

**INTRODUCING REGULATORY MODIFICATIONS FOR ICT  
CONVERGENCE: LEGAL ISSUES IN THE NEW LICENSING  
REGIME FOR TELECOMMUNICATIONS SECTOR IN TANZANIA –  
TANZANIA’S EXPERIENCE**

Candidate number: 8006

Supervisor: LEE A. BYGRAVE

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## **MAIN TERMS AND ABBREVIATIONS**

|       |   |  |
|-------|---|--|
| CLF   | - | Converged Licensing Framework                |
| e.g.  | - | Exempli gratia (for example)                 |
| ERP   | - | Economic Recovery Programme                  |
| ESAP  | - | Economic and Social Action Programme         |
| Et al | - | and others                                   |
| GATS  | - | General Agreement on Trade in Services       |
| Ibid  | - | Ibidem (in the same place)                   |
| ICT   | - | Information and Communication Technology     |
| IT    | - | Information Technology                       |
| ITU   | - | International Telecommunication Union        |
| PSTN  | - | Public Switched Telephone Network            |
| TCC   | - | Tanzania Communications Commission           |
| TCRA  | - | Tanzania Communications Regulatory Authority |
| TPC   | - | Tanzania Posts Corporation                   |
| TPTC  | - | Tanzania Posts and Telecom Corporation       |
| TRP   | - | Telecommunications Restructuring Programme   |
| Tshs  | - | Tanzanian Shillings                          |
| TTCL  | - | Tanzania Telecommunications Company Limited  |
| TV    | - | Television                                   |
| VoIP  | - | Voice over Internet Protocol                 |

# 1 INTRODUCTION

## 1.1 Background

Historically, telecom regulation has provided separate licensing regimes for different services, e.g., fixed line, mobile, distance telephony, etc. With the evolution of technology and market applications, most significantly the developments in internet and mobile technologies, the distinctions traditionally applied among services are become blurred. At the same time digitalisation and the expansion of network capacities have enabled network convergence namely, the transmission of Information Technology (IT), telecommunication and broadcasting services on the same networks, e.g. Voice over Internet Protocol (VoIP). These developments have thrown into question the traditional regulatory system and raised questions on how to deal with growing pressure to adopt a converged regulatory regime to meet the challenges of these converging technologies.

Bezzina, J and Terrab, M<sup>1</sup> argues that these technological developments are likely to affect the main regulatory issues, namely: licensing, interconnection, price regulation, spectrum management, numbering, security issues, and universal service obligations. Ultimately, the very boundaries and foundations of the overall regulatory paradigm are challenged by this technological momentum. These developments have made it necessary for regulators and policy makers around the world to modify their regulatory frameworks to address the challenges of convergence, particularly in the area of licensing.

In most countries today, licensing requirements for many services are being eased in order to remove barriers to market entry and boost competition. Individual licensing and lengthy application procedures are replaced with general authorizations in a growing number of services<sup>2</sup>.

International Telecommunication Union (ITU)<sup>3</sup> identifies some approaches implemented around the world in modifying licensing frameworks as follows:

- (i) introduction of various forms of ‘generic’ or ‘converged’ licences, to all providers of telecom services, with broader service categories that allows operators to provide multiple services under one licence using any kind of technology;
- (ii) establishing different licences for network operations and service provision;

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<sup>1</sup> Bezzina, J and Terrab, M (2005): p.16

<sup>2</sup> ITU (2004/05): P.17

<sup>3</sup> Ibid

- (iii) using class licences or general authorization whereby operators are asked to simply notify regulators or register their services;
- (iv) In some cases, previously licensed services are made subject to no licensing requirements at all.

These modifications pose a number of legal issues as they affect the existing legal frameworks and market structures already in place. At the same time, they may not be sufficient to fully address convergence issues if they are not well chosen or accompanied with appropriate measures in the regulatory framework to introduce competition and non-discrimination.

This work is about Telecommunication licensing in the era of convergence. Drawing on Tanzania's experience, the work examines practical legal issues relating to the implementation of the converged licensing framework established by policy and legislation to direct and guide the regulators in modifying the telecommunication sector to meet the challenges posed by convergence. The work has significant implications for Tanzania, particularly as the thesis reinforces the call for critical examination of the new licensing regime introduced by the Tanzania Communication Regulatory Authority (TCRA) to meet the challenges of convergence. The findings of this work have implications also for other developing countries with similar licensing framework in that; it questions the viability of such rules and policy choices in solving the challenges of convergence.

The new licensing framework adopted in most developing countries to meet the challenges of convergence aims at providing opportunities to leapfrog

technology and short-cut regulatory change given the technological and regulatory problems in these countries.<sup>4</sup>To address these problems successfully, the new regulatory regime in these countries should aim to facilitate the dynamic developments in the technology and product markets, and therefore be technology neutral. It should also evolve to allow flexibility and reduce conflicts arising due to policy imposed restrictions.

Research<sup>5</sup> shows that, traditionally the main objective of telecom regulation was to ensure the optimal performance of the telephone services network in terms of accessibility, affordability and quality of service. This regulatory regime was based on ‘natural monopoly’ doctrine. Where there was a cost advantage for a single firm to produce all given vectors of output more cheaply than any combination of several firms then the monopoly was considered natural and the introduction of competition was considered to duplicate costs and therefore neither privately profitable nor socially desirable. In most cases licences were issued to government-owned incumbents.

Once telecom markets were liberalized, external regulation became necessary as part of the separation between operations, policy making and regulation. Licensing became one of the main tools of regulation. It was used as a major tool in most countries with the purpose of either limiting the number of operators in the market or ensuring that operators abide by rules and regulations. Licensing frameworks consisted of a large number of different service categories, and service providers had to apply for separate licences in

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<sup>4</sup> Ibid, p.17

<sup>5</sup> Bezzina, J and Terrab, M (2005): p.18



order to provide each service. Licences were not technology-neutral; they depended on the type of technology to be offered by the applicant. Other main areas of regulation were interconnection, universal obligation, and the management of limited resources<sup>6</sup>.

Currently, the emerging technological changes and rapid convergence of new technologies in the ICT sector have made possible the merging of markets and services. It is now possible to transmit voice, video and data on the same network and end-users can use the same equipment to receive these services<sup>7</sup>. These developments may affect regulation in two different ways. Firstly, they may lead to the development of new services and modes of delivery uncovered by the existing regulatory statutes. Secondly, they may affect the overall market structure and the level of competition by changing the conditions of supply or patterns of demand which again affect the need for regulation.

Policy makers are questioning the utility of licensing and demanding that licences be adapted to achieve policy goals without hindering market development and technological advancement. ITU<sup>8</sup> translates these concerns into two significant trends: namely, an expansion in the number of services subject to minimal or no licensing, and the development of converged licensing frameworks that break down traditional services and technology-based licensing distinctions.

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<sup>6</sup> Ibid

<sup>7</sup> ITU (2004/05), p12

<sup>8</sup> Ibid

## 1.2 Research Problem

The overall research question seeks to determine whether the TCRA's Converged Licensing Framework (CLF) is a viable regulatory tool for promoting ICT convergence.

This study attempts to find answers to the following research sub-questions: Why was the TCRA's licensing framework established? Does TCRA's licensing framework have necessary regulatory features which allows for smooth development of convergence in Telecommunication sector? What are the barriers to the promotion of ICT convergence in the TCRA's Converged Licensing Framework?

## 1.3 Structure

Chapter one, the current chapter, introduces the research subject of the thesis. It gives a brief presentation of the subject and issues to be addressed, a description of the research methodology and the structure of the thesis.

The second chapter provides an overview of the concept of convergence. It provides a general understanding of the concept and a brief presentation of the main technological trends at stake at the core of the traditional regulatory regime.

The third chapter gives a brief presentation of the development of Telecommunication sector regulation in Tanzania. It provides an overview of major reforms in the sector with an emphasis on structural change that has affected the sector as a whole. It gives an indication of the implications that technology trends have on the roots of the regulatory regime.

The fourth chapter critically examines the specific regulatory issue, namely licensing. Based on Tanzania's experience, the work reviews the effectiveness of the application of the converged licensing framework as a solution to the challenges brought about by the concept of convergence.

Chapter five covers research findings, conclusions and recommendations.

#### 1.4 Limitations and methodological considerations.

This work is about regulation of Telecommunication sector in an era of convergence. The work is limited to licensing issues affecting regulation of the Telecom industry following the convergence of Telecommunication, broadcasting and IT industries in Tanzania. Other regulatory issues in the telecom sector such as: interconnection, universal service obligation and price control are not central in this work. They may only be given passing reference where relevant to the issues at hand.

This work acknowledges that licensing models differ from country to country according to the level of market openness and the level of commitments to

open competition in the domestic market. It, therefore, does not intend to assess whether a certain model is more effective and efficient than another in promoting convergence but aims to identify features within the established licensing model which may threaten the potential development of ICT convergence. The analysis provides ideas that might serve as a point of departure for future debate and more in-depth analysis of the licensing issues in the sector.

Due to the limited resources and time, this work relies on documentary evidence as the main source of data collection. The body of literature consulted in this work includes books, articles, reports and journals. The time allocated for the writing of the master thesis, the summer period, is not long enough to allow deployment of other methods of data collection such as distribution of questionnaires and the use of extensive interviews to respondents in Tanzania.

## 2 UNDERSTANDING THE CONCEPT OF CONVERGENCE.

### 2.1 The Meaning of Convergence

There is no universal definition of convergence. The term is used in ICT sector to mean different things within the contexts of integrated technologies, services and regulation both within and between nations.

Technologically, convergence has been defined to mean, a trend whereby technologies initially having distinct functionalities evolve into having those which overlap<sup>9</sup>. It occurs as a result of coming together of multiple products to form one product with the advantage of all of them, for example where a computer provides voice, text and graphics; or where cell phones provide text, graphics as well as voice.<sup>10</sup>

However, the concept goes beyond mere integration of previously separate technologies. The EU Green Paper on Convergence<sup>11</sup> expresses convergence as follows;

- (a) The ability of different network platform to carry out essentially similar kinds of service; or

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<sup>9</sup> Wild, K (2006): p.1

<sup>10</sup> Ibid

<sup>11</sup> EU Green Paper(1997): p.1

(b) The coming together of consumer devices such as the telephone, television and personal computer.

The Green Paper states further that convergence includes not just technology but also services, new ways of doing business and interacting with society.<sup>12</sup>

The ITU defines convergence as “the technological, market or legal/regulatory capability to integrate across previously separate technologies, markets or politically defined industry structures”<sup>13</sup>

The regulatory definition of convergence implies the coming together of previously different regulatory authorities dealing with telecommunication, information technology, and broadcasting into a single regulatory authority.<sup>14</sup>

The concept of convergence as used in this thesis goes beyond the technological context of convergence. It encompasses the regulatory and policy issues designed to address the challenges of convergence. Generally, this work examines the extent to which the regulatory framework is adapting to technological convergence and its challenges to the ICT sector in Tanzania.

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<sup>12</sup> Ibid

<sup>13</sup> ITU (2002): P.2

<sup>14</sup> S. Sharma (2002): p.4

## 2.2 TYPES OF CONVERGENCE.

### 2.2.1 Technological Convergence

Technology is the most commonly referred to aspect of convergence. Technological developments, particularly the digitalization and computerization of all communication and media areas, establish a common technological foundation for the different communication and media areas which previously were based on diverse analogue technologies.<sup>15</sup>

Technological convergence based on digitalisation and computerisation has added a new and powerful quality to the industrial convergence developments in the markets and, furthermore, has put pressure on the policy and regulatory provisions regarding market convergence and cross-media ownership. A good example of technological convergence is the internet.<sup>16</sup> It provides a common platform on which IT services, telecom services, broadcasting and other media services can be provided. Moreover digitalization has made it easier to provide the same content on different platforms.

Issues on the implication of technology and market convergence on the regulatory laws are partly different in different parts of the world. In the United States emphasis is put on the possibilities for enhancing competition,

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<sup>15</sup> Nordic competition authorities (2004) available at: <http://www.ks.dk/english/publications/publications-2004/telecompetition/>

<sup>16</sup> Ibid

when different networks can deliver essentially similar services, and on the problems for competition created by the horizontal integration of operators, e.g. when the same operators own different kinds of infrastructures.<sup>17</sup> In Europe, focus has been more on the broader societal advantages that convergence potentially entails in the form of new services and new industries.<sup>18</sup> In many developing countries, the main interest has been the new access possibilities and the discussion on unified licensing.<sup>19</sup> Chapter three provides a more detailed discussion on telecommunication regulation objectives in Tanzania.

Technological convergence enhances the possibilities for new competitors to enter the market, and can provide for a growing competition between different kinds of network providers, as competitors can increasingly substitute for one another. At the same time technological convergence also changes the competitive structure in the communication markets creating new challenges for competition policy.<sup>20</sup> These challenges necessitate regulatory changes necessary for removing hindrances for convergence development.

Technological convergence allows for both horizontal and vertical separation of networks services. Consequently, it enables convergence developments horizontally between previously separate sectors and, at the same time, disintegration vertically in the service delivery chains in the different

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<sup>17</sup> Ibid

<sup>18</sup> EC Green paper on convergence(1997):p.1

<sup>19</sup> ibid

<sup>20</sup> Nordic Competition Authorities (2004): p. 7



sectors<sup>21</sup>. The extent to which such tendencies are realized is, however, dependent on interests and activities of market players and the policy and regulatory incentives.

Horizontal technological convergence takes place where the same services and content can be delivered on different platforms. For example, telephony via the traditional fixed line telephone system (PSTN) or on cable TV networks by way of VoIP.<sup>22</sup> This is potentially beneficial to competition in telecommunication. However, these positive implications may be undermined where same operators own and operate different infrastructures horizontally as this increases their market power across different technology platforms.

Where each layer of the entire service is provided by different set of actors (vertical integration) in most cases, competition is not affected. However, when vertical integration is combined with horizontal market dominance in one of the market layers, vertical integration may be an impediment to competition.<sup>23</sup>

One of the major barriers to convergence is said to lie at the infrastructural level<sup>24</sup>. It is here that digitisation is said to be one of the several factors influencing divergence. None of the currently available infrastructures can integrate all services. Policy and regulatory frameworks need to be geared towards enabling progressive utilisation of network capacity.

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<sup>21</sup> Bezzina, J and Terrab, M (2005): p.19

<sup>22</sup> ibid

<sup>23</sup> ibid

<sup>24</sup> Henten et, al. (2002): p.7

While a positive policy outcome of convergence may also enable competition, for developing countries a more fundamental outcome could be on the potential of converged services to complement currently limited services on distinct networks for greater network extension and service penetration.

It is important to bear in mind that while the technological developments associated with digitisation are certainly necessary conditions for convergence, they do not provide the sufficient conditions for optimizing the benefits of convergence. For the benefits of convergence to be realised, market structures need to be sufficiently flexible to allow for the fruitful integration of market segments and the regulation of markets needs to be appropriately enabling.

### 2.2.2 Market Convergence.

From the development of the ICT sector, it seems that market redefinitions taking place during convergence are closely related to technological developments. Technologies and markets for these technologies mutually shape each other.<sup>25</sup> There is no doubt that technological convergence has added a new and powerful quality to the industrial convergence developments in the markets and, furthermore, has put pressure on the enactment of regulatory provisions regarding market convergence and cross-media ownership.

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<sup>25</sup> Bezzina, J and Terrab, M (2005) : P17

Horizontal market integration can take place at different layers of physical infrastructure, conveyance services and content. The access part of the infrastructure layer is of crucial importance as it constitutes the basis for the end-user contact<sup>26</sup>. Presently, the communication markets consist of the following access paths: fixed line (twisted copper pairs), mobile, cable TV, terrestrial broadcast, and satellite broadcast. Others are fibre cables, fixed wireless access, and Wireless LANs (WLAN)<sup>27</sup>.

The technological vertical integration in the telecommunications and broadcasting industries historically reflected the vertical market integration. However, a range of other financial and consumer factors have helped to shape the markets<sup>28</sup>. The liberalisation of the telecommunications market globally in the 1980s brought changes to traditional market structure initially by separation of equipment and later by the unbundling of services from infrastructure in response to market demands. In broadcasting, while content production and distribution have been highly integrated, equipment production in traditional terrestrial broadcasting has been separated.<sup>29</sup>

### 2.2.3 Regulatory Convergence

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<sup>26</sup> Ibid

<sup>27</sup> ibid

<sup>28</sup> Gillwald, A(2001):p.23

<sup>29</sup> Ibid.

To the extent that convergence between telecom, IT and broadcasting takes place technologically and in the market place, regulation of hitherto separate communication areas must at least adapt to or accommodate the new convergent environment. However, Henten et al<sup>30</sup> argues that, although it is possible to regulate a converging market place by means of separate regulatory organisations, there may be a number of advantages in joining them together. But this may also introduce serious problems. This section looks at the advantages and disadvantages of regulatory convergence. Chapter four critically examines the regulation of convergence by reviewing the Converged Licensing Framework used as a regulatory tool for convergence in Tanzania.

Research<sup>31</sup> on convergence shows that the degree and character of convergence developments are distinct because of: (1) technology developments, first and foremost the digitalisation process; and (2) the political liberalisation, including more liberal policies in relation to market convergence. There is, consequently, an increasing necessity of a closer relationship in the regulation of the different communication and media areas. Due to this relationship, Henten et al<sup>32</sup> points out that the synergies between the different regulatory areas must be developed more proactively, encompassing the regulatory ‘contributions’ of the different areas. Telecom contributes with infrastructure regulations and content issues; broadcasting with access and content issues; IT contributes with, e.g. privacy and security issues; and together the different areas contribute with new regulatory issues

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<sup>30</sup> Henten et al (2003): p.32

<sup>31</sup> Ibid, p.33

<sup>32</sup> Ibid

such as intellectual property and e-commerce regulation. Accordingly, it is argued further that, the potential advantages in a regulatory convergence include the following<sup>33</sup>:

- (a) Where markets are converging, it helps to apply the same regulatory provisions across different communication and media areas.
- (b) In regulatory interventions, it is important to be able to build on a greater knowledge of corporations with activities in different communication and media areas and to understand the interrelationships between areas.
- (c) To take advantage of the economies of regulation, especially economies of scope and coordination in the sense that some of the regulatory issues are the same across industry platforms.
- (d) Possibilities for a greater political independence for the regulator in relation to implementing policy decisions, as there will be a greater diversity of interests across the ICT sector industries.
- (e) One-stop-shopping for the users of the regulatory institutions, as applications and complaints only have to be filed with one organisation.

However, regulatory convergence can also lead to problems. It is argued that potential problems in situations where diverse regulatory areas are converging include the following<sup>34</sup>:

- (a) More general and less clear regulatory principles because of the unification of different regulatory rationales, for instance, the

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<sup>33</sup> Ibid, p.33-35

<sup>34</sup> Ibid

unification of the infrastructure regulation from telecom and the content regulation tradition from broadcasting.

- (b) More bureaucratic working procedures with the enlargement of the regulatory organisations leading to slower processes and less clear decisions.
- (c) Risk of less scope for independent implementation of policies and more than one ministry may seek to influence regulatory decisions and procedures.
- (d) Opaque structure for the users of regulatory organisations, as they may not be able to ‘see through’ the organisational maze in unified organisations.

From the advantages and problems above, it is evident that it can not in advance be determined whether the primary outcome of a regulatory convergence will be positive or negative. Henten et al<sup>35</sup> argues that it depends very much on the specific circumstances and the ways in which the unified organisations are constructed and managed. They argue further that, for the regulatory convergence to work out successfully, clarity and flexibility are very important, it must be clearly determined how the different functions relate to one another, and it is important to uphold principles of independence and accountability.

#### 2.2.4 DRIVERS AND CHALLENGES OF CONVERGENCE

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<sup>35</sup> Ibid

Convergence is driven mainly by technological innovations; particularly the digitisation of transmission and the development of global networks based on packet switching and open standard<sup>36</sup>. These developments are producing a significant reform of the provision of information and communication within the public domain.

Similarly, the current digital computer processing and network technologies are replacing the conventional methods through which information has been produced, stored, transmitted and distributed. Therefore, digital rather than analogue forms of transmission are beginning to extend mass participation technologies, such as broadcasting, which distribute information. Further, evolution of broadband technologies and widespread forms of personal computing and video conferencing promotes low cost broadband communication<sup>37</sup>.

Wheeler, M<sup>38</sup> points out that, these developments accelerate the combination of different types of information presentation, such as text, video, images, and audio thereby making the distinctions of different types of information production and distribution less apparent. They also provide access to greater numbers of communication links, permit the distribution of commercial and entertainment material, and advance telephony along the same highways.

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<sup>36</sup> Sharma, S (2002): p.6

<sup>37</sup> Wheeler, M (1999): p.4

<sup>38</sup> Ibid

However, technological convergence comes with its own challenges in the regulation of ICT sector. It gives rise to new services which are inconsistent with the existing regulatory frameworks. The same service provided over different platforms face different regulations and this situation can lead to inconsistent regulation. This can, in turn, affect policy decisions in favour of one type of technology or service.

Wheeler, M<sup>39</sup> argues further that, convergence is also driven by market factors, particularly the integration of content service providers with access providers and the emergence of new market players based on potential of ICT. The diffusion of the formerly discrete information and communications systems has led to new opportunities for investment and innovation as the take-up of information services within the business and domestic sphere has grown. Thus, the production, distribution, and use of information are becoming an increasingly important economic activity.

These emerging convergent services are forcing regulators all over the world to take a hard look at their existing policy and regulatory frameworks as more and more issues can not be resolved by the existing rules or are falling through the cracks. On the other hand, the regulatory convergence helps to reduce the cost of regulation by optimum utilisation of regulatory resources and ease of regulation<sup>40</sup>. It is, therefore, becoming more and more apparent that the full potential of convergence will not be realised if governments continue to

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<sup>39</sup> Ibid

<sup>40</sup> Sharma, S (2002): p.7



maintain the artificial demarcation by maintaining the traditional regulatory lines of division between the telecommunication, IT and broadcasting.

While each country will face its unique challenges, the key issue is how to take a holistic policy and regulatory approach towards a converging environment.

The rapid technological developments are also challenging the long held notions about the role of the regulator and strategies to achieve equitable delivery of services. A critical regulatory challenge is to ensure that measures are in place to protect consumers and competitors against anti-competitive cross-subsidisation, use of competitors' information with anti-competitive results, and withholding of relevant technical and commercial information essential to business.

### **3 REGULATION OF TELECOMMUNICATIONS SECTOR IN TANZANIA.**

#### **3.1 Telecommunications Sector before Reform.**

The Tanzania Posts and Telecommunication Corporation (TPTC) was formed in 1978 to take over the functions and powers of the defunct East African Posts and Telecommunications Corporation. TPTC continued to enjoy an exclusive right to operate Public Switched Telephone Network (PSTN) for provision of telecommunication services until 1993 when it was dissolved by Communication Act, 1993. Postal and Telecommunication operations were fully integrated functions of TPTC<sup>41</sup>.

The quality of service in this period was poor, and the worker productivity was very low. The main causes for poor performance were financial factors and operational factors. Financially, performance was affected by: inadequate tariffs (esp. local); devaluation of the currency; poor billing and collection performance; and poor audit controls. Operational weaknesses, such as unclear lines of authority, weak management information systems, inadequate

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<sup>41</sup> UN Economic Commission for Africa(1996): para 1.1, this reference applies to the subsequent paragraph as well.

training, lack of customer orientation, and poor staff compensation also resulted to poor performance<sup>42</sup>. Furthermore, since less efficient firms were allowed to rely on Government for funding, most of the firms in developing countries at this time, including Tanzania, lacked the financial discipline required for efficient management.<sup>43</sup>

The structure of the telecom sector before the reform process was a reflection of the previous centrally planned economy of the country. The ministry of communication and Transport was responsible for setting policies. It delegated to TPTC the responsibility for carrying out regulatory functions (licensing of private operators, setting equipment standards, granting equipment type approvals, etc) in addition to its being the sole monopoly operator. Thus there was little opportunity for private sector involvement<sup>44</sup>.

### 3.1.1 Objectives and Strategies of Reform

Participation of the private sector in telecommunications was introduced in Tanzania as part of the communication sector reform in particular, and the reform of the national economy in general. A comprehensive Economic Recovery Programme (ERP) was introduced in 1986, followed by an Economic and Social Action Programme (ESAP) in 1989 both based on the strategy to shift from a centrally planned system to a market oriented

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<sup>42</sup> Ibid.

<sup>43</sup> Manuel, A (2005): p33

<sup>44</sup> see: footnote 34

economy. The government duly recognized the important role of telecommunications in this process and thus decided on the reform of the sector as part of the privatisation process<sup>45</sup>. However, these reforms were only part of the reforms of the privatisation of the general economy. They were not specifically aimed to reform the telecom sector. The National Telecommunication Policy (NTP) came later in 1997.

Unfortunately, when privatisation reforms in the telecommunication sector were being introduced, many developing countries including Tanzania had no experience to guide the design of regulatory mechanism appropriate for these reforms. They looked to the countries that had followed this approach, such as the United Kingdom (UK) and the United States (US). Under pressure from international agencies, investment bank and financial advisers, many developing countries hastily adopted these regulatory mechanisms unsuccessfully<sup>46</sup>. Telecommunication access in Tanzania remained in a precarious situation<sup>47</sup>. There was a slow growth of fixed telephony as a result of poor infrastructure capacity and telecoms monopoly. Until this time telecom licensing was not an issue due to the telecoms monopoly. TPTC continued to be the exclusive telecoms and postal services provider until 1993 when the government introduced institutional reforms and the state monopoly was dissolved and replaced by three separate entities: The Tanzania

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<sup>45</sup> Ibid

<sup>46</sup> Kessides(2004): p. 80 and Mrtinussen (1997): p.260

<sup>47</sup> Henten et al (2003): p.29

Telecommunication Company Limited (TTCL), The Tanzania Postal Corporation (TPC), and the Tanzania Communication Commission (TCC)<sup>48</sup>.

## 3.2 COMMUNICATION SECTOR REFORMS

### 3.2.1 Institutional Reforms

Communications sector reforms came into effect on 1<sup>st</sup> Jan, 1994. In 1993 the parliament of the United Republic of Tanzania passed three basic laws, namely: the Tanzania Communication Commission Act, 1993; The Tanzania Telecommunication Company (incorporation) Act, 1993; and The Tanzania Posts Corporation Act, 1993. The enactment of these laws led to the dissolution of the former Tanzania Posts and Telecommunication Corporation (TPTC) and the creation of the new Tanzania Telecommunication Company Ltd (TTCL); The Tanzania Posts Corporation (TPC); and the Tanzania Communications commission (TCC). These three new organisations had to operate as separate and autonomous public entities. These laws introduced regulatory changes in Telecommunication sector through the newly established entities<sup>49</sup>. However, the newly enacted laws stood without any explicit policy guidelines that could inform the laws and their interpretation. The National Telecommunication Policy (NTP) came later in 1997.

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<sup>48</sup> Ibid

<sup>49</sup> Ibid

### 3.3.3. Tanzania Communications Commission (TCC)

Under the new Tanzania Communication Commission Act, 1993 the communications minister was responsible for sector policy. The regulatory role was vested in TCC, under the general oversight of the minister. Some of the obligations of the commission were: regulating telecommunication through licensing and supervision of licensing conditions; ensuring the provision of good and sufficient telecom services throughout Tanzania (universal service); and to further advancement of technology<sup>50</sup>. This clarification and separation of the role of the regulator from that of the Government helped to avoid unnecessary interference and duplication of roles.

The Tanzania Communications Act, 1993 which governs licensing and most regulatory matters relating to telecommunications services permits the issuing of unified licences. But the National Telecommunications Policy (NTP) 1997 broke the market into segments including fixed voice, mobile and value added services. Owing to this segmentation the Tanzania Communication Commission adopted a vertical integration approach to licensing. The result of the strategy was the issuing of licences for vertically integrated market segments including fixed voice, cellular mobile, data, paging and satellite services<sup>51</sup>. Since ICT convergence was not yet an issue in Tanzania by this time, the weaknesses of this licensing regime in relation to convergence could not be noted. Chapter four discusses licensing issues in the converged era.

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<sup>50</sup> Ibid.

<sup>51</sup> ITU (2002): P.2

Through its licensing procedures TCC was able to introduce competition through private sector participation in the telecommunication sector in the provision of value added services. Mobile cellular services expanded very fast in this period. Retailers and resellers of service, e.g., payphone, telecentres, and local internet agents needed no licence to operate<sup>52</sup>. The local and foreign investors got exposed to the local telecom business and made an impact, whereas the dominant public operator was able to see and get first hand experience in competition. This gave TCC and the Government a breathing space to review the performance of a dominant operator, provide for rehabilitation of the PSTN and new networks to be established<sup>53</sup>.

### 3.2.2 TTCL

The Tanzania Telecommunication Company Limited (TTCL) was formed out of the former TPTC in 1994. It was incorporated as a wholly state owned but autonomous company operating as a commercial enterprise. TTCL operates fixed line basic telephony services enjoying monopoly on mainland Tanzania, and a duopoly on Zanzibar. ZANTEL has the second fixed line voice licence

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<sup>52</sup> Kilaba, J.M (1996): p.9

<sup>53</sup> Ibid, p.10

for Zanzibar. The government appointed a board of directors which was fully responsible for the management of the company<sup>54</sup>.

As a dominant operator some of the TTCL's responsibilities included: to manage the national telecommunications network and provide interconnection for all other operators; to provide and operate telecommunication services; and to provide universal services<sup>55</sup>. As part of the privatisation process TTCL was partly privatised through selling of 35% of its shares to a strategic partner/investor. TCC granted five new licences to TTCL for mobile telecommunication, radio paging, data services, ISP services, and basic public fixed line telecom services.

The restructuring of the telecommunication sector created an enabling environment for improving the management and operation of the sector through, among other things, the commercialization of services and introduction of competition. TTCL started to show good signs of positive change towards commercial behaviour and quality of service provision<sup>56</sup>. However, there was still a slow growth of fixed telephony in Tanzania. From 1997 to 2002 fixed lines grew at a compounded rate of 9 per cent, but there was still less than one telephone user per 100 inhabitants in the country<sup>57</sup>. Compared to Mauritius or South Africa, which had more than 10 users per 100 inhabitants over the same period, access to fixed telephony in Tanzania

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<sup>54</sup> *ibid*

<sup>55</sup> *Ibid*

<sup>56</sup> *Ibid*

<sup>57</sup> Henten et al (2003): p.29



was seen to benefit just a privileged few<sup>58</sup>. With the rapidly changing and converging technologies the task became even more challenging calling for a new regulatory framework.

### 3.3 REGULATION DURING CONVERGENCE ERA.

#### 3.3.1 Communications Sector Policies.

Subsequent to the publication of the National Telecommunication Policy, 1997 the government adopted the National Information and Communication Technology (ICT) Policy in 2003. The broad objectives of the ICT policy are to: (a) provide a national framework that will enable ICT to contribute towards achieving national development goals; (b) transform Tanzania into a knowledge-based society through the application of ICT; and (c) provide a national framework to accommodate the convergence of information, communication and technology including media.<sup>59</sup> Through the National ICT policy the Government acknowledges for the first time that ICT convergence poses serious regulatory challenges which need to be addressed.

The policy articulates 10 main areas of focus in harnessing ICT towards development. The areas with direct relevance to this work are; ICT infrastructure, ICT industry, regulatory framework and universal access.

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<sup>58</sup> Ibid

<sup>59</sup> Tanzania National ICT Policy( 2003): p.14

The National ICT policy<sup>60</sup> notes that public switched network is over 95% digital paving the way for provision of new services enabled by ICT. But the confinement of the coverage of the network infrastructure to urban areas and the lack of suitable telecommunications and other infrastructure in the rural areas remain the basic impediments to the provision of new ICT policies. The lack of inexpensive and high capacity connections to the global internet is a further hindrance to harnessing ICT opportunities. Therefore, the National ICT policy sets the objectives for infrastructure development, namely to

- (i) Encourage the regulator to investigate and respond to the challenges of convergence and newly emerging technologies in collaboration with the general public and stakeholders.
- (ii) The strategies for achieving those objectives include the development of reliable ICT infrastructure, with adequate capacity, high speed and country wide coverage; encouraging public and private partnership to mobilize funding for ICT development and ensuring that all installed ICT infrastructure is utilized effectively.

The National ICT Policy<sup>61</sup> aims to establish an enabling legal framework, legislative and regulatory, that is consistent with the national constitution, regional and global best practices. Specific actions include review of existing laws and regulations and adjusting them or enacting new ones that take into account the convergence of telecommunications, broadcasting and information system.

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<sup>60</sup> Ibid

<sup>61</sup> Ibid, p.18

The National ICT policy<sup>62</sup> notes the existing digital divide within the country and the fragmented initiatives that try to address it. It therefore places specific emphasis on Universal access. Among the objectives of the National ICT policy for this area are to provide the population with universal access to ICT; provide special incentives to investors to deliver broadband connectivity. The strategies include operationalising and rural communications development fund; offering special incentives to investors for provision of services in rural areas; supporting construction of rural telecentres and involving local government authorities in utilization and promotion. Others are encouraging and facilitating the optimal use of existing capacity and infrastructure in order to facilitate affordable access nationally and especially in rural and disadvantaged communities.

The National ICT policy notes the existence of several institutions charged with ICT regulatory matters, including the former Tanzania communications commission, the Tanzania Broadcasting Commission, and the Tanzania Competition Commission. The policy emphasizes coordination policy monitoring and the regulatory functions to ensure rational and speedy enhancement of ICT. The policy envisages continued regulation in ICT hardware production, operations, service provision and consumption<sup>63</sup>.

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<sup>62</sup> Ibid

<sup>63</sup> Ibid

### 3.3.2 Creation of Tanzania Communication Regulatory Authority (TCRA).

The Tanzania Communication Regulatory Authority, established by the Tanzania Communication Regulatory Authority Act, 2003<sup>64</sup> is an independent authority for the postal, broadcasting and electronic communications industries in Tanzania<sup>65</sup>. It merged the former Tanzania Communication Commission (TCC) and the Tanzania Broadcasting Commission (TCB). TCRA became operational on 1<sup>st</sup> Nov, 2003 and has effectively taken over the functions of the two defunct commissions. Although the word ‘convergence’ is not specifically discussed in the Act, it would be wrong to conclude from this fact that TCRA is not a creature of convergence given a wide coverage of convergence issues in the National ICT policy. Similarly, the preamble to the TCRA Act, 2003 states that the Act intends to establish the Tanzania Communication Regulatory Authority (TCRA) for purposes of regulation of Telecommunications, Broadcasting, and Postal services; to provide for allocation and management of radio spectrum, covering electronic technologies and other Information and Communication Technology applications, and to provide for its operation in place of former authorities and for related matters.

Specifically the Authority is responsible for enhancing the welfare of Tanzanians through: promotion of effective competition and economic

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<sup>64</sup> The Act amended the Tanzania Broadcasting Services Act, 1993 and the Communications Act, 1993 by repealing certain provisions within these Acts.

<sup>65</sup> S.4 of TCRA Act, 2003

efficiency; protecting the interest of consumers; promoting the availability of regulated services; licensing and enforcing licence conditions of broadcasting, postal and telecommunications operators; establishing standards for regulated goods and services; regulating rates and charges (tariffs); managing the radio frequency spectrum; and monitoring the implementation of ICT<sup>66</sup>. It is clear from these responsibilities that TCRA is given enjoying enough autonomy which allows it to cover most regulatory issues needed to regulate the telecommunication sector. However, the Authority is not totally autonomous. For example, in its responsibility to grant and cancel licences, the Act requires the Authority to consult the minister before awarding a licence that has an exclusivity period, universal service, or one that has a term of five or more years.<sup>67</sup> This undermines the independence of the Authority in regulating the licensing of the Telecommunication industry. Other detailed weaknesses in the licensing regime are covered in chapter four below.

The TCRA Act, 2003 set parameters within which TCRA should handle competition policy issues and its relationship with fair competitions institutions. The Act authorizes the TCRA to deal with all competition issues that arise in the discharge of its responsibilities; to carry out investigations on such issues and to make recommendations to the fair competition commission or any other relevant authority. Findings and recommendations may include contravention of the fair competition Act, actual or potential competition in markets regulated by TCRA or additional costs in the markets likely to be

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<sup>66</sup> Ibid, s.5 and s.6

<sup>67</sup> Ibid: s.6(3)

detrimental to the public.<sup>68</sup>The Act allows a party that is dissatisfied with the decision of the TCRA to appeal to the Fair Competition Tribunal established under the Fair Competition Act, 2003. An appeal may be on grounds of non-observance of procedure that materially affects the outcome of the proceedings, misapplication of the law or on factual evidence.<sup>69</sup>This is an improvement from the Tanzania Communication Act which permitted appeals on procedural grounds or wrong application of the law only.

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<sup>68</sup> Ibid: s.19(2).

<sup>69</sup> Ibid: s.42(1),(2).

## **4 IMPACT ASSESSMENT: REVIEW OF THE NEW LICENSING REGIME.**

### **4.1 Introduction of converged licensing framework in Tanzania**

In the context of telecommunication regulation, a licence can be defined as a legal document granted or approved by a regulator or other government authority, that defines the rights and obligations of a telecommunications service provider<sup>70</sup>. A telecommunication licence authorizes an entity to provide telecommunications services or operate telecommunication facilities. Licences also generally define the terms and conditions of such authorisation, and describe the major rights and obligations of a telecommunications operator.

Tanzania became one of few African countries to liberalize fully its communication sector following the expiry of exclusivity rights given to its incumbent telecommunication operator i.e. TTCL in 23<sup>rd</sup> February, 2005. Historically, state owned incumbent operator (TTCL) provided telecom services on a monopoly basis. Telecom operations were treated as a branch of public administration, along with postal services, road transportation and other government services. As part of the privatisation process, licence was issued

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<sup>70</sup> Intven,H (200): par 2.1.1

to the incumbent operator (TTCL) in 2001 following its privatisation<sup>71</sup>. A number of other licences were issued to the cellular mobile and broadcasting markets as well. However, the grant of exclusive rights to TTCL created unjustified discrimination in the sector.

Research<sup>72</sup> shows that the grant of special and exclusive rights to allow artificial restrictions on the use of networks or to maintain monopolies where other parts of the market are fully open to competition may deny users access to innovative services, and create unjustified discrimination. Such approach is running contrary to the technological and market convergence.

With technological convergence of the ICT sector, the limited electronic communications infrastructure and low service penetration required a paradigm shift in regulation in order to optimize the benefits that accrue from the convergence of broadcasting, computing and communications technologies. This shift started at the institutional level with the merger of the communications and broadcasting commissions that resulted in the establishment of the TCRA<sup>73</sup>. Also ongoing was the articulation of licensing regime by TCRA that would be technology neutral and horizontally integrated in response to the convergence of technology<sup>74</sup>. However, even after the enactment of the TCRA Act in 2003 the government didn't adapt the CLF

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<sup>71</sup> Moshiro, M (2004): p.8

<sup>72</sup> EU Green paper on convergence (1997): p.21

<sup>73</sup> S.4 of TCRA Act, 2003.

<sup>74</sup> Moshiro, M (2004): p.8



immediately until 2005 when the Tanzania Communication (Licensing) Regulation, 2005 was enacted<sup>75</sup>.

Some of the objectives of the converged licensing framework are: to simplify existing licensing procedures to ease market entry and operations; to ensure regulatory flexibility and address market and technological developments; to ensure that the transition to a converged licensing framework fosters a level playing field among all operators; and to ensure efficient utilization of network resources, so that individual networks may be used to provide a broad range of ICT services. The government and TCRA took exclusivity of TTCL in February 2005 as an important turning point in this transformation<sup>76</sup>. TCRA licensed existing operators to operate in previously restricted market segments, immediately upon the expiry of the exclusivity given to TTCL. The new licensing regime based on activities rather than on technologies was then put in place. It provides for separate licences for infrastructure and for services. In the previous regime services, including internet provision were licensed individually. Radio frequencies were assigned under a general authorization via regulations<sup>77</sup>.

However, as elaborated in subsequent sections the new licensing regime undertaken in the course of reforming the telecommunication sector is still not a viable regulatory tool for the promotion of convergence. The new licensing regime is characterized with a number of problems such as: lengthy and non

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<sup>75</sup> The Regulation was enacted under S.47(1) of the TCRA Act,2003.

<sup>76</sup> Ibid

<sup>77</sup> Ibid

transparent application procedures which discourages market entrants; some operators still need a couple of licences in order to operate, etc. This work argues that, whatever the legal form and process of licensing, in order to promote technological, market and regulatory trend of convergence, a good licensing regime which is clear, transparent, and avoids unnecessary burdensome conditions should be in place.

In Tanzania licences comprise only one element of the regulatory framework. Other rules that govern the operators are included in telecommunications laws, sector policies, regulations, guidelines, directions and other documents of general application. In that regard, this work will examine the main Legislation, subsidiary legislation and other documents which establish various rules affecting telecommunication licensing in Tanzania.

#### 4.2 Categories of Licences under the Converged Licensing Framework.

With convergence licensing frameworks changed considerably. International Telecommunication Union (ITU)<sup>78</sup> identifies some licensing regimes introduced around the world to meet the challenges of convergence as follows:

- (i) introduction of various forms of ‘generic’ or ‘converged’ licences, to all providers of telecom services, with broader service categories

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<sup>78</sup> See footnote:2

that allows operators to provide multiple services under one licence using any kind of technology;

- (ii) establishing different licences for network operations and service provision;
- (iii) using class licences or general authorization whereby operators are asked to simply notify regulators or register their services;
- (iv) In some cases, previously licensed services are made subject to no licensing requirements at all.

Other writers categorize these licensing regimes in three general broad approaches namely; individual operator licences, general authorisations, and no licensing requirement (i.e. open entry)<sup>79</sup>. However, matters of the form of licence are largely irrelevant in this work. What is more important is the features of a good licensing practice.

In Tanzania, s.6 of the TCRA Act, 2003, makes it the function of the Tanzania Communication Regulatory Authority (TCRA) to issue, renew and cancel licences. The Act applies generally in the ICT sector in Tanzania. The Act recognizes licences issued both under the TCRA Act and other sector legislation i.e. The Tanzania Broadcasting Services Act, 1993 and the Tanzania Communications Act, 1993. S. 47(1) of TCRA Act allows the Minister responsible for communications to make necessary regulations to give effect to the implementation of the Act. Effective from 23<sup>rd</sup> February, 2005, a converged licensing framework was put in place following the

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<sup>79</sup> Intven, H (2000): par 2.2

enactment of Tanzania communications (Licensing) Regulations, 2005. The regulation establishes several categories of licences under the converged licensing framework as follows:

#### 4.2.1 Network Facility Licences.

These are electronic communication licences authorising the holder to construct, maintain, own and make available one or more of the electronic communication infrastructure including earth stations, fixed links and cables, public payphone facilities, radio communication transmitters and links, satellite hubs, satellite control station, submarine cables, cable landing centre<sup>80</sup>, etc.

It appears that many services which previously required one licence require several licences under the new regime. For example, to take one case, broadcasting, it seems that besides access to signal distribution, the traditional broadcaster will also need to have or be carried by someone who has yet other kinds of licences: a network service licence, a radio frequency licence and a content licence. Regulation 4(1) of the Tanzania Communications (Radio Communication and Frequency spectrum) Regulation, 2005 forbids the possession, establishment and installation of any station without a valid licence granted by the Authority. Regulation 4(2) of the same law states that notwithstanding any licence granted by the Authority in respect of any station no person is allowed to use a radio frequency in respect of any station unless

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<sup>80</sup> Regulation 2 of Tanzania Communications (Licensing) Regulations, 2005.

he has a valid station and a frequency user licence. On the other hand, Reg. 3 of the Broadcasting Services (Content) Regulation, 2005 defines a licence as a permission to provide content service. According to that Regulation, content service means service offered for sound, data, text or images whether still or moving except where transmitted on private communication. Furthermore, Reg. 27(1) of the Tanzania Communications (Access and Facilities) Regulation, 2005 states that the Authority may grant a frequency user licence to the licensee who has been granted a network service provider licence. Reg. 3 of the same law defines a network facility licence as a licence which authorises the operation of a network but it excludes communication application services and communication content application services from its definition. This means one needs a couple of licences in order to operate in the market. This is overregulation and it makes it harder or more expensive for operators to operate efficiently. More importantly, it doesn't reflect the gist of the concept of convergence.

Similarly, the types of licences issued in this category of CLF are still individual licences tying licensees to network facilities of particular technologies<sup>81</sup>. It is doubtful if these individual licences are not making it increasingly difficult for licensees to operate commercially across different network facilities. It is further argued here that, although the regulation may be intended to be technology-neutral, it may still be linked to a particular technology depending on the types of licences issued and what they are intended to permit.

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<sup>81</sup> Reg. 2 and 1st schedule of the Tanzania Communication (Licensing) Regulation, 2005

Despite the problems above, there is some progress under the Tanzania Communications (Access and Facilities) Regulation, 2005 which requires licensees to facilitate access to network facilities by commercially negotiating reasonably and in good faith with persons who requests to lease or share network facilities. The major progress is in regulatory intervention to support the commercial process in order to ensure greater transparency and non-discriminatory behaviour.

Research<sup>82</sup> shows that where market players control access to the customers, for example, through ownership of the network or through conditional access technologies, the person concerned may be able to discriminate in favour of his own services. The goal of ensuring that any user can communicate with any other user is held back in such situations.

#### 4.2.2 Network Service Licences.

Network service licences entitle the holders to provide one or more network services for the carrying of information in the form of speech or other sound, data, text, or images, by means of guided or unguided electromagnetic energy<sup>83</sup>. This category includes bandwidth services, broadcasting distribution

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<sup>82</sup> EU Green paper on Convergence (1997): p.17

<sup>83</sup> Ibid

services, cellular mobile services, cellular applications services and space segment services<sup>84</sup>.

The problems related to issuing of individual licences discussed in section 4.2.1 above appear here as well. Licences in issued in this category also of individual type save for one market segment of market called closed user group network operators which enjoys class licences.<sup>85</sup> It looks like the term Network Services Licences is used as a blanket statement while the old licensing regime is maintained in these individual licences issued within this licensing category.

#### 4.2.3 Application Service Licences.

This category of licence allows the licence holder to provide services by means of one or more network services but does not include such a service provided solely on the customer side of the network boundary<sup>86</sup>. The licence authorises reselling or procurement of services from network service operators. The salient feature of this category of licence is that the licensee does not own network infrastructure nor operate network<sup>87</sup>. Examples are internet providers, payphone services, virtual mobile providers, public cellular

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<sup>84</sup> Ibid, 1st schedule.

<sup>85</sup> Ibid

<sup>86</sup> Ibid

<sup>87</sup> Mfungahema, R.C (2006)

services, IP telephone, public payphone services, and public switched data service<sup>88</sup>.

Like network services licences, application services licences are divided in five market segments all of which are class licences. The use of class licences is an improvement as it is likely to encourage efficient operation by not tying the operator to a particular technological platform. However, as other categories of licences in the CLF are mainly individual classes as opposed to class licences in this category, there are doubts as to whether these differences in licensing conditions may not have unwanted consequences in the licensing regime in terms of attracting applicants in one category of licence over others. Commentators<sup>89</sup> are advising on the use of common principles for the award of licences in order to avoid regulatory divergence.

#### 4.2.4 Content Services Licences.

This category of licence allows the licence holder to provide one or more content application services<sup>90</sup>. This includes information in the form of speech or other sound, data, text, or images whether still or moving, except where transmitted in private communications<sup>91</sup>. The list includes: satellite

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<sup>88</sup> Reg.2 and 1<sup>st</sup> schedule of the Tanzania Communication (Licensing) Regulation, 2005

<sup>89</sup> EU Green paper (1997): p.21

<sup>90</sup> Reg.3 of Tanzania Communication (Licensing) Regulation, 2005.

<sup>91</sup> Ibid



broadcasting; terrestrial TV broadcasting; terrestrial radio broadcasting; and other electronic media<sup>92</sup>.

Before the introduction of Converged Licensing Framework (CLF), policies, laws and regulations governing the provision of broadcasting services, allowed content service providers to own and operate studios and transmitters for both radio and television<sup>93</sup>. The CLF adopted by TCRA in 23<sup>rd</sup> February, 2005 made a separation of roles and functions between content service provision as a stand alone licence and for signal distribution/ transmission falling under the Network facilities licence category (par 4.2.2 above).

It is argued here that, in order to encourage innovation and efficient operation through licensing TCRA should consider moving away from licensing approach which splits electronic transmission of various forms of content from the content itself by requiring different licences for these activities and use a horizontal system where one licence covers a number of permissions. Alternatively, TCRA could resort to the South African approach<sup>94</sup> which dispenses with the need for electronic content producers to seek licences. This allows TCRA to regulate content by other means like the use of Regulations.

The CLF allows content service providers who do not own their own transmission facilities (network facilities) to deliver broadcasting services using licensed network facility operators. The network facility operator

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<sup>92</sup> Reg.2 and 1<sup>st</sup> schedule of Tanzania Communication (Licensing) Regulation, 2005.

<sup>93</sup> TCRA (2006): Par 3.1.6

<sup>94</sup> Berger, G (2005): p.1

provides transmission infrastructures to content service providers to deliver broadcasting services to consumers. This is the ideal situation, but in reality, as observed by TCRA<sup>95</sup>, the incumbent licensed content service providers do not lease network facilities to deliver broadcasting services to consumers.

With the introduction of Digital technology in Tanzania, the Government has decided to migrate from analogue to digital broadcasting effective from 17<sup>th</sup> June, 2006 because of immense advantages brought about by this technological development<sup>96</sup>. The migration process is expected to end by 16<sup>th</sup> June, 2015.

The introduction of digital technologies in broadcasting has brought other licensing issues within the CLF. TCRA<sup>97</sup> argues that, it is no longer economically viable for one operator to have a system of delivery of multiple channels without recourse to use the services of an independent multiple operator. TCRA<sup>98</sup> defines a ‘multiplex’ as a digital transmission channel which combines programme material and other data in a digital form for transmission via a frequency channel. The process of digital combination of signals is called multiplexing.

In view of the above, TCRA decided to adopt the arrangement which reinforces the validity of the CLF that advocates the separation of content

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<sup>95</sup> TCRA (2006): Par 3.4.1

<sup>96</sup> Ibid

<sup>97</sup> Ibid

<sup>98</sup> Ibid

service provision distinct from signal distribution done by network facility providers<sup>99</sup>.

The Information and Broadcasting Policy of 1993 and the revised Information and Broadcasting Policy of 2003 did not mention anything about terrestrial digital broadcasting in Tanzania. Both policies addressed the development of analogue broadcasting in the country. In order to introduce Digital Terrestrial Broadcasting TCRA relied on public consultation documents to obtain public opinion. Public opinion led to the proposed legislative amendment to the laws that regulate broadcasting in Tanzania. Such proposed amendment included, but was not limited to licensing, spectrum use, and migration from analogue to digital<sup>100</sup>.

Under the digital platform format, content service providers shall not be allowed to own and operate transmission (network facilities). They shall be allowed to deliver their content through a multiplex operator, who will be allowed to own and operate network facilities.

It is argued here that despite the challenges brought about by digital technologies, TCRA should still use the combined licensing option allowing broadcasters to provide the content services and retain control of transmission instead of introducing multiplex operators. The use of this option allows content service providers to operate without involving another party and therefore able to monitor and control the entire broadcasting chain and act

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<sup>99</sup> Ibid, par 3.1.18

<sup>100</sup> Ibid, par 9.2

accordingly in the case of problems. This full involvement would allow content service providers to master expertise for the whole broadcasting chain. Similarly, the option would allow content service providers to own transmission systems and that excess capacity of channels accruing from inherited digital capability would be leased to other service providers.

#### 4.2.5 Other Licence Categories.

Other Licence categories<sup>101</sup> in the new licensing framework include<sup>102</sup>:

- (a) Frequency spectrum user licence: authorises licensee to use frequency spectrum resource and own radio communication station;
- (b) Installation and maintenance licence: authorises the installation and maintenance of electronic communication equipment and network;
- (c) Importation and distribution licence: authorises importation and distribution of electronic communication equipment;
- (d) Type approval: Authorises the electronic communication equipment to operate in the United Republic of Tanzania;
- (e) Numbering: authorises the use of scarce resources of numbers; etc.

Regulation of scarce resources is fair enough. Spectrum scarcity is most of the times the reason for restricting the number of market entrants. Numbers are also valuable and a scarce public resource for all industry players and users.

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<sup>101</sup> Reg. 2 (f) of Tanzania Communication (Licensing) Regulation, 2005 gives TCRA authority to determine other types of licence as it may deem fit.

<sup>102</sup> See footnote:90

Numbering mismanagement can restrict service development and result in network inefficiency. However, there is confusion in the licensing of radio spectrum which needs clearing up. While Reg. 3 of the Tanzania Communications (Radio Communication and Frequency Spectrum) Regulation, 2005 prohibits two or more companies or corporations operating in a joint venture from applying jointly for a radio frequency channel from a single band planned for cellular or broadband services, reg. 29 of the same law allows sharing of frequency between the licensed user and other persons for the interest of frequency spectrum economy or for any other reason provided it doesn't affect or unduly prejudice the frequency user who was first licensed. It is difficult to understand the motive of prohibiting companies operating in joint venture from acquiring such a licence jointly if the law is willing to allow sharing of frequency by persons who may be operating separately, particularly if the aim of allowing such sharing is for the interest of the frequency spectrum economy.

In fact, the matter is even more complicated when considering eligibility for a licence under s.10 of the Tanzania Broadcasting Services Act, 2003 and reg. 4 of the Tanzania Communications (Licensing) Regulation, 2005. According to those provisions, applicants of broadcasting, telecom and content services licences are considered eligible for a licence depending on the amount of shares they own as shareholders. It is important to note that the licensees of these licences are the ones qualifying for frequency user licence. Since the law requires Tanzanian citizens to have a particular amount of shares in order to qualify for such licences, one would tend to think that the law is encouraging joint venture operation between Tanzanians and foreigners. If that is the case,

what is the motive of prohibiting such persons from acquiring a licence jointly? The law is not clear on these issues. It is doubtful if these regulatory uncertainties can not create barriers to investment.

Both the Communication (Licensing) Regulation, 2005 and the Tanzania Communications (Radio Frequency and Spectrum) Regulation, 2005 are silent on the procedure for allocation of scarce resources in situations where demand exceeds available resources. Research<sup>103</sup> shows that where there are marked differences in the amount of spectrum available or the way in which it is allocated, potential barriers are likely to arise, impacting the underlying cost-bases of network operation in the different sectors, potentially encouraging competitive entry into one sector rather than another. Commentators<sup>104</sup> argue further that, from an economic standpoint, pricing spectrum may encourage its more efficient use and may help to ensure that frequency is allocated to the areas where it is most needed. In that regard, frequency auctioning is favoured as the best way to ensure outcomes which will encourage spectrum users to apply cost effective technological solutions.

#### 4.3 LICENSING PRACTICES

While telecommunications licensing approaches vary considerably from country to country, there are common features, particularly among better

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<sup>103</sup> EU Green paper on convergence (1997): p.25

<sup>104</sup> Ibid

licensing practices<sup>105</sup>. It is these features that can help to promote new convergent services and converging industries by creating possibilities for companies to develop and deliver services across technology platforms, and for users to get access to new kinds of communication and media services.

In developing countries including Tanzania, the implications are that, the use of different technologies should be promoted and, that universal access policies should not focus specifically on PSTN access but more on the wider range of different technology access possibilities<sup>106</sup>. This can be done by including in the licensing regimes, features that promote those qualities.

#### 4.3.1 Licensing Procedure and processes.

One of the key principles and objectives of any efficient licensing regime is to simplify the procedure of licensing in the telecom sector, in such a way as to be clear, simple, transparent and practical<sup>107</sup>. In the era of convergence, such procedure and processes should: encourage the free growth of new applications and services across different technological developments; be practicable and with fast response to market changes; and shouldn't be used as an excuse for dominant players to restrain entrants.

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<sup>105</sup> Intven, H (2002): p.9

<sup>106</sup> Ibid

<sup>107</sup> Ibid

The procedure and processes of licensing used by TCRA for licence applications are too long and complex. The guideline issued by TCRA to indicate the procedure and processes for obtaining a licence looks as follows<sup>108</sup>:

- (a) TCRA periodically announces in the media a deadline for submissions of applications.
- (b) Received applications are being scrutinized to establish whether they have all required attachments i.e. Receipt of application fee, dully filled application form, business plan, roll out plan, company registration, information on technical proposal of the service to be provided, company profile, etc.
- (c) The Authority shall then conduct detailed evaluation of the applications basing on pre-determined criteria for each category of licence.
- (d) The list of applicants shall then be published in widely circulated Newspapers and posted in the Authority's website to invite public comments.
- (e) Then the evaluation team shall convene to asses public comments against the applications including interviewing the applicants if deemed necessary.
- (f) Recommendations of the evaluation team shall then be forwarded to the management for decision making.
- (g) Recommendations of the management shall be submitted to the board for approval.

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<sup>108</sup> The summary of the procedure is posted on TCRA website: available at [http://www.tcra.go.tz/procedure\\_processes.php](http://www.tcra.go.tz/procedure_processes.php)



- (h) Recommendations of the board shall be submitted to the minister for approval.
- (i) Then licences shall be granted to successful applicants upon payment of appropriate fee (i.e. initial fee, frequency user fee and numbering).

The licensing process displayed above attracts some comments. First and foremost, it appears that the process is not incorporated in the sector legislation nor the subsidiary legislation made thereunder. The process is treated as a guideline posted on the Authority's website to inform applicants on the procedural processes which are used by the authority to grant a licence. This undermines the value of these procedures and processes as they can be easily changed any time without any difficulty in favour of any interest which the TCRA decides to pursue.

Secondly, the amount of information required from the applicants of licences is extensive and burdensome. Researchers<sup>109</sup> argue that, verification of compliance with licensing conditions is an important means to maintain and enforce non-discrimination and transparency, thereby safeguarding fair competition in the market. However, the obligation to provide information may be burdensome for market players where extensive amount of information and documents are requested. This can lead to delays in market entry if information is required before market entry (a priori verification).

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<sup>109</sup> Pontiggia, L et., al (2000): p.53

Thirdly, some of the requirements listed in item (b) above, such as the information on business plan and roll-out, require extensive investment of time and manpower. Furthermore, such information may contain applicants' business secrets and privacy issues. Such issues require TCRA to establish a high level of data protection in order to avoid the possibility of such information falling in the hands of a third party. In the absence of clear regulatory provisions addressing these issues it is doubtful if applicants can be assured adequate protection of such information. Similarly, such information is aimed extensively in verifying the competence of the applicant rather than verifying whether there is reason to refuse the licence or not. Research<sup>110</sup> shows that verification of the competence of the applicant if pursued extensively before market entry can lead to delays in market entry and may be burdensome to market players.

Lastly, the procedure indicates no time limit between one process and another in the course of evaluating an application for licence. This may lead to a delay in granting a licence if the application is not acted upon immediately due to the delays of some officials within the Authority.

It is important to remember that Tanzania is one of the least developed countries and faces problems and challenges caused by archaic infrastructure<sup>111</sup>. The country depends on foreign investment for the development of the communication infrastructure. It is therefore important to consider options for easing licensing procedures in order to attract investment.

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<sup>110</sup> Ibid

<sup>111</sup> Kilaba, J.M (1996): p.10

More importantly, telecommunications technology is changing rapidly; allowing investors to invest without difficulty in the telecom infrastructure would mean opting for new technologies in time, which is important for the promotion of convergence.

#### 4.3.2 Balancing Regulatory Certainty and Flexibility

Intven, H<sup>112</sup> argues that, telecommunication licences should balance regulatory certainty with the flexibility necessary to address future changes in technology, market structure and government policy. Licence conditions should be sufficiently flexible to allow their integration into the general regulatory framework for the sector as it develops. Licensing an operator should not preclude future regulatory reform.

In Tanzania, a certain balance between regulatory certainty and flexibility is achieved by allowing modification of licences under reg. 31 of the Communications (Licensing) Regulations, 2005. However, there are two problems in relation to the approach of providing such flexibility. The first problem is that, the approach is not consistent with regulatory certainty. The regulation allows for unilateral licence modification by the regulator. Licensee's consent is not mandatory. This generally makes it difficult, if not impossible to attract investment and financing required for a major licence, such as fixed line or cellular licence. Secondly, the regulation makes no distinction between licence conditions that are of a regulatory nature and those

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<sup>112</sup> Intven, H (2000): p.18

of purely contractual nature which should only be amended with the agreement of the licensee. It is argued here that, where the regulator has the right to modify the general regulatory conditions of a licence, such amendments should be made in a transparent and competitively neutral manner. Any amendments should be preceded by consultation with the licensee and other affected parties.

#### 4.3.3 Consumer Protection.

Conditions pertaining to consumer protection are often included in telecommunications licences. Such conditions may relate to matters such as price regulation, billing practices, consumer complaint mechanism, dispute resolution, limitations of liability for service defaults, and mandatory services to consumers (e.g. directory services, operator assistance, and energy services)<sup>113</sup>. In Tanzania, reg. 4 of the Tanzania Communication (Consumer Protection) Regulation, 2005 requires licensees to establish a customer care system within their companies in which customers can make inquiries and complaints. A customer who is dissatisfied with the licensee's response may refer his complaint to the TCRA. Similarly, s. 37 of the TCRA Act, 2003 establishes a Consumer Consultative Council to represent consumers' interest by, among others, providing their views to the TCRA. This is a substantial improvement compared to the previous licensing regime which had none of these provisions.

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<sup>113</sup> Ibid p.2

However, commentators<sup>114</sup> argue that the objective of maximizing benefits and minimising the risks of consumer implies the need for the creation of adequate regulatory instruments to protect the fundamental rights and responsibilities of consumers arising from the wide circulation of information in the sectors affected by convergence. In that regard, privacy issues, responsibility for content and their protection, and jurisdiction matters are some of the issues that need to be addressed in the new environment. So far these issues are not appropriately addressed in Tanzania<sup>115</sup>. In the communication sector these matters are partially addressed in reg. 24 of the Tanzania Communication (Licensing) Regulation, 2005 which simply requires licensees to use all ‘reasonable endeavour’ to ensure the privacy and confidentiality of information and business secrets of the consumers, and reg. 29 of the same law which requires licensees to take proper and adequate safety measures to safeguard life or property. In the absence of appropriate legislation dealing with these issues explicitly, various associations which have so far been formed to deal with consumers’ complaints within the sector will serve no purpose for lack of legislative guidance. Research<sup>116</sup> shows that inadequate levels of protection relating to consumer protection, or data protection and privacy users and consumers may lack confidence in the services and systems made available, holding back the development of convergence services.

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<sup>114</sup> EU Green paper on convergence (1997): p.17

<sup>115</sup> The Government has, however, noted the inadequate regulatory capacity in this field as a challenge. The National ICT Policy, 2003 calls for the enactment of specific and effective legislative instruments on privacy, security, cyber crimes, ethical and moral conduct, encryption, digital signatures etc (ICT Policy, 2003: p.15) – the debate on the enactment of these laws is going on.

<sup>116</sup> EU Green paper on Convergence (1997): p.17

#### 4.4 INTERNATIONAL OBLIGATIONS.

In regulating telecommunication, TCRA aligns its actions, policies and regulations with the framework set by international and regional bodies to which it is affiliated. Some of those bodies include the ITU and the World Trade Organisation (WTO). Commentators<sup>117</sup> argue that, in the new global environment, the way in which networks and services are regulated in different countries has the potential to impact substantially on investment in the respective countries. Excessive or inadequate regulation in one country could result in a migration of economic activity elsewhere, with adverse consequences on the development of the information society in the former country.

Tanzania has been a WTO member state since 1<sup>st</sup> January, 1995<sup>118</sup>. The General Agreement on Trade in Services (GATS) and the 1997 WTO Agreement on Basic Telecoms (ABT) of the WTO include Trade Rules applicable to Telecommunications Regulation and Licensing. Signatories to the ABT as well as countries wishing to join the WTO must bring their regulatory and licensing practices into compliance with WTO trade rules.

Tanzania is, therefore, required under the principle of the Most Favoured Nation (GATS Art. II), to grant market access to operators from a WTO

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<sup>117</sup> Ibid: p.19

<sup>118</sup> WTO membership information, available at [http://www.wto.org/eng/thewto\\_e/countries\\_e/tanzania\\_e.htm](http://www.wto.org/eng/thewto_e/countries_e/tanzania_e.htm)

member countries on terms not less favourable than the terms applicable to operators from 'any other country'. This means the licensing regime must not operate with double standards in the process of issuing licences. Similarly, GATS art III and VI require member states to exercise transparency and remove unnecessary barriers to trade respectively.

Reg. 4 of the Tanzania Communication (Licensing) Regulations, 2005 sets eligibility criteria for applicants of electronic communication licences. The Regulation places a minimum amount of shares which local shareholders are required to have in order to qualify for a licence as 35% for telecommunication licence and 51% for content services licences. The regulation is silent whether applicants who are not local shareholders are also allowed to apply for licences, if yes, what is the minimum share required for them to be eligible. However, it is obvious that if a foreigner would be allowed, say to apply for telecommunication with a local shareholder he will need to contribute the remaining 65% in order for them to be granted a licence. I doubt if this would be fair treatment. Again, the word local shareholder is not defined in these laws. The word should be defined to remove uncertainty as to who may qualify under what criteria.

## **5 CONCLUSION**

The telecommunication sector in Tanzania has been going through a complex restructuring process: From monopoly to competition, fixed to mobile, public sector to private sector ownership, and the most recent one, convergence between telecommunication and other ICT sectors. All of these problems have brought their unique challenges in the telecom regulation. Different approaches have been employed to meet these challenges. To meet the challenges of convergence the communication regulator in Tanzania, among things, decided to apply a new licensing regime, the Converged Licensing Framework (CLF).

Despite some improvements in the licensing regime, the CLF is not yet a viable regulatory tool for the improvement of ICT convergence. The new licensing regime is holding back the development of ICT convergence by imposing barriers to market entry, issuing individual licences as opposed to class licences which is currently a world trend, the licensing framework is not completely technology and service neutral, CLF is not pro-competitive, overregulation of the market by demanding several licences for operators to operate, lack of transparency and long licensing procedures, lack of standards in support of consumer protection, etc. In order for convergence to fully improve the CLF needs to be moulded to address these shortcomings.



Adoption of appropriate licensing framework enables Operators and investors to take advantage of the gains that convergence of technologies and services offer in the telecommunication sector. For such licensing framework to promote convergence it should be able to affect positively: the ease of access to the telecommunication markets (including reduction of costs and delay for entering the market); the level of transparency with regard to application procedures; and the balance between regulatory certainty and the flexibility to address future changes in technology.

In order to make market access easier and transparent, the segmentation of licensing framework into different categories should be minimal and use of class licenses should be encouraged. Similarly, the proportionality of the information requested in order to obtain market access should be observed. The use of individual licences should be limited to situations where the operator in question needs individual rights for the use of scarce resources (frequencies and numbers). Other networks and services not involving the use of scarce resources may be provided on the basis of general authorisation.

The information requested from the applicants of licence before market entry should not aim at requiring applicants to comply with a full set of obligations in an extensive way but at verifying whether there is a reason to refuse licence or not.

In order to maintain the balance between regulatory certainty and the flexibility necessary to address future changes in technology and market

structure, licence conditions should be flexible enough to allow integration into the general regulatory framework for the sector as it develops. However, such flexibility should be achieved by involving all parties to the licence.

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