Governing Regional Telecommunication Networks in a Developing Region: The SADC Case

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Abstract

One of the political and economic responses to globalisation and the associated rise of multilateral trade agreements is the integration of national markets and their governance within regions. As developing economies have become increasingly integrated into the global economy, the harmonisation of policies and standardisation of regulations to create economies of scale and scope, has been one of the primary strategies to improve regional competitiveness.

With the global economy underpinned by a dynamic communication infrastructure, African regional economic communities (RECs) have increasingly recognised the importance of Information and Communication Technology (ICT) in realising the vision of regional integration, and as a major determinant of national and regional competitiveness.

Despite member states' acknowledgement of the need for regional connectivity, many initiatives across Africa aimed at supporting and establishing harmonised ICT policy frameworks have not had the intended outcomes. Strategies for developing seamless regional ICT infrastructures — necessary for the achievement of universal policy objectives of improved access to, and usage of, affordable broadband services now widely demonstrated to drive economic growth — have not been realised.

Through a case study of regional policy-making in the Southern African Development Community (SADC), the thesis examines the political economy underlying regional processes and structures for the development and the implementation of ICT policy frameworks, as shaped by epistemic communities. A conceptual framework is constructed as a lens through which to assess the role of capacity building as a tool in foreign affairs in the institutional arrangements within SADC countries and ICT policy outcomes in the region. This reveals the wider political, economic and more specific policy and regulatory constraints hampering the development of the information society from a developing region perspective. Applying a hybrid methodology, empirical information was gathered through quantitative secondary data but using qualitative methods to gather the primary evidence for the case.

This evidence from multiple sources is examined through a broad political economy framework to contextualise the research problem and develop a rich narrative of regional integration efforts in the area of information communication technologies in the Southern African Development Community (SADC).

Following rigorous and extensive gathering of information from face to face interviews following an exhaustive document analysis, detailed coding of the data and triangulation of findings enabled an analysis of how institutional arrangements in the region - despite the accepted rationale and logic of market integration - have largely failed to achieve the intended

ICT policy objectives stated in SADC protocols and declarations despite considerable advances in the formal harmonisation of aspects of ICT policy and regulation.
Keywords: regionalism, information society, regional development, globalisation, regional governance.

Declaration

I declare that this thesis/dissertation is my own, unaided work. It is submitted in fulfilment of the requirements of the degree of Doctor of Philosophy at the University of the Cape Town, Graduate School of Business. It has not been submitted before for any degree or examination in any other university.

Signed by candidate

Enrico Simone Calandro

February 2015

Dedication

This thesis is dedicated to my papà Pompeo e mamma Grazia.

Acknowledgments

There are more people who have supported me in this important chapter of my life than I can acknowledge here. I gratefully thank them all.

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Enrico S. Calandro

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CHAPTER 1 – INTRODUCTION

The idea of studying regionalism and ICT sector development in southern Africa emerged in 2009 while I was in Namibia working at the Southern African Development Community Parliamentary Forum (SADC PF). Specifically, the UNDESA fellowship programme assigned me to the Parliamentary Leadership Centre (PLC), which was the capacity-building arm of the SADC Parliamentary Forum (SADC-PF).[1] From personal observations of regional integration processes while working as a technical advisor for the regional ICT programme, I realised that despite international, continental and regional commitment to strengthen regional economic communities, they were not effective as instruments of regulatory reform. For instance, although regional bodies in Africa are recognised as strategic institutions for ICT sector development of member states, the impact of the Southern African Development Community (SADC) on telecommunication sector reform, through influencing and improving ICT policy and regulatory formulation and implementation at a member state level, has been limited. This is despite regional structures and processes being supported by international organisations and the donor community. Often they organised meetings for Members of Parliament (MPs) in order to provide opportunities for MPs from different countries in the region to learn about ICT policy and regulation, exchange ideas, and build a Southern African regional identity, but from a practical perspective, these meetings had little effect in addressing ICT issues.

In order to understand the issue of regionalism and the impact of regional organisations on the development of the information society in Africa, the thesis builds a case study method on SADC and ICT policy development. It does so by adopting a political economy approach to the analysis of the effectiveness of regional structures and processes in addressing some pressing ICT policy issues at a national level.

This chapter explores issues around regionalism in Africa through a brief historical overview of regional integration on the African continent. It then presents regional trade strategies and explains why they failed in Africa. Thereafter it examines the regional telecommunications infrastructure as an outcome of regional ICT policy and regulatory frameworks, and concludes with the problem statement and the main and secondary questions which will be answered in this dissertation.

[1] The PLC was entirely dependent on donors and when donors withdrew, it had to close down. The lack of political will to renegotiate after it closed down caused conflicts for four years, which contributed to the end of its activities (telephonic interview, Matanga, 6 November 2012). The relevance of the PLC for capacity building at a parliamentary level could improve if the SADC-PF were to become an intergovernmental body, i.e. a regional parliament (Musavengana, 2011).

1.1 The rise of regionalism

In critically analysing studies on the process of regionalisation within the global economy, it is possible to identify the emergence of regional north-south inequalities in the concentration of, and competition between, regional blocs. At the end of the 1990s, Castells (1998) referring to a work of Stallings (1993), shows that there was an increasing concentration of trade and investment at a regional level, in particular within three blocs: United States, Japan, and Europe. This triangle of "wealth, power and technology" among economic blocs in economic competition, marginalised other areas of the globe, resulting in a "hierarchical and asymmetric interdependent web, as different countries and regions compete to attract capital, human skills, and technology to their shores" (Castells, 1998: 101).

The process of regional integration is rooted in a particular historical period of globalisation, decolonisation, and political and economic enthusiasm for integration of national markets and institutional organisations — what we refer to as "regionalism" (Söderbaum, 2004).[2] The majority of the studies on regionalism focus on regional economic integration at the expense of an analysis of the institutions underlying the creation of regions and the politics that developed the regional organisations, regional policy and regulatory frameworks.

Drawing on the regional integration experience of the European Economic Community (EEC),[3] integration can be defined as a political process fostered by economic processes (Weiss, 1999). It occurs among countries (or provinces) whose geographical borders affect their mutual security, and where economic and political processes eventually coincide. Wallace's (1995) studies on regionalism following the Second World War, argue that the post-war (WWII) process of integration in Western Europe was a

[2] Söderbaum (2004) argued that regionalism is not a recent phenomenon, since cross-border interactions have always existed. In particular, what we refer to "regionalism" today is predominantly a post-Second World War phenomenon.

[3] Weiss (1999) argues that the theoretical framework of integration emanates from its empirical basis in the international relations of Western Europe and, in particular, studies exploring the European integration process through the creation of the European Coal and Steel Community (ECSC) and the European Economic Community (EEC) (Laursen, 2008). The growing functional scope of regions is investigated by Haas (1958), who defines regionalism as a spill-over effect of the development of the European Economic Community (EEC) from the European Coal and Steel Community (ECSC). Lindberg (1963, in Laursen, 2008) applies the same concept to regional integration and stresses that spill-over refers to a process where actions developed to fulfil a specific goal, create the condition for other actions necessary to achieve that goal, to be created. Subsequently, the new conditions create new actions to complement early policies, and so forth. According to Haas (1958) regional trade liberalisation would lead to harmonisation of general economic policies and therefore spill-over into political areas that will generate a political community.

response to American hegemony and the Soviet threat. For security reasons, an initial bloc of five countries, namely Germany, France, Italy, Belgium, and Luxemburg, took a policy and normative position to increase economic cooperation in order to avoid the threat of a new war. The Schuman plan to unify Europe's coal and steel markets laid the foundations for a Franco-German reconciliation process which later developed into close economic and political cooperation, and thus provided the basis for European integration.

During the historical period of European unification, two integration explanatory frameworks emerged. On the one side, British and Scandinavian leaders tended to present "functionalist" views, as they favoured cooperative aspects of integration such as the coordinated provision of raw materials among states; on the other hand, continental states tended to be more "federalist" as they advocated the establishment of a supranational state (Nye 1971, in Weiss, 1999).

In economics, integration is a process leading to the creation of the most desirable structure for an international economy by removing artificial obstacles to optimal multilateral trade operations (Tinbergen, 1954). Although regional agreements vary widely, all have the same objective of reducing barriers to trade between member countries (Schiff and Winters, 2003). In order to achieve this goal, national states are called to deliberately introduce elements of coordination or unification of national economies through policies of liberalisation, such as the free movement of resources, as well as the development of economies of scale, capital, and increased competition (Pentland, 1973). These agreements are aimed at removing tariffs for intra-bloc trade, but many also cover non-tariff barriers, liberalisation of investment, and other policies (Schiff and Winters, 2003).

Balassa (1961) identifies five stages in the process of economic integration. During the first stage, member states remove trading restrictions on commodity movements (such as tariffs among member states) to create a free trade area. Subsequently, they set up a customs union through the equalisation of national tariffs with non-member countries as was done with the customs union in southern Africa. As a result, a common market is realised since restrictions on factor movements are abolished. During the following stage, states develop an economic and monetary union through a combination of the abolition of restrictions on commodities and factor movements, with some degree of harmonisation[4] of national economic policies. Finally, they achieve complete economic integration. The latter presupposes the unification of monetary, fiscal, social, and countercyclical policies

[4] Although the words integration and harmonisation are similar in meaning, throughout the thesis the term harmonisation refers to policy, legal and regulatory alignment or compliance whereas integration is used to describe an objective or outcome. The term "harmonised" is used only when it was used in official documents. The term "integration" refers to more than the underlying policy, legal and regulatory frameworks to include also economic and social outcomes.

and requires the setting up of a supra-national authority whose decisions are binding on the member states. Balassa's theory (1961), however, does not address the issue of sovereignty even though it draws from this conceptualisation. He asserts that unifying national markets would lead to policy integration but not necessarily to a unified institutional structure. Furthermore, according to Weiss (1999), economic integration is sustained by a process of deepening interdependence between firms, through the consolidation of firms by mergers, acquisitions and joint ventures.

Söderbaum (2004), who carried out a case study on the political economy of the southern African region, defines regionalism in terms of processes such as cooperation and integration. These processes create cohesion and identity, which develop into a regional space. This definition also includes a strategy to drive a project of regional integration pursued by state or non-state actors.

Finally, according to Laursen (2008), the most important aspect of all regional integration efforts is a collective decision-making process, which can cover several functional areas (scope) and can be more or less efficient, with regional institutions more or less effective and adequate (institutional capacity).

From an international relations perspective, economic integration aims at economic growth through an ever-expanding perimeter of market relationships, which promote a stable international system (Weiss, 1999). Economic integration can lead the way to realising political goals. For instance, European integration is the political result of economic integration between Germany and France. Economic and political integration, from a theoretical point of view, are inter-related. Scheingold and Lindberg (1970) assert that economic integration is mainly based on the political support of national states for free trade, while Balassa (1961) focuses on the rules of the market in coordinating monetary and fiscal policies between national states. According to the latter, regional economic growth is the result of increasing transactions between national states.

1.2 Regionalism in Africa

Theories on regionalism in Africa indicate that there has been a need for political and economic cohesion as a possible solution to post-colonial problems since the mid-1970s (Moore, 2013). The common objective of regional economic communities in Africa is to reduce trade barriers among member countries by creating a larger economic space (Economic Commission for Africa and AU, 2006).

Globalisation is an important factor driving Africa's regional integration (ECA and AU, 2006). Trading rules and trade sanctions, as set by the World Trade Organisation (WTO), imposed trade obligations on small sub-Saharan African governments, forcing

African countries to follow strategies adopted in Europe, in the United States and in the Asian emerging economies.

Progress towards economic integration in Europe became attractive to political and economic leaders in the 'Third World' who wanted to emulate European successes. The desire to emulate the European model brought about the proliferation of regional arrangements in Africa (Asante, 1997). Weiss's (1999) argument on regional integration also underpins this conceptualisation. She supports Balassa's (1961) view, arguing that integration processes may be seen as a deliberate effort to counteract possible trade diversion effects of the European Common Market. According to other theories on regional integration in Africa, integration was considered a paradigm for industrialisation and it was expected to foster economic growth through trade and economies of scale (Mytelka 1973; Weiss, 1999).

In the 1980s and 1990s the International Monetary Fund (IMF) and the World Bank (WB) promoted structural adjustment programmes (SAP). These programmes entailed the provision of loans for developing countries conditional on the adoption of economic policies.[5] According to the Economic Commission for Africa (ECA) (2006), few domestic protections were left after the implementation of SAP. As a result, African countries were marginalised, since domestic economic activities were suppressed, wages and tax revenues reduced, and the balance of payments worsened. In order to counter these negative effects of the globalisation process, African leaders saw regional integration as a strategy[6] for growth and for increasing negotiating power with major trading partners (ECA and AU, 2006). Similarly, Alemayehu and Haile (2002), argue that the political will for regional integration, as it emerged in the Abuja Treaty of 1991, can be seen as a political reaction to the strengthening of regional blocks in Europe, Asia, and the Americas, and aimed at avoiding African marginalisation.

According to the African Development Bank (ADB, 2000), the fragmentation of Africa into many states with limited economic coherence led African leaders to adopt regional integration as a key strategy for development. Regionalism was perceived as a solution to overcome three major barriers to development: (a) the relatively small size of

[5] Structural adjustment programmes allowed African countries to get a loan from the IMF or the World Bank based on conditionalities such as significant policy reforms including reduction of inflation, currency devaluation, fiscal policy to decrease budget deficit, trade liberalisation, labour market reform, and financial liberalisation. Studies that have tried to estimate the impact of structural adjustment programmes on a variety of poverty indicators concluded that these programmes had negative impacts on poverty and income distribution (Oberdabernig, 2008).

[6] Both the Lomé Convention (first signed in February 1975) and the Abuja Treaty (1991) of the African Economic Community (AEC) and NEPAD are attempts to avoid economic marginalisation of small economies through regional integration.

African national economies, (b) their dependence on imports of high-value or finished goods, and (c) their dependence on exports of a narrow range of low-value primary products, mainly natural resources (Mugabe, 2006).

Further examination of regional integration in Africa shows that economic integration was recognised as an appropriate strategy to overcome problems related to the fragmentation of the African continent and to achieve development goals. Economic development is cited as the main motivation for establishing regional integration schemes in Africa. That is why the majority of studies on African regionalism assess regional arrangements in relation to the creation of conditions for, and fulfilment of, economic growth. The objectives of the Regional Integration Arrangements (RIA), despite being on a geographical scale, are similar to those identified by the literature on regional competitiveness. Those arrangements, in fact, are expected to lead to the creation of larger integrated regional markets, which would enable participating countries to exploit economies of scale, enhance domestic competition, raise return on investment, and hence, attract more foreign direct investment (FDI).

Another leading motivation of an RIA in the African context is the need to overcome the constraints arising from small national markets (Senghor et al., 2009). The African continent is fragmented into 54 countries, characterised by small populations and low income, thus limited domestic markets. Similarly, SADC countries are very different in terms of demographics and market development, as displayed in Table 1.1 below.[7]

[7] Six of the fifteen SADC states are land-locked. Land-locked countries, as well as the great industrial and mining centre of the Witwatersrand in South Africa, have been served by the harbours of Lobito, Maputo, Benguela, Beira, Durban, and Cape Town.

Table 1.1: Macro-economic indicators			
Country	**Population (millions, 2012)**	**Real GDP (billions, USD)**	**GDP (PPP) per capita (international USD)**
Angola	20.82	114.1	6,006.3
Botswana	2	14.5	16,104.9
DR Congo	65.7	17.2	--
Lesotho	2	2.4	1,931.2
Madagascar	22.29	10	962.5
Malawi	15.9	4.3	753.4
Mauritius	1.29	10.5	14,902.3
Mozambique	25.2	14.2	1,007.2
Namibia	2.26	13	7,442.3
Seychelles	0.09	1.1	26,728.6
South Africa	51.19	384.3	11,254.8
Swaziland	1.23	3.7	5,161.1
Tanzania	47.78	28.2	1,574.8
Zambia	14.08	20.7	1,684.2
Zimbabwe	13.72	9.8	--
Source: The World Bank, World Development Indicators, 2014.			

Eight out of fifteen SADC countries - Angola, Democratic Republic of the Congo, Lesotho, Madagascar, Malawi, Mozambique, Tanzania, and Zambia - are defined as Least Developed Countries (LDC)[8] (United Nations, 2014). Their economies are characterised by weak factor-driven elements, including basic levels of institutional development, poor infrastructure, health, primary education and macro-economic stability, as well as a lack of efficiency-driven elements, such as small or acceptable market size, reasonable levels of higher education and training, goods and labour market efficiencies, and financial market sophistication and technological readiness (Lewis and Abrahams, 2013).

The establishment of regional integration schemes was motivated by two specific trade objectives. First, the expectation was that RIAs would increase the bargaining power of African countries in international trade negotiations. In addition, as in the case of the European Union, promoting intraregional trade would help reduce regional conflicts. It was also argued that these arrangements could be particularly beneficial to many small and landlocked countries with inadequate infrastructures. Second, RIAs were seen as 'training grounds' to prepare domestic producers to face the competitive pressure that would emerge through the general liberalisation of markets.

However, fears about multilateral trade arrangements limited the exposure of African countries to RIAs. In particular, African countries feared that multilateral trade arrangements would damage Africa's infant manufacturing industry base. This motivation

[8] The UN (2014) uses a set of criteria to classify LDCs. The criteria were established in 1971 and include low per capita GDP and structural impediments to growth. They are defined as "low-income countries suffering from the most severe structural impediments to sustainable development" (UN, 2014).

seems to exclude Mbeki (2009), who argues that the economy of sub-Saharan Africa cannot be defined as an industry-based economy and that post-independence policies were not formulated with the aim of increasing national productiveness. Furthermore, African countries feared that regional trade liberalisation would cause large customs revenue losses, one of the main sources of government revenue in underdeveloped economies, and would be difficult to recoup (Baunsgaard and Keen, 2005).

Problems in the integration of African nations into regional arrangements are also related to tensions between intergovernmentalism and supranationalism.[9] Hoste and Anderson (2010) have identified two reasons for this. On the one hand, African countries seem reluctant to delegate part of their national sovereignty to supranational institutions; on the other hand, as discussed later in this thesis, most African RECs were established in reaction to something such as colonialism and apartheid, and not with a visionary economic purpose as described in the literature (Pentland, 1973; Balassa, 1961), with the exception of a hard-to-implement pan-Africanist narrative.

1.3 Brief historical overview of regional integration in Africa

Developing countries embarked on regionalism because it was considered a development tool, although its effectiveness as such has not been thoroughly assessed as yet (Schiff and Winters, 2003).

Regional integration history in Africa dates back as far as 1910, with the establishment of the South African Customs Union (SACU), and the East African Community (EAC) established in 1919 (Alemayehu and Haile, 2002). In 1958, the United Nations Economic Commission for Africa (UNECA) was established with the aim of providing regional economic communities with economic orientation (Mugabe, 2006). Since then, and in particular since 1970, many regional organisations have been created in Africa.

According to Ndulo (1999), African economic cooperation was conceptualised in September 1961 with the establishment of the African and Malagasy Organisation of Economic Cooperation (OAMCE). The continental integration project in Africa formally began in 1963, when the desire for a pan-African political identity and unity, and the need to build sovereignty at the end of the colonial era (Mugabe, 2006), was formalised in the foundation of the Organisation of African Unity (Senghor et al., 2009). Later in 1991, the Heads of State and Government of the member states of the Organization of African

[9] In 2001, African states gathered in Addis Ababa and established the African Union (AU) as a continental intergovernmental union consisting of 54 African states. This approach to regional integration does not require African states to delegate some of their legislative power to a supranational entity. Conversely, a supranational approach would require them to give up some of their decision-making power to a regional government.

Unity (OAU) gathered in Abuja, establishing the African Economic Community (AEC) with the goal of achieving greater coordination and harmonisation between regional economic communities.[10] The Abuja Treaty came into force in 1994 (Alemayehu and Haile, 2002). The plan to establish continent-wide economic cooperation was re-launched in 1999 with the Sirte Declaration, which aimed to speed up the implementation of the Abuja treaty, and in 2000 with the Lome Declaration, which reinforced the agreement (Alemayehu and Haile, 2002). In 2001, the organisation adopted the Constitutive Act, a legal framework to address Africa's development challenges (Mugabe, 2006), and it was transformed into the African Union. The Constitutive Act underpins principles of democracy, respect for human rights, good governance, gender equality, and people-centred development (Mugabe, 2006).

In the 1980s and 1990s, African governments designed several pan-African development programmes for economic development.[11] However, as a response to the failures of these plans and of a falling growth rate as a result of structural adjustment programmes, African leaders embarked on three initiatives: first, the Millennium Africa Recovery Plan led by the South African president Thabo Mbeki;[12] second, the Omega Plan, which was designed by the President of Senegal, Abdoulaye Wade; and, third, the combination of these two initiatives in the New African Initiative which then led to the New Partnership for Africa's Development (NEPAD) in 2001. NEPAD was adopted by the African Heads of State and Government of the OAU in 2001 and was ratified by the African Union (AU) in 2002 (NEPAD, 2014). NEPAD has, as its core mandate, the objective of poverty reduction through regional integration (Senghor et al., 2009).

Since the creation of the OAU, many regional treaties and institutions have emerged between the mid-1960s to the 1990s[13] aimed at promoting regional integration.

[10] The 1970s and 1980s were characterised by political instability, military coups, one-party governments, dictatorships, and the influence of Cold War politics on African affairs. Affected by economic crises exacerbated by the negative effects of structural adjustment programmes, African leaders found it necessary to transform the focus of the OAU from political liberation to economic development (NEPAD, 2014).

[11] These initiatives included: the Lagos Plan of Action (1980), the Final Act of Lagos (1980), Africa's Priority Programme for Economic Recovery (1986-1990), the African Alternative Framework to Structural Adjustment Programme (1989), the African (Arusha) Charter for Popular Participation and Development (1990), the Abuja Treaty (1991), and the Cairo Agenda (1994), amongst others (NEPAD, 2014).

[12] The South African President, Thabo Mbeki led this initiative.

[13] According to Mugabe (2006), the following regional bodies were established between the mid-1960s and 1980s: the Customs and Economic Union of Central Africa (UDEAC, 1964), the East African Community (EAC, 1967-77; re-established in the early 1990s), the South African Development Coordination Conference (SADCC, 1980, now Southern African Development Community), the Economic Community of West African States (ECOWAS, 1975), the Common Market for Eastern and Southern Africa (COMESA, 1995),

The common objectives of these regional groupings were the elimination of all tariffs and barriers between members, the establishment of a customs union, a unified fiscal policy, and coordinated regional policies in areas such as transport, communication, energy, and other infrastructural facilities.

Regional communities are organisations based on a decentralised project-based approach where member states maintain sovereignty over their territories. According to Schoeman (2003), regionalism is a political project based on political objectives shared by national governments at supranational level. Ndulo (1999) asserts that the concept of a Southern African Development Community developed as a response to South Africa's plan to establish the Constellation of Southern African States (CONSAS) in 1979, an economic forum which would have fostered economic development in the region.[14] In order to thwart apartheid South Africa's military and economic domination of the region, the Front Line States[15] on 1 April 1980, signed the Lusaka Declaration entitled "Southern Africa: Towards Economic Liberation,"[16] establishing the Southern African Development Coordinating Conference (SADCC), as well as a Programme of Action covering areas such as food and agriculture, industry, manpower development and energy. The programme also identified transport and communications as key priority areas for regional cooperation. Therefore, the political objective at the origin of the Southern African Development Coordination Conference (SADCC), a Regional Economic Community (REC) founded in 1980 in Lusaka, was military security to protect independent southern African states against South Africa under the apartheid system. However, economic reasons to foster economic growth and development were also at the heart of the creation of SADCC.

1.3.1 Contemporary context of the research

The contemporary historical context of the research coincides with the reinforcement of regional blocks in the globalisation process. This process is rooted in a particular historical period of globalisation, decolonisation, and political and economic enthusiasm

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the Arab Maghreb Union (AMU, 1989), the Community of Sahel-Saharan States (CEN-SAD, 1998), and the Intergovernmental Authority on Development (IGAD) in Eastern Africa (1996).

[14] The main economic drivers at the origin of the SADC were the exploitation of gold and diamond mines in South Africa and the copper mines of Zambia (formerly Northern Rhodesia), as well as agricultural activities in South Africa and Zimbabwe (Abegunrin, 2009).

[15] Angola, Botswana, Mozambique, Tanzania, Zambia, and Zimbabwe.

[16] The Lusaka Declaration is a policy statement reflecting a strategy to achieve total liberation for southern Africa. It not only reflects the growing concern of black southern African countries over the economic domination of apartheid South Africa, but also recognises the need to develop a regional economic strategy to lessen the economic dependence of southern African states on apartheid South Africa (Abegunrin, 2009).

for the integration of national markets and institutional organisations, referred to as "regionalism" (Söderbaum, 2004).

While the European Union was threatened by financial crises and the unevenness of member states' response, regionalism was once again gaining momentum. With the recognition of new powers exercised by the European Union (EU) in global bodies such as the United Nations (UN), the global assembly was moving towards the representation not only of national states' rights, but also those of regional blocs. In May 2011, with the resolution granting the European Union right of reply and the ability to present oral amendments (General Assembly of the UN, 2011), regional blocks increased their negotiating power at international forums such as the UN. The EU moved from observer status to recognition of almost all the rights that member states enjoy, plus additional seats for the EU's foreign policy office. In addition, other regional integration blocks could be granted the same rights as the EU in the global assembly, should they be required.

In June 2011, African leaders agreed upon a framework to create the Grand Free Trade Area, a 26-member trade group that integrates three existing African trade blocs, namely COMESA, SADC, and the East African Community (EAC). The aim of the expanded block is to improve integration among the nations by reducing costs of trade between African countries. Also, it aims to increase investment flows and address capacity constraints (Africa Review, 2011). The new agreement, that is supposed to be implemented in three phases, has been once again positively acclaimed, in particular by the three main national economic powers involved in this regional political economy game: South Africa, Kenya, and Egypt. Expected gains for South Africa, for instance, are related to reduced, if not tariff-free, access to African markets that are growing faster than its own economy.

According to Draper (2011), three driving forces are at the foundation of this new agreement. First, the political rationale of such a trade agreement is to provide a vision of an African economic community which is part of the broader goal of African unity. Second, many African countries belong to more than one regional group or organisation, and therefore there is a need to rationalise the groupings to avoid policy and regulatory incoherencies and to simplify administrative procedures. Third, the economic consideration is that national markets need to find ways to accelerate trade liberalisation for faster economic growth and development. In addition, the political economy of such negotiations is a central consideration, especially if the interests of constituent states, such as South Africa, Kenya, and Egypt, are aligned. Although the political enthusiasm for cohesive regional economic growth is evident, the main obstacle to agreement between member states (Draper, 2011), is the relative institutional weakness of the states involved in the negotiation process.

1.3.2 The problem of overlapping regional communities

When analysing the regional integration process from an institutional arrangements perspective, one of the main obstacles related to the creation of intra-regional trade at the SADC level, is the overlapping of institutional functions and objectives – the so-called 'spaghetti bowl' (Senghor et al., 2009). For instance, the Southern African Customs Union (SACU)[17] existed long before the SADC. The latter, as pointed out previously, was driven by economic cooperation principles and built around an explicit political objective, i.e. to make the region less dependent on apartheid South Africa. The decision to transform SADC into an instrument for regional integration, following majority rule in South Africa in 1994, created an inevitable overlap between SACU and SADC.

Problems related to membership overlaps are analysed in a study by the African Union (2012) on African Regional Integration. In particular, the study, which involved the Economic Commission for Africa, the African Union, and the African Development Bank, notes that conflicting regional initiatives are of particular concern in eastern and southern Africa. In these areas it is possible to count six intra-African regional integration groups, including large ones, such as COMESA and SADC, which have a remarkable overlapping of members. SACU lies within SADC, and EAC overlaps in membership with both COMESA and SADC. And last, within southern Africa, several bilateral agreements between individual countries also exist, cutting across both SACU and SADC.[18]

[17] SACU is the world's oldest custom union founded in the 1910 with the aim of creating common external tariffs (CET), free movement of manufactured products within the SACU, and a revenue-sharing formula for the distribution of customs.

[18] The AU recognises the following RECs: Arab Maghreb Union (UMA), the Common Market for Eastern and Southern Africa (COMESA), the East African Community (EAC), the Economic Community of Central African States (ECOWAS), the Intergovernmental Authority on Development (IGAD), and the Southern African Development Community (SADC). The non-recognised regional bodies include the Economic and Monetary Community of Central Africa (CEMAC), the West African Economic and Monetary Union (WAEMU), the Economic Community of the Great Lakes Countries (CEPGL), the Indian Ocean Commission (IOC), the Mano River Union (MRU), and the Southern African Customs Union (SACU).

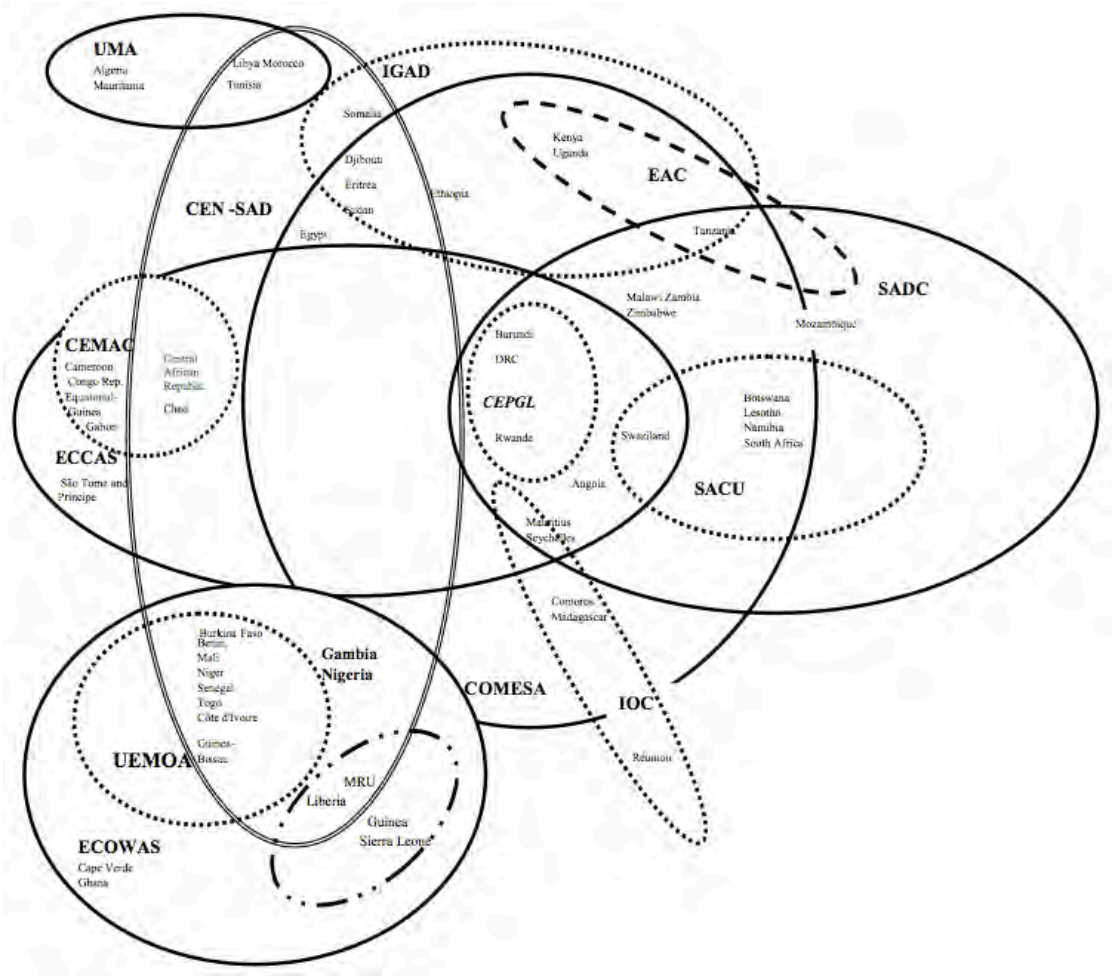

Figure 1.1: Overlapping RECs – the 'spaghetti bowl'
Source: Economic Commission for Africa & African Union, ARIA II, 2006.

This membership overlap raises the costs of administering the agreements, as it creates difficulties and conflicts in setting criteria for establishing origin. Moreover, the multiplication of customs procedures complicates paper work and this runs counter to the goal of simplifying and facilitating intraregional trade.[19] Membership is associated with financial obligations and the poorer countries find it difficult to meet financial membership obligations when due, especially if they belong to more than one regional organisation. Costs of duplication waste efforts and resources, for example, attending meetings, implementing agreements, and so on. These costs are significantly higher for poor countries, which, in addition to public budget constraints, lack the appropriate human and institutional capacity to manage multiple intraregional trade arrangements.

[19] From an implementation perspective with regard to common external tariffs (CETs), it is technically impossible for countries to implement two different CETs. This problem is particularly crucial in Kenya and Uganda who are both members of EAC and COMESA. Namibia and Swaziland belong to SACU, COMESA and SADC, each of which has its own CET.

Ndulo et al. (2005) are very critical about the mix of different trade agreements within a region. They stress that overlapping regional membership also represents a barrier to the trade of services process, since it is perceived as a major barrier to foreign direct investment (FDI). It seems that the multiplicity of trade agreements only increases the amount of bureaucracy that investors face. Moreover, the number of different regimes makes trade facilitation more difficult and this has a negative effect on FDI.

The universally-accepted solution for Africa to overcome the problem of membership overlap, seems to be 'harmonisation', together with merging and rationalisation.

The need for rationalisation of RECs, although not specifically mentioned, is also stressed by the OAU. In particular, the Abuja Treaty (1991), establishing the Africa Economic Community, highlights the importance of coordinating, harmonising and progressively integrating activities of regional economic communities. Similarly, the Constitutive Act of the African Union (2000) also stressed the need for coordination and harmonisation of policies between RECs (ECA and AU, 2006).

1.4 Failure of regional trade strategies

A strategy adopted to facilitate integration between member states was to facilitate trade by liberalising intraregional trade. Within this strategy, tariff reduction has been the primary objective of regional integration arrangements. Recently, however, in order to expand the size of the integrated regional market, emphasis has been put on the reduction of other non-border internal constraints on intraregional trade flows. However, Oyejide and Njinkeu (2002) reveal that the implementation of regional trade liberalisation programmes in Africa has generally remained behind schedule. For instance, in the ECOWAS and COMESA trade liberalisation schedules, implementation target dates have repeatedly been missed and rescheduled.[20] On the other hand, SACU is widely recognised as successfully implementing an intraregional tariff-free trade programme, although much less progress has been made in the reduction of non-tariff barriers to intraregional trade.

1.4.1 The emergence of trade in services in southern Africa

The participation of developing countries in multilateral trading negotiating processes is increasingly crucial for their development since the establishment of the WTO at the conclusion of the Uruguay Round (1986-1994). In particular, Bilal and Szapesi (2004) argue that participation of developing countries in the WTO is imperative to ensure the legitimacy and sustainability of the world trade regime.

[20] It needs to be mentioned that Oyejide and Njinkeu (2002) did not investigate reasons for such a delay.

The authors also analysed the role of international organisations such as UNCTAD in regional issues with regard to SADC participation to WTO negotiation meetings. Bilal and Szapesi (2004) argue that traditionally, trade-related issues are not central to the SADC agenda, since the Secretariat has a broader mandate, encompassing development and political dimensions. They point out that due to staff constraints, insufficient financial and technical means, and insufficient absorption capacity with a growing regional agenda, it is very difficult for the SADC Secretariat to contribute significantly to strengthening the trade capacity of its member states on WTO issues.

The SADC Secretariat lacks programmes specifically dedicated to WTO issues. However, with the support of the UNCTAD, technical assistance was provided on issues of trade in services.[21] Bilal and Szepesi (2004) investigate the interrelation between multilateral trade agreements within the WTO process and regional economic integration, in order to understand if SADC structures have facilitated or obstructed the participation of its members in multilateral trade agreement processes such as the WTO. Their analysis focuses on two countries, Mauritius and Zambia, and on two regional blocks, i.e. the COMESA and the SADC. The study aims to illustrate how regional integration processes and regional negotiations affect the preparation for and participation of members in the WTO.

Although the study addresses issues related to infra-regional trade, it does not specifically investigate the matter of trade in services. However, it unveils interesting dynamics between the SADC regional process and WTO negotiation processes.

According to Bilal and Szepesi (2004), poor and small SADC countries do not have the capacity to significantly influence WTO negotiations. Moreover, if they make a commitment, it is usually difficult to implement. One of the main challenges they face is determining and defending their positions in technical negotiations, even on key strategic issues, such as telecommunications.

The authors describe the policy process for negotiations at the WTO, which involves a Trade Negotiations Committee (TNC) and its various sub-committees or regular WTO councils present in Geneva (see Figure 1.2 below).

[21] The work consisted of the identification of key service sectors and the drafting of a legal framework to facilitate intra-regional liberalisation of services. The Secretariat has mainly organised formal meetings in preparation for WTO Ministerial Conferences. In addition, it collaborated with the Southern Africa Trade Research Network (SATRN) at the annual symposium on WTO issues in order to share views on WTO and developments with researchers, as well as policy makers and negotiators.

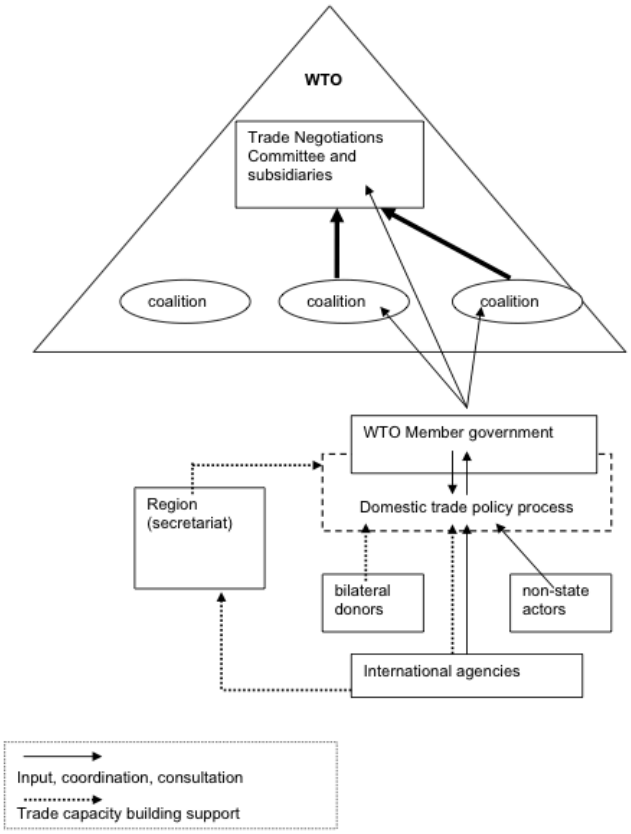

Figure 1.2: Inputs in the WTO from the capital to Geneva
Source: Bilal and Szepesi, 2004.

Bilal and Szepesi (2004) assert that RECs are useful organisations for the participation of member countries in WTO negotiations for a few reasons. First, an REC can support the preparatory work of their member states, such as identifying strategic interests and collecting information about the consequences of various policy options open to them. Second, regional organisations can support their member countries in coordinating their positions at WTO level so that they are consistent with their regional integration and trade policy objectives. Therefore, they can support member states in identifying a negotiation strategy. According to the authors, co-operating, co-ordinating and pooling resources with countries that have similar interests is of a vital importance for the effective participation of many developing countries in the WTO. However, the study reveals that the SADC lacks human and financial resources, lacks representation in Geneva, and lacks the formation of concrete inputs at national level. All these elements create major obstacles to effectively negotiate in Geneva.

The study concludes that regional support is more appropriate on technical issues and in capacity-building initiatives than for the co-ordination of similar positions between countries. According to the authors, these are better dealt with directly within WTO

coalition groupings. In the WTO negotiation process, the main role of these regional organisations has been to facilitate informal co-operation and stimulate co-ordination among members. Therefore, the regional dimension has had little direct impact so far on the preparation and conduct of WTO negotiations.

Regional trade in services in the SADC, of which ICT is an important component,[22] was explored by a study conducted by the Ministerio da Industria e Comercio Direccao National do Comercio of the Republic of Mozambique (2003). ICT-related trade is generally strengthened by multilateral commitments. However, the study reveals that the potential for ICT-related trade in sub-Saharan Africa is largely untapped.

The long-term goal of the SADC is to create a free trade area (FTA) of goods and services and to further liberalise regional trade (MICDNC, 2003). In June 2002 UNCTAD presented to the SADC a Protocol of Trade aimed at liberalising trade in services.

In 2002, SADC Trade Ministers decided to include an annexure on Trade in Services to the SADC Trade Protocol, as a follow-up to Article 23 of the same. However, according to the MICDNC (2003) the annexure has many limitations, including the absence of guidelines on how liberalisation should be achieved, and it does not provide indications regarding the pace at which such liberalisation should occur. Communications is one of the six core sectors[23] identified by the SADC Committee on Trade in Services. The annexure also requested that SADC countries coordinate negotiations in trade in services in the WTO (the so-called SADC-plus position). The general idea is to share the requests SADC countries receive in the GATS negotiations, and to cooperate and coordinate their respective offers.[24]

With regard to telecommunications services, the WTO round of trade talks in services called for full liberalisation of the sector (Hodge, 2002). In particular, the 1994

[22] ICT and trade are interdependent. A well-developed trade environment facilitates the development of ICT. Likewise, ICT fosters, enables and facilitates trade. ICT-related trade is made up of three main components: (a) trade in ICT itself, (b) trade in services to which ICT makes critical inputs, such as software development services or banking, and (c) ICT as a general facilitator of other types of trade (Telecommunications Management Group Inc, 2007).

[23] The other sectors are Tourism (9. Tourism and Travel related services in the GATS); Transport (11. Transport Services in the GATS), Finance (7. Financial Services in the GATS), Construction (3. Construction and related Engineering Services in the GATS), Services provided by the energy sector (it is not a sector in its own right in the GATS) (MICDNC, 2003).

[24] The MICDNC study (2003) identifies several problems related to the annexure. First, although all the actions included in the first action plan were not completed, the SADC secretariat presented a new work plan to complete the trade in services. This second agreement replaced the previous one. The main objective of the new plan is to increase the pace of liberalisation of the services market through increasing the number of negotiations at a regional level (MICDNC, 2003).

General Agreement of Trade in Services (GATS) has influenced domestic telecoms policy and regulatory development (Hodge, 2002). According to the Annexure on Telecommunications of the GATS, telecommunications is not only a source of negotiation itself, but it is a carrier for trading other services in the economy (Hodge, 2002). Three components of the GATS are related to telecommunications: (a) the framework articles of the GATS, which set general rules that apply to all services, (b) the Annexure on Telecommunications, and (c) the Schedule of Specific Commitments, which includes the reference paper that contains additional commitments (Hodge, 2002; Telecommunications Management Group Inc., 2007). Some components have a direct effect on members regardless of whether they have made specific commitments in the telecommunications sector, while others become binding only once specific commitments are made. However, all signatories have to comply with general principles of the GATS contained in the framework articles (Hodge, 2002).

Within the process of globalisation of telecommunications, national markets have not been considered "too small" to be of interest in the GATS negotiation processes. However, negotiations also developed "out-going" interests in foreign telecommunications markets at a national level (Adlung and Carzaniga, 2001), and subsequently a growing interest towards regional markets that are expected to be free goods and services trade areas has emerged.

Table 1.2: Description of Modes of Supply

WTO GATS Classification	**Description**	**Example**
Mode 1 Cross-border supply	Defined to cover service flows from the territory of one member into the territory of another member	A UK consumer making a telephone call to Tanzania
Mode 2 Consumption abroad	Refers to situations where a service consumer moves into another member's territory to obtain a service	A Kenyan mobile user roaming into Uganda
Mode 3 Commercial presence	A service supplier of one member establishes a commercial presence in another member's territory to provide a service	An Irish company opens an office in Kenya to provide data processing for its European operations
Mode 4 Presence of natural persons	Consists of persons of one member entering the territory of another member to supply a service	A Ugandan IT consultant temporarily employed by a company in the US

Source: TMG, Inc. adapted from WTO.

1.4.2 WTO commitments of SADC countries

Although SADC countries have embarked on reforms in telecommunications, and a few have made commitments in the WTO, none went so far as to propose full liberalisation of the sector (Hodge, 2002).

In the SADC, only six countries (Botswana, DRC, Lesotho, South Africa, Mauritius and Zimbabwe) made specific commitments in telecommunications, and only Lesotho submitted commitments related to the audio-visual market. In the fixed-line market segment, all these countries, other than Swaziland, have terminated their monopolies. Swaziland is the only country in the region which did not liberalise its fixed and mobile monopolies. The country does not have formal restrictions on foreign ownership but there are some limitations in practice.

Angola, Botswana, Malawi, and Mozambique have partially liberalised their markets and have allowed some foreign investment. In Angola, the majority of foreign ownership in telecommunication companies is forbidden and cross-ownership of licenced operators is limited to 10% (Lewis and Abrahams, 2013), while in Botswana and Malawi there are no restrictions on foreign ownership (Lewis and Abrahams, 2013). Lesotho, Zambia and Zimbabwe have liberalised their mobile markets. Lesotho committed to full liberalisation and Zambia has allowed extensive foreign investment. In the value-added services (VAS) market segment, only Lesotho committed to full liberalisation of the sector, while South Africa and Zimbabwe offered limited liberalisation since all service providers were required to use monopoly facilities (i.e. leased lines) to provide their services (Lewis and Abrahams, 2013). Although Zimbabwe has liberalised the mobile market, foreign investors have some limitations linked to an indigenisation policy that requires majority ownership by "indigenous Zimbabweans" (Lewis and Abrahams, 2013:74).

Namibia has been characterised by so-called "compromised liberalisation" as telecommunications is mostly state-owned with limited foreign investment. In Namibia, more than 49% of foreign ownership is prohibited (Lewis and Abrahams, 2013:73).

The DRC and Madagascar have liberalised their markets as well. In the DRC, although the foreign ownership provision is unclear, there are several fully foreign-owned licences.

Mauritius, Seychelles, Tanzania and South Africa have committed to a fully liberalised market with no restrictions on ownership. In Seychelles, the market is fully foreign-owned while in South Africa ownership is accompanied by the black economic empowerment (BEE) policy.[25] South Africa was the only country to commit to the Reference Paper of the IV Protocol to the General Agreements on Trade and Service

[25] Black Economic Empowerment (BEE) is a programme launched by the South African government to reduce the inequalities of apartheid by giving previously disadvantaged groups (i.e. blacks, coloureds, Indians, and Chinese who arrived before 1994) of South African citizens economic privileges previously not available to them. It includes measures such as employment preference, skills development, preferential procurement, etc.

(GATS) in full and it also committed to opening up the resale of fixed line services and promised at least a Second National Operator (SNO). With regard to mobile communications, only South Africa and Mauritius made commitments, both pledging limited liberalisation by allowing two operators to enter the market.

The following table compares telecommunications market liberalisation and communication service commitments among SADC countries.

Table 1.3: Telecoms market liberalisation and commitments

	WTO Accession	**Commitments: Communications services**	**Modes of supply**	**Restrictions based on legal status, investment, nationality**
Angola	1996	No	Partially liberalised market with foreign investment – further entry status unclear	Majority foreign ownership prohibited
Botswana	1995	Yes	Partially liberalised market with foreign investment restricted to current 3 PTO licences	No restrictions on foreign ownership
DRC	1997	Yes	Liberalised market with foreign investment – further entry status unclear	Foreign ownership provision unclear, but several 100% foreign-owned licences
Lesotho	1995	Yes	Liberalised mobile market with foreign investment – commitment to full liberalisation	No restrictions on foreign ownership
Madagascar	1995	No	Liberalised market with foreign investment – further entry status unclear	No known restrictions on foreign ownership
Mauritius	1995	Yes	Fully liberalised market with foreign investment	No restrictions on foreign ownership
Malawi	1995	No	Partially liberalised market with some foreign investment – further entry restricted	No restrictions on foreign ownership
Mozambique	1995	No	Partially liberalised mobile market with some foreign investment – no information on further entry status	No information on foreign ownership restrictions

Table 1.3: Telecoms market liberalisation and commitments

	WTO Accession	Commitments: Communications services	Modes of supply	Restrictions based on legal status, investment, nationality
Namibia	1995	No	Compromised liberalisation – mostly state-owned with limited foreign investment following buyout of second mobile operator	Majority foreign ownership (more than 49%) prohibited
Seychelles	No	N/A	Liberalised telecoms market – fully foreign-owned	No restrictions on foreign ownership
Swaziland	1995	No	No liberalisation – fixed and mobile monopolies with some foreign investment	No formal restrictions on foreign ownership, but limitation in practice
Tanzania	1995	No	Fully liberalised telecoms market with extensive foreign investment and open entry	No known restriction on foreign ownership
South Africa	1995	Yes	Fully liberalised telecoms market with foreign investment – nominal limitations on entry in one segment	No restrictions on foreign ownership
Zambia	1995	No	Liberalised mobile market with extensive foreign investment – market entry recently relaxed	No restrictions on foreign ownership
Zimbabwe	1995	Yes	Liberalised mobile market with some foreign investment – entry nominally open	Indigenisation policy requires majority ownership by "indigenous Zimbabweans"

Source: Author's own tabulation from WTO; Lewis and Abrahams, 2013

According to Hodge (2002) there is a similarity in the way SADC countries approach economic policy reform of the infrastructure service sector. The dominant

strategy adopted in the region is gradual 'managed liberalisation'.[26] The adoption of a cautious reform of the telecommunications sector is partly the result of strong political opposition to full liberalisation of the sector (Hodge, 2002). This strategy was considered the best way to serve SADC development needs and the specific characteristics of the SADC member states.

While in wealthy countries efficiency goals were at the forefront of the telecommunications reform agenda, the main goals in southern African countries are related to reducing debt, financing investment, improving delivery to the poor through network expansion and universal access, and expanding domestic private-sector participation. This has resulted in a "cautionary approach" to market liberalisation which has had a significant impact on national telecommunications market performance.

1.4.3 The missed objective of regionalising free-trade

Other studies on intraregional and intra-African trade (Yan and Gupta, 2005) demonstrate that intra-African regional integration arrangements have not been successful in eliminating intraregional trade barriers, and that they appear not to have contributed significantly to the boosting of intraregional trade in Africa. As a result, trade is mostly governed within national decision-making processes (Hoste and Anderson, 2010). African countries either have little experience of trade negotiations, or are those categorised as Least Developed Countries (LDCs) who already benefit from market access benefits and schemes, meaning that they do not have the incentive to enter additional trade agreements and free trade zones. In addition, as is the case with SADC, most regional trade is with actors external to the southern African region (Hoste and Anderson, 2010).

Therefore, it seems that African RIAs have failed to achieve the primary trade objective of eliminating barriers and obstacles for the realisation of a regional free-trade area. As this constitutes the most important element motivating their establishment, they have therefore failed to address their own development goals from a regional integration perspective. In addition, when analysing the African economy from a broader prospective, Yeats (1998) notes that Africa's intra-regional trade is dominated by only a few countries and a limited number of primary commodities. Second, in sharp contrast to the pattern of

[26] The "managed liberalisation" approach has had negative consequences in the development of the sector. According to Gillwald (2009), the privatisation of Telkom in South Africa through the extension of its monopoly has had a negative impact on affordable access and market development. The "managed liberalisation" allowed the incumbent to extract monopoly profits which were partially repatriated to the United States by SBC. "By the end of the five years exclusivity period in 2002, the partially-privatised and foreign-controlled incumbent, Telkom, had retrenched over 20,000 workers, and cut off millions of people who could not afford to pay even for local and national services" (Gillwald, 2009:167).

intra-regional trade in other integrated regions, very little intra-industry trade[27] occurs in Africa.[28] FDI flows to Africa remain limited and have not been influenced in any discernible way by the configuration of the existing intra-African regional integration arrangements. However, positive FDI flows came from additional WTO privatisation. For instance, in 1997, SBC and Telekom Malaysia bought 30% of Telkom South Africa for R5.6 billion, which was the biggest source of FDI in Africa at that time (Gillwald, 2009). In addition, regional integration in Africa is incapable of serving as an agency of restraint for enhancing policy credibility or providing efficient and high-quality institutions. Finally, since African exports can meet only a very small portion of regional import needs, non-regional sources will continue to provide key imported products which are required to facilitate the continent's industrialisation and growth. In this respect, a common external tariff plan has yet to be implemented.

The failure to implement regional trade strategies is compounded, according to Senghor et al. (2009), by the lack of political will among national governments. This and inadequate resources are some of the reasons for the failure of regional cooperation from a political economy perspective.

1.4.4 The managed liberalisation of the sector

The main concerns about the process of liberalisation have been loss of control over the development process and uncertainty over the outcomes in terms of fulfilling development goals. The combination of the two made the SADC countries pursue a policy of cautious, managed liberalisation of the sector.

In addition to that, key groups of incumbent firms and investors, trade unions and consumers, all had reasons to delay reforms and therefore had a political influence on the process (Hodge, 2002). The perceived small and unattractive southern African markets gave potential investors or incumbent firms considerable bargaining power in negotiating reform with governments. Further, fixed-line operators also had leverage, being universal access and service providers, thus making governments cautious about making reforms that could damage their profits. In addition, trade unions opposed rapid liberalisation because they were afraid of job losses.

Therefore, as a result of maximising revenues for the government, southern African countries used their rule-making power to slow down the pace of telecommunications

[27] Intra-industry trade is defined as simultaneous import and export of similar but differentiated goods.

[28] Cassim (2001) studied structural factors determining the scope and success of regional integration initiatives in the SADC. A major finding of his study is that structural and economic factors, such as the transaction costs of trading, the growth paths of economies and changes in per-capita income, should be the focus of regional integration rather than trade policy on its own.

reform, creating regulatory barriers that obstruct market entry and limit competition in the sector.

The managed liberalisation process is at the core of the Telecommunications Regulators' Association of Southern Africa (TRASA) telecommunications policy model and it represents the model widely adopted in the region. This approach in the fixed-line sector is characterised by the following elements:

a) Corporatisation: separation of the incumbent monopoly from the ministry;
b) Exclusivity period: granting an exclusivity period during which a foreign partner is found to inject capital and technical know-how while the incumbent prepares itself for competition. In order to balance a potential loss in voice services, operators were forced to lease all long-distance facilities from the incumbent. Furthermore, both resale and the use of VoIP (Voice over Internet Protocol) were prohibited. In addition, the incumbent had infrastructure roll-out targets and obligations in rural areas. The rationale was a presumed market failure to cover undeserved and marginalised areas in an emerging competitive market;
c) Second national operator (SNO): Introduction of a single new operator to compete on a facilities-basis only. It also granted a period within which no new competition would be allowed in the market. The SNO is often guaranteed a period of duopoly in the fixed line market in exchange for universal service obligations;
d) Resale competition: Allowed since it did not threaten the basic revenues of the operators. However, TRASA imposed some price restrictions.

A similar protectionist approach was pursued in the mobile market segment. At that time this market was considered a small luxury niche (Hodge, 2002), and the rationale of economies of scale suggested that only a few players were viable. Therefore, in smaller markets, only one operator was allowed, while in bigger markets up to two licences were granted. These new firms are often chosen through the beauty pageant method, rather than by auctioning licences. In value-added services, the approach has been to open up the segment to competition.

According to Hodge (2002), infrastructure reform was used to improve countries' fiscal positions. The strategy pursued was to reduce the drain on the *fiscus* from inefficient and loss-making public utilities, and maximise revenue generation by the sale of state assets. The first reason for the implementation of a managed liberalisation strategy was debt reduction: a development and more prominent goal in southern Africa as countries wanted to reduce government debts. The goal has its roots in the International Monetary Fund's (IMF) structural adjustment policies, which have the same objective: reducing the public debt.

1.5 Some preliminary considerations on the failure of regional initiatives in Africa

Although there have been many efforts to regionalise African national economies, there is growing consensus regarding the failure of such initiatives. Alemayehu and Haile (2002) investigate the reasons for unsatisfactory results in terms of regional integration in the African context. They argue that government unwillingness to delegate macroeconomic policy-making power to regional authorities is one of the main causes of the failure of regional integration, together with a lack of political commitment (Lyakurwa et al., 1997, in Alemayhu and Haile, 2002). Further, governments fear an unequal distribution of gains and losses resulting from integration agreements. Mugabe (2006) asserts that many factors contributed to the failure of regional integration in Africa. He specifically mentions weak regional institutions, strong nationalism ideology at a leadership level, intra-state conflicts and wars, and structural barriers to trade and industrialisation. Further, the Cold War split the continent across an east-west divide.

African RIAs failed to achieve the primary development objectives of eliminating barriers and obstacles in order to realise a regional free-trade area. This constituted the most important element in their motivation. Regional trade is further complicated by overlapping RECs with different regimes, that make trade facilitation difficult and have negative effects on FDI. In addition to inadequate resources, the failure of regional cooperation is compounded by the lack of political will at national government level.

Another problem identified by the ECA (2006) is the lack of supranational authority to enforce commonly-agreed decisions. Under these circumstances, sanctions are seldom imposed on member states who are in breach of agreements. Furthermore, the gap between the aspirations of member states, as expressed in protocols and treaties, and the actual implementation of programmes is widening.

Furthermore, although a multi-stakeholder constituency is considered a relevant element for regional integration, governments are the main actors advocating regional integration in the African context (ECA and AU, 2006). African civil society and the business constituency have shown little interest in regional integration.

1.6 SADC regional ICT infrastructure

1.6.1 Regional competitiveness and technological readiness

The World Economic Forum (WEF) compiles a Networked Readiness Index (NRI) every year for countries around the world, including SADC countries. The index measures not only access to and use of information and communication technologies, but also the usefulness of the political and regulatory environment as well as the economic and social impact of ICTs. The aim of this index is to provide policy and decision makers with an

instrument to evaluate the impact of ICT at a global level and to benchmark ICT readiness and use in different countries. The index includes features related to access and use that take into consideration affordable ICT infrastructure and digital resources, including software and skills. The index also includes proxies used to assess the economic and social impact of ICTs, how countries leverage ICTs, and the benefits in terms of enhanced competitiveness and well-being.

The WEF also releases a Global Competitiveness Report which measures "competitiveness as the set of institutions, policies, and factors that determine the level of productivity of a country" (WEF, 2014:4). The report studies and benchmarks many factors underpinning national competitiveness. The main goal of the report is to provide insight and stimulate discussion about the best strategies and policies to help countries overcome obstacles to competitiveness.

A more specialised report on ICT sector performance and on the development of the information society is the ITU "Measuring the information society" report. This report contains the ICT Development Index (IDI) which ranks 157 countries' performances in terms of ICT infrastructure and uptake. The IDI explains differences among countries and within regions with regards to ICT development.

Table 1.4: Global ICT Indexes (IDI, GCI, and NRI)

Country	**Global ICT indices**					
	ICT Development Index (IDI), 2011		**GCI WEF, 2013-2014**		**NRI WEF, 2014**	
	Rank	**Score**	**Rank**	**Score**	**Rank**	**Score**
Angola	139	1.68	142	3.15	144	2.52
Botswana	108	3.00	74	4.13	103	3.43
DR Congo	147	1.31	--	--	--	--
Lesotho	--	--	123	3.52	133	2.88
Madagascar	149	1.28	132	3.42	139	2.74
Malawi	145	1.43	136	3.32	132	2.90
Mauritius	72	4.55	45	4.45	48	4.31
Mozambique	148	1.31	137	3.30	137	2.77
Namibia	109	2.85	90	3.93	105	3.41
Seychelles	64	4.75	80	4.10	66	4.02
South Africa	84	3.95	53	4.37	70	3.98

Table 1.4: Global ICT Indexes (IDI, GCI, and NRI)

Country	Global ICT indices					
	ICT Development Index (IDI), 2011		GCI WEF, 2013-2014		NRI WEF, 2014	
	Rank	Score	Rank	Score	Rank	Score
Swaziland	117	2.44	124	3.52	126	3.00
Tanzania	142	1.65	125	3.50	125	3.04
Zambia	132	1.77	93	3.86	110	3.34
Zimbabwe	115	2.52	131	3.44	117	3.24

Source: The World Bank, World Development Indicators, 2014. ITU, 2012. WEF, 2014

Island countries in the SADC region such as Mauritius and Seychelles are at the top of SADC ranking in all three global indexes although not higher than the 45th position globally. In Seychelles, with the landing of the Seychelles East Africa System (SEAS) fibre-optic cable, available international internet bandwidth almost tripled in 2012 (ITU, 2013). Madagascar, Mozambique, and the Democratic Republic of Congo are at the bottom end of the IDI, GCI, and NRI indexes for SADC. In Mozambique, the monopoly over fixed-lines and ADSL (asymmetric digital subscriber line) services controlled by Telecomunicações de Moçambique, a 100% state-owned company, has kept prices high for fixed lines in the last three years. Also, the incumbent is unable to compete with mobile internet. ADSL is still offered at narrowband speed of 126kbps, and becomes very expensive above 1Mbps speed.

Seven out of fifteen countries (namely Lesotho, Madagascar, Malawi, Mozambique, Tanzania, Zambia, and Zimbabwe) are factor-driven economies, meaning that they are in the first stage of economic development. Maintaining competitiveness at this stage of development depends primarily on well-functioning public and private institutions, a well-developed infrastructure, a stable macroeconomic environment, and a healthy workforce that has, at least, a basic education (WEF, 2014). Falling between factor-driven and efficiency-driven economies are Angola and Botswana, which are transition economies. Weak institutions, absence of efficient higher education and training, and under-developed infrastructures are the main obstacles to economic development in Angola. In contrast, Botswana has stronger institutions and a sound macroeconomic environment, but lags behind in terms of infrastructure, market size and technological readiness. Mauritius, Namibia, South Africa, and Swaziland are ranked by the GCI index as efficiency-driven economies. According to the World Economic Forum (2014), these countries should begin to improve production processes and increase product quality

because wages have grown and they cannot increase prices. At this stage of economic development, competitiveness is driven by higher education and training, efficient goods markets, well-functioning labour markets, developed financial markets, the ability to harness the benefits of existing technologies, and a large domestic or foreign market. Finally, Seychelles is in transition between an efficiency-driven and innovation-driven economy. Poor access to financing coupled with inefficient government bureaucracy are amongst the problems keeping the country from being an innovation-driven economy (WEF, 2014).

Table 1.5: GCI WEF indicators for the SADC region, 2013-2014

	Overall infrastructure		**Technological readiness**	
	Rank	**Score**	**Rank**	**Score**
Angola	142	3.15	138	2.47
Botswana	74	4.13	104	3.11
DR Congo	--	--	--	--
Lesotho	123	3.52	140	2.45
Madagascar	132	3.42	131	2.63
Malawi	136	3.32	144	2.40
Mauritius	45	4.45	63	3.90
Mozambique	137	3.30	123	2.77
Namibia	90	3.93	90	3.34
Seychelles	80	4.10	65	3.87
South Africa	53	4.37	62	3.92
Swaziland	124	3.52	124	2.72
Tanzania	125	3.50	126	2.70
Zambia	93	3.86	115	2.97
Zimbabwe	131	3.44	112	2.98

Source: WEF 2014

Table 1.5 above depicts the quality of national infrastructures in the SADC region and the technological readiness of SADC countries. The evaluation refers not only to telecommunications but also includes other facilities such as transport and energy networks. It reveals regional trends regarding overall infrastructure development. South Africa and Mauritius are the leading countries in the region in terms of the quality of

overall infrastructure (they rank 53rd and 45th, respectively), while all the other countries are below the 74th position (led by Botswana), suggesting an overall poor level of regional infrastructure development (WEF, 2014b).

One of the biggest challenges in SADC countries is that, unlike mature markets from which reform models are derived, most developing countries have to implement telecommunication reforms in situations where telecommunication networks are poorly developed, and access to and use of ICT is low. In most countries, regulatory agencies lack independence, and the executive overtakes parliamentary roles and responsibilities. In addition, government organisations and regulatory agencies do not have enough technical and financial resources to effectively regulate the sector.

This specific regional context of constraints results in poor technological readiness in most SADC countries. Technological readiness refers to the agility with which countries adopt existing technologies to improve the productivity of their own industries, with specific emphasis on their capacity to leverage ICT in daily activities and production processes. In the SADC region, it appears that only Mauritius, Seychelles and South Africa rank above 65. This shows that, save for these three countries, SADC is overall not a region able to leverage ICT to improve business efficiency and thereby increase productivity. According to ITU (2013) data, Seychelles has the highest number of individuals using the internet (47%) and fixed (wired) broadband penetration (12%). With the landing of the Seychelles East African System (SEAS) fibre-optic cable,[29] available international internet bandwidth almost tripled in 2012. Mauritius experienced strong growth in the number of wireless broadband subscriptions, penetration reaching 22 per 100 inhabitants in 2012 so that its penetration of households with internet access reached 42% by the end of the year (ITU, 2013). The country also has a relatively high level of fixed (wired) broadband penetration (10.5%) in comparison to other SADC countries, and most African countries (ITU, 2013). South Africa has the characteristics of both a developed and a developing economy: it is the strongest economy in the region, it has a relatively high level of access to ICT, it has sophisticated institutions including research bodies and universities, and it has a strong private sector and financial services.

Table 1.6 below compares a few pillars of the Networked Readiness Index (NRI) in SADC countries: the political and regulatory environment; the business and innovation environment; and infrastructure and digital content.

[29] SEAS was implemented under a private-public partnership between the Seychelles Government and the archipelago's two main telecommunication operators, Airtel and Cable Wireless.

Table 1.6: NRI WEF 2013-2014 for the SADC region						
Country	**The Networked Readiness Index 2014**					
	Political and regulatory environment		**Business and innovation environment**		**Infrastructure and digital content**	
	Rank	**Score**	**Rank**	**Score**	**Rank**	**Score**
Angola	145	2.52	147	2.65	146	1.55
Botswana	40	4.26	107	3.84	109	3.01
DR Congo	--	--	--	--	--	--
Lesotho	90	3.48	108	3.84	131	2.37
Madagascar	129	2.90	94	3.97	144	1.57
Malawi	69	3.70	130	3.43	126	2.43
Mauritius	33	4.48	43	4.75	76	3.88
Mozambique	113	3.22	126	3.49	137	1.86
Namibia	37	4.38	112	3.81	106	3.10
Seychelles	49	4.07	90	4.02	43	4.91
South Africa	20	5.05	53	4.48	68	4.21
Swaziland	84	3.55	129	3.44	118	2.79
Tanzania	85	3.54	132	3.39	120	2.70
Zambia	59	3.82	63	4.33	130	2.37
Zimbabwe	122	3.06	133	3.35	128	2.42
Source: WEF, 2014.						

While Angola, Madagascar, Mozambique, and Zimbabwe are all below the 113th position, indicating a not-conducive political and regulatory environment, Botswana, Mauritius, Namibia and South Africa are all above position 40, with South Africa leading the region in the 20th position. The heterogeneity of political and regulatory environments among SADC countries is an obstacle to integration of national policy and regulatory frameworks at a regional level, as different countries have different institutional arrangements, different political environments and different legislative frameworks in place.

Mauritius has also the higher score in the business and innovation environment, and together with South Africa and Zambia, is above the 63rd position in the region. The overall poor performance of the SADC region reveals that as a bloc, SADC does not have the characteristics of an innovation-driven economy. Also indicators such as infrastructure and digital content score poorly throughout SADC countries. Only Seychelles ranks in the top 50 countries in the infrastructure and digital content indicator.

According to the ITU, which measures the performance of 157 countries in terms of ICT infrastructure and uptake through the ICT development index (IDI), SADC countries are characterised by low levels of access to and use of ICT, high prices and poor quality of service. Seychelles and Mauritius are once again the best performers in comparison to other SADC member states.

Table 1.7: IDI ITU 2012 for the SADC region						
Country	**The ICT Development Index (IDI)**					
	ICT Development Index (IDI), 2012		**IDI access sub-index, 2012**		**IDI use sub-index, 2012**	
	Rank	**Score**	**Rank**	**Score**	**Rank**	**Score**
Angola	139	1.68	143	1.83	122	0.62
Botswana	108	3.00	101	3.58	113	1.00
DR Congo	147	1.31	155	1.33	154	0.06
Lesotho	126	1.95	129	2.26	126	0.48
Madagascar	149	1.28	152	1.48	151	0.07
Malawi	145	1.43	145	1.72	138	0.26
Mauritius	72	4.55	71	5.17	**67**	**2.69**
Mozambique	148	1.31	147	1.69	140	0.23
Namibia	109	2.85	110	3.09	99	1.55
Seychelles	**64**	**4.75**	**53**	**6.10**	71	2.52
South Africa	84	3.95	85	4.14	75	2.35
Swaziland	117	2.44	124	2.43	111	1.11
Tanzania	142	1.65	140	1.87	125	0.49
Zambia	132	1.77	130	2.12	127	0.48
Zimbabwe	115	2.52	120	2.54	98	1.59
Source: ITU, 2013						

1.6.2 SADC cost of communications

In terms of prices, most SADC countries rank at the bottom of Research ICT Africa's index on mobile prepaid voice. The index is based on OECD (2010) baskets 40 calls/60 SMS.[30] Generally, SADC countries are more expensive in comparison to other African countries. In particular, Seychelles, Lesotho, Zambia, Swaziland, Angola, Madagascar, and Zimbabwe are all below the 32nd position in the RIA index for dominant operators in a country.

On a positive note, Mauritius ranks 3rd in the index. The country is characterised by a competitive telecommunications environment with two fixed-line operators (Mauritius Telecom and MTML, the second providing CDMA2000 services) and three mobile operators (i.e. Orange, Emtel, and MTML), serving a relatively small population. Government ownership in the incumbent fixed-line operator is 33.5% and other shareholders are France Telecom (main shareholder with 40%), State Bank of Mauritius (19%), and National Pensions Fund (6.6%). The level of foreign direct investment in the telecommunications market is significant. France Telecom/Orange is the main shareholder of the incumbent fixed-line operators and it also has the main market share (43%) in the mobile market (Mauritius Telecom, 2013). Namibia and Botswana, two countries with small populations, have also managed to reduce prices and are placed above the 20th

[30] The OECD (2010) price baskets methodology applied in this research paper is based on 40 calls/60 SMS which have been distributed among on-net, off-net, peak, off-peak, and off off-peak calls and SMSes. The basket method allows benchmarking of countries, operators and products, and applied consistently, it allows consumers to compare the products of a single operator and between operators (RIA, 2013; OECD, 2010).

position in the index (dominant operator). In Namibia in particular, the reduction of mobile termination rates since 2009 has brought about a significant reduction in retail voice prices.

Table 1.8: Cost of cheapest products for OECD's 40 calls/60 SMS basket in USD

Country name	Cheapest product				% cheaper than dominant
	Dominant operator		Cheapest in country		
	USD	Rank	USD	Rank	
Egypt	3.2	1	3.2	3	Dominant is cheapest
Ghana	3.2	1	3.2	3	Dominant is cheapest
Sudan	3.2	1	1.2	1	63%
Ethiopia	4.01	2	4.01	4	Dominant is cheapest
Mauritius	**4.05**	**3**	**4.05**	**5**	**Dominant is cheapest**
Kenya	4.3	4	1.48	2	66%
Guinea	5.96	5	5.96	10	Dominant is cheapest
Tunisia	6.01	6	5.83	9	3%
Algeria	6.27	7	6.27	11	Dominant is cheapest
Libya	6.94	8	6.94	13	Dominant is cheapest
Rwanda	7.24	9	5.24	8	28%
Nigeria	7.36	10	4.65	6	37%
Congo Brazzaville	8.16	11	8.16	16	Dominant is cheapest
Sierra Leone	8.28	12	8.28	17	Dominant is cheapest
Uganda	9.72	13	7.22	14	26%
Namibia	**9.86**	**14**	**9.86**	**18**	**Dominant is cheapest**
Mozambique	**10.67**	**15**	**10.67**	**21**	**Dominant is cheapest**
Liberia	11.3	16	11.3	22	Dominant is cheapest
Botswana	**11.41**	**17**	**10.37**	**20**	**9%**
Benin	11.45	18	11.45	23	Dominant is cheapest
South Africa	**12.06**	**19**	**5.2**	**7**	**57%**
Mauritania	13.01	20	12.58	25	3%
Cote d'Ivoire	13.3	21	13.3	26	Dominant is cheapest
Senegal	13.32	22	13.32	27	Dominant is cheapest
Central African Republic	13.74	23	13.74	28	Dominant is cheapest
Sao Tome and Principe	14.43	24	14.43	31	Dominant is cheapest
Malawi	**14.95**	**25**	**14.5**	**32**	**3%**
Tanzania	**15.4**	**26**	**7.34**	**15**	**52%**
Burkina Faso	15.6	27	15.36	33	2%
Mali	15.84	28	15.84	34	Dominant is cheapest
Togo	16.2	29	16.2	35	Dominant is cheapest
D.R. Congo	17.1	30	10.1	19	41%
Chad	17.54	31	17.54	38	Dominant is cheapest
Seychelles	**18.02**	**32**	**18.02**	**40**	**Dominant is cheapest**
Cameroon	18.08	33	18.08	41	Dominant is cheapest
Lesotho	**18.13**	**34**	**13.83**	**30**	**24%**
Zambia	**18.72**	**35**	**17.55**	**39**	**6%**
Swaziland	**19.85**	**36**	**19.85**	**42**	**Dominant is cheapest**
Niger	20.2	37	17.05	36	16%
Angola	**22.13**	**38**	**19.92**	**43**	**10%**
Madagascar	**22.55**	**39**	**21.83**	**45**	**3%**
Zimbabwe	**22.75**	**40**	**21.78**	**44**	**4%**
Cape Verde	31.57	41	31.57	46	Dominant is cheapest
Morocco	46.62	42	12.25	24	74%

Source: RIA Africa Price Transparency Index, 2014

In Mozambique, the entry of the new operator, Movitel, into the market in 2012, has shaken up the duopoly mobile and fixed monopoly markets, which previously delivered poor services primarily to the major cities at high prices. In 2012, the reduction in mobile termination rates led to the market becoming more competitive. Both mCel and Vodacom Mozambique were under pressure to reduce their mobile prepaid voice tariffs.

South Africa, with a relatively high level of access to and use of mobile phones, is characterised by an oligopoly in the mobile market, with MTN and Vodacom, the two main operators, matching their prices which are relatively high compared to other African countries. On the other hand, Cell C and 8ta have been reducing their retail prices and that has translated into a very good ranking in the RIA mobile cheapest in the country index (7^{th}).

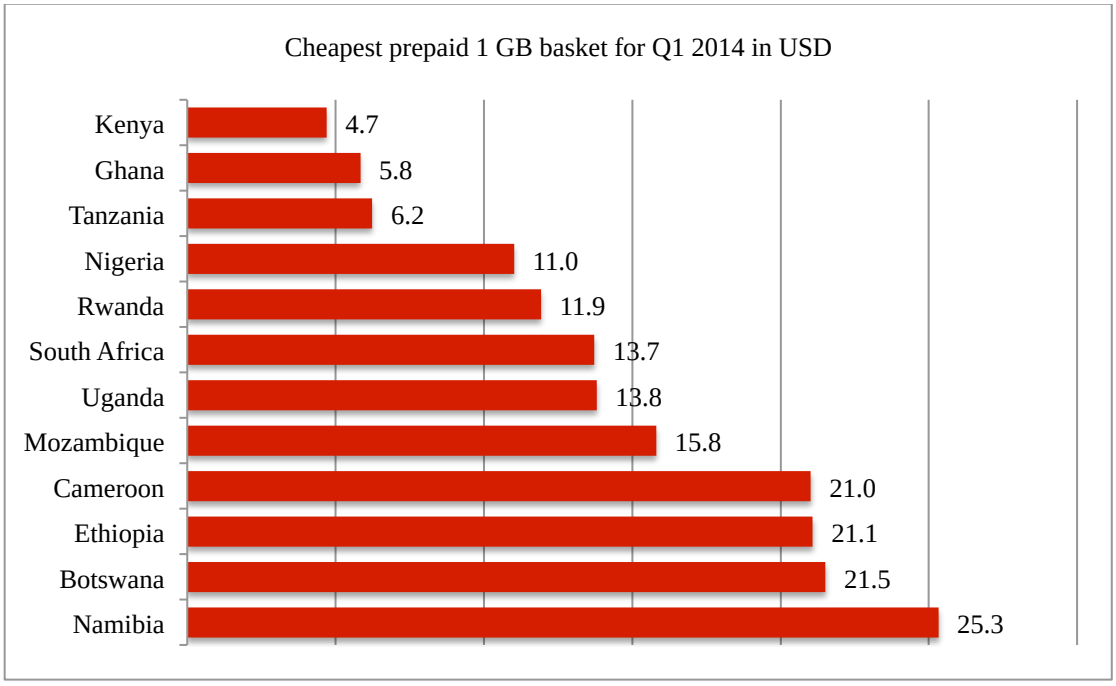

Figure 1.3: Cheapest prepaid 1 GB basket for Q1 2014 in USD
Source: RIA broadband price transparency index, 2014

With regards to broadband prices, Figure 1.3 above depicts the cost of 1GB basket for Q1 2014 in USD in selected African countries including some SADC countries. Among SADC countries, South Africa is the cheapest in the mobile broadband mini-index and 1 GB of data costs USD13.7. On the other hand, Namibia and Botswana, which were relatively cheap in terms of mobile prepaid voice tariffs, turn out to be more expensive in the data market. Botswana is a landlocked country characterised by a low level of competition in the wholesale market and international gateways.

1.7 Problem statement

The overriding problem, as it emerged from the literature review and secondary empirical data, indicators and global indices, is that SADC structures and processes have failed to achieve stated objectives of integrating national ICT policy and regulatory frameworks through harmonisation.

A close examination of SADC ICT infrastructure in terms of access and prices reveals that in southern Africa, regional ICT policy and regulatory structures and processes have failed to achieve the main protocol's objectives of establishing efficient, cost-effective, and fully-integrated infrastructure and operations, in order to promote economic and social development.[31] In the region, policy and regulatory procedures and ICT legislation and regulatory environments are fragmented. Further, a telecommunications backbone is limited (Williams, 2007 and 2009). Poor infrastructure quality (Chetty et al., 2013), high costs of services (Research ICT Africa, 2013 and 2014), and limited bandwidth are recognised as the main factors inhibiting internet take-up, adoption and use in the region (Gillwald and Stork, 2008).

Weak regional enforcement mechanisms, together with poor institutional arrangements, lack of skills, and limited financial resources of national member states, has inhibited their full participation in the formulation of effective and evidence-based regional policies. This is compounded by a lack of capability in regional organisations to recognise national needs and create the conditions for telecommunication market growth and consequently, economic and social development. These are some of the reasons why regional organisations fail to integrate national policy and regulatory frameworks in a comprehensive regional strategy which could catapult the region into an information-based economy, as theoretically anticipated and empirically determined in other parts of the world, particularly in the Asian tigers.[32] It appears that this situation is the result of a regional ICT agenda, that was mostly driven by international organisations and donor communities and which did not always have national buy-in. This is likely to have concrete impact on the performance of telecommunications markets at a national level.

[31] The 1996 SADC Protocol on TCM, Article 2.3. SATCC-TU telecommunications policy objectives are (a) Affordable, Efficient and High Quality Services, (b) Influencing Global Trends and active participation in Global Information Society, (c) Building a Competitive Regional Telecommunications Sector, (d) Creating an Environment for Sustainable Info-Communications Development, (e) Creating Partnerships, (f) Developing a code of Conduct and Business Practices, and (g) Gender and Telecommunications Development.

[32] The economic literature on "Asian Tigers" refers to Hong Kong, Indonesia, Malaysia, Singapore, South Korea and Thailand. The economies of these countries have drastically changed over the last thirty years from traditional agriculturally-based societies to growing industrialised nations. Economic growth in these countries was accompanied by substantial structural changes (Davis and Gonzalez, 2002).

Certainly, it is evident that regional ICT programmes and protocols have not achieved the regional and national objectives of reducing prices, improving quality of service, and increasing access to and use of ICT across the region.

1.7.1 Research gap on regionalism and ICT policy and regulation

Although the topic has encouraged research from many perspectives, the contribution of regional ICT policy and regulatory frameworks for the improvement of national ICT markets still has great scope for further investigation, especially in the African context. There is very little literature on regionalism and ICT sector development in Africa and almost none on SADC. Filling this gap is one of the major contributions of this thesis. For instance, in the literature related to regional competitiveness (Kitson, Martin and Tyler, 2004; Johansson et al. 2002; Storper, 1997; Malecki, 2002; Porter, 1998a and 1998b), despite regional telecommunications infrastructures being acknowledged as an enabler for economic growth and social development, there is little research that analyses the role of regional policy, regulatory structures and processes in the creation of such conditions. In particular, there is space for further studies on why regional institutional arrangements in Africa, in charge of creating harmonised and integrated regional policy and regulatory conditions for the provision of universal access to telecommunications services, have not achieved intended ICT policy objectives as stated in protocols and declarations.

Taking into account this evidence gap, this thesis highlights the main problems encountered by a Regional Economic Community (REC)[33] in Africa, the Southern Africa Development Community (SADC), to effectively develop and implement integrated ICT policy and regulatory frameworks. Through an examination of regional structures and processes, and based on a case study method, this dissertation examines the political economy underlying the development and implementation of an integrated ICT policy framework in support of regional development and economic growth.

The political economy perspective adopted to carry out this study is based mostly on practical and realistic paradigms. Therefore, final policy recommendations have been drafted in order to advise and influence regional organisations on the appropriate policies to improve the regional institutional arrangements. The thesis is concerned with the description of the relations within the regional political economy, the interplay between multilateral, regional and national organisations, and the telecommunication markets in a specific historical period.

The literature survey confirms that there is very little research in the area of regional ICT policy-making and regulation in developing countries. There are many

[33] Regional economic communities are the building blocs of an African Economic Community (SADC, 2004).

reasons why the academic literature on this issue, especially in southern Africa, is poor. First, the limited academic work in this area has focused mainly on specific national ICT policy and regulatory interventions, such as interconnection, spectrum management or broadband policy, generally ignoring regional ICT policy and regulatory frameworks. Therefore ICT policy research on southern Africa is still in its infancy. An FTA of services at the SADC level has yet to be created. The lack of implementation of regional protocols on trade in services might have created a sense of disillusionment. Policy research and case studies in particular tend to focus on success stories. However, regional economic communities and their associations continue to be at the centre of regional, continental and multilateral development strategies. Investigation of regional institutions through empirical analysis and theorising therefore remains crucial to understanding their contribution to national and regional development. With regard to ICT in particular, the reform of telecommunication markets at a national level as a result of the WTO process through the General Agreement on Trade in Services (GATS) framework, has been uneven in SADC, with only a few member states undertaking certain commitments. The GATS Annexure on Telecommunications, the Annexure on Negotiations on Basic Telecommunications, the Fourth Protocol on basic telecommunications, and Reference Paper on basic telecommunications have been only partially implemented. However, most member states have participated in, and partially implemented GATS-aligned reforms proposed by SADC or SADC regional bodies, such as the Communications Regulatory Association of South Africa (CRASA).

Other studies have tried to assess the impact of regional reforms on ICT sector development. For instance, Waema (2005) has identified the following challenges to ICT policy and regulatory harmonisation:

- existence of multiple ICT policy and programme initiatives, some of which are often in competition with each other;
- very little ownership of regional ICT policy and regulatory initiatives by national African governments:
- no institutional mechanisms in place on the part of regional organisations and institutions to ensure compliance with model policies and frameworks, or to monitor and evaluate the implementation. Member states belonging to the REC are sovereign states with no obligation to adopt and adjust national ICT policy and regulatory frameworks according to policy guidelines issued by regional bodies; and
- different stages of economic, political, and social development inhibit member countries from adopting common priorities and common models or frameworks.

So while considerable resources have been put into establishing and supporting structures for the regional integration of markets and harmonisation of ICT policies, there has been limited success in implementing harmonisation frameworks to date (Calandro and Moyo, 2010). Moreover, this collaborative and multi-stakeholder effort, aimed at developing a seamless electronic communications infrastructure in SADC with the associated positive multiplier effects, has failed to achieve the intended results in terms of ICT development. As previously described, the performance of the SADC telecommunication markets has been poor. In particular:

(a) In the SADC region, the availability of low-cost backbone network capacity is limited, and this constricts the development of broadband connectivity (Williams, 2007 and 2009). As a result, market penetration of broadband in the region is equal to 1.9 per 100 inhabitants (Kim, Kelly and Raja, 2010).

(b) Poor network quality (Chetty et al., 2014), high costs of services (Stork, Calandro and Gamage, 2013), and limited bandwidth are considered the main reasons for an internet penetration rate below 10% amongst households in many African countries (Stork, Calandro and Gillwald, 2013b).

(c) The outcomes of policy and regulatory interventions at a regional level aimed at developing a regional ICT infrastructure in the SADC have not met policy objectives that have been articulated by the SADC countries (Cohen and Gillwald, 2008).

1.8 Primary and secondary research questions

The primary question arising from the problem statement is why the regional institutional arrangements—including regional structures and processes have not achieved regional objectives of integration of ICT policy and regulatory frameworks and therefore not the associated positive policy outcomes.

The research sub-questions that the primary question elicits are:

2 What are the drivers (national and international) of the development of an integrated regional ICT policy and regulatory framework? Do they take into account national differences in terms of ICT sector development?

3 Has ICT policy and regulation in the SADC region achieved the level of harmonisation evoked in protocols and declarations? If not, why are regional ICT policies, protocols and declarations not always implemented at a national level?

4 What has been the role of international organisations in regional ICT policy and regulatory formulation?

5 What are the policy outcomes in terms of regulatory instruments, market structure and the development of a regional ICT infrastructure in SADC?

In order to answer the questions, the study explores the interplay between national, regional and international structures and processes. It does so by focussing on the political economy of regionalism and on the role of RECs in the process of the liberalisation of African markets with a specific focus on trade in services. A political economy approach to regional ICT policy and regulation-making has been developed to move beyond purely economic factors identified in regional frameworks and multilateral agency reports, to explain why regional objectives on ICT development may not be realised. Theories on regionalism (Haas, 1958; Nye, 1971; Pentland, 1973; Mugabe, 2006; Söderbaum, 2004), on the influence of epistemic communities (Haas, 1992; Sundström, 2000); on capacity-building as a tool for foreign affairs (Hameiri, 2009), and on the relationship between state and democracy in developing countries (Khan, 2002 and 2005) have been drawn on to develop a conceptual framework. This is used as a lens through which to filter the empirical evidence for analytical purposes. The literature on the establishment of a regional ICT policy and regulatory framework for the development of the information society in southern Africa, with a focus on aspects related to regionalism in Africa and regional competitiveness, has been reviewed. In addition to the academic literature related to regional organisations as key institutions for improving the competitiveness of regional blocs in the global economy, the literature explores how ICT serves as an enabler for regional competitiveness; and the linkages between regional integration and infrastructure development.

1.8.1 Contributing to academe and informing regional experts, policy makers and practitioners

This thesis will naturally contribute to the academic body of knowledge on this subject and assist those academics interested in exploring the issue in other regions. More importantly it will inform policy and decision makers involved in regional ICT policy and regulatory processes at national, regional and international levels. From a communication policy perspective, it identifies national, regional and international policy and regulatory constraints in terms of regional structures and processes for ICT sector development, that need to be overcome or improved in order to develop an enabling policy and regulatory framework for the development of a seamless SADC telecommunication infrastructure. Therefore, it informs all the actors and stakeholders involved in the regionalism project about the motivations of the regional ICT policy and regulatory process itself, as well as about the shortfalls of the institutional arrangement and of the policy-making process.

Finally, it provides solutions for overcoming identified institutional and regulatory bottlenecks.

The stakeholders identified are SADC member states at a ministerial and parliamentary level, regional bodies such as SADC, Communication Regulators' Association of Southern Africa (CRASA), the Common Market for Eastern and Southern Africa (COMESA), international and multilateral organisations, the donor community, any other profit and non-profit organisations supporting this process and those academics interested in understanding the issue from an empirical and theoretical prospective. The research findings and analysis aim to support them with evidence necessary to improve regional processes and relations, in order to improve regional ICT policy-making and ICT sector development in general. Sources for the interviews are chosen selectively, based on accessibility, validity, reliability and accuracy.

1.9 Overview of the rest of the dissertation

Having identified both the problems encountered by RECs to integrate their markets and to achieve ICT policy objectives, and taking into account the need for conducting research to examine the reasons for this, the following chapter reviews the literature on the governance of global and regional telecommunication networks and services, the role of these in regional competitiveness, and the linkages between regional infrastructures, service integration and national growth and development.

Chapter Three describes selected theoretical and conceptual issues concerning institutional theory and political economy of regionalism. Chapter Four describes the methodology applied to collect and analyse the interviews conducted to understand and describe how SADC institutional arrangements, including regional structures and processes, have shaped ICT policy objectives, as stated in SADC protocols and declarations, in respect of regional ICT policy outputs and outcomes.

Through a document analysis, Chapter Five investigates SADC structures and processes responsible for telecommunication policy and regulations against an internationally-developed and agreed framework for telecommunication sector reform. The Reference Paper of the IV Protocol to the General Agreements on Trade and Service (GATS) has been used as the coding framework to assess the compliance of the regional framework to principles widely accepted as a solid foundation for effective regulatory design.

Chapter Six analyses the interviews conducted with key stakeholders involved in the reform process of ICT policy and regulation in SADC. The information collected through the interviews has been integrated with media and press releases, informal conversations with representatives from national, regional and international organisations,

and presentations attended during regional meetings, in order to build a rich case study.

Chapter Seven verifies the evidence collected for the thesis, triangulating the findings from the document analysis with the interviews, the media coverage, and quantitative data. The conceptual framework set up in Chapter Three, which draws from Keohane and Nye's (1975) definition of "institutional integration" in terms of governments' policy outcomes, is used to assess the importance of institutional and policy integration, and to analyse such levels of integration against their outputs (i.e. regional institutions, formal regional processes and legal documents) and outcomes (i.e. ICT penetration, prices, quality of service). In addition, the concept of epistemic communities and that of capacity-building as a tool for foreign affairs, is used as a lens through which to analyse the evidence collected.

Chapter eight draws on the evidence and on the analysis presented and provides some conclusions on the initial research questions. It also makes some final observations and qualifications about the research process and findings.

CHAPTER 2 – LITERATURE REVIEW

Chapter One discussed how the theoretical framework of regional integration has its empirical basis in the international relations of Western Europe (Weiss, 1999), particularly in studies exploring the European integration process through the creation of the European Coal and Steel Community (ECSC) and the European Economic Community (EEC) (Laursen, 2008). Haas (1958), the main contributor of the spill-over concept, defines integration as a process of political shifting from national states to new centres of political activity. Similarly, Lindberg's studies (1963) on the European Economic Community explain integration as a political process whereby nations and political actors decide to make joint decisions or to delegate the decision-making process to new central organs. The chapter explored regional integration in terms of economics of integration through the identification of the main economic objectives: such as the removal of artificial obstacles to optimise multilateral trade operations; or policies of liberalisation such as free movement of resources, the development of economies of scale, encouragement of capital investment and increased competition (Pentland, 1973). It also described how regionalism evolved in Africa and why regional trade strategies, including trade in services, have failed in the African context.

The literature and studies surveyed on African telecommunications policy and regulatory environments tend to focus on aspects related to the degree of liberalisation and competition of telecommunications national markets versus ICT public policy and regulatory measures or on the ICT sector performance and market structures. Few works specifically address the matter in the context of regional integration processes and regional ICT infrastructure development.

Determinants of these regional reforms for the development of the ICT sector have only been explored at a theoretical level and in relation to more mature economies and developed regions. Chapter I also examined the SADC ICT infrastructure through the analysis of supply-side data. It concluded with a problem statement and with the primary and secondary questions that this thesis seeks to answer. The final section of the first chapter explained linkages between regional integration and infrastructure development by reviewing the economics of telecommunications infrastructures and analysing the SADC regional infrastructure. At an infrastructure level, the chapter examined issues related to regional connectivity as identified by Williams (2009). According to him, a regional infrastructure represents the second layer of a communications supply chain. It provides interconnectivity between international connectivity and national (domestic)

backbones.[34] Regional connectivity is considered to be one of the main aspects hampering the development of the internet sector in sub-Saharan Africa, due to the high cost of backbone interconnections between countries in the SADC region and with the rest of the 'big pipes' (Singh & Samarajiva, 2008: 164).

Chapter 2 explores telecommunications policy and regulation in the African context by means of an investigation into regional governance initiatives for telecommunications infrastructure integration and ICT sector development, with specific focus on SADC. Thereafter regional initiatives in ICT policymaking are reviewed. Issues of regional competitiveness are discussed, as well as the role that ICT can play in increasing regional competitiveness.

2.1 An African perspective on the governance of global telecommunications infrastructures

Efforts to harmonise national ICT regulatory frameworks in line with developing goals are pursued by regional bodies such as the European Union[35] and the SADC. At a global level, the International Telecommunications Union (ITU) is in charge of setting general guidelines or rules to govern global telecommunications infrastructures. The ITU, founded in 1865 at the International Telegraph Convention, remains arguably the most important player in infrastructure management, constituting the only specialised agency of the United Nations that is empowered to make binding decisions on regulating

[34] Singh and Samarajiva (2008:163-164) define backbone as "that part of the network used to provide communication services". According to them, it is possible distinguish between national and international backbones, cable or fibre radio-based backbones, as well as the level of coverage. Backbones can be classified according to the type of technology used to deploy them, such as copper, fibre-optic cable, co-axial cable, digital microwave, Very Small Aperture Terminal (VSAT), and satellite transmission. The backbone, therefore, includes not only the conduits for carrying traffic, but also the microwave towers and masts. Backbone networks represent the "high capacity links" (Williams, 2009:51) that carry data traffic between fixed points in the networks.

[35] With regard to regional ICT policy and regulation in the European Union, the Regional Economic Community has recently granted new and more responsibilities to the Body of European Regulators for Electronic Communications (BEREC). As a European independence regulator, it harmonises ICT policy and regulatory frameworks at a regional level (Body of European Regulators for Electronic Communications, 2011). According to Fonteijn (2011), chairperson of Berec, "BEREC is required to play a key role in facing the European-wide challenges of the promotion of competition and innovation. This is an important step to avoid the risk of many inconsistent approaches to regulation and effectively contributes to the development of the single market." (Berec, 2011: 1). The act of empowerment of the regional regulator further reinforces compliance of national regulatory regimes to best practices as endorsed by the members of Berec. The regional regulator has also the power to express its formal opinion to the Commission in relation to the market definition, the designation of a Significant Market Power (SMP) or the imposition of obligations (Berec, 2011).

telecommunications infrastructures. In particular, the ITU can do so by amending (provided there is unanimity) its basic texts (Constitution and Convention), thus making any modified rule directly applicable to its signatories.[36] The amendment of the International Telecommunication Regulations (ITRs) through the World Conference on International Telecommunications (WCIT) is an alternative avenue that can be pursued to obtain similar binding effects,[37] provided that the treaty is implemented by member states. However, it requires a more comprehensive approach and probably a longer process of negotiation. In addition to these hard legislative powers, the ITU has normative value through the plenipotentiary resolutions, which carry considerable weight among member states despite not being enforceable[38] (Calandro et al., 2013).

It has been noted that developing countries' participation in the domain of infrastructure and service regulation,[39] which is largely driven by sector members, is hindered by the lack of technical and financial capabilities (MacLean et al., 2003). For this reason, the Antalya Plenipotentiary Conference adopted Resolution 123 on "bridging the standardisation gap between developed and developing countries", acknowledging the problem of capacity and inviting member states and sector members to endow the ITU with a specific fund for that purpose (Calandro et al., 2013).

Least Developed Countries (LDCs) which seldom participate in any other internet governance forums, and whose only recognition and contact with those responsible for global governance of telecommunications infrastructures is through the ITU, see it as the

[36] The amendment of Constitution and Convention can be done only once every four years when the Plenipotentiary Conference takes place to consider such amendments, approve strategic and financial plans, adopt general or sectorial policies and elect a number of high-level management positions.

[37] The signing of an ITU treaty is the adoption and the authentication of the text of the treaty, but does not imply, for the ITRs, consent by the member state to be bound.. To be bound by the new treaty, a signatory member state has to formally notify its consent to be bound by depositing with the ITU Secretary-General an instrument of ratification, acceptance or approval (depending on the national procedure applicable). The accession is the procedure by which a non-signatory member state notifies the ITU Secretary-General of its consent to be bound by the treaty (ITU, 2013).

[38] ITU membership is divided into a four-tiered structure: at the top layer, there are 193 member states, which enjoy the right to vote as well as to participate in all the activities of the Union; in the middle, the 637 sector members have the right to take part in the activities of their respective sector(s); further down line are the 143 associates, that have the right to participate in some activities of the sector(s) with which they are associated; and finally, the bottom is represented by the 60 academic institutional members, whose participation was authorized under Resolution 169 of the 2010 Plenipotentiary Conference for ITU-T activities (different from associate members) under rules that are yet to be specified.

[39] The work of the ITU is divided into three areas: telecommunication standardization (ITU-T); radio spectrum and satellite orbits allocation (ITU-R); and facilitating telecommunication access and operation in developing regions (ITU-D).

most appropriate forum for governing the technological and operational aspects of global electronic networks, including the internet. In part, this is explained by the fact that ITU provides technical support and capacity-building in these countries, particularly relating to integrating and harmonising telecommunications policy and regulatory frameworks at a regional level,[40] as well as technical assistance to translate regional regulation into national legislation. Not only do LDCs see the ITU as the forum handling the technical governance of the internet, but the national sovereign state membership of the ITU is perceived by many governments to be a way of asserting control over a strategic asset from whose governance they currently feel excluded (Calandro et al., 2013).

MacLean (2008) identified some of the main problems with the ITU governance model. He claims that ITU governance structures need to be more representative of the different stakeholders who have an interest in governing global electronic networks, including the private sector, civil society organisations, developing countries and other non-state actors. In particular, these actors have not been meaningfully included in decision-making processes, even though there are areas where it does not make sense to reserve this right for representatives of sovereign states only.

Regarding the critical resources of the internet, the Internet Corporation for Assigned Names and Numbers (ICANN)[41] has internet governance as its core mandate. However, to the extent that ICANN is engaged in managing these critical resources, it is also involved in policy-making related to them, establishing a system of rules rooted in contracts to order the global supply of domain names (Mueller et al., 2004).[42]

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[40] For an example of technical assistance and capacity-building provided by the ITU to developing countries, see the Harmonisation of ICT policies in Sub-Saharan Africa (HIPSSA) project, available at http://www.itu.int/ITU-D/projects/ITU_EC_ACP/hipssa/

[41] ICANN is a private, California-based, non-profit entity that was formed in 1998 following a public proceeding invoked by the U.S. Department of Commerce to take over the work of the Internet Assigned Numbers Authority (IANA), then administered by Jon Postel at the Information Sciences Institute (ISI) of the University of Southern California (USC) under a contract with the United States Department of Defence. Since 1998, ICANN operates under a Memorandum of Understanding with the U.S. Department of Commerce and has the authority to set policy for, and manage the allocation and assignment of, Internet protocol addresses (United States Department of Commerce, 1998). This includes adding new names to the top level of the internet domain name hierarchy as well as maintaining responsibility for operating root servers that distribute information about the content of the top level of the domain name space (Mueller, 2002).

[42] For example, policies currently under consideration at ICANN include: Internet Assigned Numbers Authority (IANA) Policy For Allocation of IPv6 Blocks to Regional Internet Registries (Criteria governing the allocation of IPv6 address space from the IANA to the RIRs); Internet Assigned Numbers Authority (IANA) Policy for Allocation of Autonomous System Number (ASN) Blocks to Regional Internet Registries (Criteria governing the allocation of ASN Blocks from IANA to RIRs); Global Policy for Post Exhaustion IPv4 Allocation Mechanisms by the IANA (Criteria governing the allocation of IPv4 address space from the

Due to the poor participation of African stakeholders in ICANN, which is confirmed by the small number of African Registrars and only 17 new gTLD applications,[43] a ministerial meeting, held alongside the ICANN Dakar meeting in October 2011, issued a communiqué that called on ICANN to increase its presence in Africa and to be more relevant to the specific needs of the region. Subsequently, in August 2012, ICANN proposed the so-called ICANN-Africa Strategy Working Group (ASWG) Initiative[44] to support a stronger presence for ICANN in Africa and to increase Africa's participation in ICANN. It also wanted to foster the promotion of a multi-stakeholder model in Africa for larger involvement at the government, civil society and private sector levels. This effort has been hailed as a step towards stronger global engagement by ICANN, with special focus on developing countries. To contribute to the realisation of the new strategy, a working group was created and endorsed by African community members attending the 44th ICANN meeting in Prague in June 2012. The core community and constituency of the African strategy include key players in internet governance from different regions in Africa (Calandro et al., 2013).

The implementation of the Africa Strategy Financial Year 14 (FY14) started in January 2013. The main objective of the strategy is capacity-building in order to increase African awareness of market opportunities in relation to domain name registration. This is in line with the African Ministers' declaration and request to ICANN at the ICANN44 in Dakar, Senegal.

However, challenges to implementing the strategy have already been found. "The ICANN wants to show that they are doing something for Africa, but it is different than doing something with Africa" claimed Alice Munyua during an interview conducted during the Durban 47 ICANN meeting in July 2013. "For instance, the initiative on the prizes for African Registrars during ICANN47 in Durban is premature, since at the moment there are only seven Registrars across the continent. Although there is a need for growing an African domain name space, we need to take into account that in Africa there are not enough ISPs. Therefore, a strategy should encourage Africans to apply for the new gTLDs or to be become registrars of ccTLDs. We should stimulate the growth of the

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IANA to the RIRs); and Criteria for Establishment of New Regional Internet Registries (Criteria governing the creation of new RIRs). For an up-to-date list of the policies under consideration, visit http://aso.icann.org/global-policies/

[43] Worldwide applications came from 60 countries. Out of 1930 applications, less than 1% were from Africa (i.e. 17); 1.23% from Latin America and the Caribbean (i.e. 24); 16% were from Asia-Pacific region (I.e. 303); 35% were from Europe (i.e. 675); and 47% from North America (i.e. 911).

[44] For more information about the ICANN-ASWG Initiative, see http://www.afrinic.net/en/community/icann-aswg and http://www.africanncommunity.org.

sector and then award it" (Munya, interview 2013). Difficulties related to the implementation of the strategy might also arise from the lack of African partners, including policy-makers and the AU. In addition to that, what matters in terms of successful implementation of the strategy is the ability of the population to own the process. Currently, the ICANN has set up a website on African Strategy[45] and it wishes to publicise more information about it. It is seeking to attract members of the community with expertise in different areas (Dangjinou, 2013). In addition, "although the ICANN in the past has assumed that one solution fits all, the approach pursued for the African Strategy is different. The call for a change came directly from the GAC (Government Advisory Committee) where African representatives called for a specific approach tailored to African needs. The new ICANN CEO Fadi Chehadé understood the need for a different approach and the process started" (Munya, interview 2013). The strategy is perceived and welcomed as a sound strategy for the African continent, but due to the failure of many strategies pursued by international organisations to improve African participation in global policy-making mechanisms, there is a perception that at an implementation level the African strategy has flaws. "In five years time, we will assess what has been achieved, and we would like to expect more than organising conferences and ICANN fellows. We would like to see more real African Internet policy issues in the ICANN policy agenda" (Munya, interview 2013).

One reason for this lack of engagement within the ICANN process can be explained by legacy issues. Internet, as developed in North America and Africa, has been marginalised from its inception. In addition, African countries have not perceived the internet as a priority compared to other pressing policy issues affecting the continent. African civil society, industry and users are totally absent and do not participate in the ICANN process. However, it is expected that with increased access to the internet, the level of engagement will grow (Munya, interview 2013).

2.2 Regional governance of telecommunications infrastructures

Throughout Africa, regional economic communities (RECs) have increasingly focused on ICT policy and regulatory development as part of regional growth strategies. In the case of Africa, one of the main objectives of regional bodies is to harmonise national ICT policy and legal frameworks within regional blocs (Calandro et al., 2010).

Multilateral negotiations on basic telecommunications service in the World Trade Organisation (WTO), under the auspices of the General Agreement on Trade in Services (GATS) (McLarty, 1998), had a profound impact on global telecommunications markets. Since international trade in services is considered an important factor contributing to their

[45] See https://www.icann.org/news/announcement-2012-08-10-en for more information.

development, many developing countries entered into various bilateral and regional trade agreements and followed the dual path of multilaterialism and regionalism (Bilal and Szepesi, [2004]). Regarding the SADC, only four countries made special commitments to telecommunications with the WTO process (Hodge, 2002).

SADC countries began the process of negotiating trade on services during the meeting of the SADC Industry and Trade Committee of Ministers for Trade in Maseru in June 2000. During that meeting, SADC members were required to work towards the liberalisation of trade in services. The aim of a regional strategy on trade in services was to serve as a basis for effective participation and integration of SADC members in the WTO negotiations. Furthermore, the SADC Trade Ministers, meeting in Mauritius in May 2001, identified communications services as a priority area and as a key service[46] that would contribute to the development of SADC countries and to the strengthening of other sectors of services.

Regional harmonisation of ICT policy and regulation is thus recognised by regional communities and the international donor community as essential to regional economic integration (Kessides, 2012), and to the integration of regional economies into the global economy. The underlying principles around which harmonisation is being pursued are: effective competition in the telecommunications market; the interconnection of national networks for the development of a seamless African backbone infrastructure; and the promotion of regional and foreign direct investments into telecommunications. However, as it stands, regional economic integration based on single markets with harmonised ICT policies has yet to be realised. In order to establish common ICT policy goals, RECs created model policy guidelines as a starting point for regional harmonisation. Member states are expected to use these guidelines to create their own national policy frameworks (Maitland and van Gorp, 2009).

At a continental level, the African Union (AU) leads the process of harmonising the ICT policy and regulatory framework. The Reference Framework for Harmonisation of Telecommunication and ICT Policies and Regulations in Africa was adopted in May 2008, and endorsed by a summit in July of the same year. During the AU assembly in Addis Ababa in February 2010, the commitment to intensify activities to implement the Reference Framework were once again renewed. The Reference Framework is implemented through the International Telecommunications Union (ITU) /European Commission (EC) project on the Harmonisation of the ICT Policies in Sub-Sahara Africa

[46] The other key sectors identified were construction services, financial services, transport services, tourism services and energy services.

(HIPSSA).[47]

RECs are considered the "building blocs" of the African Union and they are instruments for the further integration of Africa. RECs usually follow an identical policymaking structure where sector-specific committees or associations address issues related to ICTs, with the aim of implementing harmonised ICT policy and regulatory frameworks at a national level. However, the main activities of these regional committees of Ministers Responsible for Communications and ICT are limited to knowledge-sharing and capacity-building rather than legally-binding harmonisation of policies. Furthermore, they have little or no implementation powers, which lie with national regulators (Calandro, Gillwald, Moyo and Stork, 2010).

2.2.1 Regional initiatives on ICT policy-making

At a regional level, many African RECs have already established legal and regulatory measures to harmonise their own ICT policy frameworks.

Economic Community of West African States (ECOWAS)

In the ECOWAS, the ITU supported the REC to develop best-practice guidelines with the aim of encouraging the establishment of an integrated ICT market in West Africa. At the infrastructural level, the Economic Community of West African States (ECOWAS) features a Department of Transport and Communications which is assigned the tasks, among others, of developing common transport and telecommunications policies, laws and regulations; and encouraging the establishment and promotion of joint ventures and the participation of the private sector in the areas of transport and telecommunications.

Pursuant to the mandate of its Department of Defence and Security, ECOWAS also adopted a Directive on Fighting Cybercrime (2009) that provides a legal framework for the member states, and which includes substantive criminal law dealing with offences specifically related to ICT. This Directive sets up the framework within which member states are required to act for implementation at national level. In a similar fashion, the 37th session of Authority of the Heads of State of ECOWAS on 16 February 2010,

[47] The decision to implement regional policy and regulatory reform was formalised during the SADC meeting for Ministers responsible for Telecommunications, Postal and ICT, held in Namibia in June 2009. The first activity launched by the HIPSSA Project Team and by the SADC Secretariat was the ambitious project of reviewing and updating the "SADC ICT Policy and Legal Framework". The consultants' team presented country profiles, which were reviewed, discussed and validated by member states. The assessment identified gaps in some countries where regional policy objectives were not achieved, as well as regional, continental and international benchmarks, and recommended best practices from the region to adjust national policy and regulatory frameworks. Based on the assessment, proposed changes included the SADC Protocol on TCM, the Telecommunications Policy in SADC, and the Telecommunication Bill Model for SADC.

adopted the Supplementary Act on Personal Data Protection, which establishes a framework for the collection, processing, transmission, storage and use of personal data to be implemented by ECOWAS members. So far there has been limited action at the national level for the implementation of both frameworks.

Finally, in April 2012, participants at a workshop on cybercrime, convened by the Economic and Financial Commission (EFCC) and the Australian Federal Police, urged ECOWAS to establish a regional convention on cybercrime (Mutum, 2012; Niel, 2013). However, no further steps have been taken in this respect.

The East African Community (EAC)

Members of the East African Community (EAC) have already discussed plans for regional ICT policy harmonisation. However, the process of harmonising ICT policies in that region has been retarded by a sentiment among members that such a policy framework would favour the leading country of the region: Kenya. Since telecommunications markets in the EAC were amongst the earliest to open up to competition and become integrated in Africa, the REC is now in the process of determining if and how a single regulation policy can be applied uniformly.

According to the EAC's official website, EAC has set four major strategic objectives underpinning projects and programmes in the ICT sector:

(a) Harmonisation of ICT policies, laws and regulations among the EAC partner states;

(b) Promotion of the establishment of communications infrastructure and services;

(c) Standardisation of technologies and services to allow internetworking and interoperability;

(d) Communications markets - investment strategies, competition management, quality of service and consumer welfare.

In line with this agenda, two reference instruments for the harmonisation of ICT policy have been developed: (1) a Regional Framework for Harmonisation of National ICT Policies and (2) a Study on the EAC Communication Regime.

Since 2004, EAC countries have hosted three workshops, identifying cyberlaws, e-justice and information security as key cross-cutting issues that need to be in place for the successful implementation of e-government applications and e-commerce in East Africa. Furthermore, the Regional e-Government Framework, adopted by the Council of Ministers in November 2006, emphasised the urgency of this undertaking, identifying the creation of an enabling legal and regulatory environment as a critical enabling factor for effective implementation of e-Government strategies at national and regional levels. To that end, the EAC secretariat requested capacity-building by UNCTAD for policy and legal experts from the EAC.

The first training workshop on "The Legal Aspects of e-Commerce" was jointly organised by the EAC and UNCTAD secretariats (Kenya, December 2006). Following the defined roadmap toward a harmonised legal framework in the EAC, the EAC partner states appointed members to the Regional Task Force on Cyberlaws formed in December 2007.

The Framework for Cyberlaws was prepared in November 2008 by the EAC Task Force on Cyberlaws, comprising representatives from the partner states and the EAC Secretariat, with the support of UNCTAD. The Framework, which currently awaits consideration and adoption by the Council of Ministers, contains a series of recommendations made to the governments of the partner states about reforming national laws to facilitate electronic commerce: facilitating the use of data security mechanisms; deterring conduct designed to undermine the confidentiality, integrity and availability of information and communication technologies; protecting consumers in an online environment; and protecting individual privacy (UNCTAD, 2008).

In addition, and in line with its stated objectives, the EAC has engaged, since May 2009, at infrastructure level with the study of pre-investment analysis and technical design for the creation of a cross-border broadband network within the EAC. The Final Report was expected by the end of February 2010, but no further communication has been issued on the official website.

Common Market for Eastern and Southern Africa (COMESA)

The Common Market for Eastern and Southern Africa (COMESA), a regional organisation overlapping with the SADC, both from a membership point of view and on policy and regulatory issues, identified the strategic importance of the ICT sector back in 1998, during the Third Summit of Heads of State under the theme "Information – A Tool for Increased Trade and Investment in COMESA". The COMESA Treaty identifies the strategic importance of interconnecting member states through a seamless telecommunications infrastructure, in order to facilitate the implementation of the treaty and to realise a free trade economic area. Further, the treaty emphasises the importance of setting technological standards at a regional level (James, 2001).

The COMESA adopted an ICT policy in 2003, with the aim of providing direction on ICT and telecommunications policy to its member states. A model bill and guidelines for harmonising institutions, policy and regulation in the region accompany the policy. Member states were requested to implement the strategies set out in the ICT policy document within a period of five years, following approval by the Council. In order to support development, to monitor the implementation of ICT policy guidelines and strategies, and to monitor the e–readiness status, the European Union (EU) provided financial support for the development of a Regional Information and Communications

Technologies Support Programme (RICTSP). The RICTSP was part of the 2002-2007 joint Regional Strategy Paper (RSP) and the Regional Indicative Programme (RIP). The overall aim of the programme was to contribute to the process of regional integration through the development and creation of an effective and functioning ICT environment. Although it seems that the programme's specific objectives were achieved (Miller et al., 2011), the main problem in the realisation of an efficient ICT policy development process at government level in the region, is the slowness of government procedures. Therefore, in most countries, guidelines and proposals have not been translated into national legislation. Moreover, the soft form of legislation, based purely on a guidelines approach, does not have any binding effect and it has been considered ineffective at harmonising regulations at a regional level (ITU, 2009).

Economic Community of Central African States (ECCAS) and Economic and Monetary Community of Central Africa (CEMAC)

In 2009, the ECCAS drafted a regional ICT development policy for Central Africa. However, its implementation has some flaws. It is not legally binding because it is a regional strategic plan. Moreover, in order to provide guidance to member states, the guidelines need validation by the specialised technical committee on telecommunications, the Consultative Commission of Experts and the Council of Ministers and Heads of State of ECCAS (ITU, 2009), a process that has not been fully completed as yet. Also, the regional ICT development policy is accompanied by recommendations for the harmonisation of national policies and regulations with no binding requirements for the member states. Due to the late issuing of ECCAS initiatives in ICT and telecommunications, and to members overlapping with the CEMAC and the COMESA regions, member states may favour the respective initiatives of those regions.

CEMAC was founded as a regional organisation devoted to encouraging, developing and maintaining integration among its six member states. Despite the regional organisation nominating a commissioner specifically in charge of the Department of Infrastructures and Sustainable Development, the outcomes in the area of ICT policy development appear negligible. A few weak enforcement mechanisms, lack of follow-up and delays in implementing strategies have been mentioned as the main obstacles preventing harmonisation of ICT policy and regulatory frameworks at a regional level (ITU, 2009). Nevertheless, in December 2008, the regional organisation adopted a regulation on the Harmonisation of Regulations on Electronic Communications of CEMAC member states. The regional regulatory framework was designed with the triple objective of facilitating the completion of the internal market, progressively creating a competitive market for electronic communications and services, and pledging support for the fight against poverty (CEMAC 2008, art. 3).

Despite this trend of regional integration, the ITU recognises that "there is a high degree of heterogeneity among the regions in terms of advancement in the harmonisation process" (ITU, 2009).

2.2.2 Regional ICT regulation in the SADC

Specifically analysing the SADC, the increasing attention of the REC on ICT-related issues is also reflected in the number of institutions and bodies involved in ICT-related activities: the SADC secretariat (based in Gaborone, Botswana); the SADC Parliamentary Forum, based in Windhoek, Namibia; the SADC Human Resources Development Sector, based in Swaziland; the Southern African Transport and Telecommunications Commission (SATCC) based in Maputo, Mozambique; the Telecommunications Regulatory Authority of Southern Africa (TRASA, now CRASA); the Southern African Telecommunications Association (SATA), and the Southern African Broadcasting Association (SABA), (James, 2001).

One of the main objectives at the origin of the Southern African Development Coordination Conference (SADCC) was to create equitable regional integration through co-operation in key sectors, such as infrastructure development (Mulaudzi, 2006). Harmonisation of policy and regulation represents the regional integration strategy, universally embraced in Africa, for the regional economic development of the telecommunications sector. At a regional level, the 1997 SADC Protocol on Transport, Communications and Meteorology represents the first legal and policy framework for harmonising ICT policy at a regional level. It seeks "to establish [...] communications [...] systems which provide efficient, cost-effective and fully integrated infrastructure and operations, which best meet the needs of customers and promote economic and social development while being [...] economically sustainable" (Art. 2.3, SADC Protocol on Transport, Communications and Meteorology, 1997). With this Protocol, SADC member states expressed the will to enhance service interconnectivity in the region and globally (Art. 10.1, p. c, SADC Protocol on Transport, Communications and Meteorology, 1997). Although the document represents a start in the harmonising of ICT policy at regional level, it has not been reviewed for over a decade.

Since then, many other regional policy initiatives have been undertaken to develop a regional telecommunications infrastructure in the SADC. In 1997, the Telecommunication Regulators Association of Southern Africa (TRASA), now CRASA, was set up. The association, while providing regional guidelines for national network interconnection, emphasised that "harmonisation should remain a key objective as far as practicable in the building up of regional integration" (SATCC, Guidelines on interconnections for SADC countries, 2000:3). In 1998, the SADC Secretariat established

a Southern Africa Transport and Communications Commission (SATCC). The Commission is based in Mozambique and coordinates the use of existing systems and infrastructures, and finances the construction of additional facilities. It approved the 1998 Telecommunication Policies for SADC, which provided a common policy guideline for the harmonised adoption and implementation of ICT policies at national level. The SATCC was also responsible for drafting the Model Regulatory Framework for Telecommunications (James, 2001). The Southern Africa Telecommunications Association (SATA) was created as early as 1980.

The priority to harmonise ICT policies, legislation and regulation was re-established in 2001 with the SADC ICT Declaration under section 2.a.iv, which called for an evolution of regional and national regulatory frameworks to harness the opportunities of convergence between telecommunications and the internet to encourage widespread electronic communications.

Subsequently, in 2003 a Regional Indicative Strategic Development Plan (RISDP) was endorsed by Summit. The plan provides strategic directions for regional programmes and actions. It indicates that "the development of infrastructure and services is critical for promoting and sustaining regional economic development, trade and investment" (Art. 3.3.1, SADC Regional Indicative Strategic Development Plan, 2003). The RISDP also sets as an objective, the development of communications systems in order to catapult the region into an information-based economy.

A predominant role in supporting regional initiatives has been played by international and development organisations, which have been providing support, capacity-building and technical assistance to national governments and regional organisations in their formulation and implementation of ICT policies for the deployment of a regional ICT infrastructure. For instance, in 1996 the UN Economic Commission for Africa (UNECA) Conference of Ministers launched the African Information Society Initiative (AISI).[48] Through this programme, UNECA planned to realise several objectives,

[48] The African Information Society Initiative (AISI) is one of UNECA's biggest projects. It was launched in 1996 to establish a high-level work group to develop an action plan for ICTs to accelerate socio-economic development in Africa. Not surprisingly, a ten-year review of UNECA's execution of the project confirmed its success, as evidenced by the existence, in three quarters of UNECA's member states, of national e-strategies complementing their development efforts (UNECA, 2006b). However, the objective of the programme was to realise a sustainable information society in Africa by 2010, where "every man and woman, schoolchild, village, government office and business can access information knowledge resources through computers and telecommunications" (Soul Beat Africa, 2004) and this is far from being met. Just recently, the Conference of African Ministers of Communication and Information Technology (CITMC) called for the cooperation of the African Union (AU) Commission and UNECA's AISI project for the finalisation of the draft Convention on Cyber Legislation and for the support of its implementation by member states on or before December 2012.

including the National Information and Communication Infrastructure (NICI) plans, and an infrastructure development and internet connectivity programme. As part of the implementation of the AISI, UNECA and the SADC Secretariat agreed on a joint strategy called e-SADC, a fully-fledged regional ICT development programme that would address convergence issues and harmonisation of ICT indicators, to enhance connectivity and access to ICT services (UNECA, 2009).

It is worth noting that ICT-related issues are not central to the SADC agenda, since the Secretariat has a broader mandate, encompassing developmental and political dimensions. Due to staff constraints, insufficient financial and technical means and absorption capacity, compounded by a growing regional agenda, it is very difficult for the SADC Secretariat to contribute significantly to the strengthening of ICT policy and regulatory frameworks in its 15 member states.

The efficacy of SADC policy-making and implementation processes has been criticised.[49] It has been argued that the Regional Indicative Strategic Development Plan (RISDP)[50] lacks concreteness: it does not prioritise targets, it does not estimate costs and time-frames, and it has not been followed by a practical implementation plan. There are two main reasons for the failure of the plan. First, SADC follows a decentralised approach whereby each member state is responsible for a particular sector. As a result, projects have national characterisation as opposed to regional scope; secondly, the relatively powerless Secretariat has not been able to create a common regional identity and this contributes to its failure to deliver on targets.

In 2008 (with technical assistance by the ITU) SADC embarked on a process of updating the Protocol on TCM and SADC policy and legislative guidelines to align them to industry developments, such us the convergence of broadcasting and telecommunications licensing models, taking into account technology-neutral licensing, Next Generation Networks (NGN), roaming, interconnection and tariffs. It also aimed to create new additional guidelines related to cyber-security, a regional digital broadcasting migration plan, model dispute resolution and competition policy.

Yet this objective has not been accomplished to date (AU, 2012).

[49] Hoste and Anderson (2010) identified some general problems related to regional policy-making processes and regional structures. At a policy level, they mentioned conflicts between supranationalism and national interests. At a structural level, staffing and expertise are limited. Secretariats often lack the capacity to promote and develop common goals and strategies, and over-rely on funds from external actors instead of on regional funding.

[50] The RISDP is a "development and implementation framework guiding the regional integration of the SADC over a period of fifteen years (2005-2020) (SADC, 2014). Its main objective is to "deepen integration in the region with a view to accelerate poverty eradication and the attainment of other economic and non-economic development goals (SADC, 2014).

The project is part of the ITU/EC HIPSSA programme. HIPSSA was completed and the following documents have been produced: (a) SADC policy guidelines on convergence; (b) a revised TCM protocol; (c) a SADC Telecommunications Model Bill; and (d) SADC Guidelines on Universal Access and Service (UA/S) and (e) a Toolkit of Best Practices, using UA/S Funds (ITU, 2013). However, although the SADC meeting of ICT ministers adopted the new regional ICT policy and regulatory framework, the Protocol has not been endorsed by the Summit and therefore has not been updated.

The following table summarises the main ICT policy initiatives across African regional organisations.

Table 2.1: Main regional documents in Sub-Saharan Africa on ICT policy and regulation

Regional organisation	Document	Year
ECOWAS	Supplementary Act A/SA.1/01/07 on the harmonisation of policies and regulatory framework for the ICT sector	2007
	Directive on Fighting Cybercrime	2009
	Supplementary Act on Personal Data Protection	2010
	Proposal to establish a regional convention on cybercrime	2012
EAC	Regional e-government framework	2006
	Framework for cyberlaws	2008
	Guidelines on Interconnection and access for telecommunications networks and services within the East African Community	2008
COMESA	ICT policy	2003
	Regional Information and Communications Technologies Support Programme	2002/2007
ECCAS	Regional ICT development policy for Central Africa	2009
CEMAC	Regulation on the harmonisation of Regulations on Electronic Communications of CEMAC member states	2008
SADC	SADC Protocol on transport, communications and meteorology	1997
	Telecommunication policies for SADC	1998
	SADC ICT Declaration	2001
	Regional Indicative Strategic Development Plan	2003
	Support for harmonisation of the ICT Policies in Sub-Saharan Africa	2009

Source: Author's own tabulation

2.3 Regional competitiveness

It is widely recognised and accepted that regions are key *loci* in the organisation and governance of economic growth and social development (Kitson, Martin and Tyler, 2004). Since regions are political and economic organisations of trading activities, interest in the

'competitive performance' of individual regions is growing, especially within governmental circles. At an academic level, studies have focused on identifying key determinants of regional competitiveness (Kitson et al. 2004, Johansson et al. 2002), with the objective of formulating policies to promote and foster those determinants.

Kitson et al. (2004) define regional competitiveness as the capacity of regions to compete with one another in some way, for instance, attracting capital or workers. Similarly, Storper's (1997) definition of 'place competitiveness' links the concept of competitiveness to attractiveness. According to his definition, a place is competitive when it is able to attract and maintain firms with stable or rising market shares while maintaining or increasing standards of living for those who live in it.

Within the theoretical framework of competitive performance, economic density can be the result of intra-regional accessibility, considering a region as a functional region. A region is functional on the basis of the density of its economic activities, social opportunities and interaction options (Ciccone and Hall, 1996, in Malecki, 2002). The authors, however, observe that what really matters for the competitive advantage of a region is not density *per se* but the degree of accessibility to resources and economic agents. From this perspective, accessibility is a combination of density and infrastructures and the combination of these three elements is key to regional development. Therefore, if accessibility is reduced, economic density decreases. On the other hand, infrastructure without economic density is a worthless opportunity.

Parallel to the notion of competitive advantage, another paradigm has arisen within the regionalism discourse. According to this paradigm, nations can improve and develop their competitive positions. The theory focuses more on key factors that would allow firms to create and support a competitive advantage in a particular field. Porter (1992), one of the main exponents of this concept, supports this view by linking productivity to the notion of competitiveness. He states that policy-makers should consider competitiveness as a function of dynamic progressiveness, innovation, and the ability to change and improve. Therefore, at the foundation of sustainable productivity growth he places an economy that continually upgrades itself.

Furthermore Porter (1998a) identifies infrastructures as determinants of competitive advantage. Although he refers mainly to the national level, his analysis can be extended to the regional level. He states that infrastructure is a tool to improve general macroeconomic capacity. In his studies on the formation and operation of clusters, he argues that to reinforce and to build upon existing clusters, seeded and reinforced by inbound foreign direct investment (FDI), obstacles and inefficiencies that impede the cluster's productivity and innovation need to be eliminated. In particular, he considers the

formulation of policies to enhance specialised communications infrastructures as the key tool for governments to foster productivity and innovation.

At a regional level Porter's argument is equally pertinent. Since regions are organisations in charge of formulating policies to promote and foster economic growth and social development to improve their competitive position within the global economy, they are called upon to formulate policies enabling a favourable environment for the economy to emerge, develop and improve. In particular, it is the contention of this research that communication infrastructures drive increased and sustainable regional productivity, and that removing regulatory and policy obstacles developed at a regional level, would create an enabling environment to allow the development of a seamless regional ICT infrastructure.

2.3.1 Role of ICT for regional competitiveness

In the context of regional competitiveness, the most relevant role played by ICT is revealed when analysing the existence of geographical interaction costs in a regional market place. The interaction in the market place between demand and supply gives rise to various forms of interaction costs. In particular, communication costs include producing, storing, computing and retrieving information, acquiring and storing communication devices, rolling out networks, plus other costs related to interactive models, such as search costs and other costs for exchanging information. Furthermore, with the emergence of new information-based services, such as distance-learning, remote banking, e-government administration, 24/7 health care, IP TV and video-calls, interaction costs are also estimated to rise, mainly due to the high volume of data, and therefore bandwidth, required to carry this increasing amount of data traffic. According to Malecki (2002), the normal method of reducing transaction costs is to standardise transaction procedures. Standardisation is facilitated on the one hand when demand becomes sufficiently large and the relevant technology is subsequently exploited. On the other hand, standardisation is encouraged when converging interests collide in a competitive environment and an enabling regulatory environment sets the standards .

Malecki (2002) further stresses that geographical transaction costs are determined by national and regional communication policies. Lower geographical transaction costs widen the borders of functional regions and hence provide space for the economy to grow, as they create conditions for the growth of economies of scale. He also argues that the central point of the new functional economic geography is that dynamic interaction between geographical market potentials and firms creates a comparative advantage for regions, in the form of localised increasing returns of scale.

Modern theories for endogenous regional growth, support Malecki's theoretical framework. These theories are based on the assumption that regional policies can influence regional growth by intervening in internal conditions. Therefore, regional development policies should deal with conditions that must be developed and implemented, with local and regional knowledge at the foundation of regional development programmes, even though financial support can be sourced from outside the region. This approach, however, requires capacity adaptation of material and immaterial resources, such as human capital, real capital, infrastructure capital and so on. In regions where the scope of adaptation is large, endogenous development processes progress at a slow pace. In those cases, Malecki (2002) observes that opportunities to fight delays in capacity adaptation and to create conditions for economic growth should be found in long-term credible regional development policy, based on policies formulated to create regional growth conditions able to reduce the market's uncertainty.

Finally, Oinas and Malecki (1999) underline the point that the strength of any local, regional or national innovation system, lies not only in its internal synergies and interactions, but also in its high level of access to knowledge elsewhere.

New technologies provide the infrastructure for global networks of communication and have led to the formation of a global economy based on networking. Castells and Himanen (2014) refer to networking as the organisational transformation which characterises informationalism. Networking creates unprecedented flexibility and efficiency in processes such as management, production, distribution and exchange, which have resulted in increased productivity growth from the mid-1990s onwards, and the rise of the so-called "new economy" which had its structural crisis in 2008.

Competitiveness of territories became largely dependent on their ability to follow the rules of the informational economy, such as creating value through transforming information into knowledge. Informationalism created a new geography of production and appropriation of wealth around the world, based on the ICT revolution (Castells and Himanen, 2014). Although a substantial body of academic literature provides evidence of the positive relationship between informationalism, productivity and competitiveness for countries, regions and business firms, Castells and Himanen (2014) believe this relationship only functions if organisational change takes the form of networking, and if it is accompanied by an improvement in the quality of human labour, which is dependent on education and quality of life.

2.4 Regional integration and infrastructure development

Although there has been increased academic interest in the relationship between SADC regionalism and infrastructure development (see, for instance, Mulaudzi, 2006), few studies specifically address the matter in the context of ICT infrastructure development.

Studies on regional infrastructure and market integration in the East African Community (EAC) argue that inadequate or poor regional infrastructure networks represent a barrier to economic regional integration because they raise cross-border transaction costs, and therefore limit competitiveness and economic growth (Kessides, 2012). Furthermore, the success of trade policy reforms is linked to the effectiveness of measures to remove infrastructure bottlenecks, which represent "supply-side constraints" (Kessides, 2012).

Ndulo (1999) asserts that SADC's approach to integration is not based on the development of infrastructure and production any more than orthodox trade liberation strategies are based on the elimination of tariffs. In SADC's view, the greatest barrier to trade in Africa is lack of infrastructure.

Asante is one of the few scholars who have studied this relationship. In his study on regionalism (1997), he considers the SADCC approach to the allocation of resources for infrastructure development a successful example of policy formulation and regional ability to prioritise objectives and actions, as opposed to market integration.

Maimbo, Strychacz, and Saranga (2010), in their study on facilitating cross-border mobile banking in southern Africa, point out that the development of the telecommunications sector in southern Africa is uneven. According to them, South Africa and Namibia are relatively developed. In those countries, the fibre-optic terrestrial backbone is widespread and they have direct access to sub-marine cables. In other countries, such as Zambia, Angola and Malawi, the telecommunications sector is still characterized by the monopoly of state-owned operators and service providers. Furthermore, their telecommunications infrastructure is very limited, since they have to rely on expensive satellite links for international bandwidth.

As a spill-over of the policy objective of continental integration, African leaders acknowledge that to be successful, economic integration also requires physical integration. Therefore, a key component of the NEPAD is to support Africa's infrastructure development (ECA and AU, 2006). In particular, NEPAD emphasises the importance of regional economic communities to achieve African integration. In addition, NEPAD stresses the importance of pooling resources to provide regional public goods and rationalising the institutional framework for regional integration in Africa (ECA and AU, 2006).

2.4.1 Economics of ICT infrastructure industries

Extensive and efficient infrastructure is an essential driver of competitiveness (World Economic Forum, 2014). Development economists assert that the reinforcement of the existing regional infrastructure would create conditions for the development of the economies of member states that belong to an economic community (Ndulo, 1999). In a geographically isolated region such as the SADC, a seamless telecommunications infrastructure reduces the effect of distance between countries, fostering the integration of national markets at a regional level and connecting them to markets in other regions all over the world at a low cost. In addition, the quality and extensiveness of infrastructure networks significantly impact economic growth and reduce income inequalities and poverty in a variety of ways (World Economic Forum, 2014). In this regard, a reliable communications infrastructure is considered a prerequisite for low-income communities to connect to core economic activities and basic services.

A solid and extensive telecommunications network allows for a rapid and low cost flow of information, which increases overall economic efficiency by helping to ensure that businesses can communicate, and that decisions made by economic actors take into account all available relevant information.

Most African policy-makers recognise the need for reforms to attract foreign direct investment, especially in the infrastructure sector. Investment in telecommunications infrastructure in particular has a positive effect on economic growth in many ways. For instance, Canning (1999) shows that investment in telecommunications is substantially more productive than investment on average, due to the existence of externalities. As it has a direct and indirect effect on production-making, its multiplied effect on GDP is bigger. Norton (1992) argues that both the fixed costs of acquiring information and the variable costs of participation in the market are lowered by an improvement in the ICT sector.

Jipp (1963) identifies a positive association between telecommunications infrastructure and economic growth. Hardy (1980), using two different groups of 45 countries in his sample, and dividing them into developed and less developed countries, estimates that there is a larger benefit for less-developed countries than developed countries.

Dholoakia and Harlem (1994) also investigated the relationship between the two variables, finding empirical evidence for a strong and positive relationship, with great returns in developing countries. However, according to Röller and Waverman (2001), 40 percent of the population connected to voice services is the critical mass threshold that must be reached before the network effects are realised, allowing viable commercial

innovations such as mobile banking and employment of agricultural information services, to drive economic growth and development.

More recently, Koutroumpis (2009), through econometric modelling, demonstrates the existence of several levels of return from broadband infrastructure, based on the level of penetration. He asserts that there is evidence of a critical mass phenomenon in broadband infrastructure investments, and the penetration level that he identifies is a critical mass of 20 percent of the population connected to the network. His study refers to OECD countries, but it can be extended to the African context since he uses standard parameters to calculate it, such as GPD, level of education, broadband penetration and prices, etc. According to him, this percentage creates a vision for countries to capitalise the beneficial effects that the network can provide and it also implies a 0.89% aggregate growth rate due to broadband externalities. Moreover, the World Bank asserts that in low- and middle-income countries, every 10 percentage point increase in broadband penetration accelerates economic growth by 1.38 percentage points. The economic growth associated with the increase in broadband penetration is even higher when compared with the penetration of other telecommunications services, such as fixed or mobile phone (Kim, Kelly & Raja, 2010).

Broadband access improves the productivity of businesses, supports the creation of new products and services and accelerates innovation. Katz (2012) describes the direct and indirect economic impact of broadband deployment: directly through jobs created by deploying broadband infrastructure, and indirectly as a result of “spill-over” externalities, such as increased productivity and new products and services.

According to Williams (2009), many policy-makers in sub-Saharan Africa consider access to broadband a key driver of economic and social development. He remarks that the limited availability of low-cost backbone capacity is one of the factors constraining sub-Saharan Africa’s development of broadband connectivity. Williams (2009) describes the process of providing communications services as a supply chain. He splits the supply chain of communications infrastructure into six layers, where each layer of the chain interconnects with the above layer in order to provide communications service.

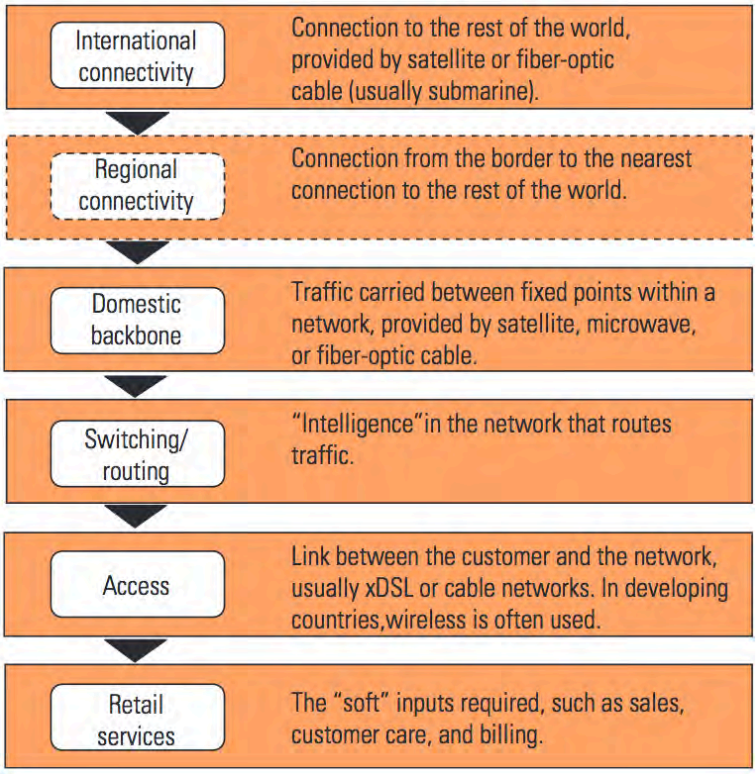

Figure 2.1: The Supply Chain for Communications. Source: Williams, 2009.

At the top of the chain he puts international connectivity, which provides connectivity to the rest of the world. At the second and third level are the regional and national (domestic) backbones. While the regional link connects from the border to the nearest connection to the rest of the world, the domestic backbone provides communications service at a national level. The fourth level represents the intelligence of the network, and it has the role of routing traffic through the national network. At the downstream of the chain, the access layers, usually through xDSL, cable or wireless networks, link the customers to the networks and the bottom of the chain.

2.4.2 Convergence and ICT ecosystem

The OECD (2007) observes that the converged and next generation network (NGN) environment will bring about a radical change in the relationship between network layers (transport infrastructure, transport services and control, and content services and applications). According to the organisation, in a NGN environment, services will be independent of the underlying transport infrastructure. In this converged network, applications are disconnected from the physical infrastructure and applications are provided directly at service level, allowing multiple service providers to enter the market on a technologically non-discriminatory basis. Kim, Kelly and Raja (2010), extend the definition of broadband beyond the traditional notion of a specific network. They suggest

that broadband can be viewed as an "ecosystem" that includes not only networks but also applications and services that the network carries, and more active users.

Research ICT Africa (2012) expands the eco-systemic perspective to ICT in general, and links access and affordability of ICT to policy and regulatory constraints, to institutional arrangements, up to global and regional governance, structure and processes.

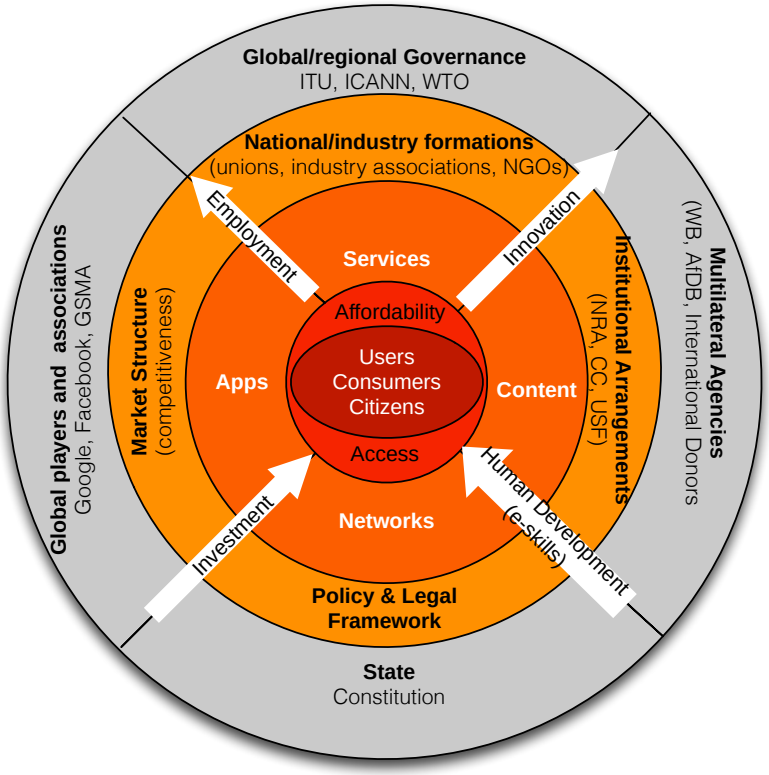

Figure 2.2: ICT ecosystem. Source: Research ICT Africa, 2013 (adapted from Gillwald, 2012).

RIA's ICT ecosystem (adapted from Gillwald, 2012) "places users, citizens and consumers at the centre of the system. Access by them, and their ability to afford the networks, services, applications, and content, determines the degree of their inclusion in the ecosystem or their exclusion from it. The factors that link these elements and affect access and affordability are pricing and quality of service (QoS). These, in turn, are an outcome of market structure and regulation, which are themselves determined by the policy and legal framework. The framework is the product of the state at a national level, and increasingly of international governance institutions such as the ICANN, the ITU and the WTO" (Calandro et al., 2012:10).

2.4.3 Financing public or common goods

Chaponda (2011, in CABRI, 2011) investigates regional telecommunications infrastructures in terms of Regional Public Good (RPG).[51] In public finance, a public good is defined as being both non-competitive and non-excludable with respect to the benefits it offers.[52] This definition applies only to 'pure public goods'. However, there are also impure public goods where benefits generated are shared between two or more countries, but where the good is only partially non-competitive, or displays only partial non-excludability, or both. In this case, we refer to club goods or joint products. For instance, supply internet connectivity is a joint product.

Table 2.2: definitions of private, common, club and public goods

	Excludable	Non-excludable
Rivalries	**Private goods** Food, clothing, cars, personal electronics	**Common goods (Common-pool resources)** Fish stocks, timber, coal
Non-rivalries	**Club goods** Cinemas, private parks, satellite TV	**Public goods** Free-to-air television, air, national defence

Source: Buchanan, 1965; Samuelson, 1954; Water, 2004.

Similarly, the undersea cable Eastern African Submarine Cable System (EASSy) is a club good. It is possible to exclude users from accessing the cable (excludability) and it partially displays non-rivalry (Chaponda, 2011, in CABRI, 2011). The infrastructure was developed by a public-private partnership (PPP) involving governments and telecommunications operators, and Development Finance Institutions (DFI) substantially finance it.[53]

With regard to issues of funding the development of impure public goods, the exclusion of benefits is a key determinant in financing the good (Chaponda 2011, in CABRI, 2011). Club-like structures support monitoring users and allow the charging of usage fees. However, where exclusion is only partial, the public sector may play a role in

[51] Regional Public Goods are the anchor for the economic integration agenda in Africa (Chaponda, in CABRI, 2011). They are defined as 'any good, commodity, service, system of rules or policy regime that is public in nature and that generates shared benefits for the participating countries and whose production is the result of collective action by the participating countries (Estevadeordal et al., 2004, in CABRI, 2011).

[52] Non-excludability means that when a pure public good is created or supplied, it is not possible to exclude additional users from the benefits it generates. Non-rivalry means that the additional user or beneficiary of the service does not reduce the benefit enjoyed by existing users.

[53] EASSy is 90% African-owned and it is financed by substantial investment from Development Financial Institutions (DFIs) including World Bank/IFC, EIB, AfDB, AFD and DfW. Total DFI investment is apparently $70.7 million, with $18.2 million coming from IFC and 14.5 million from AfDB (Song, 2012).

providing some initial grant-funding to counter the perceived risk. When there is a large share of excludable benefits, it appears to be easier to finance a regional good. In particular, the greater the country-specific benefits derived from the commodity or service, the greater the likelihood the country will finance it. When exclusion from the benefits of accessing the good is inadequate and private provision is not feasible, public provision and public financing is applicable (Chaponda, 2011, in CABRI, 2011). Therefore, donors and multilaterals should focus on non-excludable RPGs, where the overall level of the public good supplied equals the sum of the country's contributions.

The Regional African Satellite Communication Organisation (RASCOM)[54] is an intergovernmental treaty-based organisation which was established in 1993. Its prime objective is to provide, on a commercial basis, the satellite capacity required for national and international public telecommunications services, including radio and television broadcasting in Africa. However, since its inception, the project has been characterised by both technical and financial problems. Private participation in the project was limited to ALCATEL's 12% shareholder participation, representing a limited financial risk. According to Chaponda (2011, in CABRI, 2011), there is a need to inject greater private sector participation in order to improve the technical and financial performance of the project. This can be done through revamping the capital structure to introduce more commercial sources of finance, to improve skills and to leverage more developed African countries.

2.5 Conclusions

The previous sections have highlighted that regional ICT infrastructure represents a determinant of regional competitiveness. Regional ICT infrastructure improves general macroeconomic capacity (Porter, 1998), as it is a factor of production. It cuts interaction costs in a regional marketplace when transaction procedures are standardised, and the relevant technology is exploited. It creates conditions of economic growth as it supports economies of scale (Malecki, 2002). However, geographical transaction costs, the standardisation of transaction procedures and the exploitation of the relevant technology are also determined by national and regional communications policies (Gillwald and Stork, 2008).

The next chapter discusses theories of regionalism and the main concepts that have been used to construct the conceptual framework for this dissertation. The conceptual

[54] The system is partially competitive in nature since there would be a limit to the number of new beneficiary countries. Further, it is possible to exclude countries/users due to the membership nature of the organisation. However, once a country has joined RASCOM, the citizens benefit only if local infrastructure and access points are in place at a national level.

framework has been developed to analyse the empirical evidence collected by means of a hybrid research methodology used to gather both primary and secondary data.

CHAPTER 3 – AN OVERVIEW OF SELECTED THEORETICAL AND CONCEPTUAL ISSUES ON REGIONALISM

This chapter describes the theories and concepts that have been used to build the theoretical and conceptual framework, including the epistemological and ontological approaches. It identifies the theories used to build the conceptual framework.

While the conceptual and theoretical framework of this thesis draws on institutional theory in the political economy tradition it aligns more with international political economy that has emerged from the more classical focus on state and market relations, The study is concerned with the investigation of what is the role of regional institutions in shaping regional telecommunications market structures and outcomes (Palan, 2013).

Ontologically, the research approach adopted is that of praxis in the sense that the paradigm adopted is realistic and practical. The focus of the analysis is on how regional public policy in the realm of telecommunications infrastructure development is created and implemented. In this sense, the SADC has not being studied in terms of its 'territoriality', although references have been made to it; but rather as a 'policy-driven' framework. A political economy approach has been adopted first to explore how southern African regional institutions developed in a specific political economic system of regionalization within the global economy, which in Chapter 1 has been referred to as "regionalism" (Söderbaum, 2004; Mugabe, 2006); and second, to study the interplay between regional institutional arrangements and telecommunications markets (§1.2, § 1.4, § 1.6). The Ph.D. thesis relates policy developments in the SADC case to the international developments in the telecommunication area with respect, first and foremost, to the WTO trade agreements and the influence of EU policies. The objective is not to compare telecommunications policy developments in the EU to the SADC case, but to explore how the EU model has influenced SADC structures and processes.

In order to understand the complex nature of economic, legal and political relations of a developing region, and how regional institutions have developed in a specific social and economic system, the thesis has built a conceptual framework which draws from different theories on regionalism, institutional arrangements, and epistemic community.

First, theories on new institutionalism (Immergut, 1998; Spruyt, 2013) have been used, from a theoretical point of view, to problematise the nature of regional institutions in a developing countries context, and in particular to provide a framework to understand how regional institutions have failed to create opportunities for the telecommunications sector to grow and expand in the SADC. In that context, institutional arrangements analysis (North, 1990) critically revealed why there is a discrepancy between institutional rules (i.e. constitutional, policy and regulatory framework) and the implementation of

these rules at an organisational level. Levy and Spiller's approach (1994) to the investigation of the determinants of the performance of privatised telecommunication utilities has been used in order to contextualise the analysis in specific political circumstances.

Second, theories on democracy and market reform/performance in developing countries context (Khan, 2002, 2005) and specifically in the regional integration arrangements of southern Africa (Taylor, 2002), were used to assess why SADC countries are characterised by weak factor-driven elements, and why the interaction between political and regulatory institutions has affected the conditions for investment in telecommunications market (Levy and Spiller, 1994).

Third, an epistemic community approach (Haas, 1992) to regionalism has been adopted to understand the role played by external experts in shaping regional policy and regulatory processes. The relationships between regional structures and external communities of experts have not been merely explained as technical assistance and capacity building programmes, but as a political project for foreign affairs in regional cooperation.

The following section summarizes Pentland's efforts to theorise the process of regional integration within the political science subfield of international relations. His approach to the theory of integration allows an analysis of the SADC as a policy-induced process of integration in terms of structures and processes.

3.1 Theories on regionalism

Policy-induced regionalisation, or regionalism (Mugabe, 2006), has played an important role in the creation of regional integration agreements. Pentland (1973) describes the policy-induced process of integration in terms of structures and processes. In particular, he distinguishes four approaches to integrative structures and processes. The first one is the pluralist approach. According to this framework, a pluralist community of states mutually regulates behaviours among independent 'subsystems' within an international system. The integration process relies on its ability to sustain the growth of interdependent relationships and informal structures through a high degree of communication and interaction at all levels of society. The process requires a firm basis of social, economic, and cultural ties amongst stakeholders. Within pluralistic theorisation, it is possible to identify a reaffirmation of national sovereignty functions, seen as necessary to regulate diplomatic relationships.

The second approach to integrative structures and processes identified by Pentland (1973), is referred to as functionalism. Two exponents of this approach are Mitrany (1966) and Claude (1971). They assert that the ultimate goal of integration is the creation

of cross-national organisations, which perform most of the traditional welfare functions of national-states. Within this cross-national network, sovereignty functions are delegated from a national to a regional level. National states establish a regional administrative framework in order to fulfil community needs and the objective of peaceful integration in the international system. Therefore, according to the functionalist theory, while national states are not seen as a barrier to integration, they are considered a hindrance to the fulfilment of common welfare needs. The regional integrated system is more appropriate to meet most human needs and to respond to technological changes. According to the functionalist approach, there is no rigid formula or blueprint for integration. Integration, in its functional dimension – particularly economic dimension – gradually but decisively influences other dimensions, namely social and political behaviour, and thus induces change, first in behaviour and attitudes, then ultimately in decision-making processes and structures. In the functionalist approach, the state is challenged, but only in the area concerned with the provision of material welfare.

The third theoretical framework Pentland refers to as neo-functionalism and is based on the emergence of regional economic organisations (Nye, 1971). According to this framework, relationships between states are subject to bargaining over scarce economic resources. In order to manage scarce resources, states create supranational institutions. The integration process is directed by supranational states that select an economic sector that is politically important to the integration process. Nye (1970) investigates the conditions under which such an integration process can arise. He identifies the following prerequisites: the development of increasingly functional linkages of tasks and flows or transactions; the development of deliberate linkages and coalitions; the formation of economic pressure groups at a regional level and the involvement of external actors; the emergence of a regional ideology and thus the intensification of regional identity; and finally, the socialisation of elites. The theory underlines the importance of regional institutions, which are considered more effective in solving common problems than national states. Although regional institutions are founded by national states through the neo-functionalist process, they develop self-organised interests after their foundation. Therefore they become functional for the creation of political spill-over and establish a new regional group identity (Söderbaum, 2004).

Neo-functionalism assumes the existence of a regional political culture, which permits non-ideological politics to be practiced. Political integration is not a condition but a process of change, which leads to some sort of supranational political community based on a common understanding among emerging elites, and a shift in attitudes towards a new centre of authority. The supranational system is in charge of allocating material benefits

and provides internal and external physical security, becoming the prime focus of political loyalties and expectations (Söderbaum, 2004: 22).

The neo-functionalist school of thought (Haas, 1958; Mattli, 1999; Hurrel, 1995; Söderbaum, 2004) recognises the importance of non-state actors, such as interest groups and social movements, in the process of regional integration.

The last approach to integrative structures and processes Pentland identifies is federalism. According to this theory, integration is considered a political phenomenon, generally understood as a formal division of powers between levels of regional government and a supranational state. In a federal system, it is up to foreign policy elites to decide which form and degree of integration is acceptable. According to the federalist approach, integration is no longer a process but an end-state (Pentland, 1973).

Different schools of thought distinguish between old and new regionalism. According to Shaw (2002), new regionalism is characterised by a trio of heterogeneous actors. Those actors are: the states, such as official governmental organisations at a local and global level including UN agencies; economic structures including not only multinationals but also informal and illegal sectors; and civil society organisations and grassroots movements, such as indigenous and international NGOs, charities, cooperatives, media and professional associations (Shaw, 2002). Within this new structure, states, interstate organisations, companies and civil society are bound together in trilateral relations. Therefore, according to the new regionalism theory, non-state entities and non-formal interactions play a determining role in shaping the way a region is organised.

The SADC region is governed by the 1992 Treaty, which requires it to coordinate, harmonise and rationalise SADC countries' policies and strategies for regionally sustainable development (§ 5.1). Although its decisions, policies and agreements entered into under the auspice of SADC are legally binding, and the organisation has the necessary legal instruments to enforce such decisions, the SADC Secretariat only partially acts as a supra-national authority whose decisions that are binding on the member states are limited (Balassa, 1961). In fact, as discussed below, only protocols are binding legal documents for SADC member countries, and the SADC does not have well established infringement procedures in place for national states that not implement protocol requirements. Therefore, it is possible to conclude that although the SADC has established regional institutions for its governance, in reality the region is a pluralist community of states and its integration process relies on formal and informal relationships. In the region, national sovereignty functions are reaffirmed, and as emerged from the empirical evidence in Chapter 6, they are predominant in the regulation of diplomatic relationships. Nevertheless, it is a regional economic organisation as it has established supranational institutions in charge of managing regional scarce resources, through an harmonisation

process directed by regional institutions that have selected a few key economic sectors which are politically important to the integration process.

As this thesis is concerned with policy and regulatory structures, theories on institutional arrangements have been drawn in the conceptual framework to assess their impacts on policy reforms. The following paragraph reviews North's (1990), and Levy and Spiller's (1994) approaches to institutional analysis and discusses how the theories have been used in the analysis.

3.1.1 Institutional arrangements

North's (1990) approach to institutional arrangement analysis is more political than the traditional economic approach. He suggests investigating institutions in terms of how they change over time and considers how that impacts on the economic performance of a country. Using the theory of institutional change, North (1990 and 1994) explains the impact of institutional incremental changes on policy reforms. North makes an important distinction between institutions and organisations. According to him, although both are important parts of the structural framework supporting interactions in a society, institutions set the rules, while organisations are the players. The main purpose of institutions is to define how organisations are supposed to implement the rules set by institutions. Organisations include different groups of individuals who have common interests, goals and objectives; these include trade unions, government agencies and political parties. As North (1990) argues, organisations can be the agents for institutional change.

Levy and Spiller (1994), intheir investigation of the determinants of the performance of privatised telecommunication utilities, assert that institutional analysis needs to be contextualised in specific political and social circumstances. They conclude that in developing countries, the interaction between political and regulatory institutions can affect the conditions for investment in privatised telecommunication utilities and therefore, sector outcomes.

The thesis partially adopts North's approach to institutional arrangement analysis in the sense that in-depth interviews have been conducted in order to examine how rules (i.e. institutions, protocols, model laws and model bills) have been defined and adopted by member states and other regional organisations. In this sense, it is concerned with institutional incremental changes as it is expected that the process of legal and regulatory harmonisation is incremental as overtime it may bring about changes to the regional political economy landscape. Building on this and specifically in relation to telecommunications reform, the thesis draws on Levy and Spiller's investigation of the determinants of the performance of telecommunications markets, as it is concerned with

the interaction between political and regulatory institutions and on how they affect the conditions for investment.

The next section highlights the value of an epistemic community approach to the study of regionalism and specifically of ICT policy and regulatory practices in the SADC region.

3.1.2 An epistemic community approach to regionalism

Regional structures and processes in low- and middle-income countries are normally shaped and supported by a network of developmental practitioners, consultants and academics, who share a system of values and beliefs, mostly drawing from Western democracies and mature economies (Gillwald, 2014). This community of experts, which has a considerable impact in terms of shaping the development of regional policies and regulatory frameworks in the global south, is referred to in the literature, as "epistemic community".

Haas (1992) defines epistemic communities as "networks of knowledge-based experts" whose relations are based on a shared and consensual interest and knowledge base. According to him, policy and decision-makers have to deal with a broad and complex range of issues and therefore look for advice from epistemic communities, under conditions of uncertainty, to support the identification of national interests. These professionals have recognised policy-relevant expertise and competence in a particular domain, based on shared values, beliefs and system of knowledge.[55] Epistemic communities provide support in international policy coordination, when uncertainties about strategies for solutions of a state's particular issues require coordination of the policy choices of different states. The information generated by the epistemic community is neither guesswork nor pure data, but is the result of interpretations of social and physical phenomena (Haas, 1992). The influence of epistemic communities grows as decision-makers delegate responsibility to them, until they consolidate their bureaucratic power through the institutionalisation of their views into broader international politics. Transnational knowledge-based networks, at an international organisational level, have been involved not only in shaping agendas but also in the definition of state interests (Haas, 1992).

[55] Haas (1992) identifies a few characteristics of epistemic communities, including a shared set of normative beliefs providing a value-based rationale for social action; shared causal beliefs; shared notions of validity internally recognised; and a common policy enterprise in the form of a set of common practices associated with a set of problems. In addition to those, other characteristics are: a shared way of knowledge; shared patterns of reasoning; a policy project drawing on shared values; shared causal beliefs; and a shared commitment to the application of the production of knowledge.

From a regional perspective, policy-makers, especially in developing countries, have failed to understand complex linkages between domestic national goals and international goals, in a regional space which is increasingly economy-interdependent. In this interdependent economic system, policy coordination among countries is required to achieve domestic goals, and domestic agendas and regional agendas have become increasingly linked. Therefore, in order to fill this knowledge and expertise gap, regional policy-makers look for the help of experts who are able to understand interlinkages between policies related to different issues, as well as link policy recommendations to their expected outcomes.

Within the broader institutional theory and political economy framework, an epistemic community approach to the study of regionalism and ICT sector development has been adopted to empirically analyse how the actors involved in regional ICT policymaking have concretely shaped concrete policy developments and implementation.

3.1.3 Capacity-building as a political project for foreign affairs

Epistemic communities fulfill their role by providing technical knowledge and expertise – and less and less financial resources - through technical assistance in the development and implementation of policies in different domains, and through capacity-building for policy-makers, technical and administrative staff from regional organisations and national member states.

In recent years, capacity-building strategies and techniques have been used to address state failures in terms of poor governance and weak state capacity (Hameiri, 2009). However, due to the failure of many state-building programmes, especially in post-conflict states, normative assumptions on capacity-building have been questioned. Instead of establishing a sustainable framework for governance, as many of these programmes should do, capacity-building activities often end up as “stopgap measures” (Hameiri, 2009:56). His studies focus on fragile state-building. The failure of programmes to support fragile states has resulted in the focus of these programmes changing from capacity-building to improving human security. Structural and political limitations affect state-building agendas in their current manifestation. According to Hameiri (2009), state capacity, rather than being an objective and technical measure of performance that can be “built”, constitutes a political and ideological mechanism to implement projects of state transnationalisation, since the notion of state capacity implicitly masks a set of social and political relationships and the institutional arrangements supportive of them. Contemporary notions of state-building are shaped by a ‘neoliberal institutionalist’ concept of state capacity. Also, capacity-building, despite its technocratic attributes, constitutes a political project with identifiable political and ideological values that

attempts to establish a certain relationship between rulers and ruled (Hameiri, 2009). Therefore, it has limited impact on delivering the outcomes sought by those providing the intervention in terms of increasing local knowledge and technical skills.

3.1.4 Regionalism and democracy in developing countries

Approaching regional ICT policy development from a political economy perspective requires an understanding of how power dynamics play out in southern African countries which are officially democracies and share some of the characteristics of democracies in developing countries, captured in the literature.

In that respect, Taylor (2002) observes that in the regional integration arrangements (RIAs) of southern Africa, it is likely that the dominant state usually drives the regionalist project. For instance, he reveals that Pretoria's elites played a predominant role in promoting and rejuvenating the SADCC, while at the same time pressing for an economic and political transformation.

President Thabo Mbeki's 'African Renaissance' dream (Taylor, 2002), was based on the idea that economic growth of national economies within southern Africa required a regional project based on regional integration, which conformed to notions of good governance, democracy and liberalised markets. Mbeki's regional project was aimed at developing the southern African region as an attractive destination for local and international capital. Within this project, the regional block could only reach its full economic potential through the harmonisation of trade practices, bringing national states closer together as a more uniform, larger market. The regional project was supported by a strategic partnership between the government of Pretoria, South African-based corporations and transnational capital (Taylor, 2002). Bulger (n.d., in Taylor, 2002) points out that South Africa's regional effort was a strategy to attract investment and increase trade opportunities. Integrating national economies meant improving the penetration of South African capital in neighbouring countries. In this regional project, an implicit aspect was to bind national states together in a regional regulatory framework under South African leadership (Lieberman, 1997, in Taylor, 2002).

However, difficulties to achieve the market reform project are related to the fact that some state administrations in southern Africa are unattractive to South African and international capital, since they are still based upon authoritarian and personalised rules.

Khan (2005) observes that democracy in developing countries does not result in a significant change in the economic characteristics of these countries, which are characterised by a large informal economy and widespread non-market accumulation processes. In particular, democracy does not ensure the elimination of instability in property rights, rent seeking, or political corruption. He warns that in several cases, state

failures, such as the inability to set goals for economic growth in developing economies, are due to the fact that policy priority given to democratisation has diverted the developmental agenda from far more important priorities. The objective of interventions related to development should not be democracy *per se*, but the creation of necessary conditions to achieve the wealth "required for making democracy both more sustainable and capable of delivering real decision-making powers to societies" (Khan, 2005: 2).

According to Khan (2005), electoral competition in developing countries has failed to include the poor in government preferences because political patronage has superior organisational power. In particular, he points out that political patronage is a feature that explains the relationship between democracy and market performance in developing countries. For instance, internal political stability in a developing country is not sustained primarily through fiscal policy, but mainly through accommodating off-budget interests of factions organised along political patronage lines. Khan (2005) explains that in developing countries, clients agree to provide political support to patrons in exchange for payoffs. Features of the relationship between democracy and market performance in developing countries include: the personalisation of politics by faction leaders and the organisation of politics into a competition between factions.

In addition, Chabal and Daloz (1999, in Khan, 2005) argue that patrimonialism and political patronage in Africa have survived the transition to democracy and that client-patron networks continue to operate (Khan, 2005). Therefore in developing countries, factions in power control state power to generate rents. The patron can therefore divert political power to capture public resources. He further stresses that in developing countries, the state does not only play the role of service delivery, but also is instrumental in allowing different groups, such as contending classes and entrepreneurs, to use resources to drive transformation in specific directions (Khan, 2002).

3.1.5 Regionalism and economic integration

As indicated above, the conceptual framework also hinges on Pentland's approach (1973) to the policy-induced process of integration in terms of structures and process. Through his explanatory framework, it is possible to assess the scope of the regional integration of the SADC and to discuss the level of regional integration achieved at a policy and regulatory level. In addition, the thesis draws on Shaw's definition of new regionalism (2002), which identifies the main actors involved in regional integration structures and processes.

The research seeks to understand the role of epistemic communities (Haas, 1992) in shaping the regional debate on ICT policy and regulation, and the design, implementation and evaluation of ICT programmes for the SADC region. It critically examines capacity-

building programmes through Hameiri's (2009) lens of foreign policy affairs. The political economy analysis of SADC assumes Khan's (2002) discussion on democracy in developing countries, which according to him, does not result in significant changes in the economic characteristics of these countries, since it does not assume the elimination of political corruption, the elimination of property rights, instability or rent seeking. This research partially draws on Balassa's theoretical framework of stages of economic integration, as it does not seek to evaluate the level of regional integration reached by SADC, but rather evaluate the political economy dimensions of integrations, focusing on institutions, policy and regulatory frameworks to examine the linkages between these elements. Therefore, regional macro-economic indicators are only of value in the critical examination and discussion of the development of regional regulatory processes within their specific political-economic framework. In SADC, policies for the development of a regional ICT infrastructure have been formulated with the aim of fostering the integration of national markets.[56]

The following section presents the theoretical approach adopted by the thesis. The chapter concludes with the conceptual framework which has been developed on the concepts described above.

3.2 Theoretical approach

The selection of a paradigm[57] for this research is based on the belief system that has guided the planning phase - and was refined during the research phase – which not only guided the construction of my theoretical and methodological approach, but also the ontological and epistemological aspects.

Due to the interdisciplinary approach (Choi and Pak, 2006) required for such research, and to the practical implications accompanying policy research, the thesis assumes a political economy perspective and the approach is praxis in the sense that the paradigm adopted is realistic and practical as opposed to theoretical and existential. Praxis "refers to human activity and specifically to the free and creative activity by which people produce and change the world" (Mosco, 2009:34). The word praxis was used by Aristotle to distinguish economic, political and ethical studies from theory and poiesis, and to emphasise the goal of action.

Praxis is important to the epistemological premises of political economy as it guides the theory of knowledge, viewing knowledge as the ongoing product of theory and

[56] Cooperation in infrastructure development, including telecommunications, is considered one of the main methods of the SADC to achieve regional integration (Telecommunications Policies for SADC, 1998).

[57] Paradigms can be defined "as basic belief systems based on ontological, epistemological and methodological assumptions" (Denzin and Lincoln, 1994:107).

practice. In opposition to more theoretical approaches, such as social change and historical transformation, social totality and moral philosophy,[58] praxis is more concerned with practical activities and with the interactive processes of conception and execution. It accommodates the need to understand sources of wealth and productivity in order to advise elites, businesses and governments on appropriate trade, welfare and industrial policies.

3.2.1 Epistemological and ontological approaches

The epistemological principles[59] guiding the thesis are based on realist, inclusive and constitutive values. The epistemology[60] is realist because it assumes that reality is made up of concepts and social practices. It is also inclusive in the sense that it rejects the tendency to reduce all social practices to a single political or economic explanation. Furthermore, the selection of concepts and theories does not pretend that those that have been chosen are the only ways to understand reality. The epistemology is constitutive as it acknowledges that it is difficult to assert relationships of causal determination. In that sense, social life is a set of "mutually constitutive processes, whose units act on one another in various stages of formation, and with a direction and impact that can only be described in specific research" (Mosco, 2009:128).

From a theoretical approach point of view, the research adopts a new institutionalist[61] approach, specifically that of historical institutionalism. This is to overcome limits of analysis when institutional arrangements are viewed purely as structures and processes. Thus the thesis focuses on the relations between politics, state and society in a specific historical period (Immergut, 1998). According to the historical institutionalist approach, representation of the interests of citizens' preferences is shaped by collective actors and institutions. Constitutions, political institutions, state structures, state interest, group relations and policy networks structure the political process. In order to understand the complexity of the relations between politics, state and society, the approach assumes that "political economies are structured by dense interactions among economic, social and political actors that work according to different logics in different

[58] The object of classical theorists like Adam Smith, David Ricardo, John Stuart Mill and Karl Marx was to identify both short-term and long-term cyclical patterns which impacted on fundamental changes in social systems, such as the transition from agricultural-based societies to commercial, manufacturing and then industrial societies, or to examine dynamic forces behind the growth of capitalism.

[59] Epistemology is an approach that allows one to understand how we know things (Mosco, 2009:128).

[60] Ontology describes a framework to understand the nature of being.

[61] New institutionalists propose different definitions of institution and adopt different research programmes and methodology. In that sense, the three main branches of scholarship – rational choice, organization theory and historical institutionalism – do not adhere to an overreaching theoretical framework.

contexts" (Immergut, 1998:17). In this sense, historical institutionalism stresses the importance of power and interests, and it examines how institutional arrangements of states and economies, and the connections between them, are affected by the political and economic context (Campbell, 2004).

The construction of my inquiry paradigm is summarised in Table 3.1 below. The ontological approach, the epistemological approach and the theoretical approach support the development of this conceptual framework for the thesis.

Table 3.1: Summary of the ontology, epistemology and theoretical approach

Item	**Approach**	**Characteristics**
Ontology	Political economy /Praxis	Realist and practical paradigm; Knowledge is viewed as the ongoing product of theory and practice; Practically it is used to understand sources of wealth and productivity in order to advise decision-makers on appropriate policies.
Epistemology	Realist	It assumes that reality is made up of both concepts and social practices.
	Inclusive	It rejects the reduction of all social practices to a single political economic explanation.
	Constitutive	It acknowledges that it is difficult to assert relationships of causal determination.
Theoretical approach	New institutionalism, historical institutionalism	It focuses on the relations between politics, state, and society in a specific historical period; The representation of the interests of citizens' preferences is shaped by collective actors and institutions.
Source: Author's own tabulation; Mosco, 2009; Immergut, 1998		

This research has been subject to the widest possible critical examination,[62] which has facilitated appreciation of the phenomena. However, the reality discussed and

[62] This thesis not only has widely benefitted from continuous interaction and review meetings with my supervisor and with my PhD fellow Cecilia Matanga, formerly also involved in multilateral agency building African parliamentary capacity, it has also been presented and discussed in 2010 during the CPRafrica Young

analysed, no matter how deep, can only be understood imperfectly. This is due to many factors: including a multi-level and mutating regional governance and political and economic environment; global forces; complex and evolving international relations; and the dynamic nature of national and regional telecommunications markets with the advent of a converging environment and a mass mobile internet in Africa.

Such an approach accommodates the subjective link between the research topic and the researcher. Being aware of this subjectivity and being reflective about it, enabled me to distance myself from my personal values and beliefs epistemologically. This approach is different from a critical theory epistemological approach, according to which the researcher is interactively linked to the subject investigated, and consequently the researcher's values influence the subject under investigation. The thesis does not embrace a constructivist epistemological approach, which assumes that the findings are derived from interactive linkages between the researcher and the matter investigated (Denzin and Lincoln, 1994). Rather, particular attention has been placed on rigour and verification associated with critical traditions.

The methodological approach is an outcome of the ontology and epistemology that underpin the dissertation. Information has been elicited through in-depth interaction with the main actors involved in the process of reforming regional ICT policies. This was possible due to my practical experience at SADC Parliamentary Forum, participating in conferences and workshops on policy formulation and regional integration, and through in-depth interviews with all the main actors involved in SADC ICT policymaking. The effectiveness of processes and structures in developing regional policy frameworks has been examined using conventional hermeneutical techniques, including qualitative analysis, triangulation, coding of the narrative discourse, and analysis of quantitative supply-side and demand-side ICT indicators where available. The intention has been to construct a convincing case, that is informed by hermeneutical and dialectical interpretations of research findings, coming from different qualitative and quantitative sources.

3.3 Conceptual framework

The political economy perspective adopted to conduct the research is based on practical and realistic paradigms, and it aims to create practical knowledge, in the sense that final

Scholar Programme on ICT policy and regulatory research, Cape Town; twice at the Graduate School of Business, University of Cape Town; and it was presented at the International Telecommunications Society (ITS) PhD symposium held at the European University Institute (EUI) in Florence in 2013. In addition, the version of the Ph.D. thesis submitted in February 2015 was reviewed by Dr Andrew Barendse, by Prof. Leo Van Audenhove, and by Prof. Anders Henten. All their comments and suggestions were integrated in the final thesis.

policy recommendations have been drafted in order to advise global, regional and national organisations on the appropriate policies to improve regional institutional arrangements. The. thesis aims at analysing how the institutions and actors involved in regional ICT policymaking influenced concrete policy outcomes and implementation in national member states.

Regional issues are investigated not only conceptually but also practically, and regional dynamics are not explained only through a narrow political or economic approach. The thesis does not assert relationships of causal determination[63] but is concerned with the description of relations within the regional political economy, the interplay between multilateral, regional and national organisations, and the telecommunications markets in a specific historical period.

Taking into account that economic integration is a way of fulfilling a political goal, and that economic integration is mainly based on political support of national states for free trade (Scheingold and Lindberg, 1970), the research builds a case study of regional policy-making based on Hameiri's (2009) concept of state-building exercises as tools to transform fragile states. Capacity-building is viewed as a political mechanism of state transnationalisation, and therefore an instrument of foreign policy in southern African democracies (Khan, 2005). In that sense, technical assistance and capacity-building activities are not only technical undertakings, aimed at improving economic performance and social development, but are foreign policy tools which are used to advance national interests and norms (Pawlak, 2014). The conceptual framework of capacity-building, as a tool in foreign affairs, is used as a lens through which to examine the evidence collected through interviews with respondents involved in the regional process of developing an integrated ICT policy and regulatory framework. Through this conceptual framework, it is important to explain aspects of integration, such as institutional and policy integration, and relate such level of integration to their outputs. Institutions are created for the effects that they have on social and economic conditions, and therefore their mandate is evaluated in relation to the outcomes of government policies. This analytical approach goes beyond the observation of institutions. It therefore overcomes the limitations of an analysis that

[63] A few empirical studies investigated sequencing in telecommunications sector reform in terms of what comes first - liberalisation or privatisation - in order to obtain market efficiency. De Fraja (1994) asserts that the sequence of reforms is strongly influenced by both the economic and political preferences of governments. Noll (2000) suggests that the best choice among sequencing options, which most efficiently improves welfare and enhances market performance, is country-specific. However, Wallsten (2001) observes that privatisation partially improves the telecommunications sector only if supported by regulation, but is unable to test the relations between regulation and privatisation due to lack of data (Bagdadioglu and Cetinkaya, 2010).

correlates “the political significance of an integration process with its degree of formal institutionalisation” (Keohane and Nye, 1975: 375).

The following figure depicts all the elements of the conceptual framework and it shows how they are linked to each other.

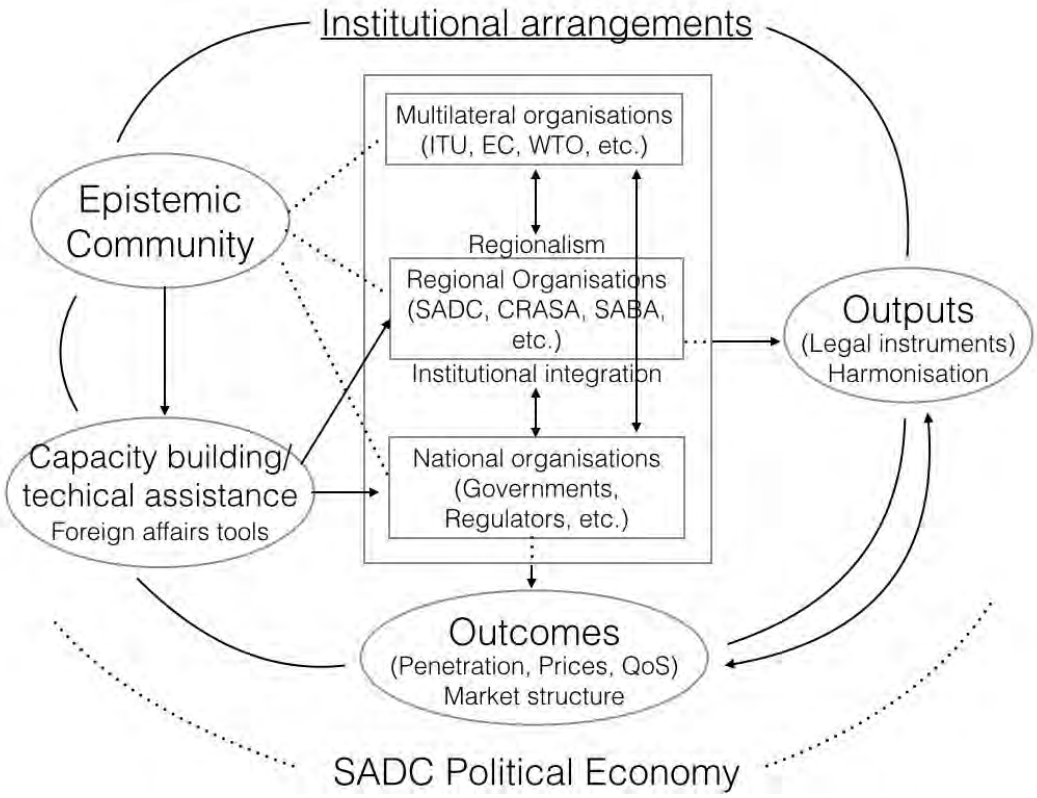

Figure 3.1: Conceptual framework

Figure 3.1 above shows a multi-level institutional arrangements which include not only regional organisations (i.e. SADC, CRASA, SABA, etc), but also multilateral organisations (ITU, EC, WTO, etc.) and national organisations (governments, regulators, etc). The different levels are linked by a formal set of rules set by policy, regulation and legislation and by informal linkages. The epistemic community interacts with both the international, regional, and national level, and the main tools used by this group of experts are capacity-building and technical assistance. These activities are not merely interventions of technical assistance and capacity building, but they are tools used in foreign policy-making, as they seek to influence policy outcomes based on shared values and beliefs, which promote a reform agenda based on the privatisation and liberalisation of telecommunications markets. Therefore, the conceptual framework includes as one element, capacity-building as a tool in foreign affairs, to analyse the evidence and to explain the role of epistemic communities, which through consulting, technical assistance

and lobbying, have infused the region with a reform agenda which is often informed by assumptions developed in mature markets and Western political systems.

Institutional arrangements result in legal instruments that are supposed to help member states to efficiently regulate the sector. The outcomes of the institutional arrangement so described are ICT penetration, price and quality of service.

The SADC political economy give rise to the institutional arrangements. The political economy approach is concerned with the investigation of what is the role of regional institutions in shaping regional telecommunications market structures and outcomes. Ontologically, the research approach is praxis in the sense that it aims at creating knowledge that can be practically used by policymakers and practitioners.

3.3.1 Original contribution to the field of knowledge concerned with managing infrastructure reform and regulation

The resulting research provides an original contribution to the fields of knowledge of both regionalism and ICT sector reform. Through an examination of the political economy underlying SADC policy and regulatory structures and processes the nature of ICT reform in a developing region is revealed. Shaped by epistemic communities (Haas, 1992), and institutional capacity building which serve as tools for foreign affairs in determining subsequent regional ICT sector development This framework is used to analyse the political, economic, institutional, policy and regulatory constraints hampering the development of an information society, from a developing region perspective.

3.4 Conclusion

This chapter has investigated the theoretical framework, as well as its underlying definitional concepts, which has been used in the building of a case study. Through this conceptual framework, the empirical data will be assessed.

The next chapter describes, in detail, the methodological approach adopted by the research.

CHAPTER 4 - METHODOLOGY AND RESEARCH DESIGN

This chapter describes how the methodology has been applied in the selection and collection of relevant data, documents and information, as well as in analysis and interpretation.

The study is conducted through a political economy perspective, which is based on practical and realistic paradigms because it aims not only to contribute to the theoretical debate on regionalism and ICT policy development, but also to create knowledge that can be practically used by policymakers and practitioners.

The development of a regional ICT policy and regulatory framework for the economic growth and social development of southern African countries is investigated from the perspective of regional institutional arrangements. Institutional arrangements in the context of this analysis draw on Levy and Spiller's investigation into the determinants of performance of privatised telecommunications utilities (1994). According to them, institutional analysis needs to be contextualised in different political and social circumstances. They argue that in developing countries, the interaction between political and regulatory institutions can affect conditions for investment and therefore sector outcomes. The thesis also draws on North's (1990) approach to institutional arrangements analysis, which suggests investigating institutions in terms of how institutional change impacts on the economic performance of a country.

Specifically, institutional arrangements are defined as "the policies, systems, and processes that organisations use to legislate, plan and manage their activities efficiently and to effectively coordinate with others in order to fulfill their mandate" (UNDP, 2014). The thesis extends the concept of institutional arrangements to include policies, systems and processes developed through the support of international and multilateral organisations, together with the donor community. This analysis is located and contextualised within the political economy of the SADC region, as extensively analysed in the first chapter.

Within this context of regional telecommunications reform, the thesis seeks to explain to what degree and *how* the regional institutional arrangements—including regional structures and processes—meet (or do not meet) regional policy objectives, by examining regional structures and processes and national policy outcomes.

It investigates in detail regional institutional arrangements in the SADC, by analysing the interplay between regional structures and international (i.e. multilateral, multi-stakeholder and donor) organisations. Policy and regulatory outputs and the outcome of regional institutional arrangements, in terms of ICT market performance, have been studied. In addition, the research seeks to understand the motivations and drivers of a

policy and regulatory process geared towards developing a harmonised regional ICT policy and regulatory framework. It does so by investigating the main actors involved in the process of regional ICT policy development; the processes and structures they put in place to address ICT development issues at a regional level; the resulting outcomes; and the reasons for success or failure in creating common regulatory frameworks for the sector at a regional level. Where possible, political reasons motivating actors to develop regional frameworks are investigated.

Specifically, the study focuses on three dimensions of regional ICT policy and regulatory framework: (1) integrative structures and processes established to develop a regional policy and regulatory framework; (2) policy and regulatory outputs, such as legal documents that have been produced and institutions that have been created; and (3) regional ICT market performance, including infrastructure expansion, as an outcome of regional policy formulation and implementation.

4.1 Case study research method

The research method that is applied uses primary as well as secondary sources, with an emphasis on qualitative data and analysis, to examine how SADC institutional arrangements have shaped intended ICT policy objectives. Multiple sources are used to gather evidence for the case, including document analysis and in-depth interviews with key role-players within regional institutions as well as stakeholders within the ICT sector of the region.

Primary data is collected through semi-structured interviews carried out in person or remotely, using a structured questionnaire but with open questions. The research is also based on ‘direct observation’ of regional integration processes. Participatory observation is drawn from meetings, such as the Cape Town conference, ‘e-Parliament, Concept, Policy and Reality’; a CRASA meeting on spectrum management; and internet governance forums, such as the ICANN47 Durban meeting and the Southern Africa Internet Governance Forum. Also, ideas and concepts have emerged from the informal exchange of emails or networking meetings during conferences.

Interviews have been conducted with a purposefully selected array of state- and non-state actors and stakeholders involved in regional ICT policy processes, technical assistance and capacity-building activities. For secondary data, newspapers articles, websites, media releases and official documents have been analysed.

The interviewees were purposefully sampled: selection based on their potential to provide data that will contribute to answering the research questions. The interviews focused on the following areas:

- roles, powers and functions of regional integration structures and institutions;

- processes for the formulation, ratification and implementation of regional ICT policy frameworks; and
- linkages between these formal policies and strategies and infrastructure development on the ground.

The interviews were coded and analysed in relation to the following issues:

- The degree of political power of regional institutions and their capacity to influence the telecommunications sector reform process at a national level;
- The capacity of regional institutions to influence ICT policy at a national level;
- The degree of participation of member states in regional decision-making processes and regional ICT policy and regulatory formulation;
- The degree of involvement of international organisations in processes of regional ICT policy formulation; and
- The impact of regional ICT policy and regulatory frameworks on market structure and regional ICT infrastructure development, and the development of ICT infrastructure because of or despite this.

The primary interviewees were selected on the basis of their role in regional ICT policy and regulation making. The findings of interviews were discussed against the analysis of the regional policy framework in order to review regional legal basis; legal instruments; implementation and enforcement mechanisms; infringement procedures; and to provide a critical evaluation of the level of implementation and ratification of regional arrangements at a national level. Finally, policy outcomes have been assessed in terms of quantitative supply-side (and, where available, demand-side) data, related to regional elements of the infrastructure, which were collected through secondary data from the ITU, the World Bank and Research ICT Africa. Thus the qualitative analysis was expanded and a strong case study built.

4.1.1 A case study on regionalism and ICT sector development

The thesis lends itself to a case study method, in the sense that the research is characterised by self-containment and typicality (Pierce, 2008). The research is self-contained in the sense that the issue investigated is clearly distinguishable. It investigates a very narrow and specific topic, namely telecommunications policy and regulation, in a specific geographic area, the SADC. The case on regionalism, and the development of an information society in the SADC, is an empirical enquiry in the sense that it "investigates a contemporary phenomenon within its real-life context" and "the boundaries between phenomenon and context are not clearly evident" (Yin, 2009:23). The case deals with a full variety of evidence: documents, interviews, observations, quantitative data, etc. It is explanatory in the sense that it is used to understand causation between different elements,

such as the political economy of the SADC, the regional institutional arrangements, policy outputs and policy outcomes, in order to identify underlying principles. Because of the complex nature of the case investigated, it relies on multiple sources of evidence. The case has been built mostly through direct observation of the event being studied, underpinned by interviews with the main people involved in the regional process (Yin, 2009).

4.1.2 Research limitations

As indicated by Pierce (2008), the main limitation of a case study is that its generalisation remains unproven. While other RECs may learn lessons from this study, it does not attempt to generalise findings. Therefore, the explanation may be unique to this case. A natural development of this research could be a comparative analysis of the SADC case with cases developed in other regions. A comparative study allows for the identification of similarities and differences between regional ICT policy and regulatory frameworks at a global level, through a horizontal analysis of the issues at stake in regional policy development. However, it does not allow one to capture the nuances that emanate from an in-depth understanding of the political economic issues of a specific territory, and of the linkages between the political economic framework, the institutional arrangements, the policy and regulatory outputs, and the ICT market outcomes. The case study is used in this thesis to provide a detailed understanding of *how* and *why* policy outcomes in the SADC region have been shaped by all these elements. A convincing case has been built by analysing the reasons for policy outcomes and developing a rich narrative of the voices of those involved in the process.

Another limitation with qualitative primary and secondary data, is that interviews reflect the interpretation and the opinion of those who have been interviewed, namely, those who have been directly involved in regional processes. Also, press releases, which have been used as secondary qualitative data, have, for the most part, been produced by regional organisations with vested interests. Thus they may reflect the values of these organisations, and may depict a reality that sheds mostly positive light on their outputs. This shortcoming is managed by making transparent the interests of all parties, triangulating different sources of information, and testing perceptions and claims against other qualitative and quantitative data. The results provide a base-line whereby to assess the effectiveness of the regional institutional regulatory arrangements.

4.2 Primary and secondary sources

The study is based on primary and secondary sources of data and information.

Primary data has been collected though semi-structured interviews with key individuals involved in the regional policy and regulatory process. Interviews were

conducted either in person with an open-ended questionnaire or remotely by phone, digitally recorded and stored for transcription and coding. In addition, primary survey data, aimed at assessing the effectiveness of national, regional and continental organisations in influencing regional policy outputs, was collected by piggybacking on a broader online survey that I have been doing as the lead researcher on another Research ICT Africa project.[64] In addition, policy outcomes have been measured in terms of the technological readiness of the region; the costs of communication; and the quality of ICT services, in particular broadband. Such data has been collected over a period of four years, while working as a research fellow at Research ICT Africa. Since the data has been collected for purposes other than this thesis, there are data gaps, in terms of the countries covered by these studies. However, the use of primary qualitative and quantitative data empirically collected and analysed, allows one to draw strong evidence-based conclusions on the performance of the sector in the SADC countries for which data is available. All the same, the main sources of primary data are interviews. Secondary data, including newspaper articles, websites and official documents, have also been analysed. In addition, contemporary documentary (written) records, including the minutes of meetings, final reports from SADC meetings and any other written documentation deemed relevant (Pierce, 2008), has been used. Furthermore, ICT indicators from recognised intergovernmental organisations, such as ITU, WEF, the World Bank and UNCTAD, have been used to fill in data gaps and to show regional trends. The following table depicts the data source and analytical method for each research component.

Table 4.1: Conducting a case study: collection and analysis of evidence

Research component	**Data source**	**Analytical method**
Literature review	Previous studies on the political economy of regional integration, regionalism, regional trade and regional competitiveness	Scanning, comparing and critically reviewing previous literature linked to regionalism and ICT policy and regulation. Theoretical foundations of political economy and institutionalism
SADC regional infrastructure (i.e. regional	Quantitative data: Administrative and supply-	Assessment of SADC (regional) ICT sector

[64] Specifically, the research seeks to identify multi-stakeholder forms of internet governance in Africa which have impacted internet policy-making processes and which unfold either at a national, regional or international level. The research did so by conducting a continent-wide online survey that was delivered to key national, regional, continental and international respondents. The survey aimed at exploring in detail national, regional and continental structures and processes for internet governance.

Table 4.1: Conducting a case study: collection and analysis of evidence		
Research component	**Data source**	**Analytical method**
ICT sector performance)	side data (ITU database, WEF reports, RIA pricing portals)	performance (as policy outcome)
Document analysis	SADC legal documents (i.e. SADC Protocol on Transport, Communications and Meteorology; telecommunications policies for SADC, model laws, etc.)	Analysis against global standard for ICT policy and regulatory framework (i.e. Reference paper of the IV Protocol to the GATS)
Interviews, direct observation, participation to regional meetings and conferences	Main actors and stakeholders involved in regional processes and structures; RIA survey on internet governance in Africa	Semi-structured interviews; coding (to produce findings) and triangulation (to verify findings). The process of analysing findings is iterative.

4.3 Interviews

Interviews with key actors involved in the regional policy-making process provided a major source of information. However, it was not assumed that the information provided was reliable and accurate. One way to ascertain reliability and accuracy is by probing and following up inconsistencies in the line of argument or account of those being interviewed. Willfully misleading responses or misrepresentations of events can be very informative however. Through triangulation, using a number of responses to the same question or secondary data, significant analytical insights can be obtained.

4.3.1 In-depth interviews

Interviews with all the main actors involved in regional ICT policy and the regulatory development process have been attempted. It was possible to interview the main actors from regional and international organisations, where they were available, but budget constraints and the unavailability of respondents, made interviews with representatives of national governments and national parliaments more difficult. However, direct observation of regional processes, while working at the SADC Parliamentary Forum for one year, compensated to some extent for the missing interviews. The participatory observation included meetings such as participation in the SADC ICT conference 'e-Parliament, Concept, Policy and Reality' hosted by the South African Parliament in Cape Town in October 2009; an ICASA/CRASA/SADC workshop on spectrum management held in Johannesburg in March 2011; a meeting on financial inclusion in Cape Town in September 2012; the Southern African IGF held in Luanda, Angola, in August 2013; and a conference on the political economy of regional integration held at the CTICC in Cape

Town in July 2014. Participating in regional meetings and conferences has allowed the researcher to learn from, and interact with, different people involved in regional processes. This has been especially useful when they could not be directly interviewed. In addition, the qualitative data gap has been filled by using qualitative data collected through an online survey delivered to key national, regional and continental public organisations.[65] Only data relevant to the SADC region has been selected to build the case study.

The interviewees were purposefully sampled. An initial group of respondents was identified. Subsequently, a snowball procedure was used in order to identify additional respondents, based on their potential to provide the data and relevant information needed to answer the research questions. The interviews focused on the following areas:

- identification of roles, powers and functions of regional integration structures and institutions;
- description of processes for the formulation, ratification and implementation of ICT regional policy frameworks;
- understanding of linkages between these formal policies and strategies and infrastructure development and sector performance on the ground.

4.4 Coding and analysis of research data and information

The first step in an analysis of data and information collected from primary and secondary sources, is to reduce the raw data by assembling and validating it. Coding qualitative data produced the main findings of the thesis. The analysis of the interviews is based on Gorden's (1992) approach on how to code interview responses. After defining coding categories in an all-inclusive and mutually exclusive way, a symbolic label was assigned to each category, in order to summarise, condense, and store a concrete example falling into a certain coding category. In this case, the symbolic label used was a letter, or a combination of letters.

Then, the digitally-recorded interviews were transcribed into a three-column format. Although required by Gorden's approach (1992), not much information was excluded, because very little was irrelevant. Duplicated information collected from different sources has been used to corroborate and triangulate the available data. Then, narrative data was transposed into a common format and organised into folders and files. Thereafter the files were validated, by checking the data for errors or omissions, and anonymising people and places when respondents requested that this be done.

Codes were designed and applied before all the interviews were conducted, and they were adjusted afterwards as some topics and issues were not identified originally.

[65] This Ph.D. research piggybacks on a broader online survey on internet governance in Africa that the candidate has led at Research ICT Africa.

The first phase of coding was the tagging. Basically key and 'codable' words or phrases had to be identified before they were coded. Different words and phrases in the text were highlighted with different colours (Pierce, 2008: 243). Afterwards, the narrative data collected and analysed was triangulated both with the document analysis and with more quantitative demand-side and supply-side indicators.

Interviews on the following issues were coded and evaluated:

- national, regional, and international drivers for an integrated ICT policy and regulatory framework;
- level and mechanisms of participation of member states in the reform process;
- level and mechanisms of involvement of national policy-makers in regional policy issues;
- level of implementation of regional measures at a national level;
- impact of leadership positions in the SADC on regional policies;
- degree of influence – and mechanisms of involvement - of international organisations in setting the regional agenda on ICT;
- regional policy and regulatory outcomes;
- identification of institutional arrangements to ratify regional regulation at a national level;
- degree and level of participation of the SADC in international forums and global policy-making;
- level and degree of collaboration of the SADC secretariat with other regional organisations involved in ICT policy development.

Finally, to evaluate policy outcomes precisely, a set of more quantitative supply- and demand-side data related to regional elements of the infrastructure were collected via secondary data from the ITU, the World Bank, the World Economic Forum and Research ICT Africa.

4.4.1 Verification through triangulation

In order to secure effective corroboration of the information collected, triangulation has been used to corroborate the sources of data as well as the data itself. In order to validate any crucial account, triangulation was used to compare data from that source with data from different sources and perspectives. Triangulation was used to verify findings identified through the coding of qualitative data. Triangulation allows one to find new angles from which to interpret the development of regional ICT policy and regulatory processes; to test assumptions and rationale for the creation of harmonised ICT policy and regulatory frameworks; and to examine the reasons behind the failures of institutional arrangements. It encourages a deeper understanding of regional processes than is possible

for any single participant involved in the process of corroborating qualitative data from different sources. Specifically, the findings were triangulated within and across the different data sources i.e. amongst interviewees but also between findings from interviews and other sources such as documents:

Table 4.2: Triangulation of different sources

Source	**What for?**
Literature review	Is the theoretical framework against which new knowledge produced by this research is analysed, assessed and understood.
Quantitative data analysis	Allows one to assess policy and regulatory outcomes in terms of market performance.
Institutional document analysis	Provides the official institutional framework for regional policy and regulatory formulation and implementation.
Interviews with SADC institutions/ national governments/ technical partners/ academia	Provides both political and technical insight into the regional policy and regulation-making process.

The following figure depicts how different sources of data were used to build the case study.

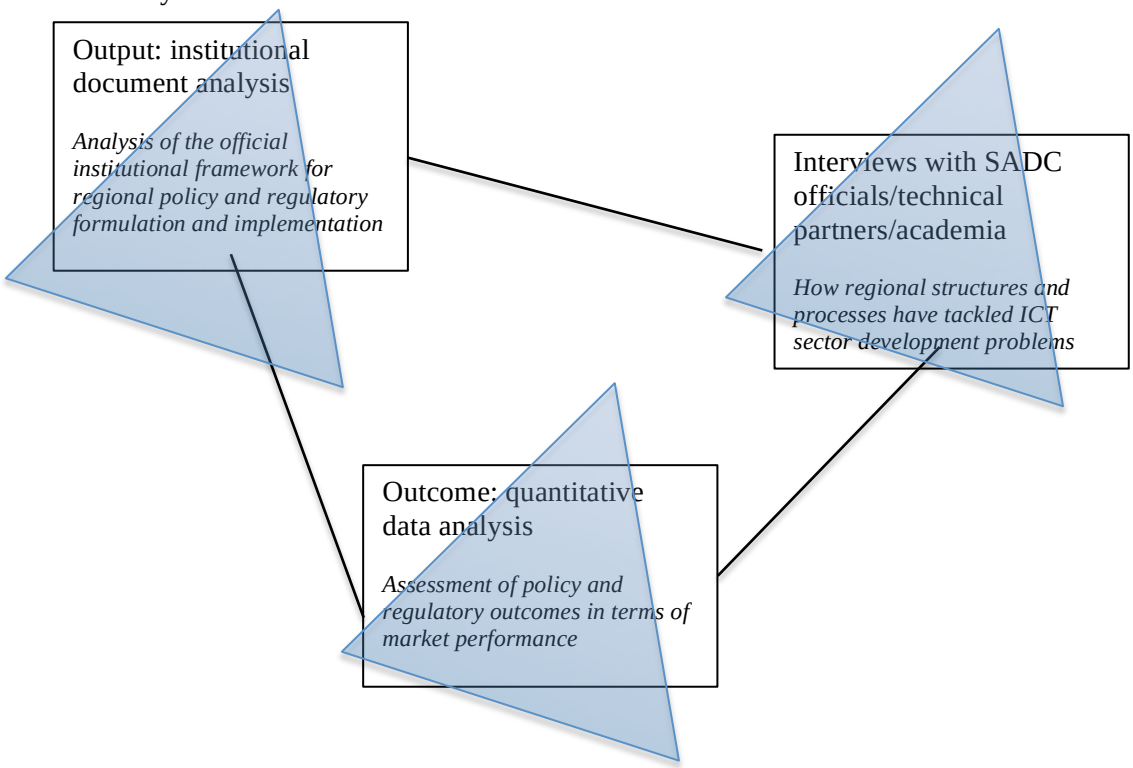

Figure 4.1: triangulation of different data sources

The process applied (to code qualitative data to produce findings; to triangulate data to verify findings; and to analyse findings to draw conclusions and recommendations) is iterative. In order to build a strong case study, the resulting iterative and reflecting

analysis is purposeful, as it allows findings to be presented as they emerge through coding, and then to be verified by triangulating data and sources throughout the thesis. The consistency of the findings from different, as well as the same source has been checked and rechecked. When different opinions on the same issue were not available, the document analysis as well as direct observations of regional processes were used. Nevertheless, multiple sources of evidence were used.

4.5 Obstacles to conducting the research

There are a few obstacles to conducting research in the SADC region, such as:

- the lack of reliable statistical information on ICT indicators. Most of the ICT supply-side (administrative) indicators, for instance from the ITU, are either outdated or inaccurate. Further, a few countries, such as South Africa for instance, failed to provide administrative data to the ITU.
- the lack of documented processes of ratification of regional ICT policy and regulatory framework at a national level, which is compounded by a culture of secrecy which affects many African government organisations.
- the difficulties in identifying the main actors in the process of integration, due to rapid personnel turnover in public administrations.
- the unavailability of respondents, especially from national governments.

In order to overcome these obstacles, a few methodological measures have been adopted to ensure a rigorous and empirical approach from which to carry out the research. Some aspects of SADC regional integration are already covered in the existing literature, and this body of research has informed the conceptual framework and has provided the theoretical foundations upon which to base an empirical case study on regional ICT policy and regulatory frameworks.

Where respondents from national governments were unavailable, data and information were collected through an online-based survey, which was delivered to national, regional and continental respondents. The response rate to this survey has been high, due to the involvement of the NEPAD agency in the research.

Most research on SADC policy issues is related to land reform, regional water management or other infrastructures, and there are only sporadic interventions in the area of ICT policy and regulation, despite the matter attracting much attention, especially from international organisations such as UN agencies, the World Trade Organisation and donors such as USAID. In particular, a few studies have focused on the role of external actors and organisations in shaping the processes of regional ICT policy-making and regulatory formulation.

4.6 Conclusion

In summary, the literature review assisted in the identification of recurring themes and topics in the realm of regional ICT policy and regulation, with specific focus on Africa and, in particular, on the SADC. From the literature reviewed, the framework of analysis was extrapolated. This conceptual framework provided the lens through which empirical data was analysed. From the semi-structured interviews, qualitative evidence was collected to describe the SADC case on regional policy and regulation. The result is a detailed identification and description of regional structures and processes, in order to understand what they have tried to achieve in terms of regulating a regional market. Regional outputs have been assessed through document analysis, which provided evidence of the regulatory and legal basis. Also, primary and secondary qualitative data have been used to measure regional policy and regulatory outcomes, in terms of market performance.

The following chapter presents the findings of the document and legal analysis of SADC structures and processes dealing with ICT policy and regulation. Legal documents have been assessed in terms of the Reference Paper of the IV Protocol to the GATS.

CHAPTER 5 – DOCUMENT ANALYSIS OF SADC STRUCTURES AND PROCESSES FOR ICT POLICYMAKING

This chapter presents the findings of a document analysis of treaties, protocols, model laws and policies, and regulatory guidelines that have created SADC structures and shaped the processes dealing with telecommunications policy and regulation. The analysis was undertaken in the context of an internationally developed and agreed framework for telecommunications sector reform. This assesses the level of liberalisation achieved by SADC countries as a result of the involvement of the region in WTO negotiation processes, and specifically, of accession to WTO and commitments made to the Telecommunications Reference Paper of the General Agreements on Trade and Service (GATS).

The chapter identifies the main SADC structures for regional integration and the main legal documents underpinning regional ICT policy and the regulatory framework. The SADC structures and the regional ICT policy and regulatory framework are the main tangible outputs of regional processes. Thereafter, the emergence of trade in services in southern Africa is discussed, as well as the level of implementation of the Reference Paper of the IV Protocol to the GATS in the different national jurisdictions.

Next, the chapter investigates compliance between what is widely accepted as the global consensus for standard regulation and design (the Reference Paper of the IV Protocol to the GATS) and the regional policy and regulatory framework. Finally, it concludes with an assessment of the level of liberalisation in national telecommunications markets, with an emphasis on constraints on foreign direct investments, which often drive telecommunications infrastructure roll-out and development.

The key elements used as a framework within which to review various SADC documents are those included in the Reference Paper of the IV Protocol to the GATS. Specifically, the Reference Paper includes (a) competitive safeguards; (b) interconnection; (c) universal service; (d) public availability of licensing criteria; (e) independent regulators; (f) allocation and use of scarce resources. The regional reform process has been analysed by means of an assessment of what has been picked up and implemented in terms of liberalising national telecommunications markets, with respect to WTO accession, commitments to communication services, modes of supply, and restrictions based on legal status, investment and nationality.

5.1 SADC structures for regional integration

The Southern African Development Co-ordination Conference (SADCC) was formed in Lusaka, Zambia, on 1 April 1980, following the adoption of the Lusaka Declaration by

nine founding member states.[66] It was started by 'frontline' states whose twin objectives were the political liberation of southern Africa (SADC, 2012) and economic liberalisation. Discussions on economic cooperation started in May 1979 when the foreign ministers of the Frontline States met in Gaborone, Botswana. The ministers agreed to convene an international conference in Arusha, Tanzania, where government representatives and international agency representatives from all over the world gathered to discuss development and cooperation in southern Africa. By the late 1980s, SADCC leaders had realised that the organisation needed a treaty or some sort of legally binding document in order to strengthen regional cooperation among member states. In 1989, the SADCC Summit met in Harare, Zimbabwe, and decided to give legal status to the regional organisation, and to replace the Memorandum of Understanding with an agreement, charter or treaty.

The Declaration and Treaty establishing the Southern African Development Community (SADC), which replaced the Co-ordination Conference, was signed at the Summit of Heads of State or Government on 17 August 1992, in Windhoek, Namibia.

The treaty is a legally binding document, which requires SADC countries to coordinate, harmonise and rationalise their policies and strategies for regionally sustainable development. The treaty commits SADC countries to principles such as sovereign equality of member states; solidarity, peace and security; human rights, democracy and rule of law; and equity, balance and mutual benefit.

According to the International Labour Organisation (ILO, (2014), "Decisions, policies and agreements entered into under the auspice of SADC are legally binding, and the organisation has the necessary legal instruments to enforce such decisions, policies and agreements". However, as observed in different parts of this research, only protocols are binding legal documents for SADC member states. In addition, the SADC does not have infringement procedures in place for member states that do not implement protocol requirements.

5.1.1 SADC institutional structures

The Summit, a SADC institution established under Article 9 of the SADC Treaty (1992), consists of the heads of state or government of all member states. It is the supreme policy-making institution of SADC (SADC Treaty, Article 10). The Council, consisting of one minister from each member state, preferably a minister responsible for foreign or external affairs, has the responsibility of overseeing the implementation of the policies of SADC and the proper execution of its programmes (SADC Treaty, Article 11). It approves policies and strategies, and recommends, for approval of the Summit, the establishment of

[66] Angola, Botswana, Lesotho, Malawi, Mozambique, Swaziland, Tanzania, Zambia, and Zimbabwe.

directorates, committees, other institutions and organs. It also convenes conferences and other meetings for the purpose of promoting the objectives and programmes of SADC. Infrastructure and services, and the monitoring and control of the implementation of the Regional Indicative Strategic Development Plan (RISDP), are areas of competence of the Integrated Committee of Ministers (SADC Treaty, Article 12). It also has decision-making powers to ensure rapid implementation of programmes that would otherwise await a formal meeting of the Council (SADC Treaty, Article 12 (3)).

The Secretariat, which is the principal executive institution of SADC (SADC Treaty, Article 14), is responsible for strategic planning and the management of programmes. It is also responsible for the coordination and harmonisation of the policies and strategies of member states, and will submit harmonised policies and programmes to the Council for consideration and approval. Furthermore, it monitors and evaluates the implementation of regional policies and programmes. It is also in charge of the development of capacity and infrastructure, as well as the maintenance of intra-regional information communications technology.

5.1.2 Other regional structures for ICT policy and regulation

CRASA

The idea of setting up an association of telecommunications regulators was developed in the Regional Telecommunications Restructuring Programme (RTRP) (Barendse, 2006). The Telecommunications Regulators' Association of Southern Africa (TRASA), now Communications Regulators' Association of Southern Africa (CRASA), was established on 15 September 1997 in Dar Es Salaam, Tanzania, as a forum for information and communications regulators in southern Africa. The TRASA Constitution was adopted in December 1997 in Cape Town. It became officially operational in April 1998 with six funding members: Tanzania, Botswana, Namibia, South Africa and Zambia.[67]

It was set up within the framework of the Southern Africa Development Community (SADC) Protocol on Transport, Communications and Meteorology (1996). The strategy pursued by the RTRP, which was working closely with the SARCC-TU and SATA, was to create a regional association of telecommunications regulators, which promotes the idea of model regulation (Barendse, 2006).

The 9th Annual General Meeting (AGM) of TRASA, held in February 2006 in Dar es Salaam, Tanzania, approved a new constitution and TRASA's name changed to

[67] According to Barendse (2006:166), "the consortium was largely inspired by the US approach to regional associations, the RTRP, in keeping with models that had been tried and tested, and based the TRASA constitution on the National Association of Regulatory Utility Commissioners (NARUC) approach to regional harmonisation".

CRASA. According to CRASA (2006), the constitutional review was necessary to align its operations with global changes, in particular those related to convergence of information technology, broadcasting and communication sectors.

CRASA comprises four instruments, namely, the Annual General Meeting (AGM), the Executive Committee (EC), the Specialised Committees and the Secretariat.

The AGM is the supreme decision-making body and meets once a year to receive and approve reports from the Specialised Committees, such as the annual action plans, the annual report and audited accounts, as well as the annual budget for the association. The AGM is also an occasion at which members can share their experiences through presentations and reports (CRASA, 2010).

The second CRASA instrument is the Executive Committee, which exercises supervisory functions over the implementation of decisions made by the association in-between the AGMs. The Executive Committee comprises four members: the Chairperson, the First Vice-Chairperson, the Second Vice-Chairperson and the Treasurer (CRASA, 2010).

The Annual General Meeting and Executive Committee are supported by Specialised Committees, by task teams and by the Secretariat. The Specialised Committees are responsible for producing model policies and guidelines on various regulatory functions applied by the telecommunications regulatory authority in the region of the SADC. The model policies and regulatory guidelines, as approved by CRASA AGM, are submitted to the meeting of ministers responsible for Telecommunications, Postal and ICT for final endorsement (CRASA, 2010).

The task teams are established when the need arises, in order to undertake special assignments as authorised by the AGM.

SATA

The Southern Africa Telecommunications Association (SATA) was established in 1980 in pursuance of the Southern Africa Development Community (SADC) Treaty and under the provisions of the SADC Protocol on Transport, Communications and Meteorology. Until 1999, the association was known as the Southern Africa Telecommunications Administration (SATA). The formation of SATA was based on the need for regional co-operation among SADC member states, as envisaged in the SADC Treaty and the SADC Protocol on Transport, Communications and Meteorology regarding issues pertaining to telecommunications policy and regulation.

SATCC-TU

The Southern Africa Transport and Communications Commission Technical Unit (SATCC-TU) is a technical unit, which is intended to provide technical support to the

SATA (Article 13.11, SATA Constitution). Among others, its functions (Article 13.9, SATA Constitution) are related to research activities, including data collection and analysis, management of a resource centre, the storage of reliable data and resources, and intersection co-ordination between the transport, communications and meteorology sectors.

SABA

The Southern African Broadcasting Association (SABA) is a regional organisation representing public service and other broadcasting organisations across the SADC region. It was established in 1993 “to promote quality broadcasting by enhancing professionalism and the credibility of public service broadcasting across the countries in the region” (SABA, 2014). The main goal of the organisation is to ensure a smooth transition to digital TV by June 2015.

5.2 Harmonised ICT policy and regulation in regional agreements and treaties

In order to achieve the objectives of promoting sustainable and equitable economic growth and socio-economic development to ensure poverty alleviation (SADC Treaty, Article 5 (1)), the harmonisation of political and socio-economic policies and plans of member states has been seen as the main strategy (SADC Treaty, Article 5 (2.a)). Policies aim at progressively eliminating obstacles to free movement of capital, labour, goods and services (SADC Treaty, Article 5 (2.d)) and promoting the transfer and mastery of technology (SADC Treaty, Article 5 (2.f)).

According to Article 21 of the SADC Treaty (1992), member states should coordinate, rationalise and harmonise their overall macro-economic policies and strategies, programmes and projects, in several areas of cooperation, including infrastructure and services. Member states are also required to develop protocols which may be necessary in each area of co-operation (SADC Treaty, Article 22). Protocols are approved by the Summit on recommendations of the Council (SADC Treaty, Article 22 (2)).

5.2.1 SADC Protocol on Transport, Communications and Meteorology

The SADC Protocol on Transport, Communications and Meteorology (TCM) is a comprehensive legal document which regulates the entirety of the transport, communications and meteorology sectors of each member state and of the region, including all policy, legal, regulatory, institutional, operational, logistical, technical, commercial, administrative, financial, human resource and other issues (SADC Protocol on TCM, Article 2.1.).

With regard to the communications sector, the objective of the Protocol is to establish efficient, cost-effective and fully-integrated infrastructures and operations, in order to promote economic and social development (SADC Protocol on TCM, Article 2.3).

According to the Protocol, it is the responsibility of member states to engage all stakeholders in order to integrate regional communications networks, facilitate the implementation of compatible policies and legislation (SADC Protocol on TCM, Article 2.4 (a)), and restructure state enterprises and public utilities (SADC Protocol on TCM, Article 2.4 (d)).

Chapter 10 of the Protocol on TCM is dedicated to the telecommunications sector. The chapter is particularly concerned with universal access and service, which is one of the main policy objectives of this section of the Protocol, together with achieving high-quality and efficient services, and enhancing service interconnectivity in the region. Universal service provisions are not only mentioned in Article 10.3, but the creation of universal access and service funds are also reinforced in Article 10.8, when it is requested that regulatory bodies negotiate and set universal service obligations for network service providers. The whole of Article 10.3 of the Protocol is dedicated to universal service. In particular, member states agree to develop a common understanding of universal services by determining the basic elements which characterise universal service provision, including consideration of whether a service is essential in view of its social and cultural importance; whether it is reasonably accessible to all people of the region on an equitable and non-discriminatory basis; whether it is supplied as efficiently and economically as possible and therefore as affordably as possible (SADC Protocol on TCM, Article 10.3).

According to the Protocol, the harmonised regional telecommunications policy aims at economic and institutional restructuring of telecommunications; and at accelerating network development and universal service; a priority for the harmonised telecommunications policy framework. The chapter on telecommunications also includes the promotion of fair competition between telecommunications service providers.

Article 10.4 of the Protocol deals with broadcasting. The chapter highlights the importance of coordination between broadcasting and telecommunications sectors in view of their convergence, and it calls for the establishment of appropriate institutional mechanisms assisting co-operation and coordination of appropriate sector coordinators.

Article 10.7 requires member states to ensure separation between the regulation and operation of telecommunications services within their national jurisdictions, and it underlines the need to establish an autonomous and independent national regulatory body with statutory authority to regulate the sector. Article 10.8 lists the responsibilities and functions of national regulatory agencies (NRAs), including the monitoring of a universal service fund, licensing, spectrum management, interconnection regulation, etc. An

important aspect of the harmonised regulatory framework is the request for interoperability of telecommunications services in the region, through the development of harmonised technical standards for network architectures and equipment.[68] The Protocol also deals with human resource development in the region. In particular, Article 10.10 suggests developing a common curriculum framework for the education and training of personnel, developing a common standard for competence evaluation and certification of personnel, developing a regional directory of training specialisation and centres, and supporting reciprocal recognition of qualifications. Finally, Article 10.11 stresses the importance of participating in regional and international telecommunications forums, such as ITU, in order to achieve global interconnectivity of networks and the interoperability of services. Further, it suggests that member states agree to be represented at international telecommunications forums by a single member state presenting a coordinated position.

The following table summarises the main concepts included in the SADC Protocol on TCM.

Table 5.1: SADC Protocol on Transport, Communications and Meteorology; Chapter 10 on communications.

Article no.	**Policy area**	**Short description**
2.3	Integration of infrastructures	The objective of the protocol is to establish efficient, cost-effective and fully integrated infrastructures and operations.
2.4 (a)	Implementation of compatible policies and legislation	It is responsibility of member states to engage all stakeholders in order to integrate regional communications networks.
10	Harmonised regional telecommunications policy	The harmonised regional telecommunications policy aims at economic and institutional restructuring of telecommunications and at accelerating network development and universal service.
10.3 and 10.8	Universal access and service	Universal access and service is one of the main policy objectives of Chapter 10 of

[68] SADC Protocol on TCM, Article 10.9 (1). The Article includes a request for formulation or approval of the numbering plan and the setting of technical standards in respect of mobile phone systems, cable specifications, telephone signaling systems and equipment type approval.

Table 5.1: SADC Protocol on Transport, Communications and Meteorology; Chapter 10 on communications.

Article no.	Policy area	Short description
		the Protocol, together with achieving high-quality and efficient services and enhancing service interconnectivity in the region.
10.4	Broadcasting	Importance of coordination between broadcasting and telecommunications sectors in view of the convergence.
10.7	Separation between regulation and operation of telecommunications services	Importance of establishing autonomous and independent national regulatory bodies with statutory authority to regulate the sector.
10.8	NRAs responsibilities and functions	NRAs responsibilities and functions include the monitoring of the universal access fund, licensing, spectrum management, interconnection regulation, etc.
10.10	Human resource development	Development of a common curriculum framework for the education and training of personnel, a regional directory of training specialisation and centres, and reciprocal recognition of qualifications.
10.11	Participation in international telecommunications forums	Participation should encourage global interconnectivity of networks and interoperability of services.

Source: Author's compilation

5.2.2 Telecommunications Policies for SADC and SADC Model Telecommunications Bill

The SADC Model Telecommunications Bill was prepared in conjunction with telecommunications policies for SADC. The SADC documents were approved during an annual general meeting held in Swaziland in June 1998 by the SATCC Committee of Ministers.

The Telecommunications Policies for SADC (SATCC, 1998)

The document was prepared in pursuance of the provisions of Article 10.2 Chapter 10 of the Protocol on TCM. The policies were approved as a common policy guideline for adoption and implementation at a national level. The Southern Africa Transport Communications Commission – Technical Unit (SATCC-TU) was made responsible for monitoring the implementation of the policies and the Model Telecommunications Bill and was to report to the Committee of Ministers.

The document includes a problem statement and objectives, and a series of strategies for achieving policy objectives. It has a checklist of functions and ways to support national governments, and authority to implement the regional policy framework at a national level.

The policy aims at ensuring affordable, efficient and high-quality services, and at enhancing regional service interconnectivity. It also aims at creating a regional telecommunications industry that is globally competitive. The telecommunications policy stresses the importance of restructuring the institutional framework in order to properly allocate roles and responsibilities, to promote accountability and transparency, to promote efficiency and cost-effectiveness, to manage the telecommunications industry and to restructure national incumbent operators (SATCC Telecommunications Policies, Part 2 (2.1.)).

The policy clearly states the role of the government, the ministry responsible for telecommunications, and the regulator, indicating roles, responsibilities, scope and mandate, functions and relationships with all the relevant institutions. In particular, with regard to the Regulatory Authority, the policy includes a checklist of functions and issues with reference to establishing or strengthening a regulatory authority (SATCC Telecommunications Policies, Part 2).

The policy also addresses policy and regulatory principles crucial to the overall achievement of universal service and access. It suggests that many aspects of the telecommunications sector should be regulated, such as: universal service and universal access, tariffs, interconnection, frequency spectrum, numbering plan, new and advanced services, standards enforcement, indigenous participation in development, social obligation, and regional and international participation.

The Telecommunications Bill Model for SADC (SATCC, 1998)

The Telecommunications Bill Model for SADC (SATCC, 1998) is a document aiming at supporting SADC member states in the development of their own ICT bill.

The Telecommunications Bill empowers the minister to establish overall policies for the telecommunications sector. As with the Telecommunications Policies for SADC, it requires the establishment of autonomous and independent Regulatory Authorities.[69]

Table 5.2: Comparison between SADC Protocol on TCM and Model legislation

SADC Protocol on Transport, Communications and Meteorology	**Telecommunications Policies for SADC and SADC Telecommunications Bill**
Objective: to establish efficient, cost-effective and fully integrated infrastructures and operations.	Objective: to ensure affordable, efficient and high-quality services and enhance regional service interconnectivity. Also, to create a regional telecommunications industry that is globally competitive.
Universal service provisions: creation of universal access and service funds; universal service obligations.	Policy and regulatory principles are to achieve universal service and access.
Harmonisation aims at economic and institutional restructuring of telecommunications.	--
Promotion of fair competition between telecommunications providers.	--
Coordination between broadcasting and telecommunications in view of the convergence. In that regard it calls for the establishment of appropriate institutional mechanisms for co-operation and coordination.	--
Separation between the regulation and operation of telecommunications services.	Specification of roles, responsibilities, scope and mandate, functions and relationships between the ministry responsible for telecommunications and the regulator.
--	Importance of restructuring the institutional framework in order to properly allocate roles and responsibilities, to promote

[69] In particular, the Telecommunications Bill goes into detail regarding the powers and functions of the NRA, the structure of authorities, including the number and appointment mechanisms of board members. It also addresses the financing of the authorities. It lists general powers and duties related to the regulation of the sector, including licensing.

Table 5.2: Comparison between SADC Protocol on TCM and Model legislation	
SADC Protocol on Transport, Communications and Meteorology	**Telecommunications Policies for SADC and SADC Telecommunications Bill**
	accountability and transparency, to promote efficiency and cost-effectiveness, to manage the telecommunications industry and to restructure national incumbent operators.
Functions of NRAs include: monitoring the universal service fund, licensing, spectrum management and interconnection regulation, among others.	Aspects that should be regulated include: universal service and universal access, tariffs, interconnection, frequency spectrum, numbering plan, new and advanced services, standards enforcement, indigenous participation in development, social obligations, and regional and international participation.
Request for the interoperability of telecommunications services.	--
Human resource development in the region through the development of a common curriculum framework.	--
Participation in regional and international telecommunications forums.	--
Source: Author's compilation	

Table 5.2 above compares the SADC proposal on transport, communications and meteorology with the SADC model legislation on ICT. The two frameworks address similar issues, and both have a special focus on universal access and service. However, while the Protocol broadly requires that government functions are separate from regulatory functions, the model legislation goes into detail on the roles and responsibilities of both the ministry and the regulatory authority.

In order to assess the effectiveness of SADC in creating an integrated regional market for communications services, the following sections seek to evaluate the level of compliance of regional and national policy and regulatory frameworks with the Reference Paper of the IV Protocol to the GATS.[70] The principles of the Reference Paper of the IV Protocol to GATS are widely accepted as a solid foundation for standard regulatory design (Cohen, 2001 LIRNEasia, 2008).

[70] See http://www.wto.int/english/tratop_e/serv_e/telecom_e/tel23_e.htm

The following table depicts a two-level coding frame adopted to conduct the document analysis.

Table 5.3: Two-level coding frame for document analysis

Structures and processes	**Coding frame**
1) International telecommunication sector reform	Reference Paper of the IV Protocol to the General Agreements on Trade and Service (GATS): - Competitive safeguards - Interconnection - Universal service - Public availability of licensing criteria - Independent regulators - Allocation and use of scarce resources
2) Regional reform	What has been implemented at a regional level in terms of liberalising national telecommunications markets? - WTO accession - Commitments to communication services - Modes of supply - Restrictions based on legal status, investment and nationality

Source: Author's compilation

5.3 Regional alignment to global regulatory frameworks

Services, such as telecommunications, have been historically considered non-tradable for several legal, institutional, economic and technical reasons, including their supposed intangibility or invisibility, their non-durable or transitory character, and the view that they require direct and simultaneous production and consumption (Senunas, 1997, in Cohen, 2001).

Although its regulatory principles have often been criticised for lack of precision, the Reference Paper of the IV Protocol to the GATS represents widely-accepted principles for regulating basic telecommunications services (Cohen, 2001; LIRNEasia, 2008). As Cohen notes (2001), obligations undertaken through the Fourth Protocol and the Reference Paper are a reflection of signatories' existing or planned domestic liberalisation policies. However, she notes that the strength of the Reference Paper lies in ensuring that implementation occurs according to a set time-frame.

In particular, the Reference Paper is divided into six sections, the first two applying to regulation of “major suppliers”, while the remaining four deal with general regulatory issues.

5.3.1 Competitive safeguards

The first section of the Reference Paper requires that competitive safeguards be set, in order to prevent the main suppliers from engaging in, or continuing, anti-competitive practices, such as (a) engaging in anti-competitive cross-subsidisation; (b) using information obtained from competitors inappropriately; and (c) retaining technical information about essential facilities or commercially-relevant information.

Chapter 10 of the SADC Protocol on Transport, Communications and Meteorology aims at promoting and sustaining fair competition between telecommunications service providers. It requires the granting of access to telecommunications networks and services by each other’s service providers, on reasonable and non-discriminatory terms and conditions.

With regard to the Telecommunications Policies of SADC, one of the main policy objectives is to build a competitive regional telecommunications sector, by attracting local and foreign investors (TP for SADC, SATCC, 1998, Art. 1.2.3). Furthermore, they aim to promote a fair, competitive and stable investment environment and require stakeholders to provide network access on reasonable and non-discriminatory terms and conditions (TP for SADC, SATCC, 1998, Art. 1.2.4). The competition aspect is mentioned in other sections of the document. First, the section discussing institutional frameworks states that one of the objectives of the required structural transformation of telecommunications institutions is to introduce and to promote competition. To this end, governments are required to create a level playing field to facilitate the entry and growth of nascent operators; and to allow for checks and balances, including an independent judiciary service. Second, the section related to the role of the regulator clearly states that the regulator is in charge of monitoring the demand and supply capacity of service providers, and should intervene to correct imbalances or market distortion in favour of users. According to the TP for SADC (SATCC, 1998) one of the specific objectives of the regulatory authority is to “ensure a level playing field where competitive entry is permitted under the info-communications policy” (Art. 2.5.4). Ownership, control and competition are also listed as key regulatory issues. In order to create the necessary conditions for long-term stability in countries where privatisation or competition have already been introduced, it was suggested that a review of policy and regulatory frameworks be conducted, in line with the aim of effectively monitoring the abuse of monopoly power.

However, at the time the Protocol was promulgated, SADC markets were still structured around vertically-integrated incumbents, and liberalisation, where it occurred, was "managed". Therefore conditions for fair competition, within the Public Switched Telephone Network (PSTN) market segment, were not in place. [71] The Telecommunications Policy for SADC (SATCC, 1998) prescribes that the SADC countries retain the vertically-integrated nature of the PSTN incumbent during negotiation on exclusivity, because it considers this structure to be more attractive to potential investors. It envisages competition in networks and services other than the integrated PSTN, including mobile network, VANS and electronic devices. At a national level South Africa for instance, as part of the implementation of GATS commitments, opened up its market in 1994 only in value-added or enhanced services, while at the horizontal level it made no market-access undertakings. Subsequently, in 1997 through the Telecommunications Act, it continued to impose the same restrictions with respect to market access and national treatment, resulting in the creation of protective legislation around Telkom's monopoly of voice services and essential facilities (Cohen, 2001).

5.3.2 Interconnection

Ensuring interconnection, on reasonable terms and within a reasonable time, is considered a pre-condition for competition within the telecommunications market, as regulated cost-based interconnection rates allow new entrants access to the network of an established vertically-integrated incumbent. Interconnection should be provided on non-discriminatory terms, conditions and rates. Transparency is required with regard to procedures for interconnection negotiations and arrangements.

The SADC Protocol on TCM (1996) only mentions that NRAs are responsible for determining harmonised interconnection guidelines (Art. 10.8). Interconnectivity of networks is only required at a technical level for interoperability of telecommunication services. Telecommunication policies for SADC (SATCC, 1998), which aim at developing a common regional telecommunications policy, address the interconnection issue more from a policy perspective. The regional policy document requires that interconnection facilitate the interoperability of new services, including carrier pre-selection and number portability. Although it does not mention that interconnection

[71] The "managed liberalisation" approach has had negative consequences in the development of the sector. According to Gillwald (2009), the privatisation of Telkom in South Africa through the extension of its monopoly, negatively affected affordable access and market development. "Managed liberalisation" allowed the incumbent to extract monopoly profits, which were partially repatriated to the United States by SBC. "By the end of the five years exclusivity period in 2002, the partially-privatised and foreign-controlled incumbent, Telkom, had retrenched over 20,000 workers, and cut off a million people who could not afford to pay even for local and national services" (Gillwald, 2009:167).

should be cost-based, it suggests that an operator should be compensated for the traffic that it carries for another operator, and in cases where additional equipment capacity is required, the carrier operator should use the long-run incremental cost principle to calculate the applicable tariffs (which should not be worse that those applicable to its own subscribers) or to promote infrastructure expansion.

However, in 2000, TRASA developed guidelines on interconnection for SADC countries in order to implement the protocol guidelines. These guidelines constitute a comprehensive document aimed at facilitating the development of country-specific principles by NRAs, taking into account that harmonisation should remain the key objective as far as practicable in the building up of regional integration.[72]

The guidelines on interconnection have not been updated since 2000, although the technological environment has changed to converged and IP-based platforms.

5.3.3 Universal service

The RP mentions that any member has the right to define the kind of universal service obligations it wishes to maintain. Such obligations should be administered in a transparent, non-discriminatory and competitively neutral manner and should not be more burdensome than necessary for the kind of universal service defined by the members.

Universal service is the guiding principle of regional ICT policy and regulation in the SADC. The main objective of the SADC Protocol on TCM (1996) is to achieve regional universal service with regard to telecommunications services, and regional universal access to advanced information services. The Protocol envisages restructuring telecommunications markets, taking into account ownership options with due regard for the achievement of universal service goals, and the extent to which strategic public and private investors can be introduced. It requests that member states develop a common understanding of service by determining the basic elements which characterise universal service provision, taking into account an efficient and economic supply which will allow affordable services. It also suggests that the special needs of persons with disabilities should be taken into account, as well as the need for connectivity in rural areas. The Protocol also recommends that progress with universal service should be measured through indicators.

[72] The Policy Guidelines on Interconnection for SADC countries and Model Telecomm Regulations on Interconnection (2000) address issues of regional mobile roaming. They have been developed despite recognition that roaming charges in the region are too high due to market forces. The guidelines recommend establishing a Regional Alliance Task Team in order to investigate mechanisms for reducing regional roaming tariffs in the SADC countries. The Ministers recommended that the SADC Home and Away Roaming Project be implemented in three phases, including: 1) liberalisation, transparency, information and data collection; 2) roam-like-a-local; and 3) cost-based price regulation.

Universal access and service is the principal policy and regulatory principle of the SADC Telecommunications Model Policy (SATCC 1998; Telecommunications policies for SADC): the policy objectives being to achieve universal service with regard to telecommunications services, and universal access with regard to advanced information services in the region. The Telecommunications Policy Model overlaps functions of policy development, policy implementation and administration, and the management of the fund. It prescribes the establishment of a universal service fund, and it states that it should be administered by a specialised agency under the ministry or under the regulator,[73] without mentioning issues of independence or the definition of roles and responsibilities for each institutional actor. In a different section of the document, universal access and service is listed as one of the main functions of the regulator, who should also implement the policy formulated by the Universal Service Agency and administer the fund. The overlapping roles and functions of the minister, the regulator and the specialised agency, as specified in the Telecommunications Policy Model, nullify the possibility of using this model to develop a universal access and service policy, which takes into account the separation of powers and the independence of the regulator or the agency managing and administering the fund.[74]

Universal access and service guidelines have been updated with the HIPPSA project in the form of a toolkit to implement universal access funding and service. Although the guidelines are focused on practical methods of establishing, running and disbursing a universal access and service fund, other research conducted in the region has been particularly critical of the establishment of the fund to finance network extension in rural and perceived uneconomic areas. This has mostly been due to weak institutional arrangements in the region and difficulties related to disbursing the fund. In particular, Calandro and Moyo (2010) assert that some of the perceived failure of markets, or the perception that some areas are uneconomic, which provides the rationale for the establishment of UAFs, is often the result of the failure of African governments to create a policy and regulatory environment conducive to investment, or to open up markets to

[73] Although there is not "one solution fits all" aspect to universal access and service policy, which can be implemented either by a regulator, a minister of ICT or a special agency, general ITU guidelines prescribe that there should be a legal mandate for the minister to develop universal access and service policies. However, the guidelines warn that in cases where the policy is both developed and implemented by the same organ, such as the minister, a risk of managing the fund independently may occur, especially in cases where the government has ownership interests in the industry (Maddens, 2009).

[74] It is important to mention that strong emphasis is placed on the creation and setting up of independent regulatory agencies, both in the Protocol and in the Telecommunications Policy Model.

competitors who may have not found it uneconomic to service areas where incumbents have legacy networks.

5.3.4 Public availability of licensing criteria

The Protocol on TCM (1996) does not mention that licensing criteria should be publicly available. This compromises a major public value of the government organisation: transparency. The Telecommunications Policy Model (SATCC, 1998) does not require that licensing criteria be publicly available, although it prescribes that the licensing function should be performed in a transparent manner.[75]

5.3.5 Independent regulators

The regional policy framework places a strong emphasis on the establishment of independent national regulatory bodies. Chapter 10 of the SADC Protocol specifically prescribes the establishment of autonomous and independent regulatory bodies. Furthermore, the establishment of independent regulatory agencies is mentioned as a structural change in the Telecommunications Policy Model for SADC, which also mentions that in a reformed telecommunications industry, public roles and power should be clearly separated. While governments should retain strategic planning and policy-making powers, national regulatory agencies should independently enforce government directions. The document specifies that regulatory institutions should be completely independent from operators and governments, in order to ensure impartiality, flexibility and transparency.

5.3.6 Allocation and use of scarce resources

The regional policy and regulatory framework devotes little attention to the allocation and use of scarce resources, although the management of scarce resources is specifically mentioned among the regulatory functions in the Telecommunications Policy Model. It is also emphasised that the allocation of scarce resources should be done in a transparent manner. Neither the Protocol nor the Telecommunications Policy Model require that scarce-resource allocation should be done in an objective, timely and non-discriminatory manner.

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[75] Specifically, the document requires that the licensing system should "undertake the licensing of all telecommunications service providers, according to such policy guidelines as may be set by the Minister; licence radio spectrum users, except those operating under licences issued by the broadcasting regulatory agency, where such an agency exists, undertake the review of existing licences, where applicable; monitor and enforce compliance with the relevant legislation and regulations; determine appropriate classes of licences; hear complaints from users and service providers." (SATCC, 1998; Telecommunications policies for SADC).

Table 5.4: Comparison between Reference paper of GATS, SADC Protocol on TCM and Telecommunications Policies for SADC		
Reference paper of the IV Protocol to the GATS	**SADC Protocol on TCM**	**Telecommunications Policies for SADC**
Sets up competitive safeguards to prevent main suppliers from engaging in, or continuing, anti-competitive practices.	Aims at promoting and sustaining fair competition between telecommunications service providers; requires granting of access to telecommunications networks and services by each other's service providers on reasonable and non-discriminatory terms and conditions.	Aims at building a competitive regional telecommunications sector by attracting local and foreign investors; aims at promoting a fair competitive and stable investment environment; requires that network access is provided on reasonable and non-discriminatory terms and conditions; upholds the objective of structural transformation of the telecommunications institutions to introduce and to promote competition; puts the regulator in charge of monitoring demand- and supply-capacity of service providers with the right to intervene in order to correct imbalances or market distortion in favour of users.
Ensures interconnection on reasonable terms and within a reasonable time.	States that NRAs are responsible for determining harmonised interconnection guidelines.	States that interconnection should facilitate interoperability of new services including carrier pre-selection and number portability.
Specifies that any member	Aims at achieving regional	Upholds universal access

Table 5.4: Comparison between Reference paper of GATS, SADC Protocol on TCM and Telecommunications Policies for SADC		
Reference paper of the IV Protocol to the GATS	**SADC Protocol on TCM**	**Telecommunications Policies for SADC**
has the right to define the kind of universal service obligations it wishes to maintain; such obligations to be administered in a transparent, non-discriminatory and competitively neutral manner.	universal service with regard to telecommunications services; and regional universal access to advanced information services.	and service as the principal policy and regulatory principle of the policy.
Stipulates the public availability of licensing criteria.	//	//
Calls for an independent regulator.	Prescribes the establishment of autonomous and independent regulatory bodies.	Mentions independent regulation as a possible structural change.
Allocates the use of scarce resources.	//	Emphasises the allocation of scarce resources as a regulatory function which should be done in a transparent manner.
		Source: Author's own tabulation

5.3.7 The policy of managed liberalisation in regional documents

Both the SADC Protocol on Transport, Communications and Meteorology (1996) and the Telecommunications Policies for the SADC (SATCC, 1998) prescribe a liberalisation of the telecommunications sector in phases. By regulation, both the Protocol on Transport, Communications and Meteorology (1996) and the Telecommunications Policies for the SADC (SATCC, 1998) limited competition and market entry by granting exclusivity periods, in order to maximise the advantages of telecommunications infrastructures for

buyers.[76] With regard to an exclusivity period, Wallsten (2000) investigates the effect of an exclusivity period on sector performance. He observes that countries granting the privatised incumbent an exclusivity period thereby guaranteed a temporary monopoly, thus attracting investors while doubling the value of telecommunication infrastructure assets. However, he found out that, although the exclusivity period granted by regulation is associated with significant increases in the value of the incumbent's assets, the operator significantly decreases investment in telecommunications infrastructure. The reason is that monopolies maximise profits, cutting down outputs, and therefore have no incentive to invest in order to improve outputs (Wallsten, 2000). Furthermore, the exclusivity period conflicts with market efficiency objectives because it significantly reduces competition (Hodge, 2002).

The second reason for a gradual liberalisation programme is to provide enough time for incumbents to adjust to a new, potentially competitive environment, and survive.

Another measure restricting market entry is the imposed limitation on foreign ownership, adopted as a foundation of the telecommunications reform policy in order to build domestic expertise and entrepreneurship. Countries force foreign investors to go into a joint venture with a domestic partner. South Africa has also inserted the black economic empowerment clause.

5.4 Conclusions

The SADC has formally achieved a high level of regional integration. Political and economic reasons have caused the region to establish a development community regulated by constitutionally-binding documents, such as the treaty establishing the SADC (1992). Under the treaty, several institutions have been created with powers to impose binding rules on member states, and to initiate, implement and monitor strategic plans, programmes and projects. In addition to the SADC secretariat and a specialised office dealing with regional ICT policies, other regional structures have been created to regulate the sector at a regional level, and to monitor the level of development in the

[76] The Telecommunications Policy for the SADC clearly states that the regional strategy to maximize revenue generation is to "retain the integrated nature of the state-owned telecommunications enterprise network intact during negotiation on exclusivity" (SATCC, 1998: 25). This is because the vertically-integrated structure of the incumbent is considered more attractive to potential investors. In particular, the "transition period" is aimed at creating, within the new institutional framework, the necessary capacity to operate in a largely liberalised global economy, and to allow the existing institutions and the newly-established regulators and operators time to adjust to new market conditions, which include the privatisation of the incumbent and the entrance of new telecommunication players. The Protocol on TCM (SADC, 1997) prescribed that changes leading to partial or total privatisation of the public incumbent be affected in phases. It was recommended that a five year limited period of exclusivity be granted.

telecommunications sector, which is supported by regional organisation. A Protocol, Telecommunications Policy Guidelines and a Telecommunications Model Bill govern the sector at a regional level, and provide guidelines for member states on how to regulate key issues, such as the establishment of universal access and service funds, interconnection, allocation of scarce resources, public availability of licencing criteria, and independent regulators. The SADC ICT policy and regulatory framework is well aligned to the Reference Paper of the IV Protocol to the GATS. However, both the SADC Protocol on TCM (1996) and the Telecommunications Policies for the SADC (1998) prescribe a liberalisation of the telecommunications sector in phases. They recommend that the SADC countries retain the vertically-integrated nature of the PSTN incumbent during negotiation on exclusivity, in order to maximise telecommunications infrastructure assets for buyers.

Although RECs can support the participation of less-resourced and small member countries in WTO negotiation processes, as they can support preparatory work of member states and the coordination of regional positions at WTO level, studies reveal that the SADC lacks human and financial resources, lacks representation in Geneva and lacks concrete inputs from member states at WTO negotiations. As a result, although most of the recommendations provided by the RP of the IV Protocol to the GATS have been embedded in regional ICT policy and regulatory framework, only six countries (Botswana, DRC, Lesotho, South Africa, Mauritius, and Zimbabwe) have made specific commitments on telecommunications. Angola, Botswana, Malawi and Mozambique have only partially liberalised their markets, while ownership restrictions in Zimbabwe, Namibia and South Africa may obstruct foreign direct investments in telecommunications markets.

The next chapter explores how the regional institutional arrangements (in policy and regulatory efforts) have shaped ICT policy and regulatory outcomes, in terms of outputs in relation to regional structures, institutions and ICT legal frameworks.

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CHAPTER 6 – ANALYSIS OF QUALITATIVE FINDINGS

While the previous chapter identified the institutions and instruments of regional integration, particularly with respect to the ICT sector, this chapter reports on the findings from interviews, conducted with key stakeholders involved in the reform process of ICT policy and regulation in the SADC. The aim is to establish whether the regional institutional arrangements – including regional structures and processes – facilitated or constrained the realisation of the regional objectives of integration and harmonisation of ICT policy and regulatory frameworks, and why and how they did so. The information collected through the interviews has been integrated and complemented with media and press releases, informal conversations with representatives from national, regional and international organisations, and presentations from regional meetings.[77]

In the final chapter, this analysis uses Keohane and Nye's (1975) concept of "institutional integration" to assess the policy outcomes of governments. Keohane and Nye emphasise the importance of explaining aspects of integration, such as institutional and policy integration, and of relating this level of integration to their outputs. They suggest that institutions are created for the effects that they have on social and economic conditions, and should be evaluated in terms of the outcomes of government policies. They observe that focusing on policy integration directs one's evaluation to those outcomes which directly affect people's lives. This analytical approach goes beyond the observation of institutions. It therefore overcomes the limitations of an analysis that correlates "the political significance of an integration process with its degree of formal institutionalisation" (Keohane and Nye, 1975: 375). In addition, the conceptual framework of capacity-building, as a tool for foreign affairs, is used as the lens through which to examine the evidence collected through interviews conducted with respondents, who are involved in the regional process of developing an harmonised ICT policy and regulatory framework. The thesis draws on Hameiri's (2009) concept of capacity-building as a political mechanism for state trans-nationalisation and thus as an instrument in foreign affairs. In that sense, technical assistance and capacity-building activities are not only technical undertakings aimed at improving economic performance and social development, but are also foreign policy tools which are used to advance national interests and norms (Pawlak, 2014).

[77] The participatory observation included a few meetings such as participation in the conference "e-Parliament, Concept, Policy and Reality" held at parliament in the Republic of South Africa during October 2009; a CRASA meeting on spectrum management held in Johannesburg in September 2012; participation in internet governance forums, such as the ICANN47 Durban meeting and the Southern Africa IGF.

The analysis of the qualitative findings, and the emerging themes and patterns arising from the interviews, are used, together with the findings of the document analysis in the previous chapter, to build a case study of regional policymaking.

The interviews were conducted with purposefully sampled key stakeholders, and focused on four main areas of investigation:

1. the drivers (national and international) for the development of an integrated regional ICT policy and regulatory framework;
2. the enforcement of regional ICT policies, protocols and declarations at a national level, and level and status of integration and harmonisation achieved by ICT policy and regulation in the SADC region;
3. the involvement of international organisations in regional ICT policy and regulatory formulation; and
4. the role of SADC in international regulation.

6.1 Coding

The first step in my analysis of the interviews was to develop codes to select and narrow down the information received from the participants into more manageable and consistent clusters of data. The codes were generated from the topics addressed in the semi-structured questionnaire, and were useful in clustering similar subjects or ideas gathered from different conversations.

Thematic coding involves "interpreting the information" and categorising textual extracts with reference to "themes in the context of a theory or conceptual framework" (Boyatzis, 1998:11). This form of coding allows one to analyse narrative data and to identify emergent themes. Individual topics were identified, based on the proposed theoretical framework, research questions, and prior literature review, and they are described through the lens of "institutional integration", capacity building as a form of foreign affairs and the support of an epistemic community. Thematic coding was used, for example, to combine and catalogue recurring patterns identified in the narrative data collected through the semi-structured interviews. Transcripts of digitally recorded interviews have been reviewed, and the topics found have been listed, based on recurring subjects and issues. The themes or thematic patterns were used as a framework to analyse why regional structures, through their policy and regulatory interventions, have not achieved the intended ICT policy objectives as stated in SADC protocols and declarations. Once groups of narrative data were created on the basis of themes and issues mentioned above, a more in-depth analysis of the participants' answers gathered in codes, made it possible to identify themes that were clearly connected to the issues previously identified

in the theoretical framework.

The interviews have been coded and evaluated according to the following issues:

- the degree of policy and regulatory impact of regional institutions and their capacity to influence the telecommunications sector reform process at a national level;
- the capacity of regional institutions to influence ICT policy at a national level;
- the degree of participation of member states in regional decision-making processes and regional ICT policy and regulatory formulation;
- the degree of involvement of international organisations and foreign communities in processes of regional ICT policy formulation; and
- the impact of regional ICT policy and regulatory frameworks on market structure and regional ICT infrastructure development, and the development of ICT infrastructure because or despite of these.

6.2 Challenges in collecting and analysing qualitative data

The main challenge encountered in conducting the interviews was the availability of respondents. The majority of them belong to national, regional and international public organisations and although they were consistently followed up, in many cases no answer or limited feedback was received. As emerged during some interviews, there is not a strong practice of transparency and accountability in the African public sector. Indeed, in some countries a culture of secrecy still exists and therefore officials from public institutions were reluctant to be involved in this study. Alternatively, they did not feel any obligation to record or account for their period in office. Others were defensive, either about policy outcomes or because they feared their lack of expertise in the area might be exposed.

In addition, reports from regional meetings and declarations are not always publicly available, and representatives from regional organisations refused to provide these documents. The regional legal framework does not require the publication of these documents and therefore representatives from regional organisations prefer not to release them. Therefore, the only accessible documents, besides the historical legal documents, such as guidelines, model laws and model bills, were media statements and presentations, to supplement often outdated websites.

This has been counterbalanced to some degree, by drawing on the survey results of mapping multi-stakeholder participation in internet governance from an African perspective conducted during 2014.[78]

[78] I was the project leader on this Annenberg-funded survey designed and conducted at Research ICT Africa (RIA) in collaboration with NEPAD Agency. RIA is the regional think tank where I have been working as a research fellow since I started the Ph.D. thesis.

6.3 Summary of findings

The purposefully sampled respondents were selected from regional and international organisations involved in the first and second round of reforms. Respondents included representatives from NEPAD agency, ITU, SATRA, Research ICT Africa, USAID, CRASA, SADC Secretariat, and SADC Parliamentary Forum.

The following themes, recurring in the coding process, produced these findings:

1) The importance of economies of scale and scope and the need for a common approach to the market were found to be the main drivers integrating and harmonising policy and regulation at a regional level. In addition, two main reasons for regional integration emerged from a political point of view: the need to create a common regional identity; and the need to shift from the isolation of South Africa under the apartheid regime to a more regionally-inclusive regime.

2) The level of participation of member states in the reform process was evaluated as high by different respondents. However, member states only become involved at the end of the regional policy-making and regulatory process, when they participated in validation workshops after the legal documents have already been developed by consultants from donors or multilateral agencies.

3) Although a harmonised policy and regulatory framework exists and has been developed at a regional level, it has not been fully transposed to the national level. The main objective of the first round of reforms, separating government and regulatory roles, was achieved at national level - with the exception of Swaziland – but the regional framework has been unequally implemented in all SADC countries. The main reasons are (a) absence of enforcement mechanisms for model policies and model bills, and a voluntary approach to transposing the regional framework at national level; (b) different transposing mechanisms in different national legislative frameworks; (c) lack of expertise at a parliamentary level to transpose regional measures into national legislation; (d) lack of a robust base of data and analysis on the development of the ICT sector, which makes it difficult for policy-makers to adapt a regional framework to local reality, and identify precise points of policy intervention; (e) lack of parliamentary participation in regional processes, despite the existence of the SADC Parliamentary Forum.

4) Although leadership positions on different policies rotate among SADC countries, some member states, such as Mauritius and South Africa, have been more capable of leading the regional debate. The countries which most influence regional policy and regulatory outcome are those that perform better in terms of regulating the sector, or simply have a larger market (even if they experience policy and regulatory failure), and

other member states thus follow their example. Nevertheless, among SADC countries there is a strong feeling of teamwork when they deal with ICT policy issues.

5) Due to a lack of financial and human resources, and technical capacity at a regional level, especially with regard to ICT policy and regulation, international organisations provide the technical expertise needed to develop harmonised regional frameworks. Although they employ experts and consultants, they bring into the region an epistemic community view of international regulation, which is often informed by assumptions developed in mature markets and political systems.

6) The regional institutional arrangements are not conducive to effective ICT policy-making. Structures to monitor and evaluate the level integration achieved by the harmonised regional framework do not play any significant role. Furthermore, the dominance of ministers in the ratification process does not leave enough space for other entities – such as parliaments – to participate and influence regional ICT policy outcomes.

In order to link views to institutional perspectives in the analysis of the interviews, I have assigned specific roles to the interviewees. They were grouped in the following categories: representatives from international organisations, representatives from regional organisations, and representatives from academia and external consultants. These groups have been categorised according to the interviewees' involvement in the regional reform process.

The following paragraphs analyse in detail what emerged from the semi-structured interviews.

6.4 What are the drivers of the development of an integrated regional ICT policy and regulatory framework?

In order to assess the drivers (national and international) for the development of an integrated regional ICT policy and regulatory framework, interviewees were asked to discuss the reasons for ICT policy and regulatory integration in the SADC region, and what are the mechanisms of participation of member states in the regional ICT policy and regulatory formulation. From the codification of the answers, the following five drivers have emerged.

6.4.1 The theory: Regional economies of scale and scope

Respondents provided different answers. The main reason was the creation of regional economies of scale and scope.

> *"It is important to harmonise ICT policy and regulation to benefit from economies of scale and scope. The majority of SADC countries have small telecommunications markets that would not appeal to investors. Instead, a*

bigger market would attract a bigger injection of investment in this sector." (Linzie, telephonic interview, April 2013).

Regional economies of scale and scope, according to another respondent, would develop through the creation of a regional telecommunications market.

> *"One of the main objectives of the African Union is to develop a bigger market, starting with the establishment of Regional Economic Communities which are the building blocks of the African Union. In order to establish a common market the players in the market need a regulatory environment which is conducive to stimulating business. A common market allows the movement of products and services across countries and therefore there is a need to establish a regional market with similar rules across SADC countries. The establishment of a regional market would also attract more investors to the region."* (Katiti, telephonic interview, April 2013).

On the same note, a representative from the Africa ITU regional office remarked that:

> *"The existence of the SADC emanates from the need of the countries to integrate their economies and to achieve free movement of people. The integration of ICT policy and regulation was part of SADC economic integrations. These policies do not differ from other RECs. They all try to integrate their economies to create bigger markets to make investment more attractive and cheaper."* (Tayob, telephonic interview, October 2012).

However, according to an external consultant, although the rationale to integrate policy frameworks in the first round of reforms was to achieve economies of scale, the benefits of economies of scale and scope were not totally understood at that time due to the pre-liberalisation context in which the process developed.[79]

Similarly, and linked to economies of scale and scope, an external consultant mentioned the need for a common approach to the market.

[79] In the 1980s, the World Bank and the IMF promoted the liberalisation of telecommunications markets in Africa in the form of structural adjustment programmes (Alemu, undated). The pre-liberalisation era was characterised by government ownership of a monopoly telecommunications company and government funds were allocated to develop the infrastructure. Inefficiencies such as slow pace of network roll-out, long waiting line for services, consumers limited to only one service provider, and poor quality of service delivery were, among others, common characteristics of the pre-liberalisation period throughout African markets. In the last two decades of the 20th century, several countries in the world have come to realise the importance of liberalising the telecommunications market for rapid growth of the network, and many have recognised the importance of private sector participation to attract financial resources, innovation and new technology (Ndukwe, 2005b).

"There is a need for the region to have a common approach to the market. In the SADC, there are different levels of development of national markets." (Msimang, telephonic interview, November 2012).

6.4.2 The cultural and political ideology: building an African identity

In addition to economic issues, two political reasons were identified during the interviews. A representative from the ITU stressed the need for an African voice:

"In the African continent there are differences in terms of economic development. Integration tries to ensure that African countries speak the same language at a continental level. Integration should be achieved both at a regional and at a continental level." (Jallow, telephonic interview, April 2013).

Another official from the ITU remarked that historically, integration was created by SADC countries to isolate South Africa under the apartheid regime.

"At that time, integrating telecommunications infrastructure was pursued to achieve a higher level of independence (from South Africa) and therefore, SADC prioritised infrastructure integration, including telecommunications." (Tayob, telephonic interview, October 2012).

6.4.3 The aspiration: emulating the EU model of integration

In addition to economies of scale and scope, and the political reasons mentioned above, a third reason for integration emerged from the interviews: that the SADC is influenced by the EU model of integration. An external consultant asserted that:

"SADC operates on the principle that it would like to emulate the EU – it would like to reach the same level of regional integration. However, a balance needs to be achieved between integration and countries going their own way." (Goulden, personal interview, October 2012).

A similar reason was provided by another interviewee from a multilateral agency:

"Regional integration was achieved through regulatory harmonisation and legal integration." (Le Bihan, telephonic interview, October 2012).

However, he also expressed doubts about the viability of applying regulatory frameworks developed in the EU to the SADC context.

6.4.4 The epistemic community: international regulatory trends

A representative from a regional organisation recognised that regional reforms, in the SADC ICT policy context, were driven by international regulatory trends set by the ITU, such as the separation of postal and telecommunication regulation.

"Drivers were coming from outside the region, for instance at the ITU level. As member states came together (with the creation of the Southern African Development Coordinating Conference by treaty in 1980), they realised that there was a need to harmonise telecommunications policy and regulatory frameworks. At that time, the main issue was separating postal and telecommunications services. The SADC works closely with the ITU and it seeks to keep up with what is happening at an international level. Since the process of integration had already started in the SADC, it facilitated the implementation of a process that was happening at an international level. The protocol then called for that separation." (Mamelodi, personal interview, January 2013).

6.4.5 Global interoperability: technical harmonisation at a regional level

There were also reasons of a technical nature given as justification to harmonise ICT policy and regulation in SADC countries.

"Some technical issues, such as frequency harmonisation, need to be addressed at a regional level in order to prevent cross-border conflicts." (Msimang, telephonic interview, November 2012).

However, it was explained that in an exercise of harmonisation, it is important to take into account similar and diverging elements between countries.

"With the HIPPSA project we supported SADC countries to develop guidelines related to cyber-security and universal access and service." (Bazzanella, telephonic interview, November 2012).

An interviewee from a regional regulator stressed that harmonising ICT policy and regulation is a learning process for the region. She expressed the need to share experiences with other regions which had a more mature economy and regulation.

However, it also emerged that harmonisation has several challenges. A representative from a regional regulator stated that harmonisation is considered a new phenomenon in the SADC region as it began only 20 years ago. In other regions, such as in the United States and in Europe, this process started earlier.

6.5 Shortfalls of regional institutional arrangements for ICT policy-making

Issues pertaining to ICT policy at a regional level have rarely been a priority for the SADC. This is confirmed by the fact that ICT, as an issue, was only taken to the Summit

level in August 1996, when the Heads of State gathered in Maseru, Lesotho, to sign the SADC Protocol[80] on Transport, Communications and Meteorology.

A second problem, related to the regional institutional arrangement that emerged from the interviews, is linked to monitoring the implementation of the Protocol at a national level. An external consultant stated that in the first round of reforms, institutional structures in charge of monitoring the implementation of the Protocol at a national level did not play any significant role. According to him:

> *"The SADC Council did not play any relevant role in supervising the implementation of the Protocol mostly because it did not have enough (operational) funds. Two programmes were set up to support the implementation of the Protocol and they were called the RAPID[81] and SIRPS for the southern African ICT policy and regulatory support programme. The support programme aimed mostly at involving ICT ministers who were under-resourced and therefore worked on very broad policy issues."* (Goulden, personal interview, October 2012).

Another shortfall in the regional institutional arrangements, is that parliaments and MPs have not played any relevant role in regional ICT policy-making processes. From the interviews it clearly emerged that the majority of regional decisions pertaining to ICT are taken at an ICT ministerial meeting level. Regional projects, programmes and declarations are all approved at that level.[82]

6.5.1 Regional policy outputs normally do not reach the SADC Summit

Since regional documents do not reach the Summit level, they do not become legally binding on member states. For instance, although the first phase of the HIPSSA project has been concluded, the amended protocol, which was the most important component of the overall project, did not reach the Summit level, and therefore is not binding on member states. A representative from a regional organisation gave a few reasons for the protocol not reaching Summit level:

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[80] The Protocol is a binding document for signatories and therefore needs to be endorsed by Heads of State.

[81] The Regional Activity to Promote Integration Through Dialogue and Policy Implementation (RAPID) was the successor of the RTRP programme (Barendse, 2006). It was a 5-year USAID-financed regional programme which aimed at providing "quick-response, short- to medium-term technical services supporting policy analysis, dialogue, and facilitation of policy implementation under the Regional Centre for southern Africa's development assistance programme for the SADC region." (Zlotsky, 2001).

[82] The HIPSSA framework was approved by ICT ministers from SADC meeting in Mauritius. In 2008, the Reference Framework for harmonization of the telecommunication and ICT policies and regulation in Africa, was adopted by member states of the African Union (AU), during the 2nd conference of African Ministers in charge of Communication and Information Technologies (ITU, 2013).

> *"The work undertaken by HIPSSA has not been taken to the Summit. We have been required to wait, because our protocol includes transport, communications and meteorology. We have only done the communications chapter. But to review the protocol it is also required that we review the other chapters. The amended protocol was not taken to the Summit level because our legal department identified a problem relating to the separation of different policy domains. Do we need a protocol including all these three sectors or do we need to separate the protocol? I think that the decision can only be made in totality. The protocol as it stands has not been forwarded to the member states. Further, when our legal experts required a version with tracked changes of the draft of the new protocol, people working on the postal component failed to submit a tracked document and so the legal department placed the process on hold. Before a document goes to the Heads of State it needs to go through (and be approved by) the legal department."* (Mamelodi, personal interview, January 2013).

Despite an updated protocol on communications not being approved, two harmonised model laws were approved by SADC ICT ministers through the HIPSSA project: a SADC harmonised cyber-security model law[83] and the SADC Guidelines on Transparency for the SADC Home and Away Roaming.[84]

> *"The new legislative framework went through all national regulators. CRASA has approved it and now it needs to be approved by the ministers to become part of the new national regulatory framework."* (Msimang, telephonic interview, November 2012).

[83] In March 2012 in Gaborone, Botswana, a multi-stakeholder validation workshop was held to validate the SADC harmonised cyber-security model law, which was developed as an output of the HIPSSA project. The model law was reviewed again during the SADC ICT SCOM in April 2012 in Balaclava, Mauritius. Subsequently, the model laws were approved by SADC ICT ministers in November 2012 in Balaclava, Mauritius. SADC member states are undertaking national transpositions of the SADC harmonised cyber-security model laws. In particular, Lesotho, Namibia, Swaziland, Tanzania, Zambia and Zimbabwe have been supported by the ITU; Botswana by the Commonwealth Secretariat; and the Seychelles by UNECA (Ah-Thew, 2013).

[84] SADC ministers have considered and approved the SADC Guidelines on Transparency (e.g. on balance, call limit information, tariffs for voice, SMS and data) for SADC Home and Away Roaming (SHAR) and this became effective on the 1st June 2013. The aim of the roaming process was to develop legislation on the end of roaming based on the EU model. The SHAR is a regional initiative to promote affordability of mobile roaming services in the SADC region. The guidelines are in line with the directive of the ministers meeting held in November 2012 in Balaclava, Mauritius, which stipulated the enforcement of transparency measures and the establishment of the Roam Like A Local (RLAL) principle by June 2015. (SADC, 2012).

6.5.2 Policy and regulatory processes slower than market developments

Regional policymaking processes have not always been able to keep up with developments in the telecommunications industry. Policy and regulatory processes have been slower than market developments. According to an external consultant,

> *"In the SADC, roaming has already happened, for instance, through the Vodacom network. What CRASA was trying to do, through a regional regulatory intervention, was to import a 'hot topic', but operators were already finding their own ways to reduce roaming charges. At that time it was a hot topic on the agenda in Europe and ministries decided to address it in the SADC as well. ICT ministries identified it as an issue and they looked for an international partner to fund the implementation of a regulatory framework. The EU approved the intervention and came on board. However, by the time it was approved and financed, the market had anticipated the regulatory reform, which has not yet been completed because it has not been taken to the Summit level."* (Msimang, telephonic interview, November 2012).

6.5.3 Weak enforcement mechanisms of regional regulatory documents

An interviewee from the SADC Secretariat asserted that the majority of SADC countries implemented regional measures. However, she stressed that the SADC is not the only organisation assisting member states to update their ICT policy and regulatory framework:

> *"Countries at a national level have their own supporting agreements and their own partnerships. Countries usually look to SADC for guidance but they have their own bilateral agreements to support them. Some countries are ahead of the SADC, and we take into account their laws in our harmonised framework so that we don't replicate resources. Others have set up a computer measures response team. Others have support from other organisations. We can facilitate the funding or get support at national level."* (Mamelodi, personal interview, January 2013).

Outputs of regional ICT policy processes include declarations. According to the interviewee, declarations may represent an obstacle to the implementation of the regional framework at a national level due to their legal status: these documents are not required to be enforced at national level. An external consultant agreed with this view of the legal status of protocols in the SADC. He stated that although there is an enforcement clause in the protocol, it is meaningless. Despite a formal enforcement mechanism in place at a protocol level, it is actually ineffective. The model law and the model policy are used as a baseline for the work done by member states, but only a few countries have adopted the models because they all have different national legislative frameworks.

On a different regulatory level, it emerged that model laws developed in the second round of reforms have had a bigger impact on national regulations. The interviews showed that international organisations have been successful in providing support for an effective implementation of international programmes at a regional level and support member states in the implementation of regional model policy and model laws. A representative from an international organisation declared that, at an implementation level, the ministerial meeting held in Mauritius in 2012 adopted the framework developed by the HIPSSA project.[85]

> *"At the moment many SADC countries are at the implementation phase (of the cyber-security and universal access and service model laws). Following the adoption by all SADC ministers, the ITU provides support for each country to support the transposition. Currently (at the time the interview was conducted), the ITU has a request for assistance from Tanzania, which has almost completed the transposition process, and from Lesotho. The ITU is in the process of supporting Namibia, Seychelles, Zambia, and Rwanda as well."* (Jallow, telephonic interview, April 2013).

6.5.4 Different regional issues dominated by different member countries

Opinions vary as to whether a particular country has had a leadership position in the process of harmonising ICT policies at a regional level. Instead of one country acting as leader, a representative from a regional organisation mentioned the rotation of leadership among SADC countries with reference to policy issues. For instance, the role of host country, chairing a subsector in the SADC Parliamentary Forum, rotates every three years. However, a representative from the SADC Parliamentary Forum acknowledged that there are some countries more capable of dominating the regional debate and agenda on ICT. Among those countries, Mauritius was mentioned.

[85] Specifically, the meeting deliberated over a number of issues and made a number of decisions, including the adoption of the principle of "roam like a local"; the approval of a regional roadmap on DTT broadcasting migration; the approval of the draft SADC model laws on cyber security, cybercrime, data protection and electronic transactions; the approval of the draft e-Commerce Strategy and Action Plan; and directed the Secretariat to ensure that they effectively implement the SADC e-Commerce Strategy and Action Plan. The ministerial meetings acknowledged the work undertaken by the SADC with regard to the updating of guidelines, including the review of the SADC Frequency Band Plan and the development of guidelines for accessing unlicensed spectrum bands. Issues of equitable access to submarine cables at fair and affordable prices were also discussed, and member states with landing stations were required to work with land-locked counterparts (SADC, 2012).

> *"The country is performing relatively well with regard to regulating the sector, and therefore other countries try to emulate its performance."* (Matanga, telephonic interview, November 2012).

She added that South Africa has a similar role in the region. According to her, the country leading or driving the debate is not the country which tries to influence regional policy and regulatory outcome, but the one which is performing better in terms of regulating the sector, when its example is followed by other member states. Her position was confirmed during another interview with a SADC official. The respondent stated that rotation mechanisms are in place[86] and that there is no feeling among member states that the Secretariat is pushing a specific national agenda. She added that the SADC Secretariat is not aware of any dissenting voice with regard to the formulation of its regional policies. According to her, all the SADC countries have recognised the importance of ICT and they work as a team, taking into account different levels of ICT development in each country (Mamelodi, personal interview, January 2013).

A respondent from the ITU asserted that the HIPSSA process was led and driven by South Africa because the country has more resources than other SADC countries. However, other countries could also be influential. For instance, he recalled that Botswana hosted a meeting on cyber-security[87] and Mauritius has always been very involved in regional issues. The relevant role of South Africa in regional issues has been identified by a representative from a regional implementing agency, who stated that the country is one of the founding countries of the NEPAD, together with Nigeria, Senegal, Egypt and Algeria. He stressed that

> "*Those are the countries providing more substantial support to the NEPAD. They support not only the vision of the agency, but also the NEPAD financially. With regard to ICT, we have received substantial support from the South African Department of Communications.*" (Katiti, telephonic interview, April 2013).

[86] The SADC Chairperson is elected each year by the annual Summit of the Heads of State (SADC, 2014b).

[87] On the 8 November 2012, in Baclava, Mauritius, SADC ministers responsible for communications and ICT, deliberated over a number of issues including a revised SADC roadmap on DTT broadcasting migration; they agreed that the region move towards the adoption of the "Road like a local" and requested SADC ICT regulators to engage national operators to effectively implement the recommendation. In addition, they approved the draft SADC roadmap on DTT broadcasting migration; the draft SADC model law on cyber-security, cyber-crime, data protection and electronic transaction, which was developed in conformity with the AUC Draft Convention on Cyber Security (2012); and a draft e-Commerce Strategy and Action Plan (SADC, 2014).

An external consultant had a different opinion, particularly concerning the leadership during the first round of reforms:

> *"South Africa would like to believe it was driving the process, but in reality the two driving countries were Botswana and Tanzania. A young lawyer from Tanzania, Mozli Lakawka, drafted the original SADCC treaty. He had a very strong regional focus. Also Thapelo Maupa from the BTA [Botswana Telecommunications Authority] was very involved. Most SADC countries do not consider South Africa as the leading country in the SADC."* (Goulden, personal interview, October 2012).

A similar view was expressed by an interviewee from an international organisation who stated that there was not any particular country leading the reform process. However, he argued that:

> *"Zambia quickly became the reference point for other countries because it was able to rapidly reform the sector and therefore was perceived as a success and as a more advanced country. But the country was not leading the process."* (Tayob, telephonic interview, October 2012).

6.5.5 Lack of skills and funds at a regional level

It emerged from an interview that regional institutions need to engage with international organisations in order to develop and implement programmes due to lack of capacity, skills and funds:

> *"The ability (of regional organisations) to deliver is a challenge. There is lack of capacity to manage these processes and there are no real alternatives to the EU. There is no budget for ICT programmes at a regional level."* (Gillwald, personal interview, June 2012).

In the second round of reforms, in addition to the ITU, the EU played an important role in the HIPSSA project. From an interview with a representative from a regional organisation, it appeared that the EU, through the European Commission, funded the project and an international consultant belonging to the ITU was appointed as project coordinator. Like other respondents from regional organisations, she asserted that African regional organisations, such as the SADC, need support from international organisations due to lack of capacity and, in some cases, lack of independence, as in the case of CRASA. She added that they lack funds because member states do not always pay their regional membership fees.[88] The level of involvement of international organisations is thus high

[88] SADC countries are experiencing severe public debt and public budget constraints. Also, overlapping membership in different regional organisations creates duplication of resources and increases membership fees for member states.

and they are able to strongly influence the regional and the international agenda. This position was reinforced by a respondent from an international organisation, who affirmed that:

> *"Due to the low level of resources that African countries have, especially in the realm of ICT, you find that African countries require assistance from international organisations that are able to source the right capacity needed to implement international best practices. Due to limited capacity and lack of experience, you find that these countries need support from international organisations in the area of ICT."* (Jallow, telephonic interview, April 2013).

Regarding funds available for the region to support the development of regional ICT policy and regulatory formulation, the key role played by the EU in the second round of reforms was stressed by a representative from a regional organisation who stated that the EU is one of the main organisations supporting activities related to ICT policy, regulatory formulation and implementation. However, it appears that mechanisms of involvement of the EU with the HIPSSA project were not fully understood by the SADC Secretariat:

> *"There is a theory that the SADC has been allocated funds by the EU that have never been used. Although it seems that there are some funds allocated for ICT, we have not been told how to access them, so they got lost. Those who knew that there was this fund, have not been able to advise how to access it. When the HIPSSA project came out, we were told that there was this project, and I know that ICT was funded by the EU, so maybe this was a new EU method of funding? Most of the work that we did was really with member state support. HIPSSA is now going to phase two, and we wrote a letter of support because we saw the benefits of it."* (Mamelodi, personal interview, January 2013).

According to an external consultant, international organisations provided mostly technical support. However, their role is limited.

> *"They provide support on a specific issue and then they disappear."* (Msimang, telephonic interview, November 2012).
>
> *"They act as a forum for exchanging ideas. There are agreements on standards. They have a leading role for least-developed countries. ITU is very important in sub-Saharan Africa because they can provide the technical knowledge."* (Goulden, personal interview, October 2012).

The role of international organisations as technical partners was confirmed by a representative from a regional organisation who also provided a detailed description of the role of international organisations in the HIPSSA project.

"The support provided (by international organisations) was in connection with writing the terms of references, identifying the consultants, getting the reports out, providing funds to convene validation workshops, and funding the participation of member states in the validation workshops. In order to develop the e-strategy, the UNECA assisted us (i.e. SADC Secretariat) to develop the ToRs, to identify the consultants, to organise a number of preparatory workshops. […] We hope that in the future, once we have set up our thematic group, we will be able to work directly with partners." (Mamelodi, personal interview, January 2013).

6.6 Uneven implementation of regional measures at a national level

In order to understand if national and international drivers for the development of an integrated regional ICT policy and regulatory framework take into account national differences in terms of ICT sector development, one area of investigation was the level of participation of member states in the process of integrating ICT policy and regulation at a regional level. According to many of the interviewees the level of participation of SADC countries in this process was significant, but the issue of implementation of regional ICT policy and regulatory framework at a national level is most controversial, because respondents provided diverging opinions.

6.6.1 Participation of member states through conferences and validation workshops

From the interviews it emerged that the main institutionalised mechanisms of participation of member states in the process of reforming the telecommunications sector at a regional level are meetings, in the form of conferences and validation workshops. Thus in the second round of reforms, member states were mostly involved at the end of the process.

"Although the participation of SADC countries has been considered high, SADC countries were mostly involved at a validation workshop level." (Jallow, telephonic interview, April 2013).

"In the validation workshop for the Universal Access and Service guidelines, for example, there was little feedback from Malawi, Lesotho and Botswana and a low level of participation by South Africa." (Msimang, telephonic interview, November 2012).

A respondent from an international organisation provided a detailed description of how participation of member states was implemented through a consultative process in the first round of reforms.

> *"The implementing agency of the Protocol on Transport, Communications and Meteorology was the technical unit of the Southern Africa Transport and Communication Commission (SATCC). The Secretariat was composed of member states, represented by Ministers of Transport and Communications or Ministers of Post and Telecommunications, depending on the structure in each country. They held a ministerial meeting annually but also extraordinary meetings. As a technical unit, they designed a project called the Regional Telecommunications Restructuring Programme (RTRP). Brian Goulden was recruited as project manager, chief of the party. Throughout that project, anything they came up with was submitted to different channels for ministerial approval. Committees composed of specialists in each country were set up. They met regularly in order to revise the protocol. Protocols were submitted to Ministers of Transport/Post and Communications to endorse the new framework. Countries were very much involved at every stage. They also had a chance to analyse the impact of the new regional framework on their own legislation, policy and strategy, to make sure that whatever was coming up was not conflicting with what they had at national level. It was a very interactive process."* (Tayob, telephonic interview, October 2012).

Mechanisms of participation of member countries in regional processes were institutionalised through the Protocol on Transport, Communications and Meteorology.

> *"The institutional process used to develop the new ICT policy and regulatory framework, was the one described by the SADC Protocol on TCM, so it went through the sectorial committees defined by the Protocol. The Protocol went through the ministerial meeting. It provides the institutional set-up."* (Le Bihan, telephonic interview, October 2012).

A representative from a regional organisation confirmed that participation by member countries in the process was high, although the nature of their involvement was more technical than related to policy and regulation.

> *"The SADC Secretariat processes are carried out in such a way that everybody can participate. The responsibility of the ministry is just to pass the resolution. The ground work is done by technocrats."* (Mamelodi, personal interview, January 2013).

In addition, a representative from a regional regulator pointed out the high level at which member countries participate

> *"Individual countries participation is both at a regional and at an international level."* (Linzie, telephonic interview, April 2013).

> *"At a regional level, when member countries come together they seek an agreement on developed guidelines (either policy or regulation) and subsequently these models are used by member countries."* (Linzie, telephonic interview, April 2013).

Other views were more critical of the level of participation of member states. For instance, a representative from a regional implementing agency explained why member countries are not effectively participating in regional policy and regulatory processes.

> *"RECs existence is to create regional economies. Some of them are more active than others, depending on constraints, such as budget and availability of human resources. The SADC is one of the most consistent participants in AU programmes, although it does not have as many resources as other regions, such as the ECOWAS. The latter has raised member funding more effectively than other regions, while the SADC has more constraints in terms of budget and human resources."* (Katiti, telephonic interview, April 2013).

An interviewee from academia had a more critical view of participating procedures relating to member countries.

> *"National states were involved in both rounds (first and second wave of reforms). In terms of developing the model policy and the model law, although the documents went through different SADC structures, there was not full participation. In the first round of reforms, participation of member states happened only once the model legislation was developed. The new policy and regulatory framework was driven by consultants from PricewaterhouseCoopers (PwC) through the Regional Telecommunications Restructuring Programme. Subsequently, the model went to SATCC structures for amendment and approval."* (Gillwald, personal interview, June 2012).

This view was supported by an external consultant:

> *"Some countries did not play an active role in the process of harmonisation. The ITU came with an agenda and the local buy-in was achieved through local consultants. In the validation workshop there was already an EU view."* (Msimang, telephonic interview, November 2012).

An interviewee from the ITU explained that when the ITU provided technical assistance it followed a precise methodology in which national participation is crucial. As SADC countries were involved in regional meetings, especially during validation workshops, she felt that the ITU had followed a structured methodology for participation.

> *"At these validation workshops all SADC countries usually participate and are represented by ICT ministries and regulatory authorities. This group comes together and looks at what documents have been developed, and then*

> *provides comments and inputs to amend the legislation and the previously-developed policy model. At the end of the meeting they seek to reach an agreement to validate the new model."* (Jallow, telephonic interview, April 2013).

A representative from CRASA confirmed a high level of participation by national regulators at CRASA meetings. She alleged that conferences, organised by CRASA, SATA and SABA, are the main mechanisms for country participation.

> *"There is also some work done through the Southern African Broadcasting Association (SABA). They work on regionalism and they bring member states together. They are involved in policy issues and I was involved in a programme with them when I was at the SADC PF."* (Matanga, telephonic interview, November 2012).

She indicated that member states are involved in two different structures: first, at a policy level through the SADC Secretariat; second, at a regulatory level through CRASA.

> *"In addition, the private sector was involved especially through CRASA and the Southern Africa Telecommunications Association (SATA). They brought together policy-makers, MPs, people from the private sector and from the regulators. They are trying to get different stakeholders involved in policy issues."* (Matanga, telephonic interview, November 2012).

The twofold structure was confirmed by a representative from another regional organisation. She added that a third structure assembles telecommunications operators.

> *"SADC, in the ICT sector, operates on three tiers: first, SADC Secretariat linked to policy makers; second, CRASA as an implementing agency and its membership includes 12 of the 14 SADC member states; third, SATA group operators who work together to build the regional infrastructure. Depending on the issue at stake, the more relevant SADC structure is involved. In addition, the SADC Secretariat holds a ministerial meeting annually."* (Mamelodi, personal interview, January 2013).

According to her, member states participate throughout the entire process, and their involvement is formally requested in order to establish buy-in and endorse the documentation produced.

> *"Member states are involved: they validate the work that has been conducted at a regional level and they adopt. Member states guide regional organisations according to their own requirements. Therefore, member states own the process. SADC Secretariat is the body that coordinates activities. Since implementation is at a national level, there is a need to involve member*

states at each stage of the work." (Mamelodi, telephonic interview, January 2013).

An interviewee from an international organisation explained that prior to the development of the model policy, model law and guidelines, international and local technical consultants made a country-by-country assessment to identify what was already available at a country level. As a result, the regional framework was built upon national policy and regulatory frameworks.

> *"The ITU selected local experts who were knowledgeable regarding issues in each country."* (Bazzanella, telephonic interview, November 2012).

6.6.2 Predominant involvement of ICT ministries in regional processes

An external consultant stressed that while he was running the RTRP project[89] (from July 1995 till September 1999) in the first round of the SADC telecommunications policy reform, all member states were involved. He asserted that member states were carried along with the regional telecommunications reform process as they were joining the SADC. He explained that there was a lot of participation in terms of amending the protocol, the model policy and the model law.

> *"For instance, a draft of the protocol was presented to the SADC members and a lot of amendments were based on member states' input."* (Goulden, personal interview, October 2012).

A second external consultant added that the involvement of member states is predominantly driven by ICT ministries.

> *"I have not been involved in the second round of reforms at a personal level, but member states are indeed involved, through their ministries of ICT, for instance. There are annual ministerial meetings and other similar conferences that have been implemented through the SADC Secretariat and other bodies associated with ICT in the region."* (Msimang, telephonic interview, November 2012).

An interview with a representative from a regional organisation revealed that the SADC Secretariat deals with policy issues. The declaration is the main instrument used at

[89] The Southern Africa Regional Telecom Restructuring Project (RTRP) was a USD15 million programme, funded by USAID's Regional Centre for southern Africa based in Gaborone, Botswana. In 5 years, the programme aimed at providing support to the telecommunications market by undertaking policy reforms and restructuring, in order to attract private investment and therefore improve service quality and delivery. The programme provided technical advisorship for telecom ministries and regulatory bodies through workshops and training in the United States for southern Africans, who had the opportunity to apprehend regulatory and policy options. The project included assistance in incorporating the SADC Protocol on Telecom into national laws. The project officially ended in October 1999 (International Business Publications, USA, 2011).

regional level to influence national policies. Usually, ICT ministers are the main political actors involved in the process. However, depending on the institutional arrangements of member states, other ministries can get involved in the process:

> *"The ministry responsible for ICT is the one involved in the process. That could be with broadcasting. Mostly it coincides with the Ministry of Information, but also Transport and Communications. Otherwise, the Ministry of Energy and Communications."* (Matanga, telephonic interview, November 2012).

It is the minister who plays the main role at the end of the process in order to enforce a model bill or a regional recommendation:

> *"They endorse the final policy or model legislation. For instance, in South Africa, before it gets approved (i.e. a regional recommendation), it goes to the Department of Communications or to the regulator. The formal involvement is at the actual ministerial level, at the end."* (Msimang, telephonic interview, November 2012).

Although the main actors involved in regional policy-making are ICT ministers, their involvement in the overall regional process has been considered relatively low. The main reason given for limited involvement of ICT ministers is lack of financial resources.

> *"Although communications ministers were involved in regional processes, they were under-resourced. As a result, they only intervene in broad issues related to ICT policy."* (Goulden, personal interview, October 2012).

6.6.3 Establishment of independent regulators in the first round

An interviewee from a regional organisation added that one of the main successes of the first round of reforms is that every country, except Swaziland, set up an independent regulatory body.[90] According to her, most SADC countries have also separated postal and

[90] It has been observed by other studies on ICT sector performance in African countries, that although the last decade has seen institutional rearrangements adjust (within the ICT sector) to conform to international reform trends - with the ITU reporting that 93% of African countries have established regulators – these reforms do not equate with regulatory effectiveness. The ineffectiveness of many regulatory agencies across the continent relates to the absence of political autonomy to regulate independently (Calandro, Gillwald et al, 2010).

telecommunications regulatory frameworks and the regulatory bodies.[91] In this way the objective of separation, which was part of the first round of reforms, was achieved.[92]

> *"The first round of regional reform was particularly beneficial for Lesotho. Only Swaziland has no separation yet, but they are very advanced in achieving it. In terms of implementing the requirements of the Protocol, I think that has been done. I don't know if ICT people feel that you cannot be left behind because you signed these international agreements which affect the work you do. Our member states are also very active at an international level and they are also active at a continental level, where we take a SADC position and we try to influence proceedings. Seychelles is a new entrant into SADC. All the rest of the countries have set up a regulatory authority. So in terms of separating and creating a regulator we are all on track. But we are still working on converging regulators."* (Mamelodi, personal interview, January 2013).

The first round of reforms had traction at a national level, especially taking into account that most of the SADC countries at that time had not yet embarked on ICT policy and regulatory reform:

> "*The first output of the RTRP was a model telecommunications bill and model telecommunications policy. At that time there were two or three countries that made a move on ICT policy and legislation, in order to be able to accommodate the separation of operations and the setting up of an independent regulator. Countries that had not started that process at that time, had the opportunity of using the model policy and the model bill to establish their own regulators. That document was timely and it was relevant for member states interested in reviewing institutional arrangements, taking into account the separation of the policy-making*

[91] Despite that, the recent separation of the Department of Communications in South Africa into communications on the one hand and telecommunications and postal services on the other hand, seems to go in the opposite direction to global trends on convergence, and it is contrary to an ecosystem approach to the governance of the internet (Gillwald, 2014b).

[92] Some of the positive outcomes noticeable during the programme include the entry of new mobile operators and multiple internet service providers (ISPs) which have obtained licences to operate. Also, a few countries have embarked on the process of privatising state-owned telecom carriers. Although there was a growing acceptance that states should shift their roles from telecommunications providers to entities in charge of creating a favourable policy and regulatory environment to facilitate and to attract private investment to the sector, a wide consensus among policy-makers on this point has not been achieved as yet. Rather, consensus was reached on the need for continuous training as part of the effort to develop and liberalise telecommunications in southern Africa (International Business Publications, USA, 2011).

body from the regulator. That was the beginning of the process of harmonisation." (Mamelodi, personal interview, January 2013).

On a similar note an external consultant affirmed that national legislation is well aligned to model legislation, developed at a regional level, as an output of the first wave of reforms. She added that

> *"Model laws are good tools, especially to tackle the issue of lack of policy and regulatory capacity. However, the region has a tendency to copy and paste (from international regulation)."* (Msimang, personal interview, 15 November 2012).

6.6.4 Voluntary approach to transposition

A major challenge identified by a few respondents was the transposition of regional regulation into national legislation. A representative from an international organisation asserted that SADC countries follow a voluntary approach to transposing. The voluntary approach has been identified as one of the main problems hampering the implementation of the regional framework at a national level.

> *"When the SADC approves a regional instrument, the document is not binding on member states. Therefore the document becomes a reference framework and needs to be adjusted before being transposed into national legislation."* (Tayob, telephonic interview, October 2012).

Although interviewees recognised a relatively high level of participation of member states in the process, they identified the main problem to be integrating ICT policy and regulation and transposing regional model policy and the model bill at a national level.

> *"In Europe it is compulsory to implement, but not for SADC countries. Despite this, we expect them to implement the developed guidelines because normally they are agreed at a regional level. We also count on peer pressure to implement guidelines developed at a regional level. At international level there is a need for coordination."* (Linzie, telephonic interview, April 2013).

The volunteer approach to transposition was confirmed by a second respondent from an international organisation who, while commenting on the transposition of regional frameworks at a national level, explained that, taking into account weak enforcement procedures in the regional legal institutional arrangement, "*willingness to enforce regional frameworks*" is one of the main requirements for transposing regional recommendations (Bazzanella, telephonic interview, November 2012). He explained that:

> *"Sometimes countries have not willingness to endorse regional frameworks. Sometimes recommendations have not been taken into account."* (Bazzanella, telephonic interview, November 2012).

In addition to that, an external consultant identified a few problems related to decision-making processes in the SADC: on the one hand there is the lack of a culture of transparency, and on the other, a lack of legal status of regional processes for ICT policy development.

> *"All the documents produced at ICT ministry meetings are confidential and not for public use. The reason for that is that the ICT ministry conference does not have legal status, because the Protocol and the subsequent institutional set-up that the Protocol created, does not exist anymore. There are now different venues for decision-making, but their founding act has not been updated. So the decisions are taken by a body which legally does not exist anymore. Second, the culture of transparency has not been embraced in the SADC."* (Le Bihan, telephonic interview, October 2012).

An external consultant declared that most of the countries are still transposing the new legislative model law. According to her, approaching some policy and regulatory issues at a regional level is more effective than addressing them at a national level. At a regional level, there is a need to highlight some common issues.

> *"Approaching the UAS issue from a regional level is more effective. The regional approach is then transposed nationally. If a new framework is adopted at a regional level, then the document is usually transposed."* (Msimang, telephonic interview, November 2012).

6.6.5 Different national institutional arrangements

An interviewee from an international organisation identified national constraints, deriving from specific national institutional arrangements, as among the reasons for not transposing the regional framework into national legislation. He alleged that parliaments play a major role in the process of transposing, and therefore called for parliamentarians in each country to be educated, so that they understand what regional model legislations are trying to achieve, and what the implications are for ICT policy and regulation at a national level. Even the legislation, methodology and structure of laws in each country may differ. There may be constraints related to the legislative approach in different countries. For instance, he explained that while Portuguese legislative systems are relatively small and simple, the English legislative system is very detailed. He stressed that the final national legislative frameworks on ICT should be similar, in order to achieve policy and regulatory integration. However, he noted that in the region, although there is no binding requirement, most countries are moving in the direction of adopting the model law. For instance, he asserted that Zimbabwe has tried to establish a secretary body in charge of updating national ICT legislation. He recognised that the country has been very

active in the process of creating a model law, and they have used the SADC legal instruments as reference documents, which have been transposed in the light of their own national legislative framework.

A representative from a regional organisation believes that different transposing mechanisms slow down regional harmonisation.

> *"At a parliamentary level there might be some limitations, for instance, in the constitution. It is the constitution that states how a regional measure becomes law in a specific country. In Namibia, for instance, it is the ministry who decides if a declaration becomes a law in the country and this is declared in the constitution. In some countries it becomes law automatically, but in some countries they have to "domesticate" the declaration before it becomes law."* (Matanga, telephonic interview, November 2012).

She identified other problems related to the process of transposing the regional framework into national legislation. First, she stressed that trying to include local specificities in the transposed regional framework is a complex legislative process. In some instances, the institutional arrangement in place can be an obstacle. Second, she noted that at a parliamentary level the expertise required might not be there and members of parliament might not have the appropriate capacity to regulate. Third, still at a parliamentary level, she asserted that parliaments do not have the necessary information and data to legislate and to make informed decisions. Therefore, she stressed that

> *"It might happen that the law is developed outside the formal institutional arrangement and the parliament is simply required to pass it."* (Matanga, telephonic interview, November 2012).

Four, lack of stakeholder participation, in particular parliaments, was identified as a factor affecting the implementation of the regional framework at a national level.

Regarding the capacity of the regional institutions to influence national ICT policy and regulatory processes, interviewees provided different and diverging opinions. A representative from a regional organisation affirmed that although ICT ministries are requested to report back to parliament on whatever work is undertaken at a regional level, they often fail to do so. In her opinion, different countries have different ICT policy-making processes defined by different institutional arrangements.[93]

[93] In order to strengthen the parliamentary role within national institutional arrangements, a regional organisation, called the SADC Parliamentary Forum, has tried to solve the issue of lack of involvement of parliaments in regional policies through capacity-building for members of parliament. The forum is a regional inter-parliamentary body, composed of thirteen parliaments representing over 3500 parliamentarians in the

> *"In some countries there is a committee outside the ICT ministry and parliament, where all the stakeholders meet. In most of the SADC countries, however, there is a ministerial approach to transposing regional legislation at a national level. Ministries hold all the information and sometimes the parliament is not aware of what is actually happening at a regional level. … However, it depends on the parliament. In some cases issues are discussed within parliamentary committees, and the parliament becomes more proactive. In addition, research done by the parliament has an important role, because it provides the information required to understand regional issues."* (Matanga, telephonic interview, November 2012).

An external consultant, involved with the first wave of reforms, explained that the process, followed by parliaments to implement regional frameworks, might follow a different procedure to that developed by external consultants or regional organisations. Therefore, the model policy and model laws are used by SADC countries as a baseline for their own national legislations.

> *"The majority of countries use the TCM Protocol to develop their legislation at a national level. This is due to the fact that the Protocol is a legally-binding document, while other documents (such as declarations) are models for adaptation and adoption."* (Goulden, personal interview, October 2012).

6.6.6 Weak follow-up at a national level

Among the challenges of transposing[94] the regional legislation at a national level, a representative from an international organisation alleged that one of the main problems for SADC member states is the follow-up of regional initiatives.

SADC region. It was established in 1997 in accordance with Article 9 (2) of the SADC Treaty, as an autonomous institution of SADC. Member parliaments are Angola, Botswana, Democratic Republic of Congo (DRC), Lesotho, Malawi, Mauritius, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Zambia, and Zimbabwe. Its main objective is to provide a platform for parliaments and parliamentarians to promote and improve regional integration in the SADC region, through parliamentary involvement.

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[94] Transposition into national law of European directives is a means of binding member states through results achieved, while member states remain free to choose the form and means of achieving this result. The correct and timely transposition of directives is fundamental for the smooth operation of European policies (EU, 2005). The SADC has adopted a similar approach to the implementation of regional laws at a national level, although SADC binding mechanisms are very weak compared to Europe.

"When dealing with government institutions we noticed that the follow-up is very poor. A lot of good work has been done, but the main concern is what will happen when the project is handed over to the ICT ministry. There is a need to monitor and evaluate the implementation of regional frameworks to create continuity. It would also help to assess if there is a need for technical assistance. For instance, if there is an assessment for which the framework has been implemented up to a certain point, international organisations could intervene by providing only the technical assistance needed." (Jallow, telephonic interview, April 2013).

6.7 Strong influence of international organisations in setting the regional agenda

A representative from a regional organisation explained why international organisations are involved in regional ICT policies:

"Since they have a global experience, they can act as think-tanks that know which countries are performing well and can share this knowledge with other countries that lag behind. They are involved in the harmonisation agenda at a global level. They are bringing down global issues from an international level to a regional, national and grass-root level. Therefore, they can influence national processes to align with global agenda." (Matanga, telephonic interview, November 2012).

She stated that the United Nations Economic Commission for Africa was particularly involved in the first round of reforms. The UNECA provided mostly technical advisory services and technical assistance. Also, it assisted the SATCC TU in organising meetings and workshops. The UNECA was primarily engaged at a regional level through the SADC Secretariat and through the SATCC TU.

The UNECA was mentioned as a relevant partner of the SADC, in particular with regard to the development and implementation of the e-SADC framework.[95]

"We are also benefiting from the UNECA and it is a partner in the multi-year programme, through which we set up the e-SADC framework, which was approved in 2010 and which is now guiding the implementation of ICT. It has

[95] In May 2010, SADC created an ICT development strategy called the e-SADC Strategic Framework. The framework was set up as part of the implementation of the African Information Society Initiative. It focuses on the harmonisation of ICT infrastructure, services and indicators and it promotes ICT usage for regional economic integration, enhancement of connectivity and access to ICT services among and within the member states. The deployment of e-commerce is one of its objectives. Based on a readiness assessment of the e-commerce in the region, the framework seeks to develop a regional e-commerce strategic action plan (SADC, 2014c). However, at the moment the SADC does not have the capacity to collect and analyse ICT indicators.

> *got a specific roadmap in terms of what we need to achieve. UNECA also supported us to implement e-SADC. As a first activity we came up with an e-Commerce framework and this year we want to set up a SADC ICT observatory, because one of the issues is that at the moment we cannot measure (the ICT sector performance). At the last ministerial meeting we received support for this initiative."* (Mamelodi, personal interview, January 2013).

A respondent from an international organisation asserted that the participation of international organisations in regional processes is based on requests. In the first round, in order to coordinate actions between donors, the SADC set up a coordination meeting for donors.

> *"Every year a big conference was held for member states to mobilize resources in all areas, including telecommunications, through the SADC Secretariat. The main debates during these regional meetings concerned the capability of SATCC TU to formulate and implement regional ICT policy and regulatory projects. It was identified that the organisation did not have enough human resources. Therefore, they realised that the ITU could be a relevant partner because it could bring the missing expertise to the region. The ITU was assigned the role of 'coordinating consultant' because it is an impartial organisation and was not driving any specific interest from a specific country."* (Tayob, telephonic interview, October 2012).

According to Tayob, the coordination of the project was done by ITU's impartial experts and afterwards was transferred to regional experts.

6.7.1 Reform processes as an international agenda

According to a respondent from academia, the reform process took the form of an international agenda and it is doubtful whether any member state involved could have implemented this process without any external support (Gillwald, personal interview, June 2012).

This argument was reinforced by a representative from a regional organisation who explained that regional policies are aligned to an international agenda.[96]

[96] It should be noted that during the SADC ICT ministers meeting held in Mauritius in November 2012, ministers encouraged the Secretariat to pursue harmonised common positions for proposals to the WRC-15, WTDC-14 and the 5th WTPF, demonstrating common positions between SADC member countries at an international meeting level (SADC, 2012).

"For instance, when I look at policies coming from ITU, the variation is minimal. In terms of our interests, the variations with international organisations are very small". (Linzie, telephonic interview, April 2013).

6.7.2 Involvement of international organisations not always institutionalised

Respondents have not always been able to clearly identify and explain the institutionalised mechanisms for involvement of international organisations in regional processes. For instance, a representative from a regional organisation stated that although she believed that at the SADC level there are institutionalised mechanisms for involvement of international organisations, she was not able to describe those mechanisms. However, she recalled that the UNECA had been involved from the stage of problem identification. The significant role of UNECA in SADC regional processes is also confirmed by its plan to have an office in Botswana to improve its impact and its support of the regional organisation.[97]

A representative from a UN agency explained that the participation of international organisations in regional processes is based on a request by the beneficiary. Normally, their assistance is requested to support the regional organisation on technical issues. This aspect was explained by an external consultant:

[97] The UNECA is a good example of a regional organisation, which has often acted as a bridge between international organisations and the regional community (Calandro, Gillwald and Zingales, 2013). The UN ECOSOC established this institution in 1958 as one of the UN's five regional commissions, with the specific mandate to promote the economic and social development of its member states, to foster intra-regional integration and promote international cooperation for Africa's development. UNECA places a special focus on collecting up-to-date and original regional statistics for its 54 member states, in order to ground its policy research and advocacy on clear objective evidence; promote policy consensus; and provide meaningful capacity development and advisory services in key thematic fields (UNECA, 2006). However, the organisation seems to have fallen behind in producing concrete output over the last 15 years. The only measurement of performance has been done by UNECA itself with respect to one of its biggest projects, the African Information Society Initiative (AISI), launched in 1996 to constitute a high-level work group to develop an action plan for ICTs to accelerate socio-economic development in Africa. Not surprisingly, a ten-year review of UNECA's execution of the project confirmed its success, as evidenced by the existence of national e-strategies in three-quarters of UNECA's member states, complementing their development efforts (UNECA, 2006). However, the objective of the programme was to realise a sustainable information society in Africa by 2010, where "every man and woman, schoolchild, village, government office and business can access information knowledge resources through computers and telecommunications" (Soul Beat Africa, 2004) and this is far from being met. Just recently, the Conference of African Ministers of Communication and Information Technology (CITMC) called for the cooperation of the African Union (AU) Commission and UNECA's AISI project, for the finalisation of the draft Convention on Cyber Legislation, and for the support of its implementation in member states on or before December 2012. Yet, this objective has not been accomplished to date (AU, 2012).

"Depending on the issue, there are different ways international organisations approach regional organisations. International organisations are allowed to participate in workshops, for instance, organised by CRASA, and most of the time are involved in technical issues." (Msimang, telephonic interview, November 2012).

6.7.3 Ineffective involvement of international organisations

International organisations provide mostly technical support in areas where RECs lack expertise, according to a representative from a regional organisation. However, their role is less visible during the implementation phase.

"When it comes to implementation, the involvement of international organisations in not so strong. It is more visible during the planning and developing guidelines phase". (Linzie, telephonic interview, April 2013).

A representative from academia and an external consultant confirmed that international organisations provide mostly technical support, but also provide financial support.

"It is donor support for technical assistance." (Gillwald, personal interview, June 2012).

"In the first wave of reforms, USAID provided financial and technical support. They also provided training in the US. At that time there was a substantial amount of funding available." (Goulden, personal interview, October 2012).

Not only the SADC Secretariat and CRASA benefited from technical assistance by international organisations, the SADC Parliamentary Forum was able to develop capacity and an ICT programme specifically addressed to parliaments. However, due to budget constraints, the ICT programme for SADC parliaments has come to an end.

"The SADC PF got involved in the reform process as a regional forum because there was a need to build ICT capacity at parliamentary level. The ICT programme for SADC parliaments started in 2005. We conducted a survey on ICT equipment, programmes, and how SADC parliaments were implementing ICT in their parliamentary work. Through the leadership centre (at the SADC Parliamentary Forum) we initiated a learning and knowledge-sharing programme funded by OSISA. The programme started with a strong technical emphasis on e-Parliament but then it evolved and included a policy component, specifically related to the role of members of parliament in contributing to ICT policy-making. Since then, committees at a parliamentary level have been implemented. For instance, Uganda set up a parliamentary committee to discuss policy issues at national and regional level. The ICT committee established a sub-committee to talk about ICT policy. But

> *unfortunately due to budget constraints the programme stopped."* (Matanga, telephonic interview, November 2012).

Another interviewee from academia noted inefficiencies involving international organisational support for the implementation of reforms at national level based on regional frameworks:

> *"By the time the SADC developed the harmonised framework, both South Africa and Botswana had their own legislative frameworks already in place which had gone through a consultative paper, and were very different from the white and green paper. Therefore, by the time the SADC started with the process of harmonising ICT policy and regulation, both South Africa and Botswana were ahead of the process of reforming the sector, through an international process which had provided input. Therefore, the same kind of people belonging to the epistemic community were all working in this area and they were all discussing the same issues. ….. The epistemic community is a group of global consultants who accepted and adopted a set of reforms and criteria globally defined. They were sharing the same set of values. In southern Africa, the reform agenda was rhetorically adopted but not practically implemented at all."* (Gillwald, personal interview, June 2012).

She added that in the mid '90s, South African so-called "managed liberalisation" had an impact on the southern African agenda for the liberalisation of the telecommunications sector. Issues, such as incomplete liberalisation of the market and a very strong focus on universal access, were also embraced by other countries in the region. Managed liberalisation was a label applied retrospectively to this reform process. Rather, it was supposed to be a staged reform period.

> *"Within SADC it (managed liberalisation) was reflected differently. Namibia and Botswana displayed a very cautious approach - cautious to liberalisation. Mozambique was very tentative. Zambia did not create conditions conducive to investment."* (Gillwald, personal interview, June 2012).

The first phase of the regional telecommunications market reform has been associated with the Washington consensus reform agenda.[98] However, an interviewee noted that it has not been acknowledged that the reform programme was only partially implemented.

[98] The "Washington consensus" is a set of economic principles based on neo-liberal theories, which reject government intervention in the market to improve economic conditions of developing countries. The term includes a set of policies, such as privatisation, trade liberalisation, public expenditure priorities, fiscal

> *Privatisation does not constitute the reform programme. And full liberalisation has never happened.* (Gillwald, personal interview, June 2012).

In addition, the first phase of the reform did not prepare the ground for implementing the second phase.

> *"We didn't really set up independent regulators, we didn't really manage to liberalise and to privatise the sector. In the second wave of reform, the telecommunications sector has experienced significant and fundamental changes. Emerging issues related to competition and market structure have arisen and they were not part of the agenda a decade ago."* (Gillwald, personal interview, June 2012).

As a result of the involvement of international organisations in regional processes, a respondent from a regional organisation declared that one of the main benefits of the HIPSSA project was building ICT policy and regulatory capacity at a regional level. On a different note, another interviewee from a regional organisation explained that the main challenges he experienced with the HIPSSA project were the limitation of funds and the difficulties experienced in achieving country consensus:

> *"After it was done, the output was considered a success. We managed to review the regional ICT policy and regulatory framework taking into account the converging environment, and both the model policy and model ICT bill have been updated. That work has been approved"*. (Mamelodi, personal interview, January 2013).

With regard to the positive outputs of the HIPSSA project, she explained that:

> *"One of the successes of the HIPSSA project was the development of three model bills related to cyber-security. Those model bills draw from a regulatory framework which was developed in West and East Africa. This can be considered a success in terms of African REC cooperation. The SADC Secretariat has also received a request to transpose the framework in five countries including Namibia, Lesotho, Malawi and Botswana."* (Mamelodi, personal interview, January 2013).

More difficulties were encountered with regard to the development and approval of the updated protocol, which did not pass the ratification phase at the SADC Summit level.

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disciplines, tax reform, interest rate liberalisation, competitive exchange rate, foreign direct investment, deregulation and property rights (Williamson, 1990; Onis & Senses, 2005; Beeson & Islam, 2005).

"After the updated protocol was released, SADC member countries decided to review it again entirely, mostly because it is a binding document." (Mamelodi, personal interview, January 2013).

The HIPSSA project employed both local and European consultants.

"In the HIPSSA project, the requirement was that consultants had to be locals. There was a need for local expertise." (Msimang, telephonic interview, November 2012).

However, as a representative from academia pointed out, the project's budget was based on EU funding, so local consultants had to be supported by European consultants. With regard to continental government organisations being involved in the second round of reform, a representative of an African continental implementing agency explained that the NEPAD did not have a relevant role in the HIPSSA project.[99]

"Negotiations were conducted by the African Union Commission and at that level the NEPAD is not very engaged. The African Union Commission is mandated to work on soft law issues for developing policy. The NEPAD is a technical body and it is more concerned with overseeing the implementation of projects and programmes." (Katiti, telephonic interview, April 2013).

6.7.4 Ineffective technical assistance without understanding the political economy on the ground

The phase of implementation of regional frameworks at a national level represents the second layer of technical support from international organisations. However, in order for this technical support to be effective:

"*The implementation needs to have a local understanding, otherwise we cannot refer to it as democratic participation in the regional process of integration.*" (Gillwald, personal interview, June 2012).

Therefore, technical assistance is not effective without a broad knowledge and understanding of the political economy at ground level in SADC countries.

"Why does reform not work? Economic-based solutions are plunged down from Europe on a completely different political and economic environment. Strategies, to reform the economic sector through policies, fail to take into account the political economies of the SADC countries. International organisations assume that all these countries have democracies, independent regulators, participatory policy systems. Therefore, the reason for failures is that international organisations are not adequately prepared to deal with the

[99] The NEPAD, through the e-Africa Programme develops policies, strategies and projects at a continental level for the development of an information society throughout Africa.

reality on the ground. It might mean a less harmonised approach at national level in order to get some regional functionality. For instance, we cannot hope for a participatory open approach in Swaziland, because the political reality of that country does not allow for such an approach. In other cases democratic systems are dominated by single dominant political parties, such as in Mozambique, in South Africa, and in Namibia. The democratic assumption that goes with these institutional arrangements in Europe does not apply in this environment." (Gillwald, personal interview, June 2012).

6.7.5 Technical support in planning and developing guidelines

A respondent from a regional regulator confirmed that international organisations, for instance the ITU and Universal Post Union (UPU), provide the technical expertise needed for regional policy and regulation, in particular planning and developing guidelines. However, she added that when it comes to implementation, the involvement of international organisations in less visible. She was supportive of the involvement of international organisations in regional regulation, because the variations between the interests of regional and international organisations are very small.

The relevant role that USAID had in the first round of reforms was highlighted by an external consultant. He explained that it was not the only international organisation involved in the process. Together with the USAID, the Commonwealth Telecoms Organisation, the ITU, Australian Aid and the Swedish International Cooperation Agency (SIDA) all worked together on the same programme. International organisations were development-focused.

"The SADC was poor with regard to ICT and telecom sector development although the telecommunications infrastructure was recognised as an engine for growth in economic, social and educational terms. The time was right in the mid 90s." (Goulden, personal interview, October 2012).

With regard to the HIPSSA project, an interviewee from an international organisation explained which partners got involved and how they collaborated on the development of regional guidelines.

"The project was mainly an ITU project for developing guidelines on cyber-security and universal access and service. The ITU conducted a benchmark exercise and it was an ITU project in collaboration with CRASA. The guidelines on cyber-criminality were developed in collaboration with the Council of Europe, the Commonwealth, and the section of the UN Office on Drugs and Crime (UN ODC) dealing with cyber-criminality. The objective of

this collaboration was that all these organisations should work together with the AU and UNECA." (Bazzanella, telephonic interview, November 2012).

6.7.6 US free market ideology in the first round of reforms

An external consultant explained that in the first round of reforms, international organisations and donor organisations got involved at ministerial level. This round was dominated by American consultants who introduced free market ideology (confirmed by an academic interviewee).

> *"The process was initiated by the US State Department and the National Telecommunications and Information Administration (NTIA), which is the nearest organisation that the US has to a Ministry of Communications. They engaged with the ITU. The location of the regional programme in Botswana came from the President of Botswana who provided the facilities for a regional centre. USAID was welcomed at a presidential level."* (Goulden, personal interview, October 2012).

A representative from an international organisation added that the reform in the 90s was part of an international process of reforming the sector.

> *"In 1990, there was a coordination meeting called for donors within the SADC structures. Every year the SADC used to hold a big conference for member states to try to mobilize resources in all policy areas including telecommunications. There was a debate on the capability of the Technical Unit of the SATCC to formulate and implement projects. There was a need to have additional human resources. They came up with the idea – in particular SIDA Canada – that they should bring in ITU because it had the needed expertise. In addition, they needed an organisation which was able to coordinate the consultants. So the ITU was involved because it was considered to be an impartial organisation. The ITU is not driven by the specific interest of any specific country. Therefore, the ITU needed somebody to support the implementation of this project and it approached Telecom Mozambique and I was involved. I became part of the project to help the ITU. In addition, there were consultants from different countries such as Canada, Sweden, Australia. A law firm from South Africa drafted the protocol. The coordination was done by ITU experts and later by regional experts."* (Tayob, telephonic interview, October 2012).

6.7.7 European approach to harmonisation in the second round of reforms

In contrast, the second round of reforms, the Harmonistation of ICT Policy in Sub-Saharan Africa (HIPSSA) project, was driven by European consultants.

"The European Union funded the project and therefore employed European consultants to run it. As a result, the project was driven by European values, namely the competition values of Europe. The output presented by the consultants is based on European reforms. Those reforms work better in mature economies but this framework to reform the sector was what was presented to Africa." (Gillwald, personal interview, June 2012).

The project was not completed due to the withdrawal of funds.

"The HIPSSA project was driven by consultants, except that the SADC Secretariat had to request support. As primary international experts, a German firm and an expert from Zimbabwe were employed. I was in charge of a technical review, specifically reviewing the model policy and the model law. Subsequently, the project was taken to SADC structures at various times. It was then endorsed by member states, but for the final endorsement it had to go through ministerial meetings. However, since the project was supposed to modify the Protocol, it had to be approved at the Summit level. At the end of this process (which was not completed) the person in charge at the ITU left and the project was wrapped up. The consultants withdrew when the project ran out of funds and the people who had been sourced no longer attended the SADC meeting." (Gillwald, personal interview, June 2012).

A representative from an international organisation explained how the ITU and the European Commission got involved in the second round of reforms in the SADC. He revealed that SADC member states had been involved since the inception phase of the project.

"The European Commission had a project on harmonisation of ICT policy and regulation. At the beginning of the project, the ITU submitted an application to the European Commission to work on that aspect. The ITU contacted member states to find out if that objective was part of their priorities. The project was recognised as something that was important for the region. Regional organisations wrote a letter confirming that they needed a project to harmonise ICT policy and regulatory frameworks." (Jallow, telephonic interview, April 2013).

6.8 Role of the SADC in international regulation

Not only member states, but also Regional Economic Communities are represented at the ITU level.

"SADC countries are part of the ITU both individually and as a group. Each member has sovereign rights at the ITU. At the ITU level, member states have

the right to make decisions. At the ITU level there are two different types of membership: first, member states; second, sector members." (Tayob, telephonic interview, October 2012).

6.8.1 SADC caucus at the ITU level

A representative from a regional organisation explained that regional organisations have the task of coordinating the position of member countries on international issues.

> *"Before meetings such as the World Radio Conference or the WCIT, we create a technical group which is set up by CRASA. We identify the relevant issues that are for discussion and the SADC supports the preparation of preparatory meetings. Then, we take the sub-regional position to the African position, so that we are sure that our issues are taken into consideration at a continental level. SADC is very active at an international level, even more than other regions. SADC coordinates the meetings, and coordinates a harmonisation consensus to go forward."* (Mamelodi, personal interview, January 2013).

The relevant role of the SADC, especially at the ITU level, has been widely acknowledged. For instance, in meetings for the radio sector of the ITU, SADC countries have successfully been able to coordinate their strategies and positions to be more effective at an international level. That has been facilitated by the development of a regional radio spectrum plan undertaken by CRASA (Cohen and Gillwald, 2008).

Although RECs have the role of coordinating the position of member states position with regard to issues, such as frequency coordination, they do not have the right to vote.

> *"RECs play a critical role in coordinating the position of member states, but when it comes to voting, each member state has the right to vote. RECs try to coordinate the views of different member states when there are conflicts of interest. It is important to have a block to represent regional interests."* (Tayob, telephonic interview, October 2012).

However, regional coordination at an international level has not always been effective. A representative from an international organisation stated that when it comes to the definition of technical specifications and standards at the ITU level, the SADC does not have the manufacturing power to influence the ITU standardisation process. Therefore, their participation in this domain is limited.

In contrast, when it comes to frequency issues, African countries are directly affected and therefore they are more active. In particular, he mentioned the coordinating role of continental organisations such as the ATU and the leading role of the SADC at a

continental level. Specifically, the SADC had a leading and coordinating role in the process of negotiating the standard for digital terrestrial television broadcasting at a continental level.

> *"Africa Telecommunications Union tries to coordinate the position of SADC with other regions, such as the ECOWAS, the EAC, and all other RECs. The SADC can drive the position of the rest of Africa, and the REC has tried to do so on several occasions, for instance, with regard to digital migration. The standard of digital terrestrial television broadcasting at a continental level was set up by the SADC. Some countries in the SADC wanted to adopt the ISDB-T, which is Japanese, while others preferred the DVB-T, which is European. The European standard appeared the most suitable because both Europe and Africa belong to Region 1, meaning that they belong to the same frequency region. The SADC was actively trying to push other RECs to follow at the same time as they were trying to coordinate internal opinion to adopt the standard. At the end of the negotiating process, the DVB-T2 was the standard adopted, and other African countries followed. Only Angola seems to have opted for another position."* (Tayob, telephonic interview, October 2012).

The SADC Digital Terrestrial Television (DTT) broadcasting migration is often mentioned as an example of a successful regional initiative.[100]

6.8.2 Overlapping membership in different regional organisations

Another obstacle in the implementation of the SADC ICT framework at national level, is the multi-membership of SADC countries in different RECs.

> *"For instance, Zambia belongs both to SADC and COMESA. Frequently it may create difficulties. One organisation might be faster than another, and adopt the most advanced mechanisms."* (Tayob, telephonic interview, October 2012).

[100] In May 2009, in Namibia, the SADC adopted a roadmap for digital broadcasting migration to guide member states to make a smooth DTT broadcasting migration. A project management office was established in order to assist member states. The project management office is in charge of both assessing the progress that SADC countries have been making to migrate broadcasting to digital TV and to provide technical support. SADC countries plan to meet the ITU analogue switch-off deadline, set for the 17 June 2015. A few challenges facing a smooth migration have been identified, such as: the availability of set top box for all the SADC population; the sharing of a sub-optimal infrastructure; the human capital required to manage and implement the migration; the need for public awareness; the production of new digital content and the prevention of piracy; and the general funding of this operation (Ah-Thew, 2013b).

The overlapping membership of SADC countries in different RECs creates duplication of policy and regulatory objectives and frameworks, which may result in a waste of financial and technical resources.

6.8.3 Principle of subsidiarity is used to share responsibilities between regional organisations

With regard to forms of collaboration between regional organisations, a representative from a regional regulator explained that CRASA and SADC Secretariat work closely together and each of them has a specific domain of work. CRASA acts as an implementing agency while SADC Secretariat develops policy. She highlighted that the principle of subsidiarity has been used to share responsibilities.

> *"In the SADC we work under the principle of subsidiarity. CRASA is an agency and it acts as a technical arm. CRASA is the implementing agency while SADC does not have technical expertise. Therefore CRASA has an implementation role. We assist SADC Secretariat on technical issues with regard to policy and regulation. For instance, when there are more technical issues, such as the development of standards for migration, the CRASA should be involved in order to implement the regional programme. Whenever there was a meeting [on digital migration] it was under the SADC auspices. CRASA supported the meetings but the meetings had the SADC logo, because the ministers are aware that at the SADC level, policy might be developed."* (Linzie, telephonic interview, April 2013).

6.9 Conclusions

The following table summarises the main findings that emerged from interviews, direct participation in regional processes, and official media statements issued by SADC organisations.

Table 6.1: Summary of the main findings from semi-structured interviews, direct participation and media statements.

Area of investigation	Recurring themes	Summary of findings
Drivers for the development of an integrated regional ICT policy and regulatory framework	Regional economies of scale and scope	The establishment of a regional telecommunications market would attract more investors in the region. The integration of ICT policy and regulation is part of SADC economic integration.
	Building an African identity	Integration would allow SADC countries to "speak the same language". Historically, integration was intended to isolate apartheid South Africa.
	Emulating the EU model of integration	SADC would like to reach the same level of regional integration as the EU through harmonisation and integration
	International regulatory trends	Regional reform is driven by international regulatory trends set by the ITU and other international organisations.
	Technical harmonisation at a regional level	Issues of a technical nature, such as frequency harmonisation, require regional coordination of ICT policy and regulation.
Enforcement of regional ICT policies, protocols and declarations at a national level, and the level and status of integration and harmonisation achieved by ICT policy and regulation in the SADC region	Regional policy outputs normally do not reach the SADC Summit.	Since regional regulation does not reach the Summit level for approval, these documents are not binding on member states. Regional policy and regulatory outputs have the form of model policies, model bills and declarations.
	Policy and regulatory processes lag	Telecommunication industry developments are faster than

Table 6.1: Summary of the main findings from semi-structured interviews, direct participation and media statements.		
Area of investigation	**Recurring themes**	**Summary of findings**
	Weak enforcement mechanisms of regional regulatory documents	Declarations are one of the main outputs of regional policymaking. Such documents are not proposed for enforcement at national level. Conversely, regional model policies and model laws have a bigger impact at national level as they are used as guidelines to develop national regulation.
	Different regional issues dominated by different member countries	SADC leadership on policy issues rotates among the member states. Mauritius and South Africa have been more able to dominate the regional debate due to their performance on regulating the sector at national level, and other countries emulate their models. SADC countries work as a team on issues relating to ICT.
	Lack of skills and funds at a regional level	Regional institutions need to engage with international organisations in order to develop and implement programmes, because RECs lack capacity, skills, funds and, in some cases, independence. International organisations provide mostly technical support.
	Participation of member states in conferences and validation workshops	The main institutional mechanisms of participation by member states in the process of reforming the telecommunications sector are meetings in the form of conferences and validation workshops. Therefore, the participation of SADC countries happens mostly at the end

Table 6.1: Summary of the main findings from semi-structured interviews, direct participation and media statements.		
Area of investigation	**Recurring themes**	**Summary of findings**
		of the process. Budget and human resource constraints are the main obstacles to effective participation by SADC countries in regional processes.
	Predominant involvement of ICT ministries in regional processes	The involvement of member states in regional ICT policy and regulation is predominantly driven by ICT ministries. Budget constraints make their involvement relatively low.
	Establishment of independent regulators in the first round	One of the main successes of the first round of reforms was the creation of independent regulatory bodies in all countries except Swaziland. National legislation is well aligned to the model legislation developed as an output of the first wave of reforms.
	Voluntary approach to transposition	The voluntary approach to transposing regional legislation at a national level has been identified as the main problem hindering regional harmonisation and integration. Documents produced during ICT ministry meetings are confidential and not for public use, because the ICT ministry conference does not have a legal status.
	Different national institutional arrangements	Legislation, methodology, and legislative structures differ in each country, hampering the transposition of regional policy and regulation at national level. Different transposing mechanisms at a national level slow

Table 6.1: Summary of the main findings from semi-structured interviews, direct participation and media statements.		
Area of investigation	**Recurring themes**	**Summary of findings**
		down regional harmonisation. ICT ministers fail to report back to parliaments on issues related to ICT.
	Weak follow-up at a national level	The follow-up at a national level is normally poor. There is a need to monitor and evaluate the level of implementation of regional measures.
Involvement of international organisations in regional ICT policy and regulatory formulation	Reform processes as an international agenda	The reform process assumed an international agenda and it is doubtful that any member state could have driven this process without external support. Regional policies are aligned to an international agenda.
	Involvement of international organisations not always institutionalised	Mechanisms of involvement of international organisations in regional processes do not always follow a standard procedure. Participation of international organisations in regional processes is based on a request by the beneficiary (i.e. country to whom help is given).
	Ineffective involvement of international organisations	Some member states already have their own legislative framework in place by the time international organisations become involved at a regional level. The reform process based on the Washington consensus agenda was only partially implemented.
	Ineffective technical assistance without understanding the political economy at ground level	Technical assistance is not effective without a broad knowledge and understanding of the political economy on the ground in the SADC countries.

Table 6.1: Summary of the main findings from semi-structured interviews, direct participation and media statements.		
Area of investigation	**Recurring themes**	**Summary of findings**
	Technical support in planning and developing guidelines	Although international organisations provide support with regard to planning and developing guidelines, their support is less visible when it comes to implementation. International organisations are development-focused.
	US free market ideology in the first round of reforms	The first round of reforms was shaped by the agenda of the USA State Department and the NTIA. Americans introduced free market ideology to the project.
	European approach to harmonisation in the second round of reforms	The HIPSSA project was funded by the EU and therefore it was driven by European values (i.e. competition). The output presented was based on European reforms.
Role of the SADC in international regulation	SADC caucus at the ITU level	SADC countries have successfully coordinated their strategies and positions in order to be more effective at international level. African RECs do not have the right to vote.
	Overlapping membership in different regional organisations	Multi-membership of SADC countries in different RECs creates duplication of policy objectives and frameworks, and wastes financial and technical resources.
	Principle of subsidiarity is used to share responsibilities between regional organisations	CRASA and SADC Secretariat work closely together and each has a specific domain of work. The principle of subsidiarity is used to share responsibilities.

CHAPTER 7 – ANALYSIS AND DEMONSTRATION OF CASE

This chapter draws together the analysis of the findings presented in Chapters 5 and 6 to present a case study of regional ICT policymaking in SADC. Emerging themes and patterns arising from the interviews in the previous chapter are synthesised with the findings of the document analysis in Chapter 5. Policy outcomes, assessed in terms of technological readiness of the region, costs of communication and quality of services of ICT, and in particular, broadband, are weighed against the common policy objectives of the region and underlying institutions and processes.

The following sections analyse the main research findings that have emerged from the different sources of data. Regional institutional arrangements are examined in terms of regional policy outcomes, and factors contributing to poor policy outcomes are identified. The definition of regional policy outcomes adopted in this thesis moves beyond the usual ICT indicators related to market performance, such as access, use, price and quality of service in technical policy studies. This case study considers policy outcomes as any phenomenon resulting from regional processes and structures for ICT policy-making. Therefore, it includes the institutional structures that have been created to regulate the sector, and the roles and responsibilities of the main stakeholders who have been involved in these processes; the legal framework that has been created by these structures and processes to regulate the sector from a regional perspective; and market performance, in terms of the level of reform achieved by national markets as a result of the participation of SADC institutions in several multilateral trade agreements. Finally, a few quantitative, supply-side indicators are discussed to complete the case study and to demonstrate the poor integration of national infrastructures into a seamless regional telecommunications network.

7.1 First policy outcome: ineffective institutional arrangements for policy integration

The complex and static regional institutional arrangement for the harmonisation of ICT policy and regulatory frameworks in the SADC region, takes the form of a multitude of international, multilateral, regional and national organisations (from an institutional structure point of view) and model frameworks (from a policy and processes points of view).

Regarding ICT policymaking, regulation and the development of ICT programmes, expert opinions have highlighted the three tier structure of SADC, which

manages and coordinates the overall ICT programme:[101] the first layer is represented by the SADC Secretariat whose activities are closely linked to policy-makers; the second layer is occupied by CRASA which operates as an implementing agency; and third, SATA gathers fixed-line and mobile operators together to build the regional infrastructure (Mamelodi, interview, 2013). These structures are involved in different ways depending on the issue under discussion – or the ICT programme which needs to be implemented – according to the regional agenda.

In order to achieve regional objectives of poverty alleviation through economic growth and development, member states are required to harmonise political and socio-economic policies through protocols which are approved by the Summit on recommendations of the Council.[102] With regard to ICT, policy issues have not been a priority on the SADC agenda. There has been no update in the last 20 years since the protocol on communications was adopted by the Summit in August 1996, when Heads of State gathered in Maseru, Lesotho to sign the SADC Protocol on TCM.[103] Although constitutionally,[104] decisions, policies and agreements entered into under the auspices of SADC are legally binding, only protocols are required to be implemented at a national level. It is not required that other documents such as model policies and model laws be adopted at a national level (Tayob, interview, 2012) and transposition is done on a voluntary basis (Linzie, interview, 2013). However, infringement procedures are not in place should national states fail to implement regional policies and model legislation (Linzie, interview, 2013; Tayob, interview, 2012; Bazzanella, interview, 2012), even

[101] The conceptual framework of this thesis depicts a three layer structure of ICT policymaking, which includes multilateral and international organisations; regional organisations; and national organisations (Figure 3.1).

[102] SADC Protocols are binding documents, which coordinate, rationalise and harmonise policies and strategies in many areas of cooperation including infrastructure and services. In the area of telecommunications and ICT, Chapter 10 of the 1996 SADC Protocol on Transport, Communications and Meteorology (TCM) states objectives, targets and responsibilities of SADC member states with regard to communications infrastructures. The Protocol on TCM is a binding document for SADC member states, which are required to implement the harmonised policy framework at a national level.

[103] An attempt to update the SADC Protocol on TCM is represented by the recent ITU/EC HIPSSA project (2008-2013), through which ITU provided technical support to align policy, and legislative guidelines for industry developments, such as convergence of broadcasting and telecommunications licensing models. However, the amended protocol did not reach the SADC Summit level and therefore the main output of the second round of regional reforms does not have binding requirements for SADC member states.

[104] Southern African countries strengthened regional cooperation among member states in 1992, when the SADCC Summit gave legal status to the regional organisation and replaced the Lusaka Declaration (1980) with a Declaration and Treaty establishing the SADC. Since then, SADC countries have been required to coordinate, harmonise and rationalise their policies and strategies for regional development.

though, as observed in chapter 5, the organisation has legal instruments to enforce such decisions, policies and agreements. In fact, in order to enforce decisions, the SADC has set up institutional structures with decision-making, oversight, monitoring and evaluation, and executive powers.[105] Interviewees revealed that despite such enforcement mechanisms being in place, SADC has neglected to use them (Msimang, interview, 2012; Mamelodi, interview, 2013). This could be due to the absence, or a low level, of political will, or bureaucratic apathy. Consequently, in the second round of reforms, the SADC Protocol[106] was not updated by the Summit.[107] The endorsement of the protocol by the Summit is necessary for the document to become a legally binding text for member states. Two main reasons for this failure emerged from the interviews: first, the SADC Protocol includes not only a section on communications, but also one on transport and one on meteorology. Therefore, in order for a revised or new protocol to be approved, all the sections have to have been reviewed in unison. However, only the communications section had been reviewed. Secondly, the SADC legal department identified a procedural problem in the updating process: "…*when the (SADC) legal experts required a version with tracked changes of the draft of the new protocol, people working on the postal component failed to submit a tracked document and so the legal department placed the process on hold*" (Mamelodi, interview, 2012). Therefore, the HIPPSA project failed to achieve its main objective of updating the SADC Protocol by aligning it with continental and global trends.

In addition to protocols, other legal instruments for integrating and harmonising ICT policy and regulation in the SADC region are model policies and model bills. These

[105] According to the SADC Treaty (1992) the Summit, which consists of Heads of State or Government of all member states, is the supreme policymaking institution. The Summit is supported by the Council, which oversees the implementation of policies and the proper execution of programmes. The Integrated Committee of Ministers is in charge of monitoring and controlling the implementation of the RISDP and has decision-making powers to ensure a rapid implementation of programmes. The Secretariat is responsible for strategic planning and management of the programmes and it is responsible for submitting harmonised policies and programmes to the Council for consideration and approval. It has also monitoring and evaluation powers. The Secretariat is required to develop the capacity, infrastructure and maintenance of the regional ICT infrastructure, and to fulfill this role is supported by other regional organisations, including CRASA, the association of telecommunications regulators; SATA, a forum of operators of fixed land and mobile telephony networks; SATCC-TU, a technical support provider for the SATA; and SABA which represents public services and other broadcasting organisations.

[106] The updating of the Protocol on Communications was one of the main objectives of HIPSSA, a project funded by EC and implemented with the support of ITU (ITU, 2013).

[107] Since the Protocol is a binding document for its signatories, it needs to be endorsed by Heads of State. According to the SADC Treaty, protocols are approved by the Summit on recommendations of the Council (SADC Treaty, 1992, Art. 22 (2)).

instruments of regionalism can be used as guidelines by member states to develop national policy and regulatory frameworks in the realm of ICT.[108] Even though these documents are not specifically binding, it emerged from the interviews that member states have been adopting and using these models to develop national frameworks. As an outcome of the adoption of these models, national legislative frameworks on ICT should be similar in order to achieve policy and regulatory harmonisation and integration. However, the process of adopting these documents at a national level is not linear and straightforward. National constraints derive, for instance, from specific national institutional arrangements and endorsements (Matanga, interview, 2012). Expert opinions revealed that legislation, methodology, and the structure of laws in each country may differ and constrain the various legislative approaches. Some countries may have constitutional limitations with regard to how a regional policy or law can be implemented at national level. Others may simply not have the capacity to introduce and implement the model law.

Also, transposing regional regulations into national legislation has not been properly institutionalised. Rather, transposition is done on a voluntary basis and infringement procedures are not in place if national states fail to implement regional policies and model legislation (Linzie, interview, 2013; Tayob, interview, 2012; Bazzanella, interview, 2012). The failure to integrate national ICT markets results in an uneven level of liberalisation in SADC national markets (Table 7.1) and an uneven level of technological readiness throughout SADC countries (Table 1.4). A further regional legal instrument is represented by declarations. Declarations represent an additional obstacle to the implementation of the regional ICT policy framework at national level. Their soft legal status means that they do not need to be enforced at national level.

On the other hand, one of the main successes of the implementation of the Protocol at national level and of the first round of reforms,[109] was the creation of independent regulatory bodies in the SADC countries and the separation of postal and telecommunications regulatory frameworks and regulatory bodies (Mamelodi, interview, 2013; Msimang, interview, 2012). The majority of SADC countries have implemented the SADC Protocol on TCM (Mamelodi, interview, 2013), with the support of SATCC-TU (Tayob, interview, 2012). This is confirmed by the document

[108] Telecommunications Policies for SADC and the SADC Telecommunications Model Bill (1998) have the format of common guidelines for adoption and implementation at national level. These documents were developed to assist SADC member states to develop national policies and regulation on ICT.

[109] The first round of ICT reforms in the SADC coincides with the development and implementation of the SADC Protocol on TCM (1997), the Telecommunications Policies for SADC and the SADC Telecommunications Model Bill (1998).

analysis, from which it emerges that the principle of regulatory independence, included in the Reference Paper of the IV Protocol to the GATS, was implemented by both the SADC Protocol on TCM, which prescribes the establishment of autonomous and independent regulatory bodies, and by the Telecommunications Policies for SADC, which mentions that in a reformed telecommunications industry, public roles and powers should be clearly separated. However, other studies on ICT sector performance in selected African countries (Calandro et al., 2010; Gillwald, 2010) have been more critical of the level of independence of regulatory bodies in Africa. In fact, although the last decade has seen institutional rearrangements adjusted within the ICT sector to conform to international reform trends - with the ITU reporting that 93% of African countries have established regulators – these reforms do not equate to regulatory effectiveness if primary policy objectives are assessed against outcomes. The impotence of many regulatory agencies across the continent relates, at least in part, to the absence of political autonomy to regulate independently (Calandro and Moyo, 2010). Although autonomy of the regulator has been established by law, the required authority for them to regulate effectively is often curtailed by their lack of independence as a result of either the appointment process for the decision-making body, the financial situation of the authority, or the absence of accountability and transparency processes.

Lack of transparency represents a barrier to the reforms being effectively developed and implemented at national level. Most of the documents produced by SADC ICT ministers' meetings are confidential and records not available to the public, because the ICT ministry conferences are not under legal pressure to publish them (Le Bihan, interview, 2012). This situation is compounded by the absence of monitoring and evaluation of the level of integration achieved by national markets.

ICT ministers play a predominant role in regional policymaking, overtaking the role that should be fulfilled by legislatures (Matanga, interview, 2012). Also, the follow-up by ICT ministers can be poor and there is a lack of continuity. Therefore, as the document analysis demonstrated, despite formal development of ICT policy and regulatory framework at regional level, it has not been properly implemented at national level. Another obstacle to the implementation of regional frameworks at national level is that participation of member states in the process of reforming the telecommunications sector at regional level is in the form of conferences and validation workshops. Thus their role is more visible at the end of the process and less evident during the process, when it would be more relevant (Jallow, interview, 2013). In order to be effective, the regional policy needs to be aligned with local institutional needs in order to have local standing and ownership. Technical assistance is not effective without a deep understanding of the political economy in which reform is taking place (Gillwald, 2012).

7.1.1 ICT policy reform as a new form of foreign affairs shaped by the epistemic communities

International, donors and multilateral organisations, such as USAID, ITU and the European Commission, have been extensively and consistently involved in ICT policy reform processes in the SADC region from the 1990s. These organisations are involved in harmonising a global agenda on ICT policy, driven by international regulatory trends.[110] SADC regional institutions need to engage with international organisations in order to develop and implement ICT programmes and projects, because they lack capacity, skills, funds[111] and independence (Gillwald, 2012). SADC countries, many of whom are heavily in debt, or have public budget constraints, often do not pay regional membership fees.[112] As a result, other policy areas deemed more relevant and important in the region, such as fighting HIV/AIDS or natural resource management, are on top of the SADC policy agenda. Regional organisations are able to secure some public budget to undertake policy development work in these critical areas, while ICT policy is normally not considered a priority for the regional agenda on development (Matanga, interview, 2012). Therefore, regional organisations depend on international, multilateral or donor organisations to run ICT policy and regulation programmes.[113] These are designed and implemented to improve regional competitiveness and regional attractiveness and to reap economic and social gains as a result of the deployment of ICT infrastructures.[114] In addition, the involvement of international and multilateral

[110] Convergence, roll-out of fibre-optic networks, and the release of LTE spectrum are currently the priorities for ICT policy and regulatory reforms in developing countries. In addition, as more people get connected to the internet, internet governance issues such as cyber-security, surveillance and freedom of expression are becoming the new regulatory challenges for governments and regulatory bodies in developing countries.

[111] The survey on mapping multi-stakeholder participation in internet governance from an African perspective (RIA, 2014b) indicated that lack of financial resources is one of the main factors preventing effective participation in internet governance processes and debates.

[112] Some SADC countries belong to different RECs. This raises administrative costs because membership is associated with financial obligations.

[113] The ICT programme of the SADC Parliamentary Forum, for instance, has been created and funded only through donor funds. In 2012, when all donors withdrew from the programme, the entire SADC PF chapter on ICT had to close.

[114] Extensive and efficient telecommunications infrastructure is a driver of competitiveness (WEF, 2009). In the SADC region a seamless ICT infrastructure reduces the effect of geographical distance between countries and it fosters the integration of national markets at a regional level by connecting them to markets in other regions all over the world at low cost. Solid, good quality and extensive telecommunications networks allow a rapid and low-cost flow of information, increasing overall economic efficiency. Investment in telecommunications is substantially more productive than investment on average, due to the existence of externalities (Cannig, 1999). Studies have identified positive associations between

organisations in the regional ICT policy process includes technical components related to frequency harmonisation to avoid cross-border interference, or the maintenance of the global technical interoperability of the internet.

The strong influence of international, multilateral and donor organisations in shaping a regional agenda on ICT is a combination of a global technical agenda for the interoperability of the global telecommunications network and the internet[115] on the one hand; and on the other hand, a relationship of dependence by national and regional institutions on international, multilateral and donor organisations to run ICT programmes to compensate for their lack of capacity, skills, funds and independence. The implementation of regional strategic plans is dependent on regional capacity to collect and analyse ICT indicators, but the interviews indicate that, at the moment, SADC organisations do not have the resources or capacity to carry out this kind of monitoring and evaluation.

International and multilateral organisations have the technical capacity to support RECs and normally they provide technical support in the form of capacity-building. SADC institutions and regional processes have been supported and shaped by a network of development practitioners, consultants and academics with a shared system of values, beliefs and practices, mostly drawn from Western democracies and mature economies. This community of experts is referenced in the literature as an "epistemic community" (Haas, 1992).

> *"The epistemic community is a knowledge community or reference group, in this case a group of international consultants who share the same set of values… who accept and adopt a set of reforms and criteria which were globally defined in their practice and which are applied pretty uniformly across the different jurisdictions in which they work …"* (Gillwald, interview, June 2012).

The strong influence of epistemic communities in ICT policy development in Africa has been confirmed by a representative of the ITU, participating in an online survey on

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telecommunications infrastructure and economic growth (Jipp, 1963; Dholoakia and Harlam, 1994; Roller and Waverman, 2001; Koutrompis, 2009; Kim, Kelly et al, 2010, Katz, 2012; Williams, 2009; OECD, 2007).

[115] The two main global organisations in charge of technical interoperability of telecommunications and the internet are the ITU and the ICANN. The ITU has standardisation and radio spectrum harmonisation at the core of its technical mandate. Its activities are executed at the infrastructure and services level, as opposed to content regulation. Specifically, the ITU has two technical areas: telecommunications standardisation (ITU-T); and radio spectrum and satellite orbits allocation (ITU-R). The ICANN is engaged in managing internet numberings and domain names, and it is involved also in policymaking related to them, by establishing a system of rules rooted in contracts so as to order the global supply of domain names.

mapping multi-stakeholder participation in internet governance (Calandro, 2014). He clearly acknowledged the impact of the foreign epistemic community on the creation of standardised policies, particularly those relating to internet policies in developing countries. The respondent, referring to the extent to which multi-stakeholderism is practised, feasible or applicable in existing (internet) governance and policy structures in Africa, declared that:

> "*Presently there is hardly (any) and you find a few selected groups making assumptions for many*" (RIA survey on multi-stakeholderism, 2014b).

These shared international values featured in Thabo Mbeki's 'African Renaissance' motif which was based on the idea that the economic growth of SADC countries should be related to a regional integration project based on good governance, democracy and liberalised markets. These values are widely shared by the epistemic community of consultants and experts, who provide technical support and capacity-building to SADC in its task of harmonising and integrating national ICT markets through regional policy and regulatory frameworks.

Studies on the political economy of developing countries observe that a major obstacle to economic development is caused by the lack of implementation of democratic principles in their governance. Democracy in developing countries does not result in a significant change in the economic situation of these countries, which are characterised by a large informal economy and widespread non-market accumulation processes (Khan, 2002). Economic marginalisation of African countries is partially the result of structural adjustment programmes (SAPs), promoted in the 1980s and 1990s by the International Monetary Fund (IMF) and by the World Bank. The SAPs preceded the "Washington Consensus", a set of economic principles based on neo-liberal theories, which reject government intervention in the marketplace to improve economic conditions in developing countries. Assessments of SAPs on poverty indicators suggest that these programmes had a negative impact on poverty and income distribution. After their implementation, economic activities were suppressed, wages and tax revenues were reduced and the balance of payment worsened (ECA and AU, 2006). Most of the economies of SADC countries are characterised by weak factor-driven elements, including basic institutional development; poor infrastructure, health and primary education; and macro-economic instability. Furthermore, they lack efficiency-driven elements, such as acceptable market size, reasonable levels of higher education and training, goods and labour market efficiencies, final market sophistication and technological readiness. Overlooking such political and economic conditions, could lead to the failure of technical assistance or capacity-building programmes, initiated or

supported by international, multilateral or donor organisations, and often implemented by external consultants.

Haas (2008) has argued that epistemic communities emerge and proliferate when demands for specialised information arise. In the case of the reform of SADC regional ICT policy and regulatory framework, interviewees indicated that the intervention of international organisations was based on the need to build capacity and provide technical assistance either for the development of a common framework or to update one. This fitted in with international best practices of regulation, relating to the separation of political, legislative and regulatory power (first round of reforms) – even if ineffectively implemented - and convergence and internet regulation, such as cyber-security (second round of reforms).

The epistemic community of external consultants and representatives from international organisations, who have been involved in regional processes, have a normative approach to regional policy-making, which comes from their experience of the mature markets of Europe and the United States. This normative approach informing regionalisation efforts draws extensively from the European Union as the most developed integrated region, for instance, where institutionalised and complex structures and processes for the harmonisation of regional frameworks are in place, and the interaction between the regional level and the national level is structured around sophisticated bureaucratic organisations, which monitor and evaluate the implementation of regional measures.[116]

7.2 Second policy outcome: limited market entry and FDI

Reasons for integration of regional blocs in a continental free trade area can be found in the theory of political economy of regional integration. Reducing costs of intra-trade between African countries, increasing foreign investment flows, and addressing capacity constraints have been heralded as key objectives of regional trade agreements. The literature review in Chapter 2 concluded that the political rationale of such trade agreements has been to create a southern African economic community as part of the broader goal of African unity (Draper, 2011). This political motivation has been confirmed by the interviews. Several interviewees pointed out that one of the drivers for the development of an harmonised regional ICT policy and regulatory framework was building an African identity. Historically, integration in southern Africa was either to consolidate South Africa's economic management of the region, primarily for labour

[116] In the European Union, directives are mainly used for the implementation of regional measures at national level.

supply purposes through the customs union, or subsequently for the Frontline States to isolate South Africa under the apartheid regime. However, over the last two decades, regional integration has been considered a strategy to allow SADC countries to "speak the same language" (Katiti, interview, 2013).

Objectives for the integration of ICT policy and regulatory frameworks in the SADC mostly relate to the creation of regional economies of scale and scope (Linzie, interview, 2013; Katiti, interview, 2013; Tayob, interview, 2012). A regional market "would attract a bigger injection in the sector" (Linzie, interview, 2013). While all SADC member states encourage foreign direct investment (FDI), each member state currently operates its own, regulatory framework with its own pace of economic liberalisation, that is largely disconnected. Some member states place restrictions on foreign ownership of the telecommunications industry and media. Assessing foreign investments in telecommunications in the SADC is problematic, particularly because different institutional sources of sector indicators report diverging data.[117]

The first round of reforms introduced the liberalisation phase of telecommunications markets, with the intention of providing clear sector policy and regulatory guidance to govern the transition from state-owned monopolies to privatised infrastructures. Market reforms in the telecommunications sector were introduced in the last quarter of the 20th century to correct inefficiencies in the public utilities. In the liberalisation phase of the reform of the sector, market forces were thought to be the prime drivers of efficiency (Ndukwe, 2005). However, the FDI in Africa was highly concentrated in the oil and mining sectors.

The following table compares and summarises two sources of data on market entry in the SADC, with a particular focus on foreign direct investment.

Table 7.1: Market entry and FDI in SADC countries

Country	**Market entry (source: Lewis and Abrahams, 2013)**	**New entrants: Fixed (source: UNCTAD, 2009)**	**New entrants: Mobile (source: UNCTAD, 2009)**
Angola	Restricted: Foreign companies are prohibited from holding a	Allowed	Allowed

[117] According to SADC, five SADC countries restrict foreign investments in telecommunications, with only Mauritius and Zambia allowing 100% foreign ownership. Madagascar and Mozambique only restrict fixed line telecommunications, allowing foreign ownership of mobile services (SADC, 2014).

Table 7.1: Market entry and FDI in SADC countries			
Country	**Market entry (source: Lewis and Abrahams, 2013)**	**New entrants: Fixed (source: UNCTAD, 2009)**	**New entrants: Mobile (source: UNCTAD, 2009)**
	majority stake in any telecommunications licensee. Cross ownership of licensed operations is limited to 10%.		
Botswana	Open to foreign investors (especially in the mobile segment). No restrictions on foreign suppliers.	Not allowed	Limited to 2
DRC	Open to foreign investors. Mobile sector heavily dominated by foreign companies		
Lesotho	1999 Act promotes the introduction of competition by attracting new players.	Allowed	Not allowed
Madagascar	Open to foreign investors.		
Malawi	Open to foreign investors. However, there are restrictions both in the fixed and mobile markets, but on a non-discriminatory basis.	Not allowed	Not allowed
Mauritius	Open to foreign investors. The country represents an emerging offshore investment destination.	Allowed	Allowed
Mozambique	Open to foreign investors.		
Namibia	Restrictive. Foreign ownership available by licence to 49% of the company that applies for	Not allowed	Allowed

Table 7.1: Market entry and FDI in SADC countries

Country	Market entry (source: Lewis and Abrahams, 2013)	New entrants: Fixed (source: UNCTAD, 2009)	New entrants: Mobile (source: UNCTAD, 2009)
	the licence.		
Seychelles	Open to foreign investors. 100% of voice market is controlled by foreign suppliers.		
South Africa	Open to foreign investments, especially in the mobile and mobile broadband sub-sector.	Not allowed till expiry of a specific timeframe which can be extended	Allowed
Swaziland	Restricted. There are no foreign-controlled entities in the voice telephone market.	Not allowed	Allowed after Nov 2008
Tanzania	Open to foreign investment. Voice telephony providers, with a foreign controlling interest, account for over 99% of the voice telephony market.	Allowed	Allowed
Zambia	Open to foreign investment, in particular the voice market.	Now allowed	Allowed
Zimbabwe	Restricted. 80% of voice telephony is controlled by Zimbabwean companies, with only 20% available to foreign entities.	Allowed	Allowed

Source: Lewis and Abrahams, 2013; UNCTAD, 2009.

American consultants influenced the first round of reforms, introducing a free market ideology (Goulden, interview, 2012). This ideology was then translated into the

Telecommunications Policies for SADC (SATCC, 1998) which envisaged the creation of a competitive regional telecommunications sector, attracting local and foreign investors, promoting a fair competitive and stable investment environment, and providing network access on reasonable and non-discriminatory terms and conditions. Nevertheless, as previously observed (Chapter 1, § 1.4) the region adopted a "cautionary approach" to telecommunications sector reform (Hodge, 2002), because of strong political opposition to full liberalisation of the sector.

As a result, both market entry and FDI in the SADC region are limited. Botswana, Namibia, Swaziland and Zambia do not allow new entrants in the fixed-lines market (UNCTAD, 2009). In Angola, foreign companies are prohibited from holding a majority stake in any telecommunications licensee, and cross-ownership of licensed operations is limited to 10% (Lewis and Abrahams, 2013). In Namibia, market entry is restricted, since it does not allow more than 49% of the telecommunications companies to be owned by foreigners. In Zimbabwe, the indigenisation policy requires majority ownership by "indigenous Zimbabweans".

Telecommunications markets have been only partially reformed at a national level in the WTO process through the GATS framework, and only a few member states have agreed on a certain number of commitments. In SADC, only six countries (Botswana, DRC, Lesotho, South Africa, Mauritius and Zimbabwe) have made specific commitments in telecommunications. As part of that process, South Africa committed to at least a second national operator. With regard to mobile communications, only South Africa and Mauritius made commitments, both undertaking a limited liberalisation of this market segment, allowing two operators to enter the market initially, but South Africa committed to more.

In the VAS segment, only Lesotho committed to full liberalisation of the sector, while South Africa and Zimbabwe offer limited liberalisation. All service providers are required to lease monopoly facilities in order to offer their services.

7.3 Third policy outcome: poor market performance

Overall, SADC countries are characterised by poor institutional arrangements for ICT sector development, which results in poor ICT market performance, such as low access to, and use of ICT, high prices and poor quality of service. Socio-economic outcomes in many developing countries are shaped by political patronage and internal political instability (Chapter 2, § 2.1). The economy is not sustained primarily through fiscal policies but mainly through accommodating off-budget interests of factions organised along political patronage lines (Khan, 2002). Client-patron networks in Africa survived the transition to democracy. In developing countries the patron can divert political

power to capture public resources. An extreme example of this is Swaziland, but this is also evident in countries such as Mozambique, Zimbabwe, Namibia and South Africa.

In this political context, SADC countries do not have a political and regulatory environment conducive to investment (Chapter 1, Table 1.6). From the interviews it emerged that the heterogeneity of political and regulatory environments among SADC countries is an obstacle to harmonising and integrating national policy and regulatory frameworks at a regional level because different countries have different institutional arrangements, political environments and different legislative frameworks (Matanga, interview, 2012; Le Bihan, interview, 2012.

Most SADC countries are defined either as "factor driven economies"[118] or as "transition economies" by the Global Competitiveness Index (GCI) of the WEF (2014). These countries are characterised by weak institutions, absence of efficient higher education and training, under-developed infrastructures, small market size and poor technical readiness (GCI, WEF, 2014).

While South Africa and Mauritius are the leading countries in the region in terms of quality of the overall infrastructure, all the other countries rank poorly on global indexes such as the GCI (WEF, 2014) and the IDI (ITU, 2014). In the majority of SADC countries, telecommunications networks are poorly developed, and access to and use of ICT is low. Regulatory agencies lack independence[119] (Calandro, Gillwald, et al., 2010) and the executive subsumes parliamentary roles and responsibilities (Matanga, interview, 2012) weakening legislative and oversight functions. This thesis maintains that government organisations and regulatory agencies do not have enough technical and financial resources to effectively regulate the sector. SADC countries are unable to leverage ICT to improve business efficiency and therefore to increase productivity (GCI Technological Readiness, WEF, 2014).

On a different note, island states such as Mauritius and Seychelles are efficiency driven economies (WEF, 2014), have higher levels of individuals using the internet and greater numbers of fixed (wired)-broadband subscriptions (ITU, 2013).

South Africa, in contrast, has the characteristics of both a developed and developing economy. On the one hand the country has the strongest economy in the region (table 1.1) and has a relatively high level of access to ICT in comparison to other SADC countries (ITU, 2014). Besides its relatively strong infrastructural development, its institutional development includes sophisticated world universities and research

[118] Factor driven economies in the SADC region are Lesotho, Madagascar, Malawi, Mozambique, Tanzania, Zambia and Zimbabwe.

[119] Specifically, Angola, Madagascar, Mozambique, and Zimbabwe do not have a conducive political and regulatory environment (WEF, 2014).

bodies. The country also has a strong private sector and financial services sector (WEF, 2014). On the other hand, despite the country still being the highest on several indicators at a regional level, it lost positions on global ICT indices over the last two decades (Gillwald, 2013).

Another significant cause for poor ICT market performance in the region is the low participation of the private sector in the development of the internet in many SADC markets. In addition to contributing to ineffective ICT policies and regulations,[120] this results in an uneven distribution of internet resources - such as Tier1 networks and Internet Exchange Points and intermediaries,[121] which are concentrated in the Global North (Calandro et al., 2013).

Communication prices in SADC countries, wholesale and retail, are high, reflecting policy failure with regard to the objective of affordable access. According to retail pricing data collected by Research ICT Africa over four years since Q4 2010, mobile voice tariffs in SADC countries are expensive (Table 1.8; Figure 1.3). However, regulated reduction of mobile termination rates, and increased competition in the mobile market segment, are reducing mobile voice tariffs throughout the region. Data prices reflect the new challenge, with wholesale price regulation far more of a challenge in an internet environment.

Of the SADC countries measured in the Mobile Africa Price Transparency Index (RIA, 2014; Table 1.8) Mauritius is ranked the highest due to a competitive telecommunications environment with two fixed-line operators (Mauritius Telecom and MTML [122]) and three mobile operators (Orange, Emtel and MTML) providing communications services to a relatively small population. Namibia and Botswana, two countries with small market size due to a small population, managed to significantly reduce communications prices over the last three years. Specifically, in Namibia the reduction of MTR since 2009 has brought about a significant reduction in retail voice tariffs.

[120] By contrast, in the global north, business associations substantially contributed to the development of ICT policy and regulatory frameworks through a multi-stakeholder approach to internet policymaking: examples are the role played by the International Chamber of Commerce as coordinating advocacy lobby for business in WSIS, ICANN, OECD, IGF, etc., as well as the significant investment of time, resources and energy into multi-stakeholder dialogue by individual tech companies, like Cisco, Microsoft, Nokia-Siemens, Verizon etc.

[121] According to the OECD (2010), internet intermediaries are internet service providers (ISPs), hosting providers, search engines, e-commerce intermediaries, internet payment systems and participative web platforms.

[122] MTML provides CDMA2000 services.

In Mozambique, the entry of a third mobile operator, Movitel, into the market in 2012, has shaken up a duopoly in the fixed and mobile segments, that was delivering poor quality and highly priced services to the major cities. In addition, in 2012, a reduction of MTR assisted the market to become more competitive, with both mCel and Vodacom Mozambique pressured into reducing their mobile prepaid voice tariffs.

In comparison to other SADC countries, South Africa has high levels of access to, and use of, mobile phones. The market is characterised by an oligopoly dominated by two mobile operators, MTN SA and Vodacom SA. The two operators have matched their relatively high prices over the last two years (RIA, 2014). On the other hand, the small operators, Cell C and Telkom Mobile, have been reducing their retail prices and that has translated into a very good ranking in the RIA mobile 'cheapest in the country' index (7th position in Q2 2014, see Table 1.8).

Despite some countries reducing their mobile prepaid voice prices, broadband prices remain very expensive. Research ICT Africa compiles a broadband price transparency index, which ranks selected African countries according to the price of 1GB basket. Among SADC countries, South Africa is the cheapest country in the index. At the end of Q1 2014, 1GB of data cost USD13.7. In contrast, Namibia and Botswana are the most expensive in the data market. Namibia has drastically reduced mobile prepaid voice prices but it is still very expensive in the mobile broadband market. Botswana is a land-locked country characterised by a low level of competition in the wholesale market and international gateways.

Although international bandwidth prices have dropped significantly over the last few years, with the end of the SAT 3 monopoly for the southern Africa sub-region, and the landing of several competitive undersea cables on the previously barren East and West coasts, national transmission and backhaul costs remain very high. Also cross border prices within the region are often prohibitive (Gillwald, Moyo and Stork, 2013).

7.4 Challenges to ICT policy harmonisation and integration at a regional level

The need to identify appropriate structures and processes for the governance of regional telecommunications infrastructures comes from the fact that in a converging environment dominated by internet and IP-based services, traditional governing bodies and decision-making procedures do not work as effectively as in a nationally bounded telecommunications environment, dominated by incumbents, and regulated by sovereign national government organisations. This is compounded by the lack of financial means, human resources, and technical capacity at a regional level, especially with regard to ICT policy and regulation. This makes developing countries even more reliant on

international, multilateral and donor organisations to develop harmonised and regulatory frameworks.

In the first round of reforms, the wave of liberalisation of telecommunications markets was supported by global processes, such as the WTO GATS processes. Support from international and multilateral organisations for the SADC was relatively effective; at least in developing regional model legislation and guidelines that were instrumental in separating regulatory bodies from government organisations. Conversely, the second round of reforms, which was part of a global reform movement towards converged, broadband services, aligned with new global governance arrangements, and, at the regional level, based on the EU model of cooperation, has not been as successful.

From a political economy perspective, different stages of economic, political and social development make it difficult for SADC member countries to have common priorities and therefore to adopt common models or frameworks.

Although an international and global agenda on ICT sector reform has been developed, based on policy and regulatory objectives shaped by industry, and technological standards coming from the mature markets of the global north - and supported by well-structured and well-resourced international and multilateral organisations - African countries have seldom been able to participate in international debates and decision-making processes, tasked with developing a technical and policy agenda for the development and maintenance of the global network (Calandro et al., 2013). African governments are normally marginalised from ICANN decision-making structures and processes. Thus they default to ITU meetings as the African caucus for the governance of the internet. At an ITU level, SADC countries have been able to successfully coordinate their strategies and positions in an attempt to be more effective at an international level on global governance issues. However, African RECs do not have rights to vote in such forums.

In order to include marginalised countries in the process of globalisation of telecommunications networks, African RECs have been used as a bridge to compensate for the gap between the international and global debate and national policy and regulatory agendas. RECs, having no capacity beyond their secretariats, have been receptive to technical assistance and capacity-building initiatives, which try to compensate for the lack of technical skills, financial resources and independence in the sector at a national level.

Like previous governance reform initiatives in relation to telecommunications, these are aligned to an international reform agenda, and are based on a set of values and ‘best practices’ developed from more mature markets, and shared and supported by the epistemic community. In this sense, policymaking in the SADC region can be

considered as a foreign affairs tool to advance the shared set of values and beliefs drawn from mature markets and Western democracies. These interventions, if not properly developed and implemented, create a waste of international technical and financial resources, which are critical to support the development of recipient countries. In fact, it is doubtful if any member states involved in the reform initiative could have put in place this process without any kind of external support.

In the southern African case of regional ICT policymaking and regulation, one of the historical drivers of the development of a harmonised regional ICT policy and regulatory framework, is the emulation of the EU model of integration. African states hope to reach the same level of regional integration through regional harmonisation of national policy and regulatory frameworks, but enforcement of regional ICT policies, protocols and declarations at a national level is uneven. Regional policy outputs in terms of legislative documents (i.e. protocols, model policy and model bills, declarations) are not evenly implemented at a national level. Different legislation, methodology, and structures of the laws in each country differ, and that creates an additional obstacle to transposing regional policy and regulation at national level. Declarations have been extensively used by SADC organisations and are one of the main outputs of regional policymaking. Despite this, the documents are not transposed into national law.

Member states participate in the process of reforming the telecommunications sector through meetings, in the form of conferences and validation workshops. Normally, these meetings take place at the end of the policy and regulatory process, so member states have little input in the actual process, methods, outcomes. As a result, SADC member states have a weak buy-in to regional issues. Budget and human resource constraints are the main obstacles to effective participation by SADC countries in regional processes. In addition, the involvement of member states in regional processes is mostly driven by ICT ministers, who often fail to report back to parliaments on issues related to ICT. Therefore the follow-up at national level is normally poor.

7.5 Conclusions

The regional effort to harmonise and integrate regional markets in a seamless electronic communications infrastructure, and to provide universal access and service to all SADC citizens, has failed to achieve the intended results. In almost all SADC countries, with the exception of South Africa and some of the island states, the performance of the SADC telecommunications markets has been poor. Despite South Africa still being the highest on several indicators, it has plummeted down global ICT indices over the last two decades.

The poor integration and harmonisation of national ICT policy and regulatory frameworks should raise questions not only about the effectiveness of these interventions, but also about alternative measures that can be implemented to make them work. There is no doubt that some aspects of national telecommunications regulation needs to be integrated regionally; for instance, to avoid cross-border interference or to adopt common technical standards for DTT. The SADC case demonstrates that specific interventions, such as migration to digital TV, or the adoption of cyber-security measures, would have been more effective if they had both been adopted at regional level and implemented at national level. However, institutional structures and processes failed to develop and implement appropriate regional measures to improve telecommunications market performance at national level. The preceding analysis indicates that the development and implementation of thematic regional policy and regulatory interventions should be incentivised, rather than trying to harmonise and integrate national frameworks through regional protocols that are difficult to enforce.

The last chapter returns to the research problem and questions. By referring to the case evidence presented in Chapter 5, Chapter 6 and Chapter 7, this thesis will demonstrate the contribution this work has made to the existing body of knowledge in the area. Some final observations and qualifications are made about the research process and findings, and some research problems are posed to stimulate further investigation.

CHAPTER 8 – CONCLUSION

This concluding chapter summarises the main points of the case study, presents the conclusions and offers final observations. This chapter concludes with an assessment of the original contribution by this research to the theory of regionalism and the role of in ICT sectoral reform. Ontologically, the research approach adopted is that of praxis in the sense that the thesis aims at creating knowledge that can be used to practically inform regional ICT policy, and in line with this approach, some policy recommendations are made.

8.1 The missing objective of integrating African economies

Globalisation has been one of the main factors driving Africa's regional integration. The common objective of regional economic communities in Africa is to reduce trade barriers among member countries to create optimal multilateral trade operations (Tinbergen, 1954) by creating a larger economic space (ECA and AU, 2006) especially for small countries.[123] In addition, the fragmentation of Africa into many states with limited economic coherence has led African leaders to adopt regional integration as a key strategy for development.[124] However, these objectives have only been partially achieved in the African case. In the contemporary context[125] of post-colonial development within the broader process of globalisation, political and economic enthusiasm for integration and reinforcement of regional blocs has intensified.[126] Throughout the thesis, I have referred to this phenomenon as "regionalism" (Söderbaum, 2004).

[123] The objectives of the Regional Integration Arrangements (RIA) are similar to those identified by the literature on regional competitiveness (Chapter 2, § 2.3). RIA arrangements, in fact, are expected to lead to the creation of larger integrated regional markets, which would enable participating countries to exploit economies of scale, enhance domestic competition, raise return on investment, and hence, attract more foreign direct investment (FDI).

[124] It has been observed (Chapter 1, § 1.2) that the failure of structural adjustment programmes (SAPs), which marginalised African countries as domestic economic activities were suppressed, wages and tax revenues reduced, and the balance of payments worsened (ECA and AU, 2006), induced African leaders to adopt regional integration as a strategy for growth and for increasing negotiating power with major trading partners, in order to counter the negative effects of the globalisation process.

[125] More recently, this process of integration of national markets in regional political and economic blocs in the African context has been supported by the creation of a Grand Free Trade Area. This free trade agreement signed by African leaders was implemented in June 2011 through the creation of an expanded regional bloc which is supposed to improve connectivity, increase investment flows and address capacity constraints among the 26 member states belonging to three overlapping RECs: COMESA, SADC and EAC.

[126] This is confirmed, for instance, by global bodies, such as the UN, recognising the new powers of the EU.

Regional integration is particularly relevant in the SADC region, where eight out of fifteen countries - Angola, Democratic Republic of the Congo, Lesotho, Madagascar, Malawi, Mozambique, Tanzania, and Zambia - are classified as least developed countries (UN, 2014). Theoretically, a single regional market would increase the attractiveness of the regional territory since a regional bloc would attract more capital, workers, and firms with stable or rising market shares. This would create economies of scale and scope which in turn would improve standards of living in a competitive environment. This notion of integration, in the SADC region is linked to the wider 'African Renaissance' and NEPAD motif expressed by president Thabo Mbeki at the turn of the millennium. The full economic potential of the region, according to him, could have been reached through the harmonisation of trade practices, bringing national states closer together as a more uniform and larger market. His idea of regional integration is based on good governance, democracy and trading markets. The objective of the project is to develop the southern African region as an attractive destination for local and international capital.

In reality, trading rules and agreements, as set by the World Trade Organisation (WTO), impose trade obligations on small sub-Saharan African governments, forcing African countries to follow strategies adopted in Europe, in the United States and in the Asian emerging economies.[127]

From a multilateral trade perspective, the SADC can support the participation of less resourced and small member countries in WTO negotiations processes, as it can support the preparatory work of their member states and support the coordination of regional positions at WTO level, but SADC lacks human and financial resources, lacks representation in Geneva and lacks concrete inputs from member states to present at WTO negotiation processes. As a result, although most of the recommendations provided by the Reference Paper of the IV Protocol to the GATS have been embedded in the regional ICT policy and regulatory framework, only six countries (Botswana,

[127] Chapter 1, § 1.4 showed that the implementation of regional trade liberalisation programmes has generally remained behind schedule. SADC countries have found it difficult to significantly influence WTO negotiation processes. The thesis highlighted the fact that SADC Secretariat lacks programmes specifically dedicated to WTO issues, and staff constraints, insufficient financial and technical means, and insufficient absorption capacity with a growing regional agenda has hindered its participation in WTO negotiation meetings. Poor and small SADC countries do not have the capacity to influence WTO negotiations, particularly determining and defending their positions in technical negotiations including telecommunications. Although SADC countries embarked on the reform process of liberalising the telecommunications sector, only a few countries made commitments to the WTO, and none propose a full liberalisation of the sector. The dominant strategy adopted in the region is cautionary telecommunications sector reform, due to strong political opposition (Hodge, 2002).

DRC, Lesotho, South Africa, Mauritius, and Zimbabwe) have made specific commitments on telecommunications. Angola, Botswana, Malawi and Mozambique have only partially liberalised their markets, while ownership restrictions in Zimbabwe, Namibia and South Africa may obstruct foreign direct investments in the telecommunications markets.

African regional integration arrangements have partially failed to achieve the primary trade objective of eliminating barriers and obstacles to realise a regional free-trade area. As this constitutes the most important element in motivating their establishment, they have therefore failed to address their own development goals from a regional integration perspective.

The research problem identified some of the primary reasons for the failure of regionalism and the failure to eliminate barriers and obstacles to realising a regional free-trade area on the African continent (Chapter 1). When analysing the regional integration process from an institutional perspective, one of the main obstacles related to the creation of intra-regional trade at the SADC level, is the overlap in institutional functions and objectives with other African regional organisations – the so called 'spaghetti bowl' (Chapter 1, § 1.3, Figure 1.1 page 26). In particular, this has an impact on foreign direct investment (FDI) since the multiplicity of trade agreements increases the amount of bureaucracy that investors face. Second, government unwillingness to relinquish national policy-making power to regional authorities has been identified as one of the main causes of the failure of regional integration, together with a lack of political commitment.

The thesis has also placed the issue of regional ICT policymaking in the context of regional competitiveness (Chapter 2, § 2.3), as infrastructures, including communications, are the determinants of competitive advantage. Infrastructures are a tool to improve general economic capacity and underpin the integration of national markets. While investment in all infrastructures is associated with economic growth, investment in communications infrastructures, and broadband in particular, are associated with even greater contributions to national growth domestic products. In addition, ICTs have the potential drive of increased and sustainable regional productivity, by enhancing information and communication flows and thereby improving efficiency. As a result, regional organisations are invoked to formulate policies, which would enable a favourable environment for the development of a seamless regional ICT infrastructure.

However, SADC countries, influenced by South Africa's approach to economic policy reform of the information infrastructure, have adopted a gradual 'managed

liberalisation'. This has been partly the result of strong political opposition to full liberalisation of the sector (Hodge, 2002).

The outcome of such an approach to telecommunications markets reform is that, in the SADC region, the availability of low-cost backbone network capacity is limited and this constrains broadband diffusion. As evidenced in Chapter 1, poor network quality, high costs of services, and limited bandwidth are considered the main reasons for low broadband and internet penetration in many African countries. Therefore, regional policy and regulatory interventions aimed at developing a seamless regional infrastructure have, by and large, not met the objectives articulated in regional policy and regulatory documents.

8.2 Research questions

The analysis of regional institutional arrangements has been guided by a primary research question, namely, why in SADC, regional institutional arrangements have failed to realise regional objectives regarding integration and harmonisation of ICT policy and regulatory frameworks, and how they did so (Chapter 1, § 1.8).

In order to answer the primary question, sub-questions were asked, in order to investigate what the national and international drivers of the development of an harmonised regional ICT policy and regulatory frameworks are; why regional ICT policies, protocols, and declarations have not always been implemented at national level; what the role of international organisations in regional ICT policy and regulatory formulation is; and what the policy outcomes in terms of regulatory instruments, market structure and development of a regional ICT infrastructure are.

8.3 Observations on research findings

Drawing on institutional theory and political economy, the thesis has investigated what the role of regional institutions is in shaping regional telecommunications market structures and outcomes. In particular, this thesis has empirically investigated the reasons for the failure of the region to realise its ICT policy objectives. Conducting the research on a regional bloc of developing countries, this thesis aimed not only to contribute to the theoretical debate on regionalism and ICT policy development, but ontologically through praxis to create knowledge that can be practically used by policymakers and practitioners. Chapter 4 described the methodology applied to examine how SADC institutional arrangements, including regional structures and processes, have shaped intended ICT policy objectives, as stated in SADC protocols and declarations, and assessed in terms of regional ICT policy outputs and outcomes. A hybrid methodology was used, with an emphasis on qualitative data and analysis. Both primary and secondary sources were used, as well as multiple methods to gather

evidence for the case study. These included document analysis and in-depth interviews with key role players within regional institutions and stakeholders within the ICT sector of the region.

In Chapter 5, document analysis revealed that on paper, SADC has achieved a high level of regional integration. Driven by sound political and economic rationale, a development community was established, regulated by legally binding documents such as the treaty that established the SADC in 1992. Under the treaty, several institutions have been created with substantial powers. In addition to the SADC Secretariat and a specialised office dealing with regional ICT policies, other regional structures have been created to regulate the sector at a regional level, and to monitor the level of development of the telecommunications sector supported by the regional organisation. A multi-sector Protocol on Transport, Telecommunications and Meteorology enabled the formulation of policy guidelines and a telecommunications model bill to govern the sector at a regional level and provide guidelines for member states on the regulation of key issues, such as the establishment of universal access and service funds, interconnection, allocation of scarce resources, public availability of licencing criteria, and independent regulators.

However, an analysis of SADC ICT infrastructure policy outcomes in terms of access and prices (Chapter 1, § 1.6), reveals that in southern Africa, regional ICT policy and regulatory structures and processes have failed to achieve the protocol's main objectives of establishing efficient, cost-effective, and fully-integrated infrastructure and operations, which were expected to promote economic and social development. At least some of this failure is the result of a regional ICT agenda, that was mainly driven by international organisations and donor communities, and which did not always have national buy-in. This inevitably impacts on the performance of telecommunications markets at a national level. Certainly, it is evident that regional ICT programmes and protocols have not achieved the regional and national objectives of reducing prices, improving quality of service, and increasing access to and use of ICT across the region. Findings from the in-depth interviews (Chapter 6) reveal that due to lack of financial and human resources, and poor institutional capacity at a regional level, especially with regard to ICT policy and regulation, international organisations have driven the regional agenda on ICT, providing capacity-building and technical support to regional structures. For instance, in-depth interviews showed that regional reforms in the SADC ICT policy context were driven by international trends towards greater liberalisation and privatisation, set in motion by multilateral agencies such as the WTO and the ITU. It appears unlikely that any member state would have driven the reform process without any kind of external support. As a result of capacity-building and technical assistance

initiatives, implemented by the epistemic community (Haas, 1992), regional policies are aligned to an international agenda. As demonstrated in Chapter 5, an international epistemic community, through consulting, technical assistance and lobbying, infused the region with a reform agenda which was often informed by assumptions developed in mature markets and political systems.[128]

Due to the normative assumptions on which capacity-building has been developed, many capacity-building programmes have failed. Many of these capacity-building activities often end up as "stopgap measures" (Hameiri, 2009:56), instead of transferring real skills and stimulating the development necessary to establish a sustainable framework for regional governance.

Keohane and Nye's (1975) concept of "institutional integration" has been used to assess governments' policy outcomes (Chapter 1, § 1.6; Chapter 7, § 7.2; § 7.3). Institutional and policy integration was related to the level of integration achieved by the SADC (Chapter 1, § 1.4; Chapter 2, § 2.2) and with its outputs in terms of regional ICT policy and regulatory framework (Chapter 5). Findings reveal that the regional governance and institutional arrangements for the ICT sector are largely ineffectual.

The thesis has demonstrated that SADC has apparently achieved a high level of regional integration, sustained by several institutions with power to set rules that bind member states, and power to initiate, implement and monitor strategic plans, programmes and projects (Chapter 5), but the analysis of the qualitative findings has shown that the underpinning regional and harmonised policy and regulatory framework has not been fully transposed at a national level.

Although 'best practices' of regional regulation were imparted by the epistemic community into the institutions and processes of SADC in order to develop harmonised and ICT policy and regulatory frameworks, the following issues constrain effective implementation of regional measures at national level:

a. the absence of enforcement mechanisms of model policy and model bill and the voluntary approach to transposing the regional framework at national level;

[128] Research findings (chapter 5) show that the first phase of the regional telecommunications market reform was shaped by the agenda of the US State Department and the National Telecommunications and Information Administration, who introduced the Washington consensus reform agenda and thereby a set of economic principles based on neo-liberal theories, which reject government intervention in the market to improve the economic conditions of developing countries. European consultants drove the second round of reforms so the output of the reform process is based on European reforms and driven by European values. In Chapter 3 the thesis introduced the concept of capacity-building as a a political mechanism for state transnationalisation and therefore as an instrument of foreign policy in southern Africa (Hameiri, 2009).

b. lack of expertise at a parliamentary level to transpose regional measures in the national legislation;
c. lack of parliamentary participation in regional processes;
d. lack of a robust base of data, research and analysis related to the ICT sector which is needed to manage the ICT sector and stimulate growth.

Taking into account the difficulty with which SADC countries participate in regional governance structures and processes, the current model of harmonising ICT policy and regulatory frameworks through technical support offered by the international community, is under pressure. In SADC countries, governments bring regional issues on to their government agendas through the Ministry of Communications, bypassing both parliaments and the emerging multi-stakeholder models for internet policymaking (chapter 2, § 2.1), and approaching telecommunications and internet issues through *ex-ante* regulation. This form of telecommunications and internet regulation is aimed at supporting the development of a sector that is nascent in the SADC context, safeguarding net neutrality, preventing cyber-crime and harmonising technological standards. While conditions that are conducive to the expansion of telecommunications and the internet have to be created at the national level – from infrastructure and regulation of prices to the quality of service and secure online environments – the internet is, by its very nature, global, and requires international coordination and cooperation for it to continue to evolve and function as a global communications network.

Harmonisation and integration of national ICT policy and regulatory frameworks at a regional level has proved to be ineffective in practice in SADC, existing only on paper in guidelines and model legislation for member states. The reality is that the top-down approach to capacity-building and technical assistance, led by multilateral, international and donor organisations - an epistemic community which promotes an international agenda - has failed to achieve the main objective of providing universal access to the full range of modern communications services for all people in the SADC. A more open, decentralised decision-making and effective regional governance process should be embraced throughout these institutions, to facilitate telecommunications and internet development in ways that respond to local southern African conditions.

8.4 Contributing to the theory and practice of regionalism for the development of an information society

Approaching regionalism and ICT policymaking within a political economy paradigm, and specifically adopting a praxis approach, has highlighted the role played by the

epistemic community to advance particular values and norms under the guise of capacity-building.

This thesis has contextualised institutional analysis in the specific political and economic circumstances of SADC. It has focused on the analysis of the institutions underlying the creation of the SADC region and the political, as well as economic reasons for the failure of regional organisations, regional policy, and regulatory frameworks. In this way the thesis overcomes the limitations of studies on regionalism, which focus exclusively on economic integration.

Non-state entities and non-formal interactions play a determining role in shaping the way the SADC region is organised. In this case study on the SADC, an epistemic community of donors, consultants and multilateral agencies, representing the values and norms that drove a 'best practice' reform agenda, and having the technical knowhow to provide technical support in the form of capacity-building, is identified as the main non-state actor determining regional outcomes. Underlying values and assumptions of good governance, democracy and liberalised markets are widely shared by this epistemic community of consultants and experts, providing technical support and capacity-building to reform and integrate national ICT markets through regional policy and regulatory frameworks.

It is the contention of this thesis that technical assistance and capacity-building can be ineffectual if it is not properly supported by an understanding of the political economy on the ground in SADC countries. In fact, one of the major obstacles to economic development in SADC countries is the lack of implementation of democratic (open, transparent and accountable), principles in their governance (Chapter 1, § 1.6). If international, multilateral or donor organisations overlook the political and economic situation, technical assistance or capacity-building programmes are doomed to fail.

In the SADC case, although consensus built around the first round (SADC Protocol on TCM) and the second round of reforms (HIPPSA project), committed SADC countries to the major dimensions of the international reform model, the failure to fully transpose either set of reforms to the national level can only be understood within the political economy of a developing region and emergent democracies. While the specific political economy in each country shaped policy outcomes, the institutional challenges, dearth of skills and specialised competencies, lack of financial resources, and systems of patronage, undermined regional institutions and practices and undermined effective regional reforms.

These insights into regional ICT policy failures, despite a well-articulated formal commitment to the development of an equitable information society for all, in the

tradition of praxis, provide opportunities for policy intervention in order to rectify identified problems within the regional institutional arrangements.

8.5 Final remarks

SADC institutional arrangements need to be overhauled to reflect distributions of power, interests and ideologies. These are lamentably served by the current dynamics of interaction between international, multilateral and donor organisations, regional institutions and national governments and regulators.

As numerous examples in this thesis indicate, a regional reform initiative should be tailored to the situation on the ground, taking into account not only the low level of internet penetration and high prices of communications services, but the institutional endowments in the country and the region. Institutional arrangements for ICT policymaking need to be rooted in the regional political economy rather than imposed according to standards derived from more mature competitive markets, more capacitated, meritocratic bureaucracies and bigger and more resourced economies. In most SADC countries, discussions about an updated protocol dealing with internet governance, convergence or cyber-security might seem premature, as transposing mechanisms of regional measures are not institutionalised and member states do not have the resources and effective institutional arrangements to implement these measures. In addition, in some SADC countries, assumptions of human rights, democracy and the rule of law, as a basis on which specialised areas of internet regulation or cyber-law can be developed, are erroneous. The situation is further complicated by the fact that generally there are limited technical capacities at a regulatory level, both at a regional and at national level. On the other hand the internet waits for no man, and building a secure and trusted environment within countries to harness the benefits of the internet, is essential. Pooling regional resources, human and financial, to meet such challenges is a fundamental rationale for regionalism. Finding more effective ways of doing so is therefore essential.

This thesis on regional structures and processes for ICT governance in the SADC has shown an increasing need for involvement of SADC countries in law and policies affecting the ICT ecosystem (chapter 2, § 2.4). National ICT policy and regulatory frameworks are increasingly part of a wider global ICT ecosystem (chapter 2). Internet, which is the driver of broadband diffusion, is a matter of global governance and most SADC countries are, at best, observers of decisions taken in global forums, with little input into agenda-setting and the prioritisation of issues. Global, regional and national levels of the regional institutional arrangements are interlinked and affect each other through an ecosystem of formal and informal relationships and linkages. At present, the effectiveness of such involvement is hindered by the participatory challenges faced by

SADC countries both at a regional and at the international level (chapter 2, § 2.1), as well as by the mechanisms devised for the implementation of commonly-agreed policies and principles at the regional level.

8.6 Recommendations

In the exercise of praxis, this thesis recommends more inclusiveness and transparency for all organisations, from global governance down to national level, on issues related to regional governance. Specifically, regional governance structures and processes should evolve and improve in the following aspects:

1) Regional governance should be developed through an eco-systemic approach. Regional organisations represent only a portion of the wider ICT ecosystem, which includes global, regional and national organisations (chapter 2, § 2.4) and on which RECs have currently limited impact. Therefore, converging technological environments should contextualise the purely technological and infrastructural dimensions within a broader ecosystem that includes global and national governance and regulation. In this ecosystem, market structures and the effectiveness of the regulation, with the resulting prices and quality of service, are influenced by the policy and legal frameworks which are shaped not only by national frameworks but also by regional regulation and global governance structures and processes. Therefore, it is the ICT environment created by these elements, and the nature of the relationships and processes between and within the elements of the ecosystem, which create the conditions necessary for investment to drive the growth of the sector and the economy.
2) The levels of efficiency and innovation that enable the evolution of the ecosystem depend on the availability of the skills and competencies of the people, and the resources for institutions, at each node within the ecosystem, including the regional level. Therefore, technical assistance and capacity-building should focus on developing the necessary skills and competences for regional ICT policymaking and regulation in a converging environment.
3) Programmes and projects of technical support or capacity-building by international organisations and donor communities should involve not only regional organisations but also national governments from the beginning of the process, i.e. the planning phase. This should continue throughout the entire process, in order to improve national and regional buy-in and therefore ensure the sustainability of these interventions. Sustainability of the interventions should be one of the main objectives of the international cooperation interventions. Mechanisms for the sustainability of interventions should be

devised as soon as the beneficiary has agreed to accept technical assistance or capacity-building and international organisations and/or donor communities have agreed to provide it..

4) Reforming regional decision-making bodies and policies in the area of ICT, with a regional agenda in mind, and through an ICT ecosystemic approach, is not the only ICT governance issue at a regional level. A different approach to regional ICT policymaking and regulation is needed in order to stimulate the sector to grow and to meaningfully contribute to economic growth and social development in SADC member states. Understanding national priorities, measuring different levels of development of ICT markets and creating concrete incentives – and a favourable investment environment - for the private sector to grow at a national level, should be the main objectives of regional governance structures and processes.
5) Efforts at greater multi-stakeholder participation at regional level, in order to feed into the global internet governance forums is an important link in the dynamic ICT ecosystem. For this reason, reforming regional structures, decision-making bodies and policies in the area of ICT, taking into account the challenges affecting regional institutional arrangements, and taking into account the regional political economy, should be a priority in the regional and global governance debate.

8.6.1 From regional ICT policymaking to regional ICT governance

The weak participation of SADC stakeholders in both global and regional governance structures and processes for the maintenance, management and administration of the global and regional networks, requires an open, inclusive and participatory approach to overcome some of the limitations of SADC governments to fully participate in such debates and policymaking gatherings. In a complex converged environment, dominated by vertically-integrated regional mobile networks, global IP-based and internet services, a multi-stakeholder approach to regional ICT policymaking must be devised. This approach should harness the best human resources in the country, and encourage greater regional participation by all actors involved in ICT policy and regulation – from the international down to the local level. In this model of regional ICT governance, international, multilateral and donor organisations should operate and participate on the same level as regional and national organisations, in a more horizontal governance structure and process. Although they still provide technical assistance, capacity-building and funds for the development of programmes and projects, their involvement is institutionalised in a multi-stakeholder and collaborative model of governance. Together

with member states, regional organisations and other stakeholders from the private and non-for-profit sector, all shape a regional agenda for the development of the information society and knowledge economy. Their agenda should not be shaped by values and assumptions derived from mature markets and Western democracies, and should not adopt regional models of integration and harmonisation based on sophisticated and resource-intensive legislative and institutional systems. Rather, the agenda should be co-created with all the stakeholders involved in the process, so that it builds on the institutional structures and processes already in place. The agenda should build on a deep understanding of the national and regional political economy, which should inform specialised areas of policy intervention such as ICT. Also, it should take into account national differences in terms of ICT sector development and in terms of constitution, administration and justice in place in each country. In this way, not only will SADC member states have the opportunity to participate meaningfully in the development of regional initiatives, they will also have the opportunity to shape their own national agendas with the support of experts coming from different international, multilateral and donor organisations, from the public, private and non-for-profit sector.

8.7 Conclusions

This chapter concludes a case study of institutional arrangements for telecommunications reform in a developing region. This thesis has provided insights into the reasons for, what the findings revealed as, the failure of the regional telecommunications reform project within SADC, despite the formalities of a legal framework on ICT policy and regulation with associated structures and processes. The research allows one to draw conclusions on regionalism in SADC and to observe how institutional arrangements underpinning the geopolitical process of integration can promote or obstruct the development of an information society at national level.

In the process of analysing the empirical evidence, through the lens of the conceptual framework, a theory has been developed to explain the interplay between international instruments and agendas for the development of the information society and some of the inhibiting domestic factors that influence regional reform outcomes.

Since this thesis is focused on one specific regional economic community, there are limitations to generalising its lessons to other countries and regions. Despite working from a single case, a theory of the role of capacity building and technical assistance as instruments of foreign policy for regional reform as shaped by epistemic communities, has emerged. Arriving with a set reform agenda, informed by political and economic assumptions that do not pertain to the political economies of the countries or regions in which they provide technical assistance or training, foreign states or multilateral

agencies, through their agents, tend to fail often to consider adequately the compatibility of political systems, institutional endowments of the region, power relations and conflicting interests, overriding more organic and eco-systemic reform initiatives. This is the original contribution of this thesis to the existing body of knowledge on regionalism.

Despite the importance placed on political economy contexts to explain regional outcomes, this thesis has developed a contention that can be generalised to other developing regional blocs, with broadly similar economic and political conditions.

Learning's identified in SADC, can be transposed to other regional economic communities of developing countries as theories and analytical frameworks to be tested in the context of those specific political economies. To develop this thesis further, a comparative analysis of the role of foreign policy, state-building and epistemic communities in regional reform processes and the factors making some regions more conducive to telecommunications reform than others, should be undertaken.

In terms of praxis, the contribution lies in providing analytical rigor in order to understand and explain the interplay between foreign policy, state-building and epistemic communities and national and regional political economies that can practically inform regional strategies and national policies. This enables the identification of the underlying causes for telecommunications reform failure and the points of intervention required to facilitate effective regional ICT policymaking. While this thesis provides insights into how better to harmonise and integrate national markets in regional frameworks for greater competitiveness, each region will need to identify its own appropriate structures and processes, taking into account its own institutional capacity, financial and technical resources, level of development of the sector, and human capabilities.

Acronyms and Abbreviations

ADB	African Development Bank
AEC	African Economic Community
AfDB	African Development Bank
AGM	Annual General Meeting
AISI	African Information Society Initiative
AMU	Arab Maghreb Union
ASN	Autonomous System Number
ASWG	African Strategy Working Group
ATU	Africa Telecommunications Union
AU	African Union
AUC	African Union Commission
BEE	Black Economic Empowerment
BEREC	Body of European Regulators for Electronic Communications
BTA	Botswana Telecommunications Authority
CAPEX	Capital Expenditure
ccTLD	Country Code Top Level Domain
CDMA	Code-Division Multiple Access
CEMAC	Economic and Monetary Community of Central Africa
CEN-SAD	Community of Sahel-Saharan States
CEO	Chef Executive Officer
CEPGL	Economic Community of the Great Lakes Countries
CET	Common External Tariffs
CO	Central Office
COMESA	Common Market for Eastern and Southern Africa
CONSAS	Constellation of Southern African States
CRASA	Communication Regulators' Association of Southern Africa
DFI	Development Finance Institutions
DTT	Digital Terrestrial Television

EAC	East African Community
EASSy	Eastern African Submarine Cable System
EC	European Commission
EC	Executive Committee
ECA	Economic Commission for Africa
ECCAS	Economic Community of Central African States
ECOSOC	Economic and Social Council
ECOWAS	Economic Community Of West African States
ECSC	European Coal and Steel Community
EEC	European Economic Community
EIB	European Investment Bank
EU	European Union
EUI	European University Institute
FDI	Foreign Direct Investment
FTA	Free Trade Area
GAC	Government Advisory Committee
GATS	General Agreement on Trade in Services
GCI	Global Competitiveness Index
GDP	Gross Domestic Product
gTLD	Generic Top Level Domain
HIPSSA	Harmonization of the ICT Policies in Sub-Saharan Africa
IANA	Internet Assigned Numbers Authority
ICANN	Internet Corporation for Assigned Names and Numbers
ICT	Information and Communication Technology
IDI	ICT Development Index
IFC	International Finance Corporation
IGAD	Intergovernmental Authority on Development
IGF	Internet Governance Forum
IMF	International Monetary Fund
IOC	Indian Ocean Commission

IPTV	Internet Protocol TV
ISDN	Integrated Services Digital Network
ISP	Internet Service Provider
ITR	International Telecommunication Regulations
ITS	International Telecommunications Society
ITU	International Telecommunication Union
LDC	Least Developed Country
LTE	Long-Term Evolution
MoU	Memorandum of Understanding
MP	Member of Parliament
MRU	Mano River Union
MTR	Mobile Termination Rates
NEPAD	New Partnership for Africa's Development
NGN	Next Generation Network
NICI	National Information and Communication Infrastructure
NRA	National Regulatory Agency
NRI	Networked Readiness Index
NTIA	National Telecommunications and Information Administration
OAMCE	African and Malagasy Organisation of Economic Cooperation
OAU	Organization of African Unity
OECD	Organisation for Economic Co-operation and Development
OSISA	Open Society Initiative of Southern Africa
PLC	Parliamentary Leadership Centre
PPP	Public-Private Partnership
PSTN	Public Switched Telephone Network
QoS	Quality of Service
RAPID	Regional Activity to Promote Integration Through Dialogue and Policy Implementation
RASCOM	Regional African Satellite Communication Organisation
REC	Regional Economic Community
RIA	Research ICT Africa

RIA	Regional Integration Arrangement
RICTSP	Regional Information and Communications Technologies Support Programme
RIP	Regional Indicative Programme
RIR	Regional Internet Registries
RISDP	Regional Indicative Strategic Development Plan
RLAL	Roam Like A Local
RP	Reference Paper
RPG	Regional Public Good
RSP	Regional Strategy Paper
RTRP	Regional telecommunications restructuring program
SABA	Southern African Broadcasting Association
SACU	*Southern African Customs Union*
SADC	Southern African Development Community
SADCC	Southern African Development Coordinating Conference
SADC PF	Southern African Development Community Parliamentary Forum
SAP	Structural Adjustment Programme
SATA	Southern Africa Telecommunications Association
SATCC	Southern Africa Transport and Communications Commission
SATCC-TU	Southern Africa Transport and Communications Commission Technical Unit
SATRN	Southern Africa Trade Research Network
SEAS	Seychelles East African System
SHAR	SADC Home and Away Roaming
SIDA	Swedish International Development Cooperation
SMP	Significant Market Power
SMS	Short Message Service
SNO	Second National Operator
TCM	Transport communications and meteorology
TNC	Trade Negotiations Committee
ToR	Terms of Reference

TRASA	Telecommunications Regulators' Association of Southern Africa
UAF	Universal Access Fund
UAS	Universal Access and Service
UDEAC	Customs and Economic Union of Central Africa
UMA	Arab Maghreb Union
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNDESA	United Nations Department of Economic and Social Affairs
UNDP	United Nations Development Programme
UNECA	United Nations Economic Commission for Africa
UNODC	United Nations Office on Drugs and Crime
UPU	Universal Post Union
USC	University of Southern California
VAS	Value Added Services
VoIP	Voice Over Internet Protocol
VSAT	Very Small Aperture Terminal
WAEMU	West African Economic and Monetary Union
WB	The World Bank
WCIT	World Conference on International Telecommunications
WEF	World Economic Forum
WSIS	World Summit on Information Society
WTO	World Trade Organisation
WWII	Second World War
xDSL	X Digital Subscriber Line

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APPENDIX A – LIST OF FIGURES

APPENDIX B – LIST OF TABLES

APPENDIX C – QUESTIONNAIRE

FIRST RESEARCH QUESTION:

What are the drivers (national and international) for the development of an integrated regional ICT policy and regulatory framework? Do they take into account national differences in terms of ICT sector development?

Questions for discussion

1. Why should ICT policy and regulations in the SADC countries be integrated at a regional level?
2. Did member states participate in the development of the regionally harmonised ICT policy and regulatory framework during the first round of reforms (i.e. SADC Protocol on TCM, Telecommunications Policy for SADC Region, SADC Telecommunications Bill Model) and during the second round of reforms (2010/11 HIPSSA project)?
3. What are the mechanisms of participation of member states in the regional ICT policy and regulatory formulation? Have institutionalised mechanisms of participation been used?
4. Did member states implement regional policy, declarations or guidelines related to both the first round of reforms (i.e. SADC Protocol on TCM, Telecommunications Policy for SADC Region, SADC Telecommunications Bill Model) and the second round (2010/11 HIPSSA project)? If not, why did they not implement the harmonised regional ICT policy and regulatory frameworks?
5. Did any member state drive/lead the regional telecommunications process to reform the telecommunications sector at a national level? Did any member state lead the reform debate at a regional level on telecommunications sector reform? What was the position taken by that country?
6. With regard to the first round of reforms, which international organisations took part in this process? What kind of support did they provide?
7. With regard to the second round of reforms, which international organisations took part in this process? What kind of support did they provide?
8. Why did international organisations provide support for the regional policy-making process on telecommunications during the first round of reforms and during the second round of reforms?

9. Has an issue pertaining to ICT ever been taken to the Summit level (SADC Summit: Heads of State or Government)? What has been the output (discussed/approved/rejected)?
10. Has the SADC Council ever met to oversee the implementation of ICT policies? Has it overseen the execution of ICT programmes? Did it approve ICT policy/ICT strategy? Did it convene conferences and meetings related to ICT for purposes of promoting ICT objectives and ICT programmes for SADC?
11. Has the committee (Integrated Committee of Ministers) ever decided on issues related to ICT in order to ensure rapid implementation of ICT programmes?
12. What kind of programmes (e.g. capacity-building, policy advisorship, regulatory support) related to ICT are managed by the SADC Secretariat? Did those programmes achieve the intended results? Did the Secretariat submit harmonised policies and programmes to the Council for consideration and approval?

SECOND RESEARCH QUESTION:

Why have regional ICT policies, protocols and declarations not always been enforced at a national level?

Questions for discussion

13. Which minister has been involved in the process of regional harmonisations of ICT policy and regulation? Has the Minister for ICT (Communications) been involved in regional harmonisation of ICT policy and regulation? How?
14. Have regional policies, declarations and recommendations been taken into account in national ICT policy-making and regulatory formulation across all SADC member states? Could you provide an example?
15. How many countries implemented the SADC Protocol on TCM?
16. How many countries implemented the Telecommunications policies for SADC (first round of reforms)?
17. Did the SADC Protocol on TCM influence the telecommunications sector reform in SADC countries? In which countries? To what extent?
18. How many countries used the ICT model bill to develop their own legislation on telecommunications?
19. Regarding those countries that did not implement the regional ICT policy and regulatory framework related to the first round of reforms, why did they not implement it?
20. Has any country implemented the updated ICT policy and regulatory framework as developed from the HIPSSA project?

THIRD RESERCH QUESTION:

How have international organisations been involved in regional ICT policy and regulatory formulation?

Questions for discussion

21. What are the mechanisms of involvement of international organisations in regional processes for the development of the harmonised and integrated ICT policy and regulatory framework?
22. How did international organisations get involved in the process of formulating the first round of regional telecommunications sector reform (SADC Protocol on TCM, Telecommunications Policy for SADC Region, SADC Telecommunications Bill Model)?

23. How did international organisations get involved in the process of formulating the second round of regional telecommunications sector reform (HIPSSA)?
24. At what level of the process of regional policy-making did international organisations get involved? (i.e. problem identification, economic objectives development, technical measures development/support?)
25. What has been the contribution of international organisations in the development of the regionally harmonised ICT policy and regulatory framework?
26. How did the regional organisation (i.e. the SADC) participate in the definition of regulatory standards at an International level (for instance, at the ITU level?)
27. How did the SADC participate in the process of formulating an internationally agreed reference framework on telecommunications sector reform (for instance, at the WTO level)?
28. What support related to ICT issues did international organisations provide to the SADC? On what specific programmes related to ICT did they provide support?
29. What is the relationship between the SADC and other regional organisations involved in ICT development such as CRASA, SATU, SABA? On what regional issues related to ICT have they been collaborating? Do they coordinate activities between them?

FOURTH RESEARCH QUESTION:

Has the ICT policy and regulation in the SADC region achieved the level and status of integration as declared in protocols and declarations?

Questions for discussion

30. Have member states implemented the regional framework? If they have not, why?
31. What are the main obstacles to harmonisation of the regional ICT policy and regulatory framework?
32. Did the SATCC-TU monitor the implementation of the policies? Did the SATCC-TU monitor the implementation of the ICT bill model? Did it report to the Committee of Ministers?
33. Comparing the SADC with other regional organisations such as COMESA and ECOWAS, which of these organisations have been most effective in facilitating the harmonisation of the ICT policy and regulatory framework? Why?

APPENDIX D - CODIFICATION SCHEDULE

AREAS OF DISCUSSION	THEME / CATEGORY	CODES	LABELS
National, regional, and international drivers for an integrated ICT policy and regulatory framework Impact of leadership positions in the SADC on regional policies; Identification of institutional arrangements to ratify regional regulation at a national level;	The degree of political power of regional institutions and their capacity to influence the telecommunications sector reform process at a national level The capacity of regional institutions to influence ICT policy at a national level	- Political power - Political leadership - Regional leadership - Power to influence - Regional influence - Regional relations - Capacity to influence - Institutional arrangements	A B C D E F G H
Level and mechanisms of participation of member states in the reform process; Level and mechanisms of involvement of national policy-makers in regional policy issues; Level of implementation of regional measures at a national level;	The degree of participation of member states in regional decision-making processes and regional ICT policy and regulatory formulation	- Participation - Decision-making - Regional process - Policy process - Regulatory process - Implementation	I J K L M N
Degree of influence – and mechanisms of involvement - of international organisations in setting the regional agenda on ICT; Degree and level of participation of the SADC in international forums and global policy-making; Level and degree of collaboration of the SADC secretariat with other regional organisations involved in ICT policy development	The degree of involvement of international organisations in processes of regional ICT policy formulation	- Influence of international organisations - Involvement of international actors - International relation - Influence of international organisations	O P Q R
Regional policy and regulatory outcomes;	The impact of regional ICT policy and regulatory frameworks on market structure and regional ICT infrastructure development, and the development of ICT infrastructure because of or despite this	- Impact - Market structure - Infrastructure development - ICT access - ICT use - ICT policy - ICT regulation	S T U V W X Y

About the author

Enrico S. Calandro is a researcher at Research ICT Africa. Prior to joining Research ICT Africa, he worked as a technical advisor for the ICT programme of the SADC Parliamentary Forum in Namibia, within the UN technical cooperation framework. He worked for the European Commission, Information Society and Media DG as a trainee after completing his *Laurea Magistrale* (Master degree) in Communications Sciences from the University of Perugia, Italy. He is a recipient of the Amy Mahan Scholarship awarded for the advancement of ICT policy in Africa, of the UNDESA fellowship for international cooperation, and of the Information Control Fellowship Programme by the Open Technology Fund. His academic research focuses on ICT access and use, broadband policy, and internet governance in Africa.