purposes.

In a free market, individuals will profit from trade so that a market is efficient to the extent that all possibilities of exchange are exhausted. Political interference with the process leads to inefficiency where it directs production away from that pattern of goods and services that would take place from the uncoerced exchanges of individuals. Barry (2000:67) cites the examples of long queues, food and other shortages as well as black markets that develop when production is directed in favour of state managers rather than individuals, as seen in state-directed economies.

Critics of the economic theory of the state argue that it is misleading to attribute legitimacy to the state exclusively in terms of its satisfying the subjective and transient wants of citizens (Barry 2000:66-74).

Organic theory of the state

According to the organic theory, the state endeavours to create legitimacy by reference to authority instead of individual choice. The main argument of the organic theory of the state is that the whole notion of authority must be based on specific historical experience and traditional structures of rules, and that these must precede the notion of individuality. Here, the state is viewed as the outcome of the natural historical evolution rather than the choices of individuals abstracted from society. The state is a channel for the transfer of private wants for public goods instead of individuals delegating authority to the state to perform certain tasks; the authority of the state is said to exist before the actions of its officials (Barry 2000:60-78).

In organic theories, the state is defined as an objective order that exists independently of the rational choices of individuals. The state is not just a mechanism for the transmission of individual desires for necessary public services; it is a necessary precondition for the exercise of any individual choice at all (Barry 2000:60-78).

Critics of the organic approach assert that by refusing to distinguish between “governing” by the state and law, or between political and legal modes, the organic

theory disables itself from a sustained critical analysis of the actions of the officials of the state, as decisions made by officials of the state are subjective decisions because states do not act (Barry 2000:77).

Concluding his distinction between the economic and organic theories of the state, Barry (2000:77) concedes that the growth in the size of the state in all Western democracies since the beginning of the 20th century can only be satisfactorily explained in terms of the economic theory. He further points out that the state is no longer limited to the supply of genuine public goods, but it now produces goods that could be produced by the market.

The efficient functioning of markets depends on an effective supporting institutional structure (Melody 1999:12; Thirlwall 1999:223). Thus, the effectiveness of telecommunications markets depends on the creation of a solid legal foundation and an independent, competent and effective regulatory system.

In terms of developing countries, Martinussen (1997:266) concedes that the vast majority of them could improve their economic performance by introducing market-oriented reforms. In general, market-oriented reforms are likely to alter rather than reduce the demands on public policy and public institutions.

Liberalisation

Liberalisation refers to the opening up of selected sectors of the economy to competition by private companies, or deregulation. In a market-based economy competition means that multiple suppliers compete with each other to sell their goods or services to customers. Competitive suppliers may offer lower prices and more and/or better quantities and qualities of service to attract customers. Competition serves the public interest by encouraging suppliers to become more efficient and to offer a wider choice of goods and services at lower prices (Intven 2000b:1).

Liberalisation of the telecommunications industry mainly takes the form of duopoly – a market opened to competition but restricted to two players (Wellenius, Stern, Nulty & Stern 1997:133) and oligopoly – a market in which a few monopolies operate in their own interest (Scruton 1996:391). Competition at the margin varies significantly in different telecommunications industry markets, for example public network

services, value-added network services (VANS), network facilities and subscriber equipment.

The liberalisation of telecommunications markets was motivated by several factors:

- Ever increasing evidence that more liberalised telecommunications markets were developing and innovating faster and serving customers better;
- The need to attract private-sector capital to expand and upgrade telecommunications networks and to introduce new services;
- Growth of the internet, which led data traffic to overtake voice traffic in many countries and saw the introduction of many new service providers;
- Growth of mobile and other wireless services, which provided alternatives to fixed networks;
- Development of international trade in telecommunications services that are increasingly provided by transnational and global companies (Kessides 2004:36-44; Intven 2000a:1).

Throughout the 1990s many countries went through gradual liberalisation involving privatisation of the incumbent national operator, the establishment of a national regulatory authority and the licensing of alternative operators. There is general consensus that regulatory intervention is needed to implement a successful transition from monopoly to competitive telecommunications markets (Melody 2003:4; Intven 2000a:1).

Two practical approaches to introducing competition into a telecommunications market can be distinguished. The first is to accept newcomers without any explicit restriction on the number of firms – the “big bang” approach. The second approach is more gradual, admitting competitors in limited numbers – the “managed liberalisation” approach. Under each approach a certain degree of universal service is provided through income redistribution within the industry.

It is argued that competition is a much more important factor than ownership in influencing efficiency, as the key issue is applying efficiency criteria and establishing conditions for competitive access, and not ownership arrangements. Samarajiva (2000:699) notes that competition not only reinforces organisational reform of the

incumbent but also contributes to the consolidation and legitimisation of regulation and prevents the rollback of advances in the organisational reform of the incumbent operator as well as the rollback of advances in regulation.

The literature shows that reforms and the introduction of competition in the telecommunications market significantly impact on performance and that competition rather than a public-to-private change in ownership energises efficiency and growth. Wallsten (1999:1-19) analysed telecommunications reform in 30 African and Latin-American countries. He examined how and to what extent privatisation, competition and regulation may have affected performance from 1984 to 1997. He found that competition correlated with increases in the per capita number of main lines, pay phones and connection capacity, and with decreases in the price of local calls. He also found that performance gains occurred as a result of competition and when privatisation was coupled with effective and independent regulation.

Fink et al (2002:1-37) came to a similar conclusion when they analysed the impact of ownership and competition on telecommunications performance. Their sample included 86 developing countries across Africa, Asia, the Middle East, Latin America and the Caribbean over the period 1985-1999. They found that both privatisation and competition led to significant improvements in performance. A comprehensive reform programme, involving both policies and the support of an independent regulator, produced the largest gains: an 8 percent higher level of mainline operations and a 21 percent higher level of productivity compared to years of partial and no reform. In Sri Lanka the introduction of direct competition in 1996 led to a qualitative increase in the rate of network rollout (Samarajiva 2000:702). A similar effect was evident in Brazil, where the fixed telephony teledensity increased from 10,66 in 1997 to 22,32 in 2002 as a result of privatisation and the introduction of competition (ITU 2003:1). In India increased competition in the telecommunications sector led to a greater choice of providers and products, better quality of service and lower prices (Malik 2004:17).

The sequencing of privatisation and the introduction of competition are important policy decisions. In many cases, market liberalisation has been delayed in order to achieve higher sales by the incumbent – in effect propping up the value of the incumbent by giving it a cushion of monopoly rights. A monopoly provider, whether

state-owned or private, faces fewer incentives to improve service and lower prices than do firms operating in a competitive environment. However, even a duopoly does not necessarily improve service or lower prices, as the operators can divide the markets between them through collusion or oligopolistic practices. The full benefits of lower prices, more choice and service innovation can only be unleashed with aggressive competition that arises when several operators are involved in the market (Dymond & Oestmann 2003:51).

However, Melody (2003b:4) found with respect to international services that the incumbent operators continue to dominate the markets even in the countries where competition is strongest. Only in the US and the United Kingdom (UK) have the market shares of the dominant operators fallen below 50 percent.

According to Parker and Kirkpatrick (2003:24), due to lack of administrative and institutional capacity many developing countries have failed to develop competition policies and regulatory agencies to prevent market abuse by dominant operators.

Privatisation

Privatisation involves selling or transferring at least part of the ownership of state-owned assets to private owners (Parker & Kirkpatrick 2003:1; Straubhaar 1995:3; Petrazinni 1995:5), the right to take allocative decisions and entitlement to the residual profit flows (Fink et al 2002:6). The structure of the market remains unchanged, though. Jussawalla (1995:165) views privatisation as a structural shift that favours greater reliance on market forces for efficient resource allocation as a means to overcome the effects of high costs and poor performance of state-owned operators. Under state ownership, services were usually under-priced, and developing countries often could not afford the substantial investments required to expand services to large parts of their populations (Kessides 2004:35). A key attraction of privatisation is that it places the realignment of prices with underlying costs at the centre of the reform agenda.

Privatisation typically has several objectives, including improving service provision, quality and the efficiency of the firms; stemming the flow of public subsidies, which represent scarce public resources badly needed in other areas; and generating revenues for state coffers (Wallsten 2002:2). Parker and Kirkpatrick (2003:19) argue

that the prime objective of privatisation in developed economies, apart from raising funds for government, is to increase economic efficiency. Here, the emphasis is on raising productivity and reducing production costs, focusing on performance at the enterprise level. In developing countries, the objective of obtaining maximum output from scarce resources remains an important focus, although it is coupled with two fundamental goals: poverty reduction and sustained economic development.

Privatisation can be conducted through several processes. The simplest and most common is sale of stock through share offerings. A more strategic approach is to sell large blocks of stock to companies who then become strategic investors or partners in the privatised company. This approach has been followed in South Africa, Mexico and Venezuela (Straubhaar, McCormick, Bauer & Campbell 1995:237).

As mentioned earlier, governments have embraced the policy of privatisation for a variety of reasons and goals. One of the main objectives has been and continues to be to raise capital that can be used for very different purposes. For example, in developing countries such as Jamaica and Argentina, the primary aim of privatisation has been to pay off national debts, whereas Mexico and Venezuela raised capital through privatisation mainly to invest in new infrastructure or to acquire technology to improve infrastructure. In South Korea, the primary goal of privatisation is to improve efficiency (Castells 1996:89; Straubhaar 1995:19).

In developing countries, privatisation can promote economic growth by increasing investment and improving resource use. In Senegal, partial privatisation of Sonatel, the country's telecommunications operator, led to a 193,8 percent growth in fixed-line penetration between 1997 and 2002 (Dymond & Oestmann 2003:51). However, it may also reduce growth where private investment is not forthcoming and key sectors of the economy under-perform following the state sell-off (Parker & Kirkpatrick 2003:19).

While privatisation does not result automatically in network growth, it is an important ingredient for effective competition. The state should not be a market player and a referee at the same time. For competition to be fair, the state should not have a vested interest in any of the network operators. So privatisation of the incumbent gives the industry some confidence that policy decisions and regulation are fair to all

players (Dymond & Oestmann 2003:51). Parker and Kirkpatrick (2003:24-25) found empirical evidence that privatisation works best in developing countries when it is integrated into a broader development framework.

Finally, it is important to note that liberalisation and privatisation generally have a significant effect on the degree and patterns of regulation. With the transfer of service operations to private hands under monopoly conditions, the state generally has to increase or create oversight and enforcement capacity in the sector to prevent predatory behaviour on the part of the incumbent. To enhance the development of real competition in the telecommunications sector and to maintain it over time, telecommunications regulators should ensure that the market entry door is open. By means of effective telecommunications regulation, competition could indeed be a major tool for achieving both the economic and social objectives of regulation (Melody 1997:19-20).

Universal access and universal service

The restructuring of the telecommunications market and the introduction of competition have placed the issue of universal access/service on the political agenda. As has already been mentioned, one of the main telecommunications regulatory objectives is the promotion of universal access to basic telecommunications services. The concept “universal access” was introduced by AT&T chairman Theodore Vail in the late 19th century. Universal access is defined as the availability of telecommunications or ICT beyond the premises or house, within a reasonable distance. “Universal service” is defined as the availability of telecommunications or ICT at the premises or house (ITU 2003:1; Van Audenhove, Burgelman, Cammaerts & Nulens 2003:103; Anthony, Roth & Christensen 2002:7; O Siochru 1996:1). Implicit in the principle of universal access/service is the notion that basic telecommunications service is a public good that all citizens are entitled to and warrants the support and protection of the government.

Under the public utility principle the telecommunications network should be extended not just to the limit of economic efficiency, but also to the limit of social need. From an economic perspective the services should satisfy the full range of consumer demand and be supplied under conditions of optimal efficiency. From a social

perspective, the service should be made available to everyone on reasonable terms, even if it is unprofitable to do so (Melody 1997:15-21).

Thus, access to affordable telecommunications services has always been the goal of universal access/service policy. Van Audenhove et al (2003:103) argue that in a developmental context it is perhaps more appropriate to consider universal access and seek new ways of extending access to networks and more advanced services. A view supported by Samarajiva (2000:184), who regards the extension of the network as the primary objective of regulation in developing countries.

The explosive growth of mobile services in developing countries to meet the needs of the poor in both urban and rural areas has convinced Melody (2003a:3-8) that the prepaid mobile service is now the vehicle for achieving universal access to voice and related services. At present, mobile penetration exceeds fixed-line penetration in many countries, and has a wider geographic coverage. However, internet services are increasingly becoming recognised as the new target for universal access. Already South Africa sees the implementation of universal service and universal access as going beyond basic telephony services and encompassing advanced services such as internet access (Universal Service Agency 2004:1).

While mobile networks have a greater geographic coverage than fixed-line networks, they lack the capability to satisfy the objective of internet access. According to Melody (2003a:20), the most universal communication facilities are those providing radio and television services. He believes that if some kind of universal access to limited internet service is to be achieved for the vast majority of people in developing countries in the near future, it will be provided over existing radio and television transmission and distribution networks.

Meeting the challenge of universal service delivery and connecting unserved and under-served areas are critical for regulators throughout the world. In developing countries such as South Africa tension may exist between the objectives of poverty reduction and access to basic services on the one hand and fostering positive conditions for economic growth on the other hand. However, these two goals should not be seen as contradictory as long as there is a regulatory strategy that focuses on both developmental and economic growth objectives.

2.2.4 Markets and states: a close relationship

All too often the argument about the role of the state is disabled by a misleading dichotomy between the market and the state or between individualism and collectivism (Barry 2000:82). Both the state and the market are crucial for the reproduction of capital. Although one is private and the other is public, they are inseparable, as neither the market nor the state can exist independently of the other (Tsie 1996:87). Neither state nor market models exist in their pure forms. They are related to a specific national context. The interaction of states and markets is dynamic. One influences the other constantly, changing patterns of interests and values.

Neo-classical economists argue that free competition and market mechanisms, in all countries and under all circumstances, would bring about a more optimal allocation of production factors and a more optimal distribution of commodities than a regulated economy with administrative control and central planning (Martinussen 1997:261). They often apply an ideal-type construction of a perfect market with unrestricted competition and propose that the economic role of the state should be minimised – the state should be “rolled back”. Matters should be left to the price mechanisms in competitive markets to decide what should be produced and in what quantities (Martinussen 1997:261-262).

Current thinking about the state has exposed the neo-classical dichotomy between state and market and between public and private as false in two respects. Firstly, there is no clear borderline. There are no “pure” cases of public and private enterprises. In most countries there are several types of overlapping ventures such as jointly owned companies; public companies with hired-in private-sector management; and private firms operating publicly licensed franchises. Secondly, markets require a legal and regulatory framework that only governments can provide. Legal entitlements and liabilities are just as important as the market system of commodity exchange. Thus the overriding concern is to determine the most appropriate division of labour between the state and the market with a further view to avoiding both state and market failures (Martinussen 1997:265-266).

There is general consensus that the state is essential for providing the appropriate institutional environment for markets to flourish and operate efficiently, and for providing an enabling environment in which markets prosper, basic infrastructure is provided, and the poor are empowered to participate. It is increasingly recognised that an effective state is central to successful economic, social and sustainable development. Development without an effective state is impossible, and the state should act as partner and facilitator rather than as director. In this sense, markets and government intervention are complementary (Martinussen 1997:270; Thirlwall 1999:224).

Hong Kong, Singapore, Taiwan and South Korea are cited as successful examples of the state and the private sector working in harmony with each other, the state providing the economic and legal environment for markets to flourish but assuming an entrepreneurial role and intervening where necessary. Thus, the state plays an important role in providing a predictable environment in which people, ideas and money work together productively and efficiently (Martinussen 1997:270; Thirlwall 1999:224).

The expansion of the role of the market can facilitate not only improved efficiency but also the achievement of public policy objectives. Virtually all telecommunications reforms being considered by governments around the globe entail some reduction in the monopoly control of the traditional telecommunications entity and some increase in the influence of market forces over operations and investment in the sector.

2.3 SUMMARY

This chapter has sought to lay the basis for the discussion of telecommunications regulation as public policy. It described both the historical and the current situation of network industries with a special focus on telecommunication. Telecommunications used to be seen as a natural monopoly and a relatively straightforward public utility. Economies of scale, political and military sensitivities, and large externalities made telecommunications a typical public service. However, the monolithic model proved increasingly unsuited to dramatically changing conditions in both developed and developing countries. Policy makers began to recognise telecommunications systems as an enormously valuable economic resource, and a vital infrastructure for

economic growth and development. As a result, public policies for network utilities such as telecommunications emerged worldwide.

Around the world it became clear to policy makers that the problems of public enterprises could be solved only by implementing radical structural changes and realigning the roles of government and the private sector. In the 1990s numerous state-owned telecommunications operators were privatised and a wave of pro-competitive and deregulatory telecommunications policies swept the world. New market-based approaches to the supply of telecommunications services were introduced in many countries.

The restructuring of monopolistic telecommunications markets into competitive ones required regulatory intervention. The overall objective of regulation was to ensure that public policy objectives for the telecommunications sector continued to be met. The accepted regulatory policy objectives for the sector include: the promotion of universal access to basic telecommunications services; the protection of consumer rights; the fostering of competitive markets to promote the efficient supply of telecommunications services and advanced, good quality services at affordable prices; the prevention of the abuse of market power by dominant operators; the promotion of increased telecommunications connectivity for all users through efficient interconnection arrangements (Intven 2000a:2; Melody 1997:15).

For regulation to function as public policy, governments must first identify and prioritise their policy objectives. In turn, these policy objectives will be translated into policies and regulatory rules that the regulator can implement (ITU-D 2001:14). Pekka Tarjanne, former secretary-general of the ITU, stressed that it is essential that governments give their regulators clear policy guidance, as regulators need to know what they are trying to achieve and need to keep their goals uppermost in their minds as they implement and maintain their regulatory framework. “Being sure of the destination at the outset is the surest way of getting there” (Tarjanne 1999:10).

The approach outlined here lays the basis for a closer look at regulation as state intervention to achieve the state’s public policy objectives, namely to ensure affordable access to telecommunications services and to modernise information infrastructure.

CHAPTER 3

REGULATORY ENVIRONMENT

3.1 INTRODUCTION

This chapter is a continuation of the literature review started in chapter 2. It gives a thorough overview of regulatory standards, starting with the history of telecommunications regulation. The discussion then deals with regulatory standards and looks at regulatory agencies in general, followed by specific issues such as the different organisational models of telecommunications regulators; it also looks at the accepted telecommunications regulatory policy objectives that were introduced in the previous chapter, and discusses the core features of an effective regulator as well as issues relating to independent regulation. This is followed by a discussion of the regulatory process, including the critical issue of financing and the organisation of the staff of the regulatory agency. This review of literature also attends to regulation in the context of developing countries, which differs from that of developed countries, and pays special attention to pertinent regulatory issues for developing countries such as the promotion of universal access and universal service. The review concludes by briefly looking at some of the lessons that can be learnt from the varied experiences of regulators worldwide.

3.2 HISTORICAL BACKGROUND OF TELECOMMUNICATIONS REGULATION

The telecommunications industry started as a free enterprise market at the end of the 19th century in the US and Europe. However, as the technology was patented, one company could monopolise the sector for the period of the patent, usually 20 years. In the 20th century, the demand to interconnect growing national and international networks cemented the monopolies. Consequently governments became keen to control the excessive power of monopolies and provide the population with affordable telephone services (Gartner 2002:1). Major telecommunications operators in the US such as AT&T were public companies. In most other countries, government regulated and owned the monopoly (Gartner 2002:1; Van Audenhove et al 2003:99; Melody 2002b:7; Wallsten 2002:5; Melody 2003:4; Intven 2000a:3).

In the US, the liberalisation of telecommunications markets began in the late 1960s and 1970s with decisions by the national regulator, the Federal Communications Commission (FCC), to approve specific applications for entry to specific telecommunications markets. The liberalisation was done to stimulate the development of new “computer-communication” technologies, services and markets (Melody 2002b:9). The markets were further expanded with the break-up of AT&T in 1984 and the new Telecommunications Act in 1996, which declared all telecommunications markets open to competition. In the UK, liberalisation started with the privatisation of British Telecom in 1984. In the 1990s the rest of the European Union (EU) and other countries around the world went through gradual liberalisation (Melody 2003b:4).

In the late 1990s, more than 100 countries committed themselves to telecommunications liberalisation programmes under the World Trade Organisation (WTO) agreement. By the turn of the century about half of the countries of the world supplying more than 80 percent of the world's telecommunications traffic had committed themselves to these programmes and established national regulatory agencies (NRAs) to oversee their implementation (Melody 2003b:4).

Government regulation of private sector telecommunications operators started in the US and Canada towards the end of the 19th century (Intven 2000a:3). The US also has the longest and most complex history of regulating telecommunications operators, complicated price regulations, and a mix of federal and local regulations. In the last 20 years, the telecommunications industry in the US was involved in much litigation (Gartner 2002:2-3; Kessides 2004:74).

Gartner (2002:2-3) identifies the following key events that helped shape the break-up of the monopoly structures in a number of countries:

- The mid-1980s divestiture of AT&T in the US and the establishment of a duopoly in the UK, which set the scene for competition in the long-distance markets in many other countries;
- Technological advances in wireless cellular technologies at the beginning of the 1990s, which led to massive infrastructure deployment and proliferation of

customers, enhanced by governments' competitive licence awards and further "hands-off" regulatory treatment;

- The economic slump of the early 1990s, which pushed governments in Europe, Latin America and Asia-Pacific to search for new resources by privatising their postal, telegraph and telephone (PTT) agencies;
- The Telecommunications Act of 1996 in the US, which spurred the opening of local markets to competitors in the country, and the European decision to open the local loop in 2001 and similar measures elsewhere;
- The freedom of offering value-added information services over networks in the 1980s, which broadened the market for the public internet in the 1990s;
- The WTO's telecommunications agreements of 1997 to 1998, which committed several countries worldwide to open their networks to competitors; and
- Wireless spectrum auctions at the end of the 1990s, which acted as taxes and exploited the financial strength of the operators and the equipment vendors (Gartner 2002:2-3).

3.3 REGULATORY STANDARDS

A regulatory regime cannot succeed unless its operation has legitimacy within the community it serves. To this end, certain process values must be recognised, including those of expertise, transparency and accountability. The following subsections look at some of the pertinent issues in terms of regulatory standards such as the regulatory agency's organisational structure, objectives and core features of the regulator, regulatory independence and financing processes, regulatory procedure, and the organisation and competence of the regulatory staff.

3.3.1 Regulatory agencies and their organisational structure

Baldwin and Cave (1999:69) define regulatory agencies as bodies that act on behalf of central government but are not central state departments. One of their strengths as institutions is an ability to combine governmental functions. They often decide disputes between parties, and promulgate and enforce rules. Their regulatory work is usually directed at a particular sector, for example telecommunication.

Regulatory institutions have two characteristics: They are non-profit and tax-financed. Their task distinguishes them from other bureaus in two respects. In the case of a bureau, the tax payer carries the full cost of the bureau's activity. In the case of a regulatory institution, taxes finance only a small proportion of the total cost of the regulatory activity. Most of the costs of the transfer implicit in regulation are financed by the regulated industries or shared with customers, employees and suppliers (Horn 1995:41-42).

Regulatory institutions have the following advantages over ministerial departments: They offer greater continuity of policy; they combine a wider range of functions successfully; they may adjudicate independently of political interference; and they can develop high levels of special expertise. Compared to courts, regulatory agencies offer a better-resourced capacity to develop plans and policies for their sector and can combine adjudication with a host of other functions such as direct enforcement (Baldwin & Cave 1999:70).

In the telecommunications sector, the regulatory agency acts as a buffer between telecommunications operators and government, helping to ensure the separation of functions. Whereas the public telecommunications operator (PTO) and other operators, once separated from direct government influence, may focus too narrowly on economic objectives, the regulatory agency can ensure recognition of social and other policy objectives as well (Melody 1997:21).

The International Telecommunications Union (ITU) reports that globally there are 124 regulatory agencies that oversee increasingly competitive telecommunications markets. In 1992 only five African countries had established separate regulatory agencies, but by 2004 the number of regulatory agencies had risen to 40. This means that more than 75 percent of African countries now have a regulatory agency to promote the development of ICT for all (ITU Telecom Africa 2004:3).

The organisational structure and form of regulators vary. The case studies of regulatory structures and processes in nine countries (Canada, France, Germany, Japan, Mexico, New Zealand, Spain, the UK and the US) by Tyler and Bednarczyk (1993:658-660) and the survey report of the ITU-D (2001:1-25) disclose various degrees of independence and structural separateness:

A distinct regulator within the government ministry, separate from the PTO.

France and Japan are cases in point. A regulatory body of this kind may be perceived as less objective in resolving disputes between the established PTO and competitors, especially if the PTO is wholly or partly owned by the government.

Semi-autonomous regulator

This regulator has delegated powers, and all or some of its decisions are subject to review by ministers, although it may be highly independent in other respects. Canada, the UK and South Africa fall in this category. An advantage of this institutional arrangement is that it may favour policies that are relatively consistent and stable over time, based on a legislative mandate with a long life. There is little risk of conflict of interest, real or perceived. The regulator is insulated to a certain extent from the efforts of lobbyists. Critics regard this approach as a costly option because of the requirement of a separate organisational infrastructure and its own technically and analytically expert staff.

A case study (Xavier 2000) of Hungary's regulatory reform found that despite the existence of an ostensibly independent regulator, the Minister and Ministry for Transport, Telecommunications and Water Management (KHVM) are still making important regulatory decisions, including those on price regulation, interconnection fees and the allocation of concessions to operators. Xavier (2000:812) found that the independence of the regulator is essential in order to shift "competition" among the major industry players out of the arena of politics and bureaucracy and into the marketplace.

Fully autonomous regulator

The Federal Communications Commission (FCC) in the US is the leading example of a fully autonomous agency. It is a highly independent body, answering to both the president and congress (Toulmin 1998:4). Decision making in this model is more transparent and there tends to be more clearly defined ways in which this commission is accountable for its actions than in other regulatory models. Legal procedures and the discipline of law tend to dominate administration. However, entrenched interests sometimes use the FCC to delay or prevent the entry of new competitors (Gillick 1992:727). The appropriate choice is made by the individual country's constitutional and legal framework.

Quasi-regulatory unit within the PTO itself

Many developing countries and a few developed countries follow this very traditional approach. It has low credibility in terms of the ability to make (and to be seen to make) decisions objectively where the interests of parties other than the PTO are concerned.

No industry-specific telecommunications regulator

New Zealand is a leading example of this option. Certain regulatory functions are performed, but there is no distinct telecommunications regulatory agency that intervenes actively in the affairs of the industry. They rely on general commercial and competition law for most aspects of market regulation. Specific regulatory mechanisms that do exist are overseen by the common law courts (OECD 2000:13). The ITU-D (2001:4) report on the establishment of an independent regulatory body notes that the New Zealand regulatory model requires a highly developed legal environment with a tradition of competition regulation. Proponents of this approach argue that it encourages industry participants to solve problems themselves without recourse to a referee. Melody (1999:16) refers to this approach as a “time-consuming, expensive and unproductive ‘judicial’ regulation”.

Converged regulatory bodies

As mentioned earlier, the rapid technological developments and the challenge of the convergence of technologies are testing long-held notions about the role of the regulator and strategies to achieve equitable delivery of services (James 2001:9). An increasing number of countries are responding to the new environment either by merging their telecommunications and broadcasting regulatory authorities or improving coordination between various agencies involved in the ICT sector. While this model has been long-standing in the US and Canada, it has been a more recent phenomenon elsewhere. Nations that have opted for this course include the UK, France, Italy, Malaysia, Papua New Guinea, Tonga, South Africa, Switzerland, Gambia, Uganda, and Bosnia-Herzegovina. It should be noted that converged regulators come in all shapes and sizes, and there is no one model, or template, that nations pursue (Yankee Group 2003:17).

According to the ITU-D (2001:13-14), survey report a converged regulator would be in a better position to address the needs of all communication services, considering

their interrelated nature due to the rapid technological advances of digital technology, such as Internet Protocol, which can carry a whole range of communication services including voice telephony, video conferencing and webcasting. The ability of delivering all communication services over the same networks makes it difficult to categorise the services provided by individual operators and to identify which category their infrastructure belongs to. The blurring of the distinction in infrastructure and services presents a significant challenge to the traditional vertically segmented approach governments have taken to regulation.

In its report, the Yankee Group (2003:18) cautions that merely creating a converged regulatory model is no panacea for effective and efficient regulation. Structural and functional changes to regulatory arrangements must be accompanied by key elements that apply to the establishment of independent sector regulators, such as a clear and detailed legislated mandate. In addition, regulatory mandates must be clear and tied to overall national objectives and legal frameworks that support reform.

Unique cases

Unique regulatory structures are found in Austria and Switzerland. In Austria, the regulator is a private-sector non-profit limited-liability company that is fully owned by the state. The Ministry for Science and Technology exercises shareholder's rights on behalf of government. In Switzerland, there are two regulatory bodies: the Communications Commission (ComCom) and the Federal Office for Communications (OFCOM), both of which exercise regulatory functions. ComCom is an independent regulatory body responsible for making fundamental decisions on telecommunications. OFCOM, on the other hand, assists ComCom. It submits proposals to ComCom, prepares its files and implements its decisions. OFCOM carries out this duty independently, subject to directives from ComCom (ITU-D 2001:4).

3.3.2 Telecommunications regulatory objectives

The fundamental objective of regulation under the public utility principle is to ensure that everyone has access to reasonable services at reasonable prices. The basic objective of regulation has two components, one economic and one social or socio-political (Melody 1997:16; Samarajiva 2002a:1). From an economic perspective the

services should satisfy the full range of consumer demand and be supplied under conditions of optimal efficiency. From a social perspective, the service should be made available to everyone on reasonable terms (Melody 1997:16). Socio-political objectives tend to involve the redistribution of resources. Thus, as pointed out earlier, the government of the day sets the socio-political objectives and determines the associated political processes that mandate the regulatory agency to devise optimal ways of achieving the stated policy objectives (Samarajiva 2002a:1).

The main objectives of telecommunications regulation are often similar across settings. The list below outlines some regulatory objectives that are widely accepted worldwide (NERA 2004:18; Intven 2000a:2; ITU-D 2001:9; Dymond & Oestmann 2003:64; Tarjanne 1999:10; Toulmin 1998:5; Gillick 1992:731).

- Prompt realistic improvements in service and price;
- Assistance in creating a desired structure for the telecommunications sector;
- Protection of consumer interests;
- Regulation of competition in various lines of business, and prevention of anti-competitive behaviour;
- Achievement of a fair balance between public policy objectives and the commercial objectives of telecommunications operators;
- Ensuring that the areas regulated (price control, interconnection arrangements, customer protection and technical standards) are critical to achieving a desired sector structure;
- Provision for pragmatic but stable, consistent, objective, equitable and transparent decision making;
- Adjudication of disputes, especially interconnection issues;
- Promotion of universal access/service to basic telecommunications services;
- Ensuring consistency with treaties, international conventions and bilateral agreements; and
- Ensuring that the cost of regulation for both the state and the industry being regulated is kept to the minimum necessary to achieve the aims of the regulatory framework.

3.3.3 Core principles of an effective regulator

There is general consensus that, for a regulatory system to be effective, it must be independent, transparent and capable of providing regulatory certainty. These elements build trust, give investors the information they need to take risks, ensure fair competition, manage scarce resources efficiently, and promote the public interest (Kessides 2004:17; Copps 2002:2; Tarjanne 1999:10; Melody 1999:23; Sinha 1995:302).

The core features of international best practice of an effective regulator include:

- Independence of all political and business interests, rather than political allegiance or being prone to regulatory capture;
- A clear mandate for the regulator relative to other institutions to ensure a predictable environment for industry players;
- Strong enforcement capabilities to set up safeguards against anti-competitive behaviour, to implement rules for arbitration and dispute resolution, and to award, enforce and revoke licences;
- Openness and transparency of decisions and processes, which help build consensus around decisions and increase public support and investor confidence;
- Professional management of competent and highly skilled staff, with job security being offered to regulators and appointments not being linked to changes in government; and
- Financial independence through self-financing mechanisms to ensure regulatory independence, as uncertain budgetary allocations can weaken regulatory capacity and increase the potential for political influence (Kessides 2004:18; Mustafa 2002:1; Copps 2002:2; Melody 1999:12-13; Tuthill 1997:796; Gutierrez & Berg 2000:870-872; Intven 2000a:6-8; Yankee Group 2003:18-19).

The core features listed above help to identify what steps are required to improve performance.

3.3.4 Independence of the regulator

Article 5 of the Regulatory Reference Paper on the WTO agreement on basic telecommunications services refers to the nature of the regulatory body. It states that the regulatory body should be separate from, and not accountable to, any supplier of basic telecommunications services. Such separation inspires market confidence in telecommunications operators and investors that the regulatory body will regulate the market objectively and transparently (Samarajiva 2002a:1; OECD 2000: 7-8; Intven 2000a:5; ITU-D 2001:2).

The two basic reasons why independent regulation is important in achieving the goals of telecommunications reform are to move “competition” among major industry players from the arena of politics and bureaucracy to the marketplace, and to achieve the industry performance objectives of public policy. Independent regulation will only happen if decisions are made on their substantive merits and not on the basis of political favouritism or the backdoor influence of the most powerful industry players. Only an independent, transparent regulatory process that is seen to be so by all affected parties and the public can achieve this (Kessides 2004:51; Intven 2000a:6; Melody 1997:24; Singh 2000:892; Samarajiva 2002a:1; 2001:4).

It is one thing for countries to make a policy decision to create an independent regulatory agency, and quite another to empower the agency to act independently and effectively. Most countries have yet to establish greater regulatory independence to convince investors, competitors and consumers that the regulators are at arm's length from political influence and incumbent monopoly power on specific issues of sector regulation. According to Melody (1999:18), some governments have lost sight of the objectives of promoting efficient and universal service development and focus only on maximising their financial position, either in terms of high dividend payments or sale of their shares upon privatisation. This trend has led them to prefer weaker regulation, restricted competition and monopoly profits. With a narrow legal remit and minimum powers, a small staff, little experience, a small budget, and a government belief in light-handed regulation, it has been extremely difficult for regulation to be effective.

The term “independence” as used in the context of telecommunications reform does not imply independence from the laws and policies of a country, but independence to

implement policy without undue interference from politicians or industry lobbyists (Intven 2000a:7; OECD 2000:14; Melody 1997:22). It also implies independence to acquire specialised skills, to manage without interference and to be accountable for results according to specified performance criteria. In essence, it is a delegation of specific responsibilities, authority and accountability for the performance of specific activities, similar to the situation in any large organisation. The more dynamic the industry and market environment, the greater the independence that is required. However, to be fully effective, the regulatory agency must be publicly seen to be independent from government (Intven 2000a:7; Melody 1997:22).

There can be no condition of complete independence. To achieve the goal of regulatory independence, the mandate of the regulator should be clearly spelt out in national laws. Regulators should be accountable to legislatures or other government bodies including the industry and the public. The regulator should report annually on the extent to which the industry is achieving the policy objectives established by the government, the results of the regulator's monitoring of industry developments, and measures of the regulator's own performance of regulatory activities. In addition, procedures for administrative due process, public justification of decisions, appeals to the courts and public access to information all help ensure the accountability of the independent regulator (Melody 1997:22-24; Intven 2000a:7; Samarajiva 2002b:1).

Samarajiva (2002a:5) contends that independent regulation may be seen as an experiment in good governance. The clear separation of the policy-setting function and the implementation function, with political accountability for the former and administrative/legal accountability for the latter, is a basic element of sound public administration. In Chile, Singapore and the Scandinavian countries with their well-functioning governments, the telecommunications sector has performed exceptionally well, even with regulatory agencies that are no different from government departments. Samarajiva (2002a:1) posits that additional insulation from political pressure is critical only where overall governance is weak, namely in most developing countries. Independence is a firewall to keep out the virus of bad governance. "Bad governance is a system with its own logic. Those who constitute it will not cede territory voluntarily, least of all to a 'seed' of a system antithetical to theirs" (Samarajiva 2001:4). He further regards strained relations between regulators and their governments as probable. However, Samarajiva (2002a:1) insists that it is

not possible to say that good sector performance requires additional protections for regulatory agencies in all cases; there is no single answer for all countries.

A worldwide study conducted in 2003 by the Yankee Group (GSMBOX Ltd 2003:1) has found that while 50 percent of countries have an industry-specific, semi-independent regulator, only 12 percent have an independent body separated from a ministry, and 5 percent of regulators do not answer to a higher or other body. In Asia-Pacific, 71 percent of countries retain a “pre-independent” regulator model. In Africa, 41 percent of countries have a semi-independent regulator, and a further 6 percent have a “fully” independent regulator. Most Middle East countries (85 percent) retain “pre-independence” regulators. In Europe, 63 percent of countries have a form of independent regulation in place. Ministerial authority over the regulator has been removed in 22 percent of cases. In Latin America, 40 percent of countries retain regulation within a ministry; 40 percent have established a semi-independent regulator; and 16 percent have separated the regulator from the ministerial authority. North America presents a tradition of independent regulation based on principles of ex-post actions and forbearance (GSMBOX Ltd 2003:1). The figures expose the misnomer of “independence” that many countries claim in respect to their regulators.

Structuring the relation between the government and the independent regulator is difficult, because the regulator remains a part of the government. As such, the requirement for public transparency becomes vitally important. The following mechanisms have been identified as useful to ensure a desirable degree of independence from government (NERA 2004:3-5; Samarajiva 2001:1-10; Intven 2000a:19; OECD 2000:14-15; Melody 1997:23; Tyler & Bednarczyk 1993:658):

- Professional qualifications – highly skilled, multi-disciplinary staff with competencies in the areas of: technology/engineering, economics, accounting/finance, administrative law, management and corporate communication;
- Independent budget;
- Employment processes – the regulator has autonomy to recruit its employees and to make personnel changes;
- Objectivity;

- Transparency – public reporting of government communication to and from the regulator;
- Requirements for detailed public accountability of the regulator; and
- The appointment of several “commissioners” with fixed staggered terms rather than a single regulator.

Samarajiva (2001:5) argues that as important as independence of the regulator is, it is not the end. Without concrete improvements in governance, independence is meaningless, as true independence cannot be granted by statute or by a benevolent minister. True independence is achieved through the day-to-day work of building and maintaining legitimacy. “Legitimacy is won by effective communication of the claims of expertise, transparency and commitment to the public interest” (Samarajiva 2001:6).

In developing countries it has been very difficult to establish and maintain regulatory independence because of deliberate government actions to constrain independence and a lack of understanding of the importance of the separation of powers. Insufficient regulatory capacity can make it difficult for infrastructure reforms to achieve their public interest objectives. Such capacity is required to manage the competitive restructuring of the telecommunications sector and subject it to market discipline. So, in developing economies where such capacity is weak, it is one of the main reasons such tasks have not been fully achieved (Kessides 2004:62).

According to Wellenius et al (1997:127), the relative independence of regulators in developing countries depends on the political structures, the political will, the relative freedom from co-optation by private or other interests, and a low level of corruption. In addition, telecommunications operators have the facts, control the information, and know their systems and costs best. The regulator, however bright and well trained, will always be at a disadvantage (Wellenius et al 1997:127).

3.3.5 Financing of the regulatory process

Observers believe that the independence of the regulator depends to a large extent on how well it is financed and by whom. The importance of funding for the regulatory process cannot be over-emphasised. Some experts believe that a regulatory agency cannot be independent unless it has an adequate budget with which to carry out its

mandate or contribute constructively to the sector's development (ITU 2001:28; NERA 2004:25). Financial independence is crucial, especially when the optimum option is expensive (WDR/Intelecon Regulatory News 2003:1). Furthermore, financing is needed to employ good quality professional staff and consultants who can implement regulatory objectives.

Regulators can be funded in a number of ways: general government appropriations, or fees and contributions, or a combination of these. The traditional way of funding was through general government budget appropriations, especially when the functions were carried out within the relevant ministries. More recently, countries have come to use licence fees, spectrum fees and numbering fees paid by operators as a major financial source for the regulatory function (Intven 2000a:7; ITU-D 2001:9; OECD 2000:17).

Telecommunications sector licence fees can generate a sufficiently large source of revenue to ensure that the regulatory function is carried out in a professional manner, something that cannot always be ensured by poor governments in developing economies. A standard approach to levying licence fees is to distribute the costs of running the regulatory functions among all licensed telecommunications operators in proportion to their gross telecommunications revenues. Fifteen EU countries are using fees as a major financial source for the regulator. Four countries – Ireland, Spain, Luxembourg and Sweden – receive a levy from operators in relation to the operator's turnover (OECD 2000:17). Other countries rely on both methods of funding, such as Nigeria, Nepal and the US. In Botswana, the Botswana Telecommunications Authority (BTA) regulatory fees make up 90 percent of the regulator's budget (ITU 2001:12), while in Denmark 95 percent of the regulator's budget is financed directly by the telecommunications sector (OECD 2000:17). The South African regulator is funded through parliamentary appropriations (NERA 2004:25). In most cases, government appropriation is made only when there is insufficient revenue from fees (ITU-D 2001:9).

The advantage of funding a regulator through licence and spectrum fees rather than government appropriation is that they provide a way of recovering the costs of government services on a "user pay" basis. Other segments of society and the economy are not burdened with the regulatory costs. There is accountability and

greater transparency to determine when regulatory budgets are being spent well, and when they are not (Intven 2000a:7).

According to the NERA report (2004:25), an insufficiently resourced regulator may suffer the following consequences: difficulty recruiting and retaining staff; forced scaling back on the scope of activities, thereby not fulfilling its entire mandate; continued attempts to perform all mandated functions, but carrying them out ineffectively; increased reliance on external institutions such as government agencies and the private sector; or seeking additional revenue sources that may threaten its perceived or actual independence. Mphoeng Tamasiga, director of market development and analysis at the BTA, supports the argument and notes that if a regulator relies on government funding, it leaves itself open to political interference (WDR/Intelecon Regulatory News 2003:1).

3.3.6 Regulatory process

Regulatory procedures are at the heart of the regulatory system (Toulmin 1998:6). Regulators employ a variety of regulatory procedures. Depending on the legal framework, regulators may issue different types of “regulatory instruments” such as regulations, decisions, orders, decrees, rules, policies, notices and resolutions. Generally, these instruments inform regulators’ “decisions” on matters within their mandate (Intven 2000a:19).

The laws and jurisprudence of most countries provide guidance and constraints on the regulatory decision-making process. Procedural rules vary from country to country and legal system to legal system. Examples of procedures and approaches are:

Public processes

Public processes include public hearings, which are an excellent way to get direct feedback. Such hearings can be very formal with sworn testimony, or quite informal. Public notices can invite comments on proposed rules or approaches to regulating the industry and other major decisions. They can also publish responses to consultation exercises, that is, demonstrate how the regulator’s actual decisions or proposals respond to industry comments on issues to be determined by the

regulator. Public processes have been successfully used in countries such as Jordan, South Africa, the US, the UK and Colombia (Intven 2000a:20). The Danish regulator holds round-table meetings with special interest groups in order to generate proactive participation and discussion, thereby benefiting from the experience of all parties (ITU-D 2001:17).

A World Bank 2001 survey of telecommunications regulators in 41 developing countries found that only five are legally required to hold meetings open to the public – an important element of transparency. This finding suggests limited formal transparency among regulatory institutions and perhaps lack of appreciation of its enormous importance. However, two-thirds of the agencies surveyed hold at least some open meetings (Kessides 2004:92).

Other innovations have been introduced. In 2000, Brazil's regulatory agency (ANATEL) became the world's first telecommunications regulator to receive ISO-9001 certification, an international standard for meeting customers' technical needs. The agency's extensive website enables Brazilians to comment on its activities and provides information on telecommunications laws, service prices for different providers, and annual updates on operator compliance. The Advisory Council, an entity with representatives from civil society, assesses the agency's annual reports and publishes its findings in the official gazette and on the agency's website. Furthermore, the agency employs an ombudsperson who evaluates its performance every two years (Kessides 2004:84).

Resolving disputes

Managing conflicts and resolving disputes are among the most important tasks of regulators. Because the telecommunications sector is so important, disputes between private parties often have significant public interest implications. Kessides (2004:74) notes that in many countries regulatory and dispute resolution arrangements suffer from serious drawbacks. For example, in the US, dispute resolution often entails too many contested administrative proceedings, overly rigid procedures for coping with increasingly complex issues, heavy involvement by courts lacking sufficient technical expertise, and too little flexibility for creative solutions.

Melody (2003c:17) posits that the regulatory process can be a significant barrier to the credibility and effectiveness of the regulator. The requirements for filings, the

transparency, clarity and cost of participation in the regulatory process, and the speed and certainty of regulatory decisions all have a significant effect on regulatory certainty. The challenge for regulators is to look for ways to reduce that barrier, or even turn the process into one that supports and facilitates investment.

Regulations must be transparent and safeguards against regulatory indiscretion and incumbent power must be built in. Furthermore, the regulatory authority must be strong enough to enforce its will and to ensure that there is a clear and stable framework within which business can be done (Singh 2000:892; OECD 2000:4; Samarajiva 2000:183).

3.3.7 Organisation of regulatory staff

Regulatory decision making requires multi-disciplinary skills, but there is no ideal single approach to organising the decision makers, management, staff and advisors of a regulatory agency. A lot depends on the institutional structure and the workplace culture of a country. The main factors determining organisational differences are the functions and objectives of different regulatory agencies. To a large extent, the size of the regulator corresponds to the market size of the particular country and the regulator's level of responsibility (Intven 2000a:10-11; ITU-D 2001:6-7).

Due to the comprehensive nature of telecommunications and its technical, economic and social implications, telecommunications regulatory authorities require institutional capacities that need to be kept up to date through a set of multi-disciplinary competencies. The required competencies can be grouped into six broad categories: engineering/technology, economics, accounting/finance, administrative law, corporate communication/public relations and management (Intven 2000a:10-11; ITU-D 2001:6-7).

It is suggested that where high-calibre professional skills are not readily available within the public service, outside experts should be brought in. Some regulators have outsourced certain non-sensitive and technical regulatory functions to external parties to perform. For example, in Argentina, a private contractor monitors compliance with radio spectrum rules. Consultants or external experts are engaged on an ad hoc basis to resolve once-off telecommunications issues that consume

enormous resources in the day-to-day functioning of the regulatory authority (ITU-D 2001:6). In Brazil, the telecommunications law forbids the outsourcing of enforcement activities (ITU 2001:30).

It is also argued that since the telecommunications environment is changing so fast, regulatory organisations should not establish rigid hierarchies, but should be flexible and adaptable. Many effective regulatory organisations employ a “working group” or staffing teams to advise them on important regulatory decisions. These teams or groups are frequently brought together solely for a specific project (Intven 2000a:11; ITU-D 2001:6).

3.3.8 Competence of regulatory staff

Competence in regulatory issues is essential for policy makers, operators and regulators, and desirable for trade unions, consumer groups and educators, as regulatory competence is the limiting resource in implementing effective telecommunications reforms (Melody 2003c:22). Thus investment in human capital in regulatory issues is a key element of the competence of all parties to the regulatory process, and the credibility and effectiveness of regulation. Melody (2003c:22) points out that the countries that have implemented telecommunications reform most successfully have paid special attention to developing and updating regulatory skills. They invest continuously in human capital development. The roles of regulation in stimulating network development in any country will be constrained by the competence of its human capital and that of the participants in the regulatory process.

As mentioned earlier, the technical skills needed by regulators generally fall into the categories of law, accounting/finance, engineering, economics, administration, corporate communication/public relations and management. In these areas the regulatory authority competes with the operators, the ministry and others, and it is often at a disadvantage in the skills market (Melody 2003c:22). In countries where there is already a dearth of professionals, including engineers, economists and lawyers, capacitating an effective regulatory body may be one of the most difficult challenges facing governments trying to restructure the sector (Van Audenhove et al 2003:103; Melody 2003c:22). The problem is particularly acute in most developing

countries, as skills shortages there are severe and affect all parties to the regulatory process, not just the regulators. Moreover, established education and training institutions and labour markets typically have very limited capabilities to respond to the needs (Melody 2003c:22).

However, technical skills alone are not likely to lead to significant institutional change, says Melody (2003c:22). The key competence for driving institutional change is strategic management capacity: the capability to assess when and how to apply regulatory standards, tools and skills so as to achieve policy objectives in a dynamic technological and market environment. Strategic management capacity will be the key competence determining the capability of regulatory authorities to undertake activities to stimulate telecommunications reform and network investment. Unfortunately, because of insufficient human capital the regulatory authorities in relatively few developing countries will be capable of implementing a full agenda of activities to stimulate investment in network facilities development (Melody 2003c:22).

Suffice it to say in conclusion that the regulatory standards adopted in each country will play a significant role in determining the pace and direction of the development of both the telecommunications infrastructure and the services it provides.

3.4 PROBLEMS OF DEVELOPING COUNTRIES

In most developing countries, basic communication is seen as essential for economic development and also as an essential public service. In the ongoing liberalisation of the telecommunications sector under the World Trade Organisation Services Agreement (GATS) (underwritten by a significant number of developing countries), a major challenge is to put in place regulatory mechanisms to oversee the transition of this sector from a state-owned monopoly to a market-driven, competitive multi-operator telecommunications service industry. There is little experience in the regulation of utilities in a competitive market in developing countries. The essence of this challenge is to design economically efficient regulations for the global competitiveness of these countries in the production and supply of goods and services in a large number of sectors (Kessides 2004:80).

Unfortunately, when privatisation reforms in the telecommunications sector were introduced, developing countries had few precedents to guide the design of regulatory mechanisms. As developing countries began restructuring and privatising their infrastructure, they looked to the countries that had first followed this approach, such as Canada, the US, the UK and New Zealand. Under pressure from international agencies, investment banks and financial advisers, many developing countries hastily adopted regulatory templates from developed countries, especially the UK and the US (Kessides 2004:80; Martinussen 1997:260).

In contrast to developing countries, developed countries have long traditions of market capitalism supported by strong legal institutions. They also have well-developed education programmes on the regulation of private monopolies, the facilitation of entry by new service providers and the promotion of competition. However, these models have seldom been adapted to the political and institutional features common to developing countries, including lack of checks and balances, low credibility, widespread corruption and regulatory capture, limited technical expertise, as well as weak auditing, accounting and tax systems (Kessides 2004:62-80).

The markets in developing countries are less developed. State structures are weak with regard to national and international market forces and global political pressure (Van Audenhove et al 2003:106). African regulators face many challenges, including lack of capacity, political interference and the use of regulatory tools designed for a First World market (WDR/Intelecon Regulatory News 2003:1). Many incumbents are supervised by weak regulators lacking autonomy, authority, technical capacity and a clear mandate to resolve post-privatisation disputes between various market participants (Kessides 2004:63). Given these conditions, developing countries are facing a mammoth challenge in creating effective regulation for telecommunications.

In the light of the above points, Gillwald (2004:7) speaks of the need for appropriate regulatory models for developing countries. She notes that access regulation has developed globally in response to the emergence of a competitive environment. It requires ample resources and political power in order to implement the complex costing models and administrative procedures required to check the behaviour of the incumbent. Often the incumbent's position is inherently anti-competitive, either because of a vertically integrated market structure or because of formal protection of

some of its activities. Under the highly imperfect market conditions that exist in many developing nations – where the legacy of “natural monopoly” continues to exert an influence – such regulation is overly resource-intensive and complex (Gillwald 2004:7).

Despite legislation separating the regulator from the incumbent operator and relevant government ministry, there is little political will to see to it that the regulatory agency effectively regulates the (mostly) state-owned incumbent, who usually commands far more authority and political respect than the regulator. Even where the regulator has formal powers to regulate the incumbent, its ability to do so is hampered either by a shortage of human or financial capital, or by systems of political patronage and influence. This lack of effective governance of the sector has had severe implications in many developing countries, harming their ability to attract investment for their privatisation or liberalisation endeavours. Both Kenya and Zambia were unable to proceed with their privatisation initiatives at least partially because of the weak regulatory environment in those countries (Gillwald 2004:4-5).

Insufficient statutory authority among telecommunications regulators has led to enforcement failures in several African countries. In Ghana the incumbent fixed-line monopoly (Ghana Telecom) entered the cellular business despite being legally prohibited from doing so. It also charged – with impunity from the regulator – very high interconnection fees, thus inhibiting access. In Tanzania the dominant mobile operator (Mobitel) entered a region in direct violation of the regulator’s order. And in Cote d’Ivoire the regulator has been unable to force the incumbent fixed-line operator, Citelec, to comply with the service quality and network expansion terms of its concession contract (Kessides 2004:92). There are, however, notable examples of effective regulation in Africa. The Uganda Communications Commission (UCC) is independent and competent, and has strong statutory powers to demand information from operators and fine those who do not comply with its regulations (Kessides 2004:92; Gillwald 2004:5; 25-26).

In recognition of the dire situation of the regulatory environment in developing countries, especially Africa, the United Nations Economic Commission for Africa (ECA) has recommended that national regulators be provided with expertise and training. It has also recommended that a network of African regulators be created

and that a set of indicators be developed to evaluate the progress of the regulatory institutions in meeting national priorities (ECA 2001:2).

The next sections look at the role of regulation in developing countries and elaborate on the public interest principle of providing universal access/service to citizens who do not receive services at all.

3.4.1 Role of regulation

In chapter 2 it was noted that the role of regulation in developed countries differs from that in developing countries. Developed countries have extensive infrastructure and near universal penetration of telephone services. In developed countries regulation tends to focus primarily on the consumer and keeping tariffs as low as possible. In addition, several developed countries have extended the universal service definition to include the opportunity for internet access at reasonable cost, and others are considering it (Melody 2003b:11).

In most developing countries, those who already receive services tend to represent only a small and influential elite, who have usually been the beneficiaries of subsidised local services (Gillwald 2003a:24). Thus, the main focus in poorer countries is on securing access for citizens who do not receive services at all (Gillwald 2003a:24; Kessides 2004:50). Hence the notion of “public interest” is of critical importance to the telecommunications sector.

Van Audenhove et al (2003:102) concur that regulation in Africa, as in other developing regions, will have goals that are fundamentally different from those in developed countries. They suggest that in the absence of universal service, African regulators will have to secure network extension. Regulators will have to succeed in forcing operators not only to invest in lucrative markets, but also to extend the network to rural areas. The authors also point out that mobile communication could play a prominent role in the attainment of universal service. “African regulators will have to change their perception of mobile telecommunications as a luxury product to be provided on free market principles towards a basic service to be regulated in function of development goals” (Van Audenhove et al 2003:102).

The advent of mobile communication has contributed to the narrowing of the digital divide in developing countries. In India cellular phones have overtaken fixed-line phones. Here 45 million people own cellular phones compared to 44 million who own land lines. India's cellular phone market is adding nearly 1,8 million customers a month. In China new subscriptions are rising by nearly 5 million a month (SAPA-AFP 2004:8).

The picture is no different in Africa. Mobile use in Africa has increased phenomenally, with cellular telephone subscribers outnumbering fixed-line subscribers, for example in Morocco with its astonishing six-to-one rate. In Africa, mobile phone users now outnumber fixed-line users, surging from 80 000 in 1993 to about 500 million in 2003. Observers believe that this growth suggests that fixed-line access is rapidly becoming an outdated measure of telecommunications infrastructure – unless it can exploit new growth areas such as fixed wireless networks – and that follow-on services such as internet access could well focus on the roving handset instead (ITU Telecom Africa 2004:1).

Despite the great success of mobile phones, O Siochru (2005:1) cautions that they are not always the cheapest or the best way to provide telephony, especially to poor and rural populations. Cellular phone technology offers only limited data access for internet use, and 3G and hybrids. Although prices are falling, mobile phones are still very expensive. The point is not to write off the cellular mobile, O Siochru (2005:2) says, but that other solutions may be better in some circumstances, may offer a wider range of services at lower cost, and may yield a range of positive spin-offs that can make a difference in addressing poverty.

O Siochru (2005:2) makes several points about innovative regulation in the public interest. According to him, it no longer conceives of network growth as a simple process of extending services ever outwards, beginning in the cities and gradually covering the countryside. Innovative regulatory thinking, O Siochru (2005:2) argues, is moving towards the idea of a network as a set of layers, horizontally segmented as backbone bandwidth providers, local access networks and service providers. Each of these might require a different regulatory combination, and even within each layer different approaches may be pursued to suit the circumstances. "The mantra here is regulation in the public interest: Whatever works" (O Siochru 2005:2).

To release such a spectrum of possibilities and for them to achieve a match with the diversity of challenges require a supportive regulatory and institutional environment – primarily, firm, flexible and responsive regulation. And the main obstacles to such regulation are defensive (or corrupt) inertia among often poorly equipped regulators and unquestioned adherence to single-solution dogma, often promoted by international institutions and donors. Neither is good. O Siochru (2005:2) stresses the need for a varied menu of regulatory options that can be mixed and matched to suit different needs. It is essential to pursue continuous regulatory innovation, and to remain open to suitable options. Exclusive solutions are simply too restrictive for the diversity of needs and environments.

The 4th annual Global Symposium for Regulators (GSR) hosted by the ITU in Geneva in December 2003 agreed that the recent lessons learnt from developing countries' initial experiences with mobile cellular services should now be applied to a broader range of ICT services to foster universal access. These lessons include: providing services in a competitive framework and using new technologies that offer both innovative services and affordable pricing options to a wide range of customers. This would lead to greater competition and more open markets, and would spark investment (Mediachannel 2003:1).

3.4.2 Universal access and universal service

As defined in section 2.2.3, universal access is the availability of telecommunications or ICT beyond the premises or house, within a reasonable distance, while universal service is the availability of telecommunications or ICT at the premises or house (ITU 2003:1; Van Audenhove et al 2003:103; Anthony et al 2002:7; O Siochru 1996:1). Implicit in the principle of universal access/service is the notion that basic telecommunications service is a public good that all citizens are entitled to and warrants the support and protection of the government.

Access to affordable telecommunications services is the goal of a universal access/service policy. Some observers point out that in a developmental context it is more appropriate to consider universal access – affordable public access to services – and seek new ways of extending access to networks and more advanced services (Van Audenhove et al 2003:103; Samarajiva 2000:184). Some developing countries, notably South Africa, have over the past years introduced – formally or implicitly –

multilevel definitions of universal access. Telecentres and multi-purpose community centres have been used as mechanisms to give people access to more advanced services such as internet and other ICT applications (Van Audenhove et al 2003:103).

Although developed countries have no serious problems in assuring universal service in a liberalised context given that their networks have been brought to near universal service under monopoly conditions, the same cannot be said about the developing world. Many developing countries, under pressure from the World Bank and the World Trade Organisation, among others, have had to prioritise liberalisation over universal service. Liberalisation itself increased the complexity of regulation in developing countries, as regulation must at once deflect and encourage competition in the interests of adjusting to a global liberalised environment while creating “alien” incentives to provide universal service for social and long-term development. In their quest for universal service, developing countries are faced with resolving an antagonism between universal service and liberalisation (O Siochru 1996:3-9).

Gillwald and Abrahams (2005:10) concur that while there may be tensions between the objectives of poverty reduction and access to basic services on the one hand and fostering the conditions for economic growth on the other hand, these two goals should not be viewed as contradictory. They note that without an integrated strategy to achieve both developmental and growth objectives neither will be achieved. In many developing countries a universal service fund has been established in order to resolve this tension and achieve the universal service objective in a competitively neutral manner. The ITU (2002:39) proposes that should the universal service levy be inadequate, the government could also ensure that funds from the sector, in the form of entry fees, revenue shares and spectrum charges, are ploughed back into the sector through the universal service fund and are not diverted out of the sector into the general government budget. Meanwhile, O Siochru (2005:2) has called for continuous regulatory innovation and at the same time staying open to suitable options for the diversity of needs and environments. National regulatory agencies have to ensure the best possible growth of the telecommunications service by finding the right balance between incentives, requirements, competition and monopolies (Gartner 2002:3).

As indicated in the previous section, mobile telephony is growing fastest in the developing world, where many people's first phone is a mobile. Mobile penetration exceeds fixed-line penetration in many developing countries, and has a wider geographic coverage. In some countries, internet services are increasingly recognised as the new target for universal access. Many experts agree that prepaid mobile service is now the vehicle for achieving universal access to voice and related services in developing countries so as to meet the needs of the poor in both urban and rural areas (Melody 2003a:3-8; ITU Telecom Africa 2004:1; Dymond & Oestmann 2003:54).

The key role played by the regulator in implementing public policies such as universal access and service policies was reiterated at the 4th annual Global Symposium for Regulators (GSR). The regulators agreed on a list of best practice regulatory guidelines for achieving universal access. The guidelines call for support for regulatory reform at the highest level of government. This means treating ICTs as a tool for development rather than a source of government revenue, using technologically neutral licences that enable service providers to use the most cost-effective technology to provide services, and reducing regulatory burdens to lower the costs of providing services. Countries with a strong political commitment to promote telecommunications services through incentives and the removal of obstacles can achieve much higher levels of penetration (Mediachannel 2003:1).

The value of regulation based on public interest and the goal of regulating towards universal access and service remain pertinent issues. Optimistic observers point out that regulatory regimes in developing economies have been created from scratch, are still in the early stages of development and (at least in terms of formal arrangements) are moving in the right direction – toward greater independence, accountability and transparency than under state ownership (Kessides 2004:94). However, a lot of work needs to be done.

3.5 LESSONS LEARNED

It is important to remember that it took many years for developed countries to create effective regulation; that developing countries face enormous economic, political and social challenges; that regulation and competition are still frail blooms in many

developing countries; and that much work still needs to be done to nurture their growth and development. Strong institutions took a long time to develop even in advanced countries. It is difficult to create such institutions overnight in societies that do not have the constitutional, political and legal traditions required to support them. Thus achieving the public interest objectives of telecommunications reform will take longer than the time that has elapsed since such reforms were introduced in most developed countries. Even in East Asia's "miracle" economies it took several decades of concerted effort to produce notable results (Kessides 2004:62-80). However, several important lessons can be drawn from the experiences of countries with effective regulatory regimes.

In a case study Abdala (2000:647) found that institutional weakness could cause imbalances that allow government opportunism. Such weakness can facilitate decisions that favour short-term interests at the expense of the public interest of society. The relative roles of the telecommunications regulatory body and the competition policy body must also be clarified. The relationship between the competition agency and the regulator needs to be carefully crafted to avoid needless complexity, confusion and delay.

The results of a study conducted by Gutierrez and Berg (2000:865-884) about telecommunications liberalisation and regulatory governance in 19 Latin and Caribbean countries point to the importance of a well-functioning regulatory institution as a significant driving force behind the surge of modernisation in the telecommunications sector.

Kessides (2004:51), Abdala (2000:658; 665-666), Frempong and Atubra (2001:206), Samarajiva (2000:704) and Xavier (2000:840) all confirm that the small size of the regulator, poor staff quality, lack of personnel with regulatory expertise, inadequate access to information, and institutional norms that tolerate corruption and impede oversight by civil society, among other factors, hamper the ability of the regulator to become a powerful watchdog of the telecommunications sector.

ITU survey research on some of the most established agencies has found that 75 percent of all telecommunications regulators complained of being under-staffed. The

regulators said they were particularly in need of engineering and technical staff, but also legal experts (Pruzin 2002:3).

Another important lesson is that transparency must be fostered in the decision-making process. At a minimum, the regulator should publish the principles and criteria to be used in making its decisions, and some rationale for the conclusions must be reached. Abdala's (2000:656-665) study of Argentina confirms that a lack of transparency and openness can damage regulatory credibility in the telecommunications sector. This situation discouraged investors and caused the number of potential bidders to decrease from 14 groups to only 3. The study found that the public perceived the telecommunications regulatory agency of Argentina (CNC) to be a low performer. The case study of the Hungarian regulator by Xavier (2000:840) identifies the lack of consultation and transparency in rule making and decision making as a significant weakness in Hungary's regulatory regime.

On the other hand, where there is a high degree of trust in the system, all concerned parties are more inclined to get on with their jobs than engage in litigious or political turf battles. Melody (2003c:16) cites the example of Scandinavian countries, where the institutional environment for telecommunications regulation functions quite well despite the absence of detailed rules about due process and the boundaries between the different roles of the parties.

Citing the experience of the US, Gartner (2002:3) shows that regulators should avoid detailed price controls and other excessive requirements in favour of negotiated agreements between market players. They should have a number of tools to use when providers do not work to the ultimate benefit of their customers. They should also have the strongest powers to counter anti-competitive behaviour from the dominant players. Furthermore, laws governing the telecommunications industry should also avoid excessive litigation.

At a seminar jointly organised by the Brazilian Telecommunications Authority, ANATEL (Agencia Nacional de Telecomunicacoes) and the ITU Telecommunications Development Bureau (BDT), the importance of adequate enforcement was highlighted. Participants agreed that enforcement in telecommunications requires an organisation to be "empowered" to dictate technical and judicial rules and to be able

to apply penalties or sanctions for non-compliance of contractual obligations and quality of service obligations, among others. One of the best practices emphasised throughout the seminar was prompt decision making by telecom authorities in order to guarantee good enforcement practices (ITU News 2004:1-3).

Finally, says Pekka Tarjanne (1999:10), former secretary-general of the ITU, a rule of thumb is for regulators to stay up-to-date and flexible, as the global telecommunications environment is changing at breakneck speed and sound principles developed a year or two ago can easily become outdated. It is therefore important to frequently re-evaluate and challenge widely accepted notions if they no longer seem to fit the picture. Melody (2002b:9) supports this view and notes that countries who have been the most successful at implementing telecommunications reform over the last decade have been characterised by proactive regulatory agencies driving the process of adjustment to new technological and market opportunities.

3.6 SUMMARY

The preceding sections provided a comprehensive account of the important elements of the complex telecommunications environment. It traced the history of telecommunications regulation, starting at the end of the 19th century in the US and in Europe, as well as the development of regulation into the 1980s and 1990s.

As noted earlier the accepted regulatory policy objectives for the telecommunications sector include: promoting universal access to basic telecommunications services; protecting consumer rights; fostering competitive markets so as to promote the efficient supply of telecommunications services and advanced, good quality services at affordable prices; preventing the abuse of market power by dominant operators; and promoting increased telecommunications connectivity for all users through efficient interconnection arrangements (Intven 2000a:2; Melody 1997:15).

The discussion of the objectives of telecommunications regulation emphasises the need for a clear vision on the part of policy makers of the public interest goals that regulators should achieve. Melody (1999:18) warns that some governments have lost sight of the objectives of promoting efficient and universal service development

and focus only on maximising their financial position, either in terms of high dividend payments or sale of their shares upon privatisation. This short-term focus has led governments to prefer weaker regulation, restricted competition and monopoly profits.

The above discussion makes it clear that the success of telecommunications reform depends on the establishment and maintenance of effective regulation, that is, regulation that encompasses a wide range of expertise, and is informed, forward looking and adaptive. Furthermore, the regulatory agency should be independent of all interested parties to ensure fair and transparent competition in the marketplace. Such independence inspires confidence among telecommunications operators, investors and customers. Process values such as expertise, transparency and accountability must also be recognised if the regulatory agency wishes to achieve legitimacy within the sector and community that it serves.

Numerous case studies have found that growing strong, independent regulatory authorities is a difficult task, complicated by the fact that the role of the regulator in the dynamic telecommunications environment is by no means simple or straightforward. This is ascribed to evolving technologies and markets, the blurring of distinctions between different types of services and operators, and the growing complexity of challenges facing the regulator.

Bourreau and Dogan (2001:169) note that in order to accomplish the objectives of telecommunications reform, regulatory policies should also consider the dynamic aspects of competition. To the extent that technological changes alter the organisation of the industry, speed of innovation – particularly in the new markets – should be reflected in any regulatory intervention. For example, if regulatory authorities cannot respond fast enough to follow the rapid change of the market, many regulatory measures become either inefficient or obsolete. Conversely, due to the endogenous relationship between technological progress and industry structure, regulatory policies affect the speed of technological change in return.

The problems of regulating the telecommunications sector in most of the developing countries are complex. Not only do these countries lack resources such as finances, staff, expertise and experience to handle the tasks of telecommunications reform,

they also have to grapple with a lack of clarity, regulator mandates tied to national objectives and legal frameworks supporting telecommunications reform; clear role demarcation between regulatory agencies and government departments; transparency of decisions and decision making; and formal enforcement measures with which to meaningfully curb or deter anti-competitive behaviour by incumbent operators.

In conclusion, one cannot but agree with the telecommunications experts cited above that for regulation to function as public policy, governments, especially in developing countries, must prioritise their policy objectives and sufficiently capacitate their regulators to translate the stated policy objectives into regulatory rules and policies that can be implemented so as to ultimately achieve their public interest objectives.

CHAPTER 4

INDEPENDENT COMMUNICATIONS AUTHORITY OF SOUTH AFRICA (ICASA)

4.1 INTRODUCTION

In order for telecommunications regulatory reform to achieve the stated developmental objectives of facilitating investment and economic growth as well as empowering ordinary citizens to participate in that growth, an appropriate institutional framework needs to be in place. This chapter takes a critical look at the institutional framework of the Independent Communications Authority of South Africa (ICASA). It details the legislative and policy framework as well as the mandate, general functions and duties of the regulator. As appropriate resources are a prerequisite for an effective, independent regulator, this chapter also examines ICASA's finance and human capital. It furthermore outlines the regulatory process and looks at the regulator's independence and credibility, and its accountability and transparency. A comparison of ICASA's institutional model and global practices concludes the chapter.

4.2 LEGISLATIVE AND POLICY FRAMEWORK

ICASA was established in July 2000 in terms of the Independent Communications Authority of South Africa (ICASA) Act (13 of 2000). It took over the functions of two previous regulators, the South African Telecommunications Regulatory Authority (SATRA) and the Independent Broadcasting Authority (IBA). These two bodies were merged in ICASA in recognition of the rapid changes and developments in technology, as well as to facilitate effective and seamless regulation of telecommunications and broadcasting and to accommodate the convergence of technologies (ICASA 2004b:1).

ICASA performs its regulatory functions in terms of four statutes. These are the Independent Communications Authority of South Africa Act of 2000, the Independent Broadcasting Authority Act of 1993, the Broadcasting Act of 1999 and the Telecommunications Act of 1996 as amended (ICASA 2004b:3; Markovitz 2001:10).

The Convergence Bill tabled in parliament plans to replace the latter three Acts to accommodate the increasing convergence of communication technologies. ICASA's legislative mandate reflects the country's desire to expand the reach of basic telecommunications services, and more specifically to improve the level and quality of service provision.

ICASA has areas of overlap with the competition regulator, the Competition Commission. The Commission gained concurrent jurisdiction with ICASA on issues of competition through an amendment in 2000 to the Competition Act of 1998 (Yankee Group 2003:84). The deletion of section 3(1)(d) of the Competition Act compels ICASA to work closely with the Competition Commission with regard to the application of competition concepts and principles. ICASA no longer has an exclusive competition jurisdiction over the licensees it regulates, since the Competition Act now applies to all economic activity within South Africa. This has presented ICASA with new challenges (Markovitz 2001:7).

To avoid confusion and inconsistency, the Competition Commission and ICASA have signed a memorandum of understanding (MOU) that provides generally for the investigation and evaluation of transactions and complaints involving telecommunications and broadcasting licensees, other licensees, consumers and persons subject to regulation by ICASA. The agreement also deals with the handling of complaints and the avoidance of double jeopardy. It further provides for liaison and consultation between the two authorities, including requests for assistance, the sharing of resources and the exchange of confidential information (Markovitz 2001:7).

The Department of Communications (DoC) represents the public service arm of the Ministry of Communications. The DoC is responsible for developing policy and carrying out reviews in respect of the telecommunications, broadcasting and postal industries. Its policy directives should be consistent with the broad policy objectives specified in the Telecommunications Act of 1996. ICASA's role is to give effect to the policy directives issued by the Minister. However, the Minister must consult with ICASA and follow a notice-and-comment procedure before publishing policy directives. The Minister must also refer all proposed policy directives to the parliamentary portfolio committee on telecommunications for comment. The Ministry

of Communications is responsible only for initiating draft legislation, the issuing of policy directives, and final decisions on licence applications (Telecoms 2003:238).

The policies and review in the telecommunications, broadcasting and postal sectors should be aligned with the government's initiatives of economic growth and development. According to the DoC, in advancing these objectives it has sought to implement the most appropriate policies that would see ICT gain wider penetration into the South African population and therefore improve the general quality of life of all South Africans. The areas of focus under the DoC are the rollout of related infrastructure, development of economic opportunities, human resource development and the creation of jobs (BMI TECH 2003:279).

However, the Yankee Group (2003:82) is critical of the lack of progress in South Africa's telecommunications liberalisation programme. The group believes that unclear and shifting liberalisation policy and timetables, coupled with multiple unprioritised objectives in both the Telecommunications Act of 1996 and the new Convergence Bill, have been at the core of the problems encountered in implementing telecommunications reform since 1996. It recommends clarification of national policy before passing new legislation (Yankee Group 2003:82).

4.3 MANDATE AND GENERAL FUNCTIONS

The above statutes inform ICASA's mandate and general functions, which are discussed in more depth below.

ICASA has a mandate to provide for the regulation, control and provision of efficient and affordable telecommunications and broadcasting services in the public interest, and to promote universal service and economic development in South Africa.

ICASA is mandated to grant licences in the telecommunications and broadcasting industries and to set the terms and conditions of every licence granted. The licences that ICASA issues are for approved telecommunications equipment, usage of radio frequency spectrum, provision of telecommunications services, signal distribution, and radio and television broadcasts. The regulator also plans, controls and manages the frequency spectrum. It makes regulations and policies that govern the two

sectors. It also protects consumers from unfair business practices. In addition, ICASA broadly monitors the activities of licensees to enforce compliance with these rules (ICASA 2004c:3).

The stated vision of the regulator is to be a strong, service-oriented and responsive communication regulator. It sees as its mission “to increase access to communication services through the promotion of a competitive and socially responsive communication industry” (ICASA 2004a:1).

The regulator is empowered to regulate the telecommunications and broadcasting industries in the public interest. The regulator’s main functions include:

- Making regulations and policies that govern telecommunications and broadcasting;
- Issuing licences to providers of telecommunications services and broadcasters;
- Monitoring the environment and enforcing compliance with rules, regulations and policies;
- Hearing and deciding on disputes and complaints brought by industry or members of the public against licences;
- Planning, controlling and managing the frequency spectrum; and
- Protecting consumers from unfair business practices, poor quality services and harmful or inferior products (ICASA Act 2000:6).

Other roles and functions of ICASA are in line with those of international regulators as detailed in chapter 3.

Since it is government policy that all people should have access to basic telecommunications at affordable prices and given that the majority of people and places in South Africa either lack access to basic telecommunications or are under-served, a key responsibility of ICASA is to ensure through regulation that all people in South Africa have access to affordable telecommunication. As public policy implementer, ICASA is central to achieving the goal of universal access and service (ICASA 2004b:3).

The regulator also promotes the attainment of the policy objective by putting requirements in the licences of operators to extend services in under-served areas and ensuring that licensees contribute to the Universal Service Fund. However, ICASA does not administer the Universal Service Fund. It merely receives monies on behalf of the Universal Service Agency (USA) (ICASA 2004b:3).

4.4 RESOURCES

Kessides (2004:87) points out that a regulatory agency's responsibilities should match its financial and human resources. In many developing countries, staff and budget resources have not been allocated based on careful, rational planning. Building regulatory capacity is therefore one of the toughest tasks of telecommunications reform (Kessides 2004:87). The following sections look at the state of ICASA's financing and human resources in more detail.

4.4.1 Financing

ICASA, like its predecessors, is wholly dependent on parliament for funding. The regulator is fully funded through parliamentary appropriations. All revenue received by ICASA such as licence fees is paid into the National Revenue Fund (ICASA Act 2000:14). ICASA cannot retain a share of the revenues it collects from licences. Instead, it must plead for more funding from the DoC, which also looks after the interests of Telkom.

For the financial year 2003/04, ICASA received R128 million, an amount totally insufficient for the regulator to complete the tasks of drafting, applying and enforcing broadcasting and telecommunications regulations and licences. The outgoing chairperson of ICASA, Mandla Langa, supports this inference (Stones 2003:4). The relatively large number of legal disputes between the regulator and operators that have proceeded to the high courts has required significant and unforeseen expenditure that has reduced the budget available for regulatory policy development and enforcement (NERA 2004:5).

However, ICASA has made steady progress to have its budget increased. Its baseline budget allocation increased from R108 million in the 2000/01 financial year

to R148 million in 2004/05, an increase of 32 percent, well in excess of the 6 percent standard annual adjustment. ICASA has also improved licence fee collections from R643 million in 2000/01 to R920 in 2002/03. Currently licence fee collection amounts to more than a billion rand per annum. Although this money still accrues to government coffers, the National Treasury has indicated that it is in favour of ICASA being funded from licence, regulatory and spectrum fees rather than parliamentary appropriation (Bidoli 2004:21).

The issue of funding remains a serious challenge, as adequate funding is required to hire good calibre professional staff and consultants who can implement regulatory objectives. ICASA cites the lack of financial resources as a serious impediment to effective regulation. In absolute terms however, one can question the extent to which a regulatory agency can ever be truly independent while dependent on a government allowance.

ICASA has proposed a funding model to the National Treasury that will see ICASA being funded from a combination of licensing, regulatory and spectrum fees. This new model makes allowance for ICASA to retain a certain percentage of money from all licence fees collected and to pay the balance to the National Revenue Fund (ICASA 2003:5).

In his address to stakeholders last year, former ICASA chairperson, Mandla Langa (2004:9) explained that an appropriate funding model for the regulator would amongst other things:

- Allow ICASA to respond to the dynamic regulatory requirements of a liberalised environment;
- Enable ICASA to hire and retain the right personnel and minimise the risk of regulatory failure; and
- Ensure independent analysis and prevent reliance on the industry for critical regulatory data.

In her budget speech to parliament, Minister of Communications Ivy Matsepe-Casaburri reiterated that the strengthening of sector regulators is one of the areas that have been identified as a priority by government. She noted that funding of the

regulator is now receiving urgent attention. Thus the ICASA Act is being amended to make the regulator more responsive to the needs of and developments in the ICT sector (Matsepe-Casaburri 2005:6). According to Gillwald (2005), the Department of Communications has been responsible for the constrained budget that ICASA has had over the years. However, she confirms that now there is some understanding and acceptance that proper resources are required (Gillwald 2005).

4.4.2 Organisational capacity

Organisational capacity involves at least two elements: quantity (the number of people retained to undertake the various jobs that, when combined in the best possible manner, constitute the output of the institution), and quality (the qualification, competence, knowledge and experience of those retained to do the job). According to Kessides (2004:62), insufficient organisational capacity can make it difficult for telecommunications regulatory reform to achieve its public interest objectives. The following sections look at how ICASA fares in respect of organisational capacity.

Staffing and personnel

The regulator is headed by a seven-member council including the chairperson, which is its highest decision-making body. The councillors are appointed by the President of South Africa following a public nomination and parliamentary hearing process as to their suitability for appointment. When viewed collectively, the councillors must be representative of a broad cross-section of the population of South Africa. They are also required to have the technical, financial and policy skills to effectively regulate the industry and to be committed to fairness, accountability and transparency. Every councillor serves in a full-time capacity to the exclusion of any other remunerative employment (ICASA Act 2000:6). The council provides the vision behind the work of the regulator. It also appoints the chief executive officer (CEO), who in turn appoints staff with a range of expertise to carry out the work of the regulator (ICASA 2004a:3).

As at 31 March 2004, ICASA had a staff complement of 272 employees. The workforce is youthful, aged on average between 25 and 35. About 45 percent of all staff members are women (ICASA 2003:30). Two women hold the most senior positions in the organisation, that of CEO and Chief Financial Officer (CFO).

However, an audit has revealed that in the areas of engineering and technology women are not well represented (ICASA 2004c:3).

ICASA has identified major human resource challenges. A key challenge is the need for a more effective, efficient and economical human resource composition. Its human resource plan seeks to strike a balance between the recruitment of a skilled and experienced labour force and investment in human capital in the form of mentoring and coaching (ICASA 2003:30).

ICASA has also expressed concern about the under-representation of the targeted groups (women, blacks and people with disabilities) in the technically advanced areas of engineering and technology. These areas have remained white male dominated. The availability of appropriately qualified and experienced previously disadvantaged individuals remains a concern (ICASA 2004a:47).

The staff component of ICASA is divided into the following eight divisions:

- Broadcasting
- CEO Office
- Council
- Engineering & Technology
- Office of Finance and Business Support (OFBS)
- Internal Audit
- Legal, Communications & Council Support
- Telecom Services

Table 1 illustrates the spread of employees per division.

Table 1: Employees per division as at 31 March 2004

Branch	Total
Broadcasting	30
CEO Office	1
Council	28
Engineering & Technology	130
OFBS	49
Internal Audit	1
Legal, Communications & Council Support	17
Telecommunications	16
Grand total	272

(ICASA 2004a:47)

ICASA admits that it still has some way to go in achieving statistics that mirror the demographics of South Africa. However, the regulator continues to concentrate on ensuring diversity and empowerment within the organisation. More than 70 percent of ICASA staff members are from the previously disadvantaged groups (ICASA 2004a:46).

Recruitment and training

Regulatory authorities need to be able to recruit staff with the appropriate expertise so as to establish their authority and match the technical competence of the regulated parties. The regulators generally operate in highly technical sectors. The skills and experience of regulatory staff are critical for the effectiveness of regulatory action, the esteem stakeholders hold for the regulators, and their authority (OECD 2003:21).

In South Africa, skills constraints represent a challenge across the spectrum. ICASA's effort to attract and keep staff is understood in the context of South Africa's overall effort to provide in the acute and growing demand for trained workers and professionals in the ICT/telecommunications sector. The dearth of skills and expertise is sorely felt in the area of telecommunications regulation.

ICASA, like most regulators around the world, is faced with the problem of being unable to recruit and retain adequately qualified telecommunications personnel. ICASA's difficulty can be attributed in great measure to the regulator's limited budget, which is funded through parliamentary appropriations as pointed out earlier (ICASA 2003:5). This view has been echoed by the DoC, who confirmed that the country's regulator needs to be strengthened to effectively address the challenges posed by the convergence of technologies (Matsepe-Casaburri 2005:6).

Lindall Shope-Mafole, the new Director-General of the DoC, and a former IBA councillor, sympathises with the regulator's difficulties and stresses the need for a stronger regulator. She suggests that the regulator build internal capacity rather than rely on consultants. According to the DoC, ICASA needs to be capacitated in the areas of training, skills, and human and financial resources (Bidoli 2004:21).

ICASA's challenge to attract talent and the right people is compounded by the private sector's continual poaching of its experienced and knowledgeable technical and administrative staff, which further erodes skills (Bidoli 2002:36; Stones 2003:4). According to Mandla Langa, ICASA has effectively been the training ground for many senior managers and regulatory affairs managers in the industry. To make matters worse, the salaries of ICASA councillors are "hopelessly inadequate", according to the regulator's former CEO, Nkateko Nyoka (Stones 2003:4).

It is clear that failure to address the problem of skilled personnel directly impacts on the regulator's ability to carry out its regulatory duties. Thus the issue of the staff capacity of the regulator should concern not only ICASA but also the companies it regulates.

In an attempt to overcome the difficult challenge of training and developing staff on a small budget, ICASA has obtained financial assistance from the British Department for International Development (DFID). To develop the capacity and technical capability of personnel, the DFID will second leading telecommunications experts to work with and transfer skills to ICASA employees in targeted areas such as consumer protection, economics, number portability and carrier pre-selection. The experts will spend a month per each quarter of a year over a period of three years with the regulator (ICASA 2003:4).

The regulator's capacity challenge has raised serious doubts about its ability to discharge its mandate in an efficient and effective manner. According to Gillwald (2002:50-51), one of the most critical factors that undermine the various regulatory institutions in South Africa has been the lack of resources. The lack of skilled human capital has allowed all three regulators – IBA, SATRA and ICASA – to be outsmarted by the industry, while the lack of financial capital has rendered them ineffectual both in defending their actions and fulfilling their mandate. The lack of resources reflects the covert desire of the industry and the state for the regulators not to be entirely effective, says Gillwald (2002:50-51).

4.5 PROCESS

The Telecommunications Act (199601:6) stipulates a dual regulatory structure that provides the Minister of Communications with powers to override the regulator in certain fields such as licensing. The Minister is required to approve all regulations of ICASA and to approve and publish all regulations in the *Government Gazette* before they are enacted (NERA 2004:2-3).

The joint jurisdiction by the Minister of Communications and ICASA in respect of prescribing regulations and granting telecommunications licences is crippling the implementation of policy, notably regulations vital to sector development. It has also allowed interested parties to play ICASA and the Ministry off against each other. This has caused controversy about every major licence process to date and has deterred potential investors from investing in the sector for fear of further executive intervention (NERA 2004:2-3).

Slow approval processes and delays in the implementation of ICASA's regulations pending ministerial sign-off have hampered regulatory effectiveness (Yankee Group 2003:92). A case in point was the delay by the Minister in publishing tariff regulations, which led to a dispute between ICASA and the incumbent Telkom about whether the latter's tariffs should be filed under the old or new regulations (NERA 2004:2).

Another source of tension between the regulator and the Minister of Communications is the structural conflict of interests within the Ministry. At issue here is the Ministry's

responsibility for optimising the value of state assets in the telecommunications sector versus its responsibility for creating a policy environment that is fair and encourages the development of all players, including the direct competitors to state entities.

The next two sub-sections look in more detail at where South Africa stands in respect of independence and credibility, and accountability and transparency.

4.5.1 Independence and credibility

The ICASA Act (2000:6) stipulates that the authority “is independent, and subject only to the Constitution and the law, and must be impartial and must perform its functions without fear, favour or prejudice”. The Telecommunications Act (1996:6) concurs: The regulator shall be independent and impartial in the performance of its functions.

However, the government has failed to afford ICASA the same level of independence as is enjoyed by some other regulators (see table 2 in section 4.6). In addition, the significant functional ambiguities between the Minister and ICASA as discussed above severely compromise the independence and credibility of the regulator. Furthermore, the non-transparent and delayed licensing processes in both the fixed-line and wireless sectors continue to impair the credibility of ICASA in the eyes of local industry and foreign investors (Yankee Group 2003:18).

Melody (2003a:4), in his submission to the convergence colloquium in Johannesburg, is critical of the effectiveness of regulation in South Africa. He observes that this country has had far too many difficulties in creating an independent, transparent, credible policy and regulatory structure, both with ICASA and its predecessor SATRA. Melody speaks of the loss of credibility of the policy and regulatory structure in the eyes of almost all South African participants in the process, including informed national and international observers. The regulatory decisions by the Minister of Communications, the licensing processes for the third cellular mobile licence and the second fixed-line operator as well as Telkom’s unjustifiable price increases for services in 2002 and 2003 smack of a “bankrupt policy and regulatory structure”, he stresses (Melody 2003a:4).

Recently, telecommunications industry role-players appealed to portfolio committee on communications for maximum independence of the regulator in implementing the Convergence Bill. They said that concentrating too much authority in the hands of Communications Minister Ivy Matsepe-Casaburri had already resulted in many unnecessary delays in ensuring rapid progress in the communications industry (Loxton 2005:4).

4.5.2 Accountability and transparency

The regulator accounts to parliament for its operations and activities. The Constitution provides for all proceedings between stakeholders and parliamentary committees to be open to the public. Various watchdog bodies monitor the activities of these committees, leading to a more transparent and accountable parliament. The national assembly is responsible for overseeing the implementation of laws and government objectives. Government departments, regulatory agencies such as ICASA, and state-owned enterprises such as Telkom, the SABC and others appear before parliamentary committees on a regular basis to report on their performance and the implementation of government policy. This has often led to a healthy difference of views between the various policy-making institutions (Kekana 2002:59).

Under the Telecommunications Act of 1996, ICASA reports to the Minister of Communications. ICASA is also required to submit to the Minister an annual report on its operations together with an audited report on its financial accounts. The annual report should also contain information on licences granted, renewed, amended, transferred, suspended or revoked. The Minister in turn is required to submit these documents to parliament to ensure accountability (ICASA Act 2000:14).

ICASA is also subject to an annual financial audit by an independent audit firm. The regulator's financial reports are submitted to the Auditor-General, who has the right to advise the government that ICASA's books should be inspected. The Auditor-General has not done so yet, and ICASA has always received a clean certificate from the auditors. This is a major achievement for ICASA, since the administrative and financial management systems of its predecessor were a matter of constant and great concern to parliament and the Auditor-General (ICASA 2003:4).

In terms of ensuring that ICASA is accountable, it must function in line with the provisions of the Public Finance Management Act of 1999. This designates the CEO as the accounting officer, and thus responsible for money appropriated by parliament to the authority.

Transparency

Transparency allows stakeholders to understand the regulator's decision-making process and is one of the ways through which independence can be strengthened (OECD 2003:34). ICASA is required by law to consult broadly on all decisions (ICASA Act 2000:6). One of ICASA's objectives is to maintain a permanent dialogue with the community and provide extensive transparency. Every year the regulator convenes stakeholders' meetings to report on its activities for the year and provide an outline of its programmes for the following year. It also undertakes road shows to outlying provinces such as the Northern Cape, Eastern Cape and Mpumalanga to ensure that ICASA's telecommunications services are widely publicised there (ICASA 2004a:39-40). Observers believe that ICASA has made great strides in respect of transparency. The regulator seeks public comments on most, if not all, major policy and regulatory initiatives. In addition, ICASA maintains a high degree of openness in that it provides for access to staff members for questions and input. The public also has access to ICASA at its various regional offices.

ICASA has a library where members of the public can access the records, policies, regulations and decisions of the regulator as well as publications about regulations around the world. Moreover, ICASA maintains an internet presence through its website (www.icasa.gov.za), where it posts many regulatory documents, fact sheets, press releases and other public information materials, as well as regulatory rulings and findings. The public may file comments electronically, via e-mail or fax, or in writing. These steps all indicate that ICASA values transparency and is aiming to increase public participation in the regulatory process, regardless of the high cost of doing so. However, given ICASA's resource constraints, it cannot be as effective as it would like to be.

Clearly, in order to instil confidence in ICASA within the sector and among international investors, it is imperative that the powers of the Ministry of Communications that restrict ICASA's independence and effectiveness be amended.

Gillwald (2003b:33) believes that such a regulatory framework would work in the interests of both institutions, for the Ministry would be relieved of the regulatory responsibility to attend to the policy challenges facing the converging sector, while ICASA would be granted the powers to deliver on its mandate and earn legitimacy, which will underpin its effectiveness.

4.6 INTERNATIONAL MEMBERSHIP

In regulating the industry, ICASA aligns its actions, policies and regulations with the framework set by international and regional bodies to which it is affiliated. These include the Telecommunications Regulatory Association of Southern Africa (TRASA), the International Telecommunications Union (ITU), the International Institute of Communications (IIC) and Réseau Des Instances Africaines De Régulation De La Communication (RIARC) (ICASA 2004a:3; ICASA 2003:3).

Table 2 illustrates ICASA's level of compliance with international norms.

Table 2: ICASA and global practices

Regulator	The ideal	Sub-optimal arrangements	ICASA status
How established	Legislation (detailed). Separation from operational and political incumbents.	Ministerial/governmental decree; regulator subject to dissolution at will.	<u>In compliance with global norms.</u> Legislative basis established through the ICASA Act of 2000.
Key staff appointment	Parliament/national legislature with public input to the nomination process.	Selected by President/head of state and Ministry.	<u>Subject to political influence and interference by the Minister of Communications.</u> Members are appointed by the President with the public participating in the nomination. South Africa has resisted appointment by the legislature. Councillors can only be removed by the National Assembly.
Constitution of decision-making body	Expertise in law, technology, economics, industry and regulation. Public representation. No shareholdings or interests in communication industry.		<u>In compliance with global norms.</u>
Basis of decision making	Collegial.		<u>In compliance with global norms.</u>
Tenure duration of key staff	6. years – staggered terms. Removal only by appointing body.	Subject to change with change of government. Civil servant chair subject to removal by other civil servants.	<u>In compliance with global norms.</u>
Autonomy of decisions	If all other criteria are met, decisions are not	Appeal to Minister.	<u>Decision-making autonomy is compromised.</u> All regulations must be approved by the

	<p>subject to political overturn.</p> <p>If the nation has a credible judicial system, the ability to appeal decisions to a judicial setting or a separate tribunal-like body provides an important check on regulator discretion and over-regulation.</p>		<p>Minister.</p> <p>The Ministry and ICASA's roles in awarding licences overlap, leading to shortcomings and policy shifts since 1996, which in turn resulted in delays in licensing processes and ICASA's development of regulations.</p> <p>Convergence Bill anticipates removal of ministerial approval of regulations, and maintains some licensing responsibilities for both ICASA and the Minister.</p>
Enforcement powers/dispute resolution	<p>Clearly defined enforcement processes and penalties, including separation of powers between different regulators.</p> <p>Expedient procedures for conflict resolution.</p> <p>Regulator arbitration mandates.</p> <p>Judicial, alternative body review as above.</p> <p>Authority to impose appropriate penalties and sanctions.</p> <p>Licence monitoring and ability to revoke.</p> <p>Ability to adjudicate disputes between operators and between operators and consumers.</p>	<p>In liberalised nations, dispute resolution, notably in relation to interconnection, represents one of the key regulatory roles.</p> <p>Lack of empowerment and unclear procedures have hampered expedient resolution of disputes and caused long delays in implementing competition policies.</p> <p>Without well-defined rules, appeals processes lack a basis for assessment of compliance.</p>	<p><u>Limited legislative specification of ICASA powers, appeals processes, enforcement powers, penalties and sanctions.</u></p> <p>Dispute resolution processes are complicated by judicial arrangements whereby cases are heard by the next available high court judge, who may not have expertise in communication markets and issues.</p>
Funding	<p>Regardless of source of funds (levies on operators or the national budget), the key is that the regulator has direct control over and access to its own funding.</p>		<p><u>Funded from parliamentary appropriations.</u></p> <p>Convergence Bill anticipates funding from industry levies, including licence fees.</p>
Transparency of processes	<p>Publication of draft decisions for comment.</p> <p>Publication of decisions and justifications.</p> <p>Annual reporting.</p> <p>Decision making based on publicly available information.</p> <p>Public consultation.</p> <p>Detailed information-gathering powers and operator record-keeping rules.</p>	<p>High level of <u>commercial in confidence material</u> not available to alternative parties.</p>	<p><u>Generally in compliance with global norms.</u></p> <p>Problematic from the point of view of non-transparent licensing processes in practice and as a result of policy shifts and the requirement for ministerial approval of ICASA regulations.</p>
Mandate	<p>Detailed specification of roles and responsibilities created via legislation.</p> <p>Proper balance between discretionary powers and regulatory flexibility, and predictability in the overall framework.</p> <p>Legislative definition of roles and relationships between different institutions involved.</p> <p>Clear link with political</p>	<p>Roles and processes not clearly specified or defined.</p> <p>Interpretation of policy objectives and implementation of rules largely left to discretion of Minister or regulator or both.</p>	<p><u>Summary statement on compliance as above</u></p> <p>Discretionary powers are wide versus specified – see above enforcement powers.</p> <p>The legislation authorising ICASA is short on designating responsibilities and powers, partly because the body was to assume the broad regulatory functions of the IBA and SATRA.</p> <p>ICASA was created without amendment to the IBA Act, the Broadcasting Act or the Telecommunications Act which it oversees.</p> <p>ICASA needs expertise, proactiveness and true independence, but the draft Convergence Bill does not address these issues, although it assigns multiple tasks to</p>

	objectives and market aim of liberalisation.		the already unequipped regulator in terms of establishing and implementing detailed regulatory guidelines across interconnection, licensing and other issues.
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(Yankee Group 2003:93-94)

4.7 SUMMARY

The preceding sections have sketched the institutional and organisational structure and arrangement of ICASA as implementer of public policy in respect of the telecommunications industry. When compared to global best telecommunications regulatory practices in critical areas such as the legislative framework, the mandate, enforcement capabilities, openness and transparency of decisions and legislative processes, financial independence, and independence of all political and business interests, ICASA still has a long way to go.

CHAPTER 5

RESEARCH METHODOLOGY

5.1 INTRODUCTION

This chapter describes the methodology used in this research. It first discusses the aims and objectives of the project. Then the case study as research design is briefly examined and the methods of data collection (in-depth interviews and documentation) are described. This is followed by a description of the data analysis, notably how the coding schedule and procedure were drawn up and how the content categories were constructed. Chapter 5 concludes by discussing the researcher's compliance with research ethics.

5.2 AIMS AND OBJECTIVES

The aim of this dissertation of limited scope is to determine how the institutional arrangement of the Independent Communications Authority of South Africa (ICASA) is established and whether the regulator is sufficiently empowered to implement its constitutional mandate.

The objectives of the study are: to examine the institutional arrangement of ICASA; to establish the organisational structure including staffing and financing of the regulator; to determine to what extent the institutional arrangements empower the regulator to implement its constitutional mandate.

This study attempts to find answers to the following research sub-questions: How were ICASA and its mandate established? What kind of governing body is ICASA? How independent is ICASA's decision making? Does ICASA have the necessary resources?

5.3 RESEARCH DESIGN

The goal of this case study is applied communication research. It is cross-sectional, explorative and qualitative. This research employed the case study as the specific

research design. It is based on fieldwork conducted in Johannesburg and Pretoria between the months of April 2005 and June in 2005, preceded by literature review and documentary research between the months of April 2004 and June 2005.

Reinard (2001:9) notes that case studies are intensive inquiries about single events, people or social units that are helpful to interpret or understand the case. The case study design draws upon multiple data sources to investigate the phenomenon and to develop converging lines of inquiry or triangulation when investigating a specific, contemporary phenomenon (Leedy & Ormrod 2001:149; Neuman 1994:321; Wimmer & Dominick 2000: 124; Marshall & Rossman 1995:41). Case studies can be either single or multiple-case designs (Yin 2004:57).

Wimmer and Dominick (2000:125) cite the following advantages of the case study method:

- It facilitates obtaining a wealth of information about the research topic.
- The case study method can suggest why something has occurred.
- This method affords the researcher the opportunity to deal with a wide spectrum of evidence. Documents, historical artefacts, systematic interviews and direct observations can be combined in the study. The more data sources that can be used, the more likely it is that the study will be valid.

According to Yin (2003:XI) case studies have long been one of the most common methods of conducting research for use in public policy and in business and public administration. In addition, case studies often deal with matters of public interest (Stake 1998:102).

Based on the above discussion, the researcher was of the opinion that the subject matter of this research lent itself to the case study research design. The nature of ICASA's mandate, which is a combination of regulatory duties and its role in promoting and developing the country's communications capabilities and industries, lent itself to the case study method. In addition, international organisations such as the ITU and the World Bank use the popular case study and mini case study design to investigate matters relating to telecommunications regulators and effective regulation in countries around the world. The ITU has completed research of several

countries including Morocco, Brazil, Botswana, Singapore and Peru using the case study method (ITU 2001).

Unit of analysis (the case)

Yin (2004: XIV) makes the distinction between the “case” and the “case study”. The “case” is the real-life set of events from which data will be drawn. According to him the “case” can be a specific and concrete affair. A case might be an agency (Stake 1998:87) ‘entity’ or ‘phenomenon’ (Mouton 1996:91) a particular organisation, a programme, or some other discrete event (Wimmer & Dominick 2000:126). In contrast, the “case study” is the substance of the research inquiry, consisting of the research questions, theoretical perspectives, empirical findings, interpretations, and conclusions (Yin 2004: xiv).

In this study, ICASA is the unit of analysis, “the case”. The purpose for studying this case was intrinsic which meant it was undertaken because the researcher wanted better understanding of the particular case. Stakes (1998:88) explains that the purpose of the intrinsic case study is not to come to understand some abstract construct or generic phenomenon, rather because the case itself is of interest. The purpose of case study is not to represent the world, but to represent the case (Stakes 1998:104). The data used for this research study were obtained from in-depth interviews and qualitative content analysis and from various documents detailed in section 5.2.2.

5.4 DATA COLLECTION

In the qualitative or interpretive approach wherein this research is located, the researcher is an integral part of the data. Without the active participation of the researcher, no data exist. The measurement instrument in interpretive research is the researcher; no other individual can substitute (Wimmer & Dominick 2000:104).

Qualitative data come in a variety of forms, such as notes made while observing in the field, interview transcripts, documents, diaries, and journals. The data in the form of text, written words, phrases, or symbols describe or represent people, actions, and events in social life (Wimmer & Dominick 2000:106; Neuman 1994:404). Data collection methods correspond with the data sources (Mouton 2001:104).

The data used for this research study were obtained from in-depth interviews with six respondents and from various documents detailed in section 5.4.2 below. After the respondents were identified they were then contacted either by telephone, e-mail or face-to-face contact. The project was briefly described to them and they all agreed to participate without any hesitation.

Following is a discussion of in-depth interviews as one of the methodologies that was used in the study.

5.4.1 In-depth interviews

In-depth interviews also known as intensive interviews are used to gather detailed information from a small sample of respondents. Elaborate information concerning the respondents' opinions, values, motivations, recollections, experiences and feelings are obtained. Data from in-depth interviews are a common form of case study evidence. Such interviews require the investigator to have a sound prior knowledge of the subject matter if not about the specific person being interviewed (Yin 2004:179).

Reinard (2001:142) posits that although scholars work with facts, they often use opinion statements as evidence in their research arguments. Opinions refer to interpretations of the meaning of collections of facts. Researchers use opinions, regardless of whether they complete qualitative or quantitative research. In the case of this study the opinions of the sampled respondents were sought in in-depth interviews.

Wimmer and Dominick (2000:122) warn that the success of the in-depth interview depends on the rapport established between the interviewer and the respondent. Thus, the researcher must make the interviewing experience and task sufficiently meaningful, rewarding and enjoyable to attain and maintain the necessary respondent motivation Mouton (1996:154).

Sampling

A purposive sampling approach was adopted for this research project. 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). It is convenient and economical when key population characteristics can be identified clearly (Reinard 2001:298).

The researcher used the purposive sampling method for the reasons cited above and also because she preferred respondents who were involved in the ICT/telecommunications industry and who have a clear understanding and appreciation of the role of ICASA. All interviewees have worked and/or interacted with the regulator. Wimmer and Dominick (2000:122) confirm that in-depth interviews are typically done with a non-random sample. In this research in-depth interviews are one of the data collection methods.

The strategy of maximum variation sampling was employed to obtain a broad perspective on the subject of study. Thus participants who have different experiences with the regulator or who hold possible contrasting views were identified and approached. The researcher was further guided by the following criteria when she decided on the sampling approach: A good or ideal informant is one who has the knowledge and experience the researcher requires, has the ability to reflect, is articulate, has the time to be interviewed, and is willing to participate in the study (Stakes 1998:73; Neuman 1994:361) and has the perception that it may in some way be of value to participate (Terre Blanche & Durrheim 1999:385). Based on these criteria, the following people were selected:

- Professor Alison Gillwald, research director, at LINK Centre, Graduate School of Public and Development Management Witwatersrand University,
- Izaak Coetzee, a senior manager for regulatory economics and statutory reporting at Telkom;
- Edwin Thompson is an executive member of the communication users association of South Africa, (CUASA). He is also a senior executive for operations and legal and regulatory affairs of UUNET SA which is an international Internet-based converged communications provider;
- Duncan McLeod is the technology editor at the weekly magazine "Financial Mail". Duncan specialises in issues of ICT and telecommunications;

- Devan Naidoo, general manager for regulatory affairs division at the Department of Communications (DoC), and lastly
- Michael Markovitz, advisor to Mandla Langa, the former chairperson of ICASA.

In this study the individuals were not themselves the focus of the analysis. They were data sources. The regulator was the centre of interest. As stated earlier, ICASA was the unit of analysis – the case.

Research setting

A total of six (6) interviews were conducted with the six (6) respondents, meaning one interview per respondent. All the interviews were conducted during the day and in the respondents' offices by the researcher. The language of communication was English. While the English language might not have been the first language of everyone, all participants in the research project including the researcher are fluent English speakers and could eloquently express themselves in the language.

All six interviews were conducted in an atmosphere of congeniality. Respondents were at ease with the interviewer and as far as possible gave detailed answers to questions. They were helpful and volunteered contact details of people who might be of assistance in the project. Others provided material they had written on a particular subject concerning ICASA or the telecommunications industry as well as ICASA's submissions presented to the parliamentary portfolio committee on communications.

The procedure on meeting each respondent for the interview was first to establish rapport with the interviewees and create an environment of openness and trust within which they were able to authentically express themselves. The researcher did this by sharing her professional background and deep interest in the topic of the research with the respondents.

The author then requested permission to tape record the conversations and explained that the purpose of the recording is mainly to assist her in the process analysis and interpretation of the data. All respondents agreed to speak on tape. Although respondents were assured of confidentiality others agreed to be quoted. One respondent felt it necessary to put it on record that he is speaking in his personal private capacity and that his opinions might not be in line with that of the

company that he works for. The issue of research ethics in general and as it pertains to this study is discussed later in section 5.6.

After permission to tape record the discussions the researcher again explained the purpose of the research as well as outlined the six (6) themes of questions as set out in the interview guide. Themes were presented to respondents in the form of loosely worded open-ended questions. These were not necessarily presented in the sequence in which they appeared on the interview guide. The aim was to establish a topic for the respondent and to allow him or her to structure the answer. This served the purpose of revealing the respondent's opinion on the particular theme, and also allowed the theme to be elaborated upon and expanded. In some cases while answering a question dealing with a particular theme the respondent would inadvertently move on to another theme.

Throughout the interview the researcher was alert to the opinions expressed and consequently posed questions to clarify some unclear opinions. Probing questions and follow-up questions were used to get more information from respondents. During the interview the researcher endeavoured to assume a non-argumentative and understanding attitude.

The interview guide (see Annexure B) that was used in the study was compiled in the following way: a study of the related literature covered in chapter 2 as well as the study of ICASA's mandate as covered in chapter 4 helped to delineate the issues and to provide broad themes to be covered in the interviews. The themes provided the main division for the guide and a structure for later analysis and interpretation. Section 5.6.1 gives a detailed description of the various themes covered in the in-depth interviews.

The duration of the interviews ranged from 50 to 90 minutes. Two (2) of the interviews were conducted in Pretoria and the rest were done in Johannesburg. In addition to the tape recordings of the interviews the researcher made sparse notes during the interviews of key sentences and words as a kind of non-verbal feedback for the researcher.

5.4.2 Documentation

Documentary analysis is an accepted data collection method in a case study approach. Documents which represent a rich data source, may take the form of memos, historical records, brochures, newspaper articles, past records, pamphlets, and posters among other things (Wimmer & Dominick 2000:126; Leedy & Ormrod 2001:149). The documentary data sources that the researcher used include policy documents, Acts of parliament, newspaper articles, annual reports, on-line sources, magazines and journals. The list also forms part of the literature survey and each source is referenced in the bibliography.

Table: 3 provides a summary of the various documentary data used.

Table:3 Summary of documentary data

Source	Year	Type	Number
ICASA Act	2000	Act of Parliament	1
Competitions Act	1998	Act of Parliament	1
ICASA Annual Report	2003/2004	Report	1
ICASA Annual Report	2004/2005	Report	1
ICASA	2004	Brochure	1
ICASA	2004	Pamphlet	1
Telecommunications Amendment Act	2001	Act of Parliament	1
Minister of Communications	2005	Budget speech	1
Mandla Langa	2002-2004	Speech	2
Michael Markovitz	2001	Conference Paper	1
President Thabo Mbeki	2005	Speech at opening of Parliament	1
National Convergence Policy Colloquium	2003	Policy document	1
TRASA	2003	ICASA Progress Report	1
Telecommunications Policy	1993-2003	On-line Journal	11
Business Day	2002-2005	Newspaper article	9
Sunday Times Business Times	2002	Newspaper article	1
Communicatio	2000-2003	Journal	5
World Bank	2004	Research Reports	2
OECD	1999-2003	Research Report	3
Intermedia	1999	Journal	2
The Citizen	2005	Newspaper article	2
Business Report	2003-2005	Newspaper articles	7
Telecommunications Monitor	2002	Journal	1
Financial Mail	2002-2005	Magazine	5
Independent Business Report	2004	Newspaper article	1
This Day	2004	Newspaper article	1
Trends in Telecommunications Reform	2003	On-line journal	1
Gartner	2002	Research Report	1
Mail & Guardian	2005	Weekly newspaper	1
The Southern African	2002-2003	Journal	2

Journal of Information & Communication			
TelecomReform	2001	On-line Journal	1
Journal of Southern African Studies	1996	Journal	1
LINK Centre studies	2001-2005	Public Policy case studies	8
WDR/Intelecon Regulatory News	2003	On-line News Service	1
ITU	2001	Case Studies	5
ITU-D Study Group	2001	Reports	1
Yankee Group	2003	Research Report	1

Leedy and Ormrod (2001:158) stress that in qualitative research, the potential sources of data are limited only by the researcher's open-mindedness and creativity. In doing documentary analysis the author was guided by this good advice from the experts.

To conclude this section it should be noted that in the interpretive approach wherein this research is located the researcher is an integral part of the data. Without the active participation of the researcher, no data exist. The measurement instrument in interpretive research is the researcher; no other individual can substitute (Wimmer & Dominick 2000:104).

5.5 DATA ANALYSIS

Analysis is the process of labelling and decontextualising or breaking down of raw data and reconstituting them into themes, patterns, concepts, and propositions (Mouton 2001:108; Marshall & Rossman 1995:114,210). The aim of analysis is to understand the various constitutive elements of the data by inspecting the relationships between concepts, constructs and to see if there are any trends that can be identified or to establish themes in the data (Mouton 2001:108). This analytic process demands a heightened awareness of the data, a focused attention to those data, and an openness to the subtle, tacit undercurrents of social life (Marshall & Rossman 1995:114,210).

In a qualitative study, there is no single "right" way to analyse data, say Leedy and Ormrod (2001:160). In a case study, the researcher often begins to analyse the data during the data collection process and makes preliminary conclusions. These are likely to influence the kind of data that the researcher seeks out and collects later in the study. Therefore the researcher must look for convergence of conclusions drawn

from different sources of data (Leedy & Ormrod 2001:150; Wimmer & Dominick 2000:106). That is why this researcher integrated and collated the data from all the documentary sources (see table 3) and the transcribed interviews at the end of the data collection stage. The following section looks at how the transcribed content of the in-depth interviews was analysed and details the phase of category construction.

5.5.1 Qualitative content analysis

Qualitative content analysis is a flexible method and widely applied to text by linguists, journalists, communication scholars, as well as professionals in psychology and sociology. Qualitative content analysis can also be used to analyse interview studies (Reinard 2001:169).

The object of qualitative content analysis can be all sort of recorded communication such as transcripts of interviews, documents, video tapes and discourses among others (Mayring 2001:1). Qualitative content analysis is particularly suited to the study of communications and to answering the classic question of communications research: “Who says what, to whom, why, how, and with what effect?” (Babbie 2001:314).

The researcher’s rationale for using the qualitative content analysis method to analyse the interview data was to provide an unbiased evaluation of the opinions expressed during the interviews. The following section gives a brief description of the six (6) themes used in the analysis.

Themes

Ryan and Bernard (2003:275) note that themes are abstract and often fuzzy constructs that researchers identify before, during, and after data collection. These scholars note that studies of the relevant literature are rich sources of themes, as are the researcher’s own experience with the subject matter. In determining the various themes, the author was guided by the research questions, the research objectives as well as the review of the research literature on telecommunications regulation and regulators.

The themes defined include: funding, human resource capacity, independence and credibility, mandate, transparency, and lastly the relationship between the regulator and the ministry of communications (see Annexure D for the theme description code sheet).

While there are software programmes to analyse qualitative data, this researcher used the manual and laborious method of cutting and pasting (Stakes 1998:75) meaning to literally cutting the desired sections from the transcripts and pasting the strips onto separate A2 paperboards. The thematic analysis of opinions expressed on the six (6) themes by the six (6) respondents was carried out by means of the following procedure.

The procedure was done with the use of physical tools such as paper, scissors, multi-coloured highlighters, A2 paperboard, and glue. Several copies of the transcribed data were printed and cut into pieces representing opinions, marked with the interviewee's name and pasted on A2 paperboards, each representing one of the six (6) themes. The opinions of the six interviewees were also clearly coded according to the direction (positive, negative or neutral). This method was used by Sehlapelo and Terre Blanche in their interpretive study of public perceptions of psychometric testing (Terre Blanche & Durrheim 1999:143). The advantage of this procedure is that one can easily change which sections should go under which theme.

Qualitative content analysis describes what is in the text. It cannot reveal the intentions of those who created the text. Thus, the inference a researcher can or cannot make on the basis of results is critical in qualitative content analysis (Neuman 1994:268).

5.6 RESEARCH ETHICS

Ethical research requires that humans participate voluntarily in research. Informed consent is therefore an ethical requirement for all research studies (Terre Blanche & Durrheim 1999:385). Although informed consent is often secured by asking subjects to complete a form on which they are given full information about the risks involved

(Reinard 2001:296), in this study informed consent was verbally secured. As pointed out earlier, all interviewees agreed to participate in the research project.

Stakes (1998:103) stresses that case study research is built on intense interest in personal views and circumstances. Those whose opinions are disclosed risk embarrassment: loss of standing, employment, self-esteem. Caution is imperative to minimise such risk. To help ensure confidentiality the researcher may delete all names and identifiers from data and report only broad categories of responses (Reinard 2001:239). In this case study, all the interviewees agreed that their identity could be disclosed, and in instances where they felt uncomfortable to speak on tape, the researcher obliged.

5.7 SUMMARY

This chapter described the methodology used in the research project. It briefly dealt with the aims and objectives of the research. The case study research design was discussed at length as well as the methods of data collection and data analysis. The data collection methods included in-depth interviews and documentation, while the data analysis made use of theme definition and analysis. The researcher's compliance with research ethics was also noted.

CHAPTER 6

FINDINGS AND CONCLUSIONS

6.1 INTRODUCTION

This final chapter deals with the findings of the research project. Furthermore, it discusses the research results in terms of the research questions and aims and objectives of the research project. Chapter 6 also contains several recommendations for improving regulation in South Africa. It concludes with a critical evaluation of the research process and details the limitations of the research project.

6.2 RESEARCH FINDINGS

This section details the findings according to the themes outlined in section 5.6.2.

Funding

There was consensus among the interviewees in the sample that ICASA lacks adequate funding to effectively carry out its operations. All six (6) respondents agreed that insufficient financial resources allocated to the regulator are a major constraint on its ability to respond timeously to the challenges of a dynamic telecommunications industry. All interviewees were aware and in full support of the proposed new funding model that is set out in the ICASA Act Amendment bill, which has not been made public. The new funding model makes allowance for the regulator to retain a certain percentage of money from all licence fees collected (see sections 3.3.5 and 4.4.1 for more detail).

The respondents expressed optimism that government is finally showing a certain level of commitment to bolster the financial resource capacity of the regulator. In the view of one interviewee: *“it will make a huge difference to ICASA. Then they won’t have to go with a begging bowl to the DoC every time they get some new project that they didn’t budget for”*.

Human resource capacity

All six (6) interviewees agreed that the regulator is in dire need of improved human resource capacity. Respondents pointed out that staff shortages, the high rate of

staff turnover, the lack of experience and relevant skills have weakened ICASA and place a big burden of the remaining resources of the regulator. Each respondent noted that the regulator has talented staff members and acknowledged that it could be one of the reasons that the industry continues to poach them. *“We should also understand that the people at ICASA are very talented people, are very skilled people so they are being offered jobs with more money, better resources, what have you, that happens.”*

Respondents conceded that as more and more operators and IT-related companies enter the market (resulting from ICASA's own policies and efforts), the regulator should expect to have to continue to work hard to retain its staff and attract new staff to replace those that are wooed away by industry. *“Until ICASA can pay market related numbers for its staff, it is going to hemorrhage staff to industry. You can't complain to industry and say you can't take this person. If you are not paying properly, you drive the need to go elsewhere.”*

Three (3) interviewees emphasised the point that there is a tendency to overrate financial rewards for public servants while undervaluing the incentives inherent in professionalism and dedication to service. They stressed that in many countries, the main reward for professional public servants is the esteem of their peers, dedication and influence, not huge salaries or investments. That is why virtually all earn far less than their counterparts in business.

All but one respondent believed that there was an over-reliance on international consultants by both the policy maker and the regulator. *“ICASA is being run on consultancies. And so there is not much skills development/ skills transfer from those processes. Very little ownership as a result.”* He emphasised that: *“At the end of the day they leave, they go, they do not live here, they do not stay here. It's much easier to copy something from the UK, then to develop something that is specific to our country and our conditions here.”*

Some respondents referred to problems of complex legislation such as the Convergence Bill that was concluded in the Parliamentary Portfolio Committee on Communications, which did not have the necessary expertise to analyse and assess it. *“If you are making policy you should be the most knowledgeable person. How can you set policy if you are not knowledgeable about all the possibilities, all the consequences?”* asked one interviewee.

Independence and credibility

In terms of independence, all six interviewees were of the opinion that the regulator lacks sufficient independence in terms of telecommunications regulation. They referred to the joint jurisdiction by the Minister of Communications and ICASA in respect of prescribing regulations and granting telecommunications licences. They also felt that the ultimate role of the Minister in approving ICASA's regulations severely compromise the independence of the regulator. Three (3) of the respondents referred to the ICASA Act Amendment Bill, that if passed it would be a further setback for the independence of the regulator. The ICASA Act Amendment Bill, seeks to give the President and the Minister of Communications the power to appoint ICASA councillors (Derby 2005:5).

In terms of credibility only two (2) respondents believed that ICASA enjoys the respect of industry and other stakeholders. *"You don't just get respect, you earn it. And I think ICASA has earned it in the last 5 years."* However, the majority (4) of the interviewees felt that ICASA does not have sufficient credibility. They pointed out that ICASA continues to be publicly undermined by both the policy maker and the incumbent. The interviewees referred to the behaviour of Telkom who has on several occasions directly challenged the authority of ICASA in court and has had the regulators decisions overruled. They say such failures have left ICASA with a questionable reputation.

In the view of one interviewee: *"ICASA is not perceived as the Authority in the industry. Very few decisions of the regulator are upheld by the parties. The respect for the regulator is not there. So every time the regulator makes a call, Telkom takes it to the High Court."*

Compared to the Botswana Telecommunications Authority (BTA) and the Ugandan Communication Commission, ICASA fared poorly. Respondents felt that ICASA lacked the prestige that the BTA enjoys. The BTA is independent and competent, establishes and finances its operational budget and exercises its licensing authority without government interference. While the Ugandan regulator is regarded as very informed, transparent, forward-looking and pragmatic. It enjoys strong statutory powers to demand information from and fine operators that do not comply with its regulations.

Mandate

All six (6) respondents referred to the statutory mandate of ICASA (as detailed in section 4.3.1). Four (4) interviewees pointed to the lack of clarity in the definition of the respective role of the Minister and regulator as well as the unclarity and functional ambiguity between the regulator and other official bodies such as the Competition Commission, and the Universal Service Agency. They suggested that the separation of powers should be clearly defined. As one interviewee put it: *“Telecoms in South Africa will never grow unless rules and guidelines are clear”*.

The respondents noted that a clear set of priority objectives should be spelled out and pursued consistently, irrespective of the various challenges and the changing priorities or sectoral interests. The main problem with the policy and legislative framework, they said, is the inconsistency and sudden changes in policy direction.

Transparency

All six respondents agreed that ICASA’s performance in terms of transparency, public consultation and access to information was satisfactory. They expressed views such as: *“ICASA is transparent enough”, “there has been significant stakeholder consultation”, “I find it very easy to get information from ICASA even the chairperson” and “they have been pretty good at transparency”*.

However, all but one (1) respondent felt differently about the ministerial policy process. Five of the interviewees expressed deep concern at the lack of consultation by the policy maker in the recent policy process around the Convergence Bill. Respondents felt that the policy process involving the Convergence Bill was rushed through and did not follow the earlier Green Paper and White Paper policy processes. As one interviewee puts it: *“Many licensees have requested extension to comment on the Convergence Bill and it was not granted. What are we going to achieve by rushing this through. Yes, it’s going to be legislated, but it’s going to mean nothing. It’s going to create more uncertainty than anything else”*.

Interviewees felt that proper mechanisms for the promotion of consultation and transparency on the part of the Ministry of Communications are necessary to generate confidence and trust in its ability to issue appropriate policy directives.

Relationship between policy maker and regulator

Three out of the six interviewees expressed a neutral view. In their view there is a functional working relationship between the regulator and the Ministry. In the view of the three respondents the relationship between the policy maker and the regulator is not necessarily strained. As one interviewee put it: *"You can have a disagreement without having a strained relationship. You can agree to disagree"*.

However, the point of *"misalignment between the Ministry and ICASA"* was made. One respondent felt that of part of the problem is the co-regulatory system *"because there is a blurring and an overlapping of roles and in a sense it hasn't worked well to achieve the objectives. There is a bottleneck at ICASA to get the regulations to the Minister in the first place. Then, there is another bottle neck at the Ministry. So we are dealing with two bottle necks. On both sides. The problem is the back to front, up and down, ping-pong process."*

Two of the respondents believe that the relationship between the Ministry of Communications and ICASA is very poor and getting worse. In their view the functional ambiguity and seeming lack of political commitment have led to a dysfunctional relationship between the policy maker and the regulator. As one interviewee put it: *"There appears to be a lot of unhappiness at ICASA towards the Ministry. This seems to have boiled over with this whole issue when the Minister clarified her determinations of last year. There are concerns that the Minister can just step in and override ICASA's decisions"*. A concern was expressed that ICASA has never been allowed to enforce its rulings against Telkom because whenever it took Telkom to task, the Department of Communications stepped in. Meanwhile, Telkom has taken advantage of the malaise to increase its prices and further entrench itself in the telecommunications market.

Another respondent expressed a stronger view that: *"90% of the problems we have with telecommunications directly points to the Minister. She should have been fired years ago"*.

The sixth respondent did not express an opinion on the matter citing lack of sufficient insight and information.

Suffice it to mention that the draft Convergence Bill was cited extensively by all six (6) respondents during the interviews. As noted earlier, the draft Convergence Bill is aimed at ensuring the further liberalisation of the communications market, lowering

barriers to entry for newcomers and introducing new technologies and services (Loxton 2005:4).

The overwhelming majority (5) respondents pointed out that the draft Convergence Bill left broad interpretation and discretionary responsibility with the ill-equipped ICASA. They noted that if passed, the Bill would carry over many of the shortcomings of the existing regulatory regime, while adding further uncertainty and complexity in an already unstable environment.

However, at the time of writing this report, the DoC has that the draft Convergence Bill contained big gaps that needed to be redrafted. The Parliamentary Portfolio Committee on Communications has since decided that the Bill should be redrafted clause-by-clause. The redrafted Convergence Bill will make clearer the fact that the Minister of Communications would be responsible for issuing policy directives, while ICASA would make regulations (Loxton 2005b:4).

Table 4 illustrates the themes and direction of the views expressed by the six (6) interviewees.

Table: 4 Themes and direction of opinions expressed

Theme	Positive	Negative	Neutral
Funding	0	6	-
HR Capacity	0	6	-
Independence	0	6	-
Credibility	2	4	
Mandate	-	4	2
Transparency	6	0	-
Relationship between policymaker and regulator	3	2	1
Total	11	28	3

The responses as indicated in table 4 show that there were far more negative replies than positive replies from the respondents. Overall, in terms of the themes tested, the findings show the majority of the sample of interviewees regards the regulator in a negative light.

6.3 CONCLUSIONS

The following conclusions are based on the answers to the research questions including the overall research objective (see chapter 1) which is to determine whether the institutional arrangement of ICASA, its mandate, its resources and regulatory processes sufficiently empower the regulator to implement its constitutional mandate. The conclusions are also based on the literature review on telecommunications regulation and regulators in chapter 2 and 3.

Conclusion 1: ICASA was established in terms of the ICASA Act No 13 of 2000. It is a merger of two previous regulators, SATRA and the IBA. ICASA was created in recognition of the fast technological changes as well as to facilitate seamless regulation of telecommunications and broadcasting including the accommodation of the convergence of technologies. ICASA's mandate is to provide for the regulation, control and provision of efficient and affordable telecommunications and broadcasting services in the public interest, promote universal service and economic development of South Africa. ICASA is also mandated to grant licences in the telecommunications and broadcasting industries and to set the terms and conditions of every licence granted.

The Ministry of Communications is responsible for the development of policy in respect of the telecommunications, broadcasting and postal industries. ICASA's role here is to give effect to policy directives issued by the Minister. The co-regulatory system has caused a lot of overlapping and blurring of roles and functions because of the lack of clarity of the institutional framework and the functional responsibility of the policy maker and the regulator. A situation that has created uncertainty in an already unstable regulatory environment.

The literature shows that enhanced competition through increased private participation in the provision of telecommunications services, and the implementation of sound regulatory policies for residual monopolistic segments were key ingredients for sector growth and development (Malik 2004:17; Dymond & Oestmann 2003:51). The conclusion drawn here is that South Africa's strategy of managed liberalisation of the telecommunications sector has been unsuccessful. As in many developing countries, competition is not yet the effective norm in the South African telecommunications sector. Poor policy prescriptions as well as a lack of direction in

the regulatory process are among the key factors that contribute to the failure of telecommunications reform in South Africa.

Conclusion 2: The literature shows that regulatory effectiveness crucially depends upon the monopoly wielding power of the incumbent. The stronger the power of the incumbent the greater is the chance of undermining regulatory independence (Malik 2004:2). Lack of administrative and institutional capacity in many developing countries has failed to develop competition policies to prevent market abuse by dominant operators (Parker & Kirkpatrick 2003:24).

This study concludes that ICASA is weak and lacks sufficient independence from government and enforcement power to curb or deter anti-competitive behaviour by the incumbent. The regulator has failed to stamp its authority on the market because of its inability to act against Telkom. Government, as the biggest shareholder in Telkom has time after time intervened in attempts by ICASA to act against the incumbent. Until a clear policy on competition is put in place and followed through and the structural conflict of interest of government is resolved, telecommunications reform will not achieve their public interest objectives.

According to the literature review (Kessides 2004:62; Melody 1999:18) some governments have lost sight of the objectives of promoting efficient and universal service development and focus only on maximising their financial position. Thus, they prefer weaker regulation, restricted competition and monopoly profits.

Conclusion 3: According to the literature (ITU 2001:28; NERA 2004:25) funding of the regulatory process is critical in exercising the regulator's independence. A regulatory agency cannot be independent unless it has an adequate budget with which to carry out its mandate or contribute constructively to the industry's development. Also, if a regulator relies wholly on government funding, it leaves itself open to political interference (WDR/Intelecon Regulatory News 2003:1). In South Africa, the regulator is fully funded through parliamentary appropriations. Limited funding has impeded the ability of ICASA to regulate effectively.

Conclusion 4: Lack of administrative and institutional capacity in many developing countries has resulted in the failure to develop competition policies to prevent market abuse by dominant operators (Parker & Kirkpatrick 2003:24).

The experience of South Africa with regard to resources mirrors that of other regulators in developing countries. The regulator lacks the necessary capacity in terms of skills, experience, expertise and management to carry out its mandate. A practical problem is that ICASA is competing for the same skills with the telecommunications industry. The high turn-over of technical staff and senior managers has crippled the regulator. Like other regulators in Africa, ICASA started supervising a competitive market with little experience in regulation. With increased liberalisation and rapid changes in technology, capacity building will continue to be a challenge especially in the area of enforcement and compliance.

Conclusion 5: In contrast to findings reported in the literature review regarding the low level of transparency of regulators in developing countries, ICASA appears satisfactory in terms of transparency, public consultation and access to information. The evidence indicates that the regulator thus far has achieved one of its stated objectives, which is to maintain a permanent dialogue with the community and provide extensive transparency. However, the need for greater transparency and consultation in order to increase public participation in the regulatory process is likely to increase with the transition to a fully competitive telecommunications market.

Finally, the experience of South Africa thus far shows that the liberalisation of the telecommunications sector has not been a key strategy for achieving telecommunications development objectives. This country has yet to provide the basics of a fair competitive regime that will reduce the many barriers for entrants to the fixed-line market and safeguard the interests of consumers.

To date the lack of a strong political will and commitment to reform the telecommunications industry in order to provide South Africans with advanced communication services at competitive terms is evident in the government's insistence on being a market player and referee at the same time. For competition to be fair, the state should not have a vested interest in any of the operators.

Furthermore, the conclusions generally concur with the literature on regulatory frameworks and practices particularly on developing countries which posit that insufficient regulatory capacity, lack of legislative and statutory powers, financial constraints and very little political will and support hamper the efforts of regulatory agencies to effect infrastructure reforms to achieve their public interest objectives.

Unless the weaknesses pointed out are effectively addressed, the envisaged telecommunications reform in South Africa will remain a mirage. Thus, the development of sound and sustainable regulatory practices remain a critically important challenge to be dealt with in the future. The following section makes several recommendations to improve regulation in South Africa.

6.4 RECOMMENDATIONS

On the basis of the review of literature on telecommunications regulation and international best practice, the documentary analysis, and on the findings of the content analysis, the following recommendations are made:

- **Clarify the institutional framework and the functional responsibility**

A clear definition and demarcation of roles and responsibilities between the Minister of Communications, ICASA, the Competition Commission, and the Universal Service Agency should be made to avoid jurisdictional issues and the undermining of transparency and autonomy of the decisions taken by ICASA. The separation of powers should be clearly defined.

- **Strengthen the independence and authority of ICASA**

Give ICASA full independence to regulate the telecommunications industry including in respect of prescribing regulations and granting telecommunications licences.

- **Allocate adequate resources to the regulator**

Provide sufficient financial resources to enable ICASA to offer competitive remuneration packages, to become a magnet for talent and to create a working

environment conducive to further learning and development and win more respect from the industry. Allow ICASA the freedom to establish compensation packages that are commensurable with what its employees would receive if they worked in the private sector.

- **Assess the performance of the regulator**

Conduct regular extensive efficiency and effectiveness assessments of ICASA's performance. The purpose of which should be to measure the ability of the regulator to achieve its goals. Also, whether the action taken by the regulator has been satisfactory and has led to expected results in view of its means, powers, competencies and independence within the larger institutional framework in which it operates. To determine the degree to which ICASA's action contributes to the achievement of public policy objectives. Such performance assessments will help to improve the whole regulatory system by making adjustments on the basis of the results obtained (OECD 2003:37-39).

The next section critically evaluates the research process and discusses the limitations of the research project.

6.5 CRITICAL EVALUATION AND LIMITATIONS

As pointed out earlier, this case study used a non-probability sampling method and focused on a particular case, that of ICASA. The results of a case study cannot be generalised to a wider population but it can be replicated. The results of this research project therefore cannot be generalised for the purpose of the case study was to represent the case and not to represent the world (Stakes 1998:104).

To strengthen the validity of the research, triangulation of methodology was used in this case study. A combination of content analysis of six in-depth interviews and the analysis of documentary sources were used. Interviewer bias was neutralised by the analysis of texts and documents which according to Mouton (2001:166) minimises errors associated with the interaction between researchers and subjects. When findings, interpretations, and conclusions are based on multiple sources, the case study data are less prone to the quirks deriving from any single source, such as an

inaccurate interviewee or a biased document (Yin 2003:83; Wimmer & Dominick 2000:110).

Suffice it to mention that the findings of the content analysis are limited to the framework of the themes and the definitions used in the analysis. It should also be pointed out that intercoder reliability was not established because only one coder was involved in the analysis.

The limitations of the research project relate to the narrow scope to research and explore fully the potential offered by the case to identify comprehensively the current restraints and future conditions that will be required to facilitate and encourage increased confidence in South Africa's regulatory environment for investors in the telecommunications sector; wider consumer choice and through greater competition, better quality of services and lower communications costs.

While limited in scope, this case study of ICASA has identified several constraints and made a number of recommendations in terms of regulatory processes. The report provides a useful framework for those who would like to undertake a deeper and broader study of the regulator and its processes. For more empirical research is needed to characterise more precisely the specific features of South Africa that are relevant for regulatory economics.

Also, more research is necessary not only to verify and refine the findings presented in the study but to assist ICASA to craft a regulatory environment suited to its own special set of circumstances and in keeping with its own priorities. For regulation is an ongoing process. For as the telecommunications market evolves so does regulation. While much has been done to establish a regulatory framework, ICASA still has several major tasks ahead of it such as developing a flexible regulatory framework that is forward looking and can evolve with technological change.

Furthermore, improved data would make it possible to analyse several issues that have not been addressed here such as quality of service, consumer protection and monitoring and enforcement among other things, which will become even more important with the transition to a fully competitive telecommunications market.

This author cannot but agree with Gillwald and Abrahams (2005:9) that the central public policy challenge facing decision-makers in African in particular South Africa responsible for ICT remains ensuring that all citizens have affordable access to services. Therefore, there is a need for continuous and rigorous data collection and analysis by academics and research institutions to assist policy makers and policy implementation agencies such as regulatory agencies to make informed decisions to fulfil its mandate and mission of increasing access to communication services through the promotion of a competitive and socially responsive communications industry.

Finally, South Africa as the strongest economy on the continent plays a significant leadership role in the continent. Given the country's political stability, its economic might, its resources in terms of finance, intellectual expertise, skills and experience, South Africa has a moral obligation to get it right by building a strong, independent, responsive and innovative regulator that can become the beacon of hope for other regulators on the continent.

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ANNEXURE A

LIST OF PERSONS INTERVIEWED

State representative

Devan Naidoo, the general manager for telecommunications regulatory affairs at the Department of Communications.

Representatives from the incumbent operator

Izaak Coetzee, a senior manager for regulatory economics & statutory reporting at Telkom and a former employee of both ICASA and the Department of Communications.

Representative from the Communication Users Association of South Africa (CUASA)

Edwin Thompson, an executive member of CUASA and a senior executive for operations and legal and regulatory affairs of UUNET (SA) an international Internet-based convergence communications provider.

Representatives from the Independent Communications Authority of South Africa

Michael Markovitz, a media specialist and advisor to former chairperson of ICASA, Mr Mandla Langa.

Academic expert

Professor A Gillwald, Research Director of the Witwatersrand University Learning Information Networking and Knowledge Centre (LINK), with she founded in 1999 after serving on the inaugural council of SATRA.

Technology editor

Duncan McLeod an experienced journalist specialising in ICT and telecommunications issues with the weekly business magazine the "Financial Mail".

ANNEXURE B

INTERVIEW SCHEDULE

Interviewees	Date	Place
1. Professor Alison Gillwald	19 April, 2005	Parktown, Johannesburg
2. Izaak Coetzee	13 May, 2005	Pretoria
3. Duncan McLeod	17 May, 2005	Rosebank, Johannesburg
4. Edwin Thompson	25 May, 2005	Gallo Manor, Johannesburg
5. Devan Naidoo	15 May, 2005	Pretoria
6. Michael Markovitz	27 May, 2005	Sandton, Johannesburg

Interview questions

Is there an overriding vision for the telecommunications sector and how to achieve it?

Would you say there is a coherence and cohesiveness in the national plan pertaining to telecommunications reform in South Africa?

How would you describe the relationship between the policymaker and the regulator?

Also the relationship between the incumbent and ICASA?

How does ICASA's mandate enable the regulator to bring about greater competition in the telecommunications industry?

How independent and credible is the regulator?

To what extent are regulatory processes open and transparent?

In your view does ICASA have the necessary funding to do its work?

Does the regulator have sufficient internal capacity (human resources with expertise and the necessary skills?

At a national level (including the industry) does the country have the required skills and experience resources?

Would you say South Africa has sufficient expertise at legislative level?

The draft Convergence Bill is currently under discussion, what implications does it have for regulation and the growth of the telecommunication industry in South Africa?

Finally, in your view what are the main challenges and opportunities facing the telecommunications sector in South Africa?

ANNEXURE C

ABBREVIATIONS

ANATEL	Agencia Nacional de Telecomunicacoes
AT&T	American Telephone and Telegraphy Company
BTA	Botswana Telecommunications Authority
DoC	Department of Communications
ECA	Economic Commission for Africa
EU	European Union
FCC	Federal Communications Commission
GSR	Global Symposium for Regulators
IBA	Independent Broadcasting Authority
ICASA	Independent Communications Authority of South Africa
ICT	Information and communication technology
IIC	International Institute of Communications
ISPs	Internet Service Providers
ITU	International Telecommunications Union
MOU	Memorandum of understanding
MTN	Mobile Telephone Networks
NRA	National Regulatory Agencies
OECD	Organisation for Economic co-operation and development
PTT	Postal, Telegraph and Telephone agencies
RIARC	Reseau Des Instances Africaines De Regulation De La Communication
SATRA	South African Telecommunications Regulatory Authority
SNO	Second National Operator
TRASA	Telecommunications Regulatory Association of Southern Africa
UCC	Uganda Communications Commission
UN	United Nations
VANs	Value added network services
WDR	World Dialogue on Regulation
WTO	World Trade Organisation

ANNEXURE D

THEME DESCRIPTION CODE SHEET

The themes are described in the following terms:

A. Funding

It is essential to provide adequate funding for the regulatory process. A regulatory agency cannot be independent unless it has an adequate budget with which to carry out its mandate or contribute constructively to the sector's development. Uncertain budgetary allocations can weaken regulatory capacity and increase the potential for political influence (ITU Case Study: Morocco 2001:28; NERA 2004:25). Funding is required to hire good calibre professional staff that can implement regulatory objectives. Without adequate funding, the regulator will not be able to carry out its mandate or contribute constructively to the sector's development (NERA 2004:25; Intven 2000a:7).

B. Human resource capacity

Human resource capacity involves regulatory expertise, qualifications, and skills. Professional management of competent and highly skilled staff. Job security must be offered to regulators and appointments should not be linked to changes in government.

Due to the wide nature of telecommunications, with its technical, economic and social implications, telecommunications regulatory authorities require institutional capacities which need to be kept up to date through a set of multidisciplinary competencies. The required competencies can be grouped into these broad categories: engineering/technology, economics, accounting/finance, administrative law, corporate communications/public relations and management (Intven 2000:10-11; ITU-D Study Group 1 2001:6-7).

C. Independence and credibility

Independence is a delegation of specific responsibilities, authority and accountability for the performance of specific activities. To be fully effective, the regulator must be publicly seen to be independent from government (Intven 2000:7; Melody 1997:22). Regulatory independence and credibility cannot be created simply by passing legislation. Independence is earned over time by the actions of the regulator and the reactions of the government, the incumbent and the courts (Mahan & Melody 2005:7).

D. Mandate

Mandate entails detailed specification of roles and responsibilities created through legislation. It also refers to clarity of the policy directions that the regulator is supposed to implement as well as the discretion on technical and specialised matters delegated to the regulator to ensure a predictable environment for industry players (The Yankee Group 2003:94; Mahan & Melody 2005:7). Lack of clarity and functional ambiguity between the regulator and other official bodies can be

particularly damaging to the regulator's effectiveness, by tarnishing its reputation for consistency and introducing uncertainty into the rules governing the telecommunications sector (NERA 2004:2-3).

E. Transparency

Transparency refers to public participation in the policy making process and access by the public to all relevant information. Transparency allows the stakeholders to understand the regulator's decision-making process. These processes include: publication of draft decisions for comment, publication of decisions and justifications, annual reporting and public consultation among other things (The Yankee Report 2003:94; NERA 2004:22). Transparency is also one of the ways through which independence of the regulator can be strengthened. Due process and proper mechanisms for consultation generate confidence and trust and lessen the likelihood that stakeholders will challenge decisions (OECD 2003:34-35).

Improving transparency tends to increase the regulator's credibility and legitimacy (NERA 2004:22-23). Legitimacy is won by effective communication of the claims of expertise, transparency and commitment to the public interest (Samarajiva 2001:6).

F. Relationship between policy maker and regulator

In principle, where an independent regulator has been created, the establishment of the regulatory framework is the responsibility of the Ministry and the implementation and administration of this regulatory framework is the responsibility of the regulator. Policy and regulatory functions are highly interrelated in that regulation is a means to achieve policy objectives. Thus, close co-operation between the independent regulator and the policymaker is essential to ensure that regulation is more responsive to government policy decisions (OECD 2000:15-23).

Given the ministerial oversight role and the co-judiciary telecommunication regulatory system in South Africa, it is crucial that relationship between the regulator and policymakers are strong and principled.