

Telecoms policy and regulation for social and economic development in South Africa: A comparative study

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Abstract—The enthusiasm for the benefits of telecommunication growth is unlimited; it promises to provide technological expansion and social economic development. This growth however, cannot be attained without proper public policy and a supportive regulatory framework. We are of the opinion that, well implemented regulatory and policy reform in a developing country promotes economic growth and alleviates poverty, but regulatory withdrawal exacerbates it. In comparison, we examine the effects of telecommunication policies and regulation reforms (South Africa and People’s Republic of China) in accelerating developmental goals. We draw up our conclusions based on a comparison of these two countries.

Index Terms—Policy, Regulation, economic development

I. INTRODUCTION

There is a growing concern among scholars and public institutions about the role of regulation and public policy towards social economic development in South Africa (SA). The question of whether regulation and good telecommunication policy can bring about social economic development is still highly debated among public institutions and researchers [3][5–6].

International organisations such as; The World Trade Organization (WTO), International Telecommunication Union (ITU) and other telecommunication authorities are reassessing the increasing importance of telecommunication to social and economic development [18]. Howard and Mazaheri [3] assert that there is a strong correlation between the way in which economic development¹ evolves and the nature of telecommunication reforms. Viewed through the window of institutional theory, regulation and telecommunication policy holds a critical position in facilitating social-economic growth.

While there is a broad consensus regarding the objective of telecommunication policy, there is considerable debate as to the suitable role of regulation in achieving social economic development. Economic theory argues that, in order to increase social economic growth, markets may be opened through reforms of telecommunication markets to create competition

¹Note that a country’s economic development is related to its human development, which encompasses among other issues measures of the various health, education and poverty rates

and promote economic growth. In SA, however, these “reforms are so full of legal holes it’s frightening” [14]. In a country where monopolistic tendencies and collusive practices are “headline news”, competition is unlikely to be achieved [12][14–15]. Frankly speaking, government intervention in ICT sector can have a significant impact on the social and economic development of the “needy people”. In fact, a number of developed countries are reconsidering such forms of state intervention in the development of ICT sector: (1) In 2008 Australia announced plans for nationwide public-private backbone ICT projects; (2) The American Recovery Reinvestment Act (ARRA) put aside US\$7.2 billion funding for broadband access in rural and neglected areas; (3) France and UK have set aside public funds for investment in ICT development [7][16]. Within such a context, one is bound to ask as to what extent is telecommunication policy and regulation objectives been advanced in SA in order to promote social-economic development. We argue that, in telecommunication markets, the policy and regulation dilemma can be overcome, provided we carefully understand the roles and perceptions of firms and institutions. This paper explores, through comparison with People’s Republic of China (PRC), the role of regulation and government telecommunication policy on social and economic development in SA. As pointed out in [8] “comparisons of national experiences identify some common lessons for nations to review their policies and provide a mirror for countries to examine results of existing approaches”. This paper is organized as follows: Section II introduces public policy and regulation in advancing social economic development in SA. Section III looks at overview of policies and regulation in the PRC and section IV gives an overview of the analysis and lessons learned from our study. Section V concludes our study.

II. TELECOMMUNICATION POLICY, REGULATION AND ECONOMICAL DEVELOPMENT IN SOUTH AFRICA

A. Policy and regulation

An urgent concern in SA after the 1994 elections was to develop a policy framework that would allow a redistribution of wealth and promote universal service/access among the people of SA [4][10]. Within such a framework, SA introduced a

number of developmental policies which included among other things telecommunication policies[11]. The SA government's commitment, through the Department of Communications (DoC), to universal service and access can best be described in terms of Section 2 of the Telecommunications Act no. 103 of 1996.²

However, within the Telecommunication Act 103 of 1996³, the DoC retained certain policy-making functions and, importantly, certain licensing functions and a veto right on all regulations [1]. Under the Act of 2000, the SATRA and the Independent Broadcasting Authority (IBA) were merged to create the Independent Communications Authority of South Africa (ICASA) that became the sole regulator of the country's broadcasting and telecommunications sectors.

Under the new ICASA Act, the objectives of the national regulator were to accelerate the growth of ICT in underserved regions, promote the universal access, affordable provision of telecommunication services, developing appropriate policy and regulatory frameworks, promoting ICT human resources development and consumer rights [1].

B. South Africa reforms for rural development

SA's ICT regulation and policy reform is still in its embryonic stage, making ICT access for social and economic development an unrealized dream. Apart from a few telecenters and Internet services strewn across the country, regulatory and policy reforms in SA have not really played an important role in advancing social and economic growth to the "needy people". In 1997, and within the framework of the 1996 Electronics and Communications Act (ECA), the public telecommunications company (Telkom) was granted a five-year monopolistic period in fixed line telephony by the central government [10]. This legislated monopoly was nevertheless associated with a number of requirements from the government, not restricted to, but including, obligations to provide universal service to underserved regions.

Within this exclusivity period of Telkom, the Minister of Communications determined the tariffs for telecommunications services to protect Telkom's monopolistic occupation. Limited powers on telecoms tariffs regulation was given to SATRA. These powers were, nevertheless, subject to Ministerial policy direction mandating continuation of the price cap regulation in a manner that would not adversely affect Telkom's ability to fulfill its license obligations [10]. Government's desire to sustain Telkom's monopoly was therefore seen as a mechanism to maximize profits while ensuring that social and economic developmental goals were met. In this

²The primary objective of this Act is to provide for the regulation and control of telecommunication matters in the public interest, and for that purpose to promote the universal and affordable provision of telecommunication services; and make progress towards the universal provision of telecommunication services.

³Section 59 (2)(a)(i) of the said Act states that: The Agency shall from time to time, with due regard to circumstances and attitudes prevailing in the Republic and after obtaining public participation to the greatest degree practicable, make recommendations to enable the Minister to determine what shall constitute the universal provision for all persons in the Republic of telecommunication services, including any elements or attributes thereof.

period of monopoly, Telkom did roll out 2.8 million fixed lines to underserved areas. Disappointingly though, an estimated 70% of the new lines rolled out by Telkom were ultimately disconnected for non-payment [14].

Some of the notable milestones in promoting social and economic development in underserved areas include the establishment of (1) school cyberlabs deployed in most underserved areas of SA; (2) Thusong centers offering a variety of services; (3) Universal access through the provision of a telephone and community digital hubs; and (4) Community telecenters. The establishment of telecenters in SA has arguably been heralded as a pragmatic approach to extending telecommunication services to many underserved regions. However, out of 65 telecenters that were established in underserved areas (rural areas), findings reveal that 52% of these telecenters were not functional [13].

III. REGULATION AND POLICY IN THE PEOPLE'S REPUBLIC OF CHINA (PRC)

The PRC is a developing country and one of the largest and fastest growing telecommunication markets in the world. ICT growth in the PRC was slow and stagnated relative to its population. In the 1980s the overall ICT usage and penetration (particularly in rural areas) in PRC lagged behind international averages. Most of the telecommunication growth has occurred in big cities such as Beijing while the rural areas lagged far behind. Needless to say, PRC's average telecommunication infrastructure growth in the past decade exceeded most of the developing countries by far.

A. Regulation and policy formulation in the PRC

Telecommunication regulation and policy formulation in the PRC was the prerogative of the Ministry of Electronic Industry (MEI) and Ministry of Posts and Telecommunication (MPT), which was the main supplier of telecommunications services and also its regulator. Before government deregulations of telecommunication sector, MPT favored the monopolistic occupation of China Telecom. Under MPT and MEI, no foreign individuals or companies were allowed to invest and operate telecommunications services in the PRC. However, between 1980 and 1990 the PRC's telecommunication policy towards social and economic development slowly began to change.

In 1993, the Chinese government introduced limited and flexible competition policy to the telecommunication sector as means of attracting Foreign Direct Investment (FDIs). This was marked by opening up part of the Value-Added Services (VAS) for competition, and followed shortly afterward by the integration of China Unicom (China Telecom's rival) in 1994. Upon entry China Unicom had ambitious plans of reaching a significant market share for both the local and long-distance service networks by 2000 [17]. Nevertheless, these expectations by China Unicom were unrealistic and substantially unfounded. MPT's regulation and policy decisions disadvantaged China Unicom in several ways. Interconnection policies and regulation between China Telecom and China

Unicom were at their lowest, leaving China Unicom unable to provide an attractive service to its consumers [17].

B. Replacing MPT with MII

In March 1998, and with a goal of restructuring the crumbling telecommunication industry, the MEI and the MPT were merged to form the Ministry of Information and Industry (MII)—a new regulator. Since then, the Ministry of Foreign Trade and Economic Cooperation (MOFTEC) and the Ministry of Information Industry, the two Government departments responsible for developing the PRC’s policy concerning FDIs in the telecommunications field, have issued a number of regulations to revoke the ban on the involvement of foreign companies in the investment, operation and management of telecommunication companies. The improvement of telecommunication infrastructure became the first priority of the government in the reform process [17]. The industry was given much needed priority and was understood as an important part of economic infrastructure and productivity gains. As opposed to its predecessor, the MII was more inclined to promoting competition and adopting policies that will promote full competition in VAS and information services.

C. PRC reforms for rural development

In its quest to promote social and economic development in the underserved regions, the PRC introduced two types of programmes to connect the “have nots” to the information network. The Village Access Programme (VAP) and the Village Informatization Programme (VIP) [6] were two such reforms under-taken by PRC in order to promote ICT access and social structure of the rural poor. The objectives of VAP have been relatively explicit; i.e. telecommunication services to each underserved rural parts of the PRC.

After the roll-out of VAP, the government through VIP expanded the scope of VAP to include not only advanced services such as the Internet, but also promotion of significant conceptual upgrading from the universal service to comprehensive information services [6]. Weighed against SA and four years after the execution of the VAP, the central government of the PRC succeeded in connecting roughly 99.5% of the underserved villages—each with at least two workable telephone lines [7].

IV. IMPACT OF POLICIES AND REGULATION ON SOCIAL AND ECONOMIC DEVELOPMENT: COMPARATIVE ANALYSIS AND LESSONS LEARNED

In our opinion, the current ICT policy and regulatory reform in SA has exhibited drawbacks and flaws. In the absence of explicitly defined objectives and effective organization, the nationwide developmental activities have appeared to be uncoordinated and tend to follow independent objectives. Certainly, a well implemented regulation and policy reforms are a key to meeting economic and social growth of a country. However, such objectives cannot be met without the following:

A. Properly derived regulatory and policy reforms

To derive the full benefits of ICTs to the national economy, the link between policy, regulation and liberalization, in a broader sense, must consider other externalities that influence the effective implementation of institutional reforms such as political interference in the autonomy of the regulator. Obviously, whether a country pursues institutional reforms in its telecommunications sector will depend, among other factors, on its institutional legal environment, and the configuration of various interest groups. For example, in the early years of the PRC’s telecommunication reforms (as in SA [10]) the government intervention and lack of explicitly defined objectives inhibited the PRC’s telecommunication service delivery and promoted monopoly. This in turn inhibited the developmental goals set by the PRC. Telkom (like in the early years of China telecom) still holds a majority share of the telecommunication market in fixed-line services, making competition in SA a debatable issue. Classical economics teaches that entry for other firms or companies in a market promotes competition in such a market. The general consensus in the telecommunication sector, is that there is a strong positive correlation between social-economic growth and competition in the telecommunications market. A competitive telecoms environment will encourage technological innovation and decrease prices for many consumers of the products. In the PRC, the telecommunications legislation of 2000 allowed FDIs from foreign companies in the operation and management of telecommunication service, including Internet access service. At the moment, at least five operators (i.e. China Telecom, China Netcom, China Unicom, China Railcom and China Mobile) are licensed to offer long distance services, contrary to SA where Telkom is still the only operator offering long distance services due to excessive entrance costs. Additionally, in the PRC, all the operators are licensed to offer value added service with less regulatory intervention from the MII.

B. Autonomy of the National Regulatory Authority (NRA)

Effective regulation of the telecommunication sector for social and economic development is deeply dependent upon the structural independence of the regulatory authority. However, this does not mean that the regulation implemented is separate from government policy. Rather, fair regulation is the “power to implement policy without undue interference”. The grounds that justifies the need for proper regulation is best described by [2]: “the principal aim of regulatory policy is to develop competition with a view to ultimately increasing efficiency and social welfare”. Melody acknowledges in [18] that: “the most fundamental objective of regulation under the public utility principle is straightforward: to ensure that everyone has access to reasonable service at reasonable prices”. Rhekka [5] states categorically from an Indian perspective that, merely setting up regulatory agencies is not sufficient. NRAs need to be vested with adequate autonomy, functionality and enforcement powers for market efficiency and economic growth.

As shown by the PRC through MII, an autonomous regulator can improve economic growth in any country. But an

institution with a contrary view can constitute a significant non-tariff barrier to market entry and effectively frustrate some of the goals of other entrants or players. For example, the entry of China Unicom was frustrated by the MPT—the then national regulator, resulting in less competition in the PRC’s telecommunication market. However, with the introduction of the MII, a number of regulatory changes have benefited China Unicom, making its entry and provision of telecommunication services in areas that it was previously prohibited a reality.

ICASA has been widely criticized for its lack of autonomy and success in regulating the telecommunication sector [14]. Under the ICASA Amendment Bill⁴ [1] [14] and the amendment bill of 2010,⁵ [1][4], ICASA’s autonomy and ability to regulate effectively have been curtailed, allowing certain state and private owned companies to fight certain reforms in the ICT sector [12].

C. Commitment to ITU and WTO guidelines

WTO’s multilateral concepts, principles, and rules are legally enforceable and binding, penetrating into the Members domestic formal institutions and playing an important role in national policy-making processes. Therefore, the accession of the PRC to the WTO boosted the process of liberalization in the telecommunications sector which in turn accelerated competition in the PRC’s telecommunication market and has been regarded as an important engine for rural growth [6].

Institutions that promote the WTO and ITU principles can promote Foreign Direct investments in the telecommunication market. However, an institution with a contrary view on WTO guidelines can constitute a significant non-tariff barrier to market entry and effectively frustrate some of the goals of the WTO. Significant achievements through WTO in the PRC’s telecommunication market will include, among other things, FDIs and the establishment of five telecommunication operators. Of prime importance is that, the success of VAP was partially due to political pressure from the central government (MII) and the responsible international organisation (WTO) who were successful in securing political endorsement to implement pro-competitive regulatory policy in the telecommunications sector.

On the contrary, though SA eventually adopted the WTO agreement on Telecommunications that pushes for the liberalization, privatization, and independent regulation in order to promote competition, it has, however, not implemented the full set of principles of WTO such as breaking up monopoly and promoting competition in the telecommunication sector. Surprisingly enough, Telkom still enjoys its monopolistic dominance in long distance fixed lines and other basic telecommunication services. Although the establishment of the Second National Operator (SNO) was seen as a means of introducing

competition in the fixed-line network operation and basic voice-telephony, the truth of the matter is that the dominant commercial provider (Telkom) still owns most of the network infrastructure and will go to any length to protect its financial interest in the telecommunication market [12].

V. CONCLUSION

The state of telecommunication and the realization of ICT driven social and economic agendas in any developing country will depend on many variables such as promotion of competition, liberalization, regulation and privatization of the telecommunication market. Focusing on a single variable is unlikely to achieve the desired outcome of affordable telecommunications services for all but in particular the rural poor.

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⁴The Bill requires that the chairperson of the ICASA Council performs any function assigned to him or her by the minister, irrespective of whether this is in the public interest.

⁵The bill clearly states in Section 2(d) that: “ICASA must implement policy and policy directions made by the Minister in terms of Electronic and Communications Act and Postal Services Act”