

10.1 Introduction

For government, investment in the ICT sector is a fundamental policy goal, alongside transformation, diversity, universal access, and empowerment of historically disadvantaged individuals. In order to ensure a sustainable investment environment, it is critical for government to create an enabling policy environment. This includes establishing proper investment policy and regulations, building research and development capacity, and promoting innovation.

According to the Global Competitiveness Report 2012-2013, the five greatest obstacles to doing business in South Africa are: i) an inadequately educated labour force; ii) restrictive labour regulations; iii) inefficient government bureaucracy; iv) inadequate supply of infrastructure; and v) corruption. The same report ranks South Africa 113th out of 144 countries in labour market efficiency.

10.2 Policy and Regulatory Framework

One of the key objectives of the Telecommunications Act of 1996 (repealed in 2006) was to encourage investment and innovation in the telecommunications sector. There have been many advances made in terms of the development of this sector particularly on the investment in infrastructure. But it has also been fraught with challenges.

The state of investment in the broadcasting industry is highly regulated in terms of limits set (both for local and foreign) and the licensing process for such services, together with the managed liberalisation. These limits were set in 1993 and they have not been revised, in spite of attempts to do so by the regulator. The infrastructure licence for broadcasting services is issued only after the Minister of Communications has issued specific policy directives.

While attempts have been made to integrate postal services into mainstream regulation as part of convergence, demonstrated by the transfer of the Postal Regulator into ICASA in 2005, the postal sector is still governed by the Postal Services Act of 1998. The postal market is divided into two, namely the reserved and unreserved markets. As mentioned earlier, only the national operator, SAPO exclusively operates in the reserved market. The unreserved market is easy to enter as no application is required. A licence is issued upon completing a prescribed registration and payment of a R500 registration fee. There are no specific clauses in legislation, licence conditions or regulations addressing sector-specific targets or mechanisms.

10.2.1 Infrastructure Investment

The past 20 years have seen the ownership of telecommunications service entities transforming into a major industry sector that offers considerable investment opportunities to private investors both domestically and internationally. BMI-T has calculated that the cumulative CAPEX since 1993 has been R132,4bn in mobile and R101.8bn in fixed networks.

There are several notable examples of foreign direct investment in the telecommunications networks in South Africa. These include the UK's Vodafone's investment in Vodacom, India's Tata's investment in Neotel, Japan's NTT's investment in Dimension Data, and the continued investment by Saudi Oger in Cell C. The regional and international investment in the SEACOM, EASSY and WACS submarine cables has benefitted the local economy.

10.2.2 Broadband Investment

Domestic investment has been strong with Telkom, Neotel, Vodacom, MTN, and Cell C investing billions of Rands in infrastructure. Other organisations such as Dark Fibre Africa, Metrofibre Network, and Dimension Data have also made notable investments. Some municipalities have invested in fibre and microwave telecommunications including eThekweni, City of Cape Town, City of Tshwane, City of Johannesburg, Ekurhuleni, Nelson Mandela Bay, Manguang, and uMhlatuze.

There have been some policy and policy-related moves to foster investment in telecommunications, particularly in broadband. The Department of Communications is finalising the Broadband Policy. The policy indicated that governments in other countries have substantially increased public funding to invest in the building of national broadband networks.

According to the BMI-T report (2013), some of the main reasons for the poor level of investment in electronic communications and therefore in broadband includes lack of effective competition for fixed local broadband access and absence of regulatory incentives and obligations, amongst other things.

10.2.3 Broadcasting Sector

The PwC report has predicted the following:

- A positive growth for broadcasting in South Africa for the next five years particularly in television.
- The advertising market in the next five years is set to increase at an 8,6% compound annual rate, rising to an estimated R41,2 billion in 2016 from R27,2 billion in 2011. Total television advertising is projected to increase at a 7,8% compound annual rate to R14,6 billion in 2016.
- The overall subscription household universe is growing rapidly. The number of subscribers to pay-TV channels rose by 700 000 in 2011, the largest single-year increase in South African pay-TV history. Between 2008 and 2011, the subscription household base nearly doubled. The availability of popular sports on pay-TV has proven to be a major lure.
- The industry, according to the Stats SA Report on the SA Post and Telecommunications, (2010), accounts for 5% share of the total post and telecoms revenue.
- Investment in the industry is overwhelmingly local, with about 58% of it representing historically disadvantaged groups. The early promising entrance by foreign investors seems to have fizzled out. Discounting China Star Times' impending investment into On Digital Media's TopTV, foreign ownership of broadcasting services, both radio and TV is standing at 1,3% and 6,2% respectively.

Sentech continues to dominate the terrestrial market. Pay-operators prefer to lease spare satellite capacity from foreign firms. The introduction of Freevision satellite by Sentech has added a mix to signal distribution on free-to-air. Thirty percent (30%) of local ownership is still a requirement for any infrastructure licence.

10.2.4 Postal Sector

Although Postal is still regulated, it is less so relative to other sectors in the ICT environment. The only major restrictions are in respect of participating in the reserved market, which is the exclusive domain of SAPO. It has a 25-year licence. The following investment trends characterise the Postal sector in SA:

- There is strong competition in this sector, but investors need a certain minimum infrastructure to support delivery. It is difficult for new entrants to compete on price or service.
- The high market concentration makes it difficult for new entrants to enter the market.
- There are a significant number of transnational companies operating in the sector. However, due to the lax regulatory environment, the exact number, and the size of their business activities are not known.
- Despite BBEE being a legislated policy, there are no figures to illustrate the level of compliance in the sector, particularly in the unreserved market where everyone operates.
- There is a poor regulatory environment (monitoring and enforcement) which presents huge risks for potential investors. The inconsistency in the number of operators in the unreserved markets seems to suggest the prevalence of illegal operators.

10.2.5 E-Commerce and IT

South African companies are competing at a global level with regard to the pre-payment, revenue management and fraud prevention systems. The IT market is expected to increase from US\$9,3 billion to over US\$13 billion in 2014. However the industry falls behind online retail developments of the developed market. It is experiencing slow growth compared with other BRICS countries, at approximately 1,5%. E-commerce continues to grow, with Africa and Middle East projected to have a 22% increase in Business-to-Consumer (B2C) commerce by 2016. South Africa is projected to show slower growth than its peer BRICS countries. So e-commerce remains at a rather nascent stage in South Africa, with uptake limited to certain sectors of society. Current impediments, if not urgently addressed, will stagnate any future development in this sector.

10.2.6 Electronics Manufacturing

The electronics industry revenues in South Africa amounted to R57,5 billion in 2002. South Africa's contribution to the world output in the electronics sector is insignificant, amounting to no more than 1%. The 'rest of the world', referred to in the same figure includes Brazil, other South American countries, Russia, Africa (excluding South Africa) and the Middle East. Manufacturing is a capital intensive business. Mass volume products are required to sustain the industry. During the discussions on Broadcasting Digital Migration, manufacturers lamented the need to implement market stimulants such as government seed orders and subsidies to further revitalize the industry. Other than the dti's limited incentives, no other support mechanisms exist especially for emerging firms.

Lessons from Brazil, China and the US have demonstrated the importance of a sizeable domestic market if the local electronic industry is to be sustainable. Many industry players have found it difficult to penetrate foreign markets due to protectionist industrial policies.

10.2.7 Incentive schemes and packages

While South Africa has introduced various incentive packages to boost investment, only a few are relevant and/or specific to the ICT environment.

The **Film and Television Production** incentive came into effect in 2008 to support the local film industry to contribute to South Africa's economic development, build South Africa's international profile and increase its creative and technical skills base through attracting large-budget films, TV productions and post-production work to South Africa. Although there has been a notable increase in the number of productions approved annually, the incentive seems inadequate to drive major investment. This is because it is still a rebate rather than a direct funding mechanism to induce investment, and the threshold for eligibility is very high for TV and emerging content creators.

The other two incentives, **Manufacturing Investment Programme** (MIP) and **Business Process Outsourcing** (BPO) are only in relation to ICT support sectors such as manufacturing.

10.3 Research, Development and Innovation

Investment in the production of local knowledge, and ICT goods and services

The Department of Science and Technology (DST) has been proactive in promoting development, research and innovation (RDI) through various strategic policies, programmes and plans as demonstrated through the ICT Strategy adopted in 2007. Furthermore, the DST has also developed the ICT Research, Development and Innovation Roadmap to support the country's strategic objective in increasing the impact of ICTs on society and in developing the economy.

Innovation extends beyond R&D activity. It goes beyond the confines of research laboratories to users, suppliers and consumers everywhere – in government, business and non-profit organisations across borders, across sectors and across institutions.

For the ICT industry, IP is not only a significant enabler, it is also an instrument of trade. IP can serve as a real barrier to entry for small and medium enterprises. The Global trade in IP licence is worth more than 600 billion pounds sterling and in countries such as the UK, it accounted for 137 billion pounds in 2008.

IP ownership is an outcome of Research & Development. Despite its designing and manufacturing capacity, the R&D Intensity of South Africa is still below the global norm of 2%, having been stabilised at around 0,92% of GDP over the past few years.

The dti's study on the Economic Contribution of Copyright-Based Industries in South Africa revealed that the direct contribution of the copyright-based industries to the economy, in terms of value-added, is 4,11%, while their total indirect contribution, in terms of output, is 5,49% (known as the production-induced effect). On the other hand, with regards to employment, the total direct effect is 4,08%, while its production-induced effect would be 14.52%. Countries such as Brazil and China have supported R&D and IP investment through: incentives; implementing quotas for local technology and local content applied to spectrum licensees; consortia to promote the development of local technologies and contribution of gross revenues by operators to fund technological development in the ICT sector.

10.4 Attracting Investment

Transforming the ICT industry

In South Africa, transformation is a critical policy goal to achieve representative participation in the economy, particularly in the ICT sector, which has historically been dominated by one group. However, transformation is not an issue of race alone. It has to be looked at from a

broad industry make-up in terms its ownership, decision-making, business practices, staffing and products, and the society within which it operates.

Statistics SA shows that employment of previously disadvantaged persons in the ICT occupations has progressed relative to the period before 1994. With the exception of Postal, the broader ICT sector represents ownership by historically disadvantaged groups (black, women, youth and people with disabilities) as required by the ECA. The ICT Charter Code has been finalised, although the ICT Council, intended to oversee implementation and measure progress, has yet to be set up. Government has committed to set aside finance to support the Broad-Based BEE process and has revised the mandate of the National Empowerment Fund (NEF) to ensure the effective and efficient utilisation of resources.

The SANEF 2013 *Report on Media Transformation* found that the print and digital media had failed to sufficiently transform in terms of ownership, management control, skills development and employment equity, especially with regard to women and the disabled. The industry achieved more in areas such as socio-economic development, preferential procurement, and in certain cases, enterprise development.

Approach to Foreign Direct Investment as a Balancing Act

Foreign Direct Investment (FDI) is an important channel for obtaining access not only to much-needed investment, but also for the development of technology and skills. In a country such as South Africa, with high levels of economic inequality, poverty and skewed skills sets, FDI is critical, even more so because of limited capital in the domestic markets. Although foreign companies have been part of South Africa over the years, they have largely been concentrated in extractive industries such as mining.

In the ICT sector, the approach to FDI has largely been a balancing act, navigating through pressures of modernising and growing the economy on the one hand, and transforming the apartheid economy on the other. BEE has to be advanced amid the limited capital on the domestic market.

10.5 ICT SMMEs

Public sector support initiatives that have been put in place to support SMMEs in general include:

- Easing the regulatory and compliance burden on small enterprises through reduction of tax compliance burdens for small enterprises,
- Access to finance through the establishment of financial products and services, comprising loans and incentive grants that play an important role in enabling access to finance for small enterprises;
- Business development services;
- Youth enterprise development through the National Youth Development Agency (NYDA) Fund;
- Support for women-owned enterprises; and
- Incubation and technology acquisition and transfer services, as well as skills development measures. As part of their sectoral skills-development mandates, various sector education and training authorities (SETAs) have developed and are implementing small business skills-development programmes.

In addition to the above, various other private sector, NGOs, and tertiary education initiatives exist to support SMMEs. It is estimated that SMMEs account for up to 99,3% of the privately owned enterprises in South Africa. According to Statistics SA, there are 428 540 formal and economically active SMMEs in the country. Of the total formal sector SMMEs, only 6 737 are

operating in the ICT sector. This implies that ICT SMMEs accounted for approximately 1,6% of the total formal small enterprises in South Africa in 2008. SMMEs currently contribute 35% to Gross Domestic Product (GDP). They also contribute 54% to formal private sector employment. Moreover the potential of SMMEs to resolve the country's development challenges such as employment and economic growth is immense.

Given its opportunities, the ICT sector provides a fertile ground for SMMEs incubation, development and promotion. In analysing the state of SMMEs in South Africa, the ICT SMME Enterprise Development Strategy (2008) said the following:

There is inadequate information regarding the economic activities, the sizes of SMMEs in the ICT sector and their peculiar challenges, including business models. Therefore, policy interventions are often broad and influenced by general SMMEs environment in South Africa. This has made targeted interventions difficult. More scoping work is required to understand ICT SMMEs for future policy intervention.

Policy Questions:

1. Given this Economic Climate, how can the South African ICT Industry attract and sustain the Investments?
2. How do we grow the domestic market amid the high levels of imports without undemanding our trade agreements and what other industry-specific support mechanisms both (direct and indirect) should be implemented so that the sector rejuvenated to create jobs and revive South Africa's excellence?
3. The value of IP does not necessary lie in its registration but its use. How can we promote the use of local IP to drive innovation in the ICT sector?
4. Considering the economic climate characterised by limited domestic capital, how can South Africa balance FDI and local ownership of ICTs, particularly in those highly regulated sectors such Broadcasting and Telecommunications services?
5. How can we re-engineer ICT SMME development so as to enable them to participate across the entire ICT value chain.