Tanzania Communication Regulatory Authority (TCRA)

Title: Testing Laboratory experience in the SADC Region, Country's experience, Case Studies of Tanzania

Venue: Zambezi Suns, Livingstone, Zambia

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Agenda

➢ Country Profile – Tanzania

➢ Some Key Standardisation Terminologies

➢ Regulatory Framework

➢ The Situation in Tanzania

➢ Challenges

➢ Invitation for Partnerships

➢ Concluding remarks

1.0 Country Profile - Tanzania

- Location - East Africa
- Population - Over 45 Million; > 80% living in Rural Areas
- Size - *1,009,365 km^2*
- Mobile Phone Subscribers – Over 27 Million
- Bordering - 8 Countries
- Per Capital Income - 652.0 USD
- Official Language - Swahili and English

2.0 Key Standardization Terminologies

➢ Technical Standards

➢ Safety Standards

➢ Inter-working and Performance

2.1 What is a Technical Standard

Apart from known definitions…………

➢ A Technical Standard is an established norm or requirement. It is usually a formal document that establishes uniform engineering or technical criteria, methods, processes and practices (Wikipedia);

Also……

➢ A technical standard can be a controlled artifact or similar formal means used for calibration.

2.2 What are the Safety Standards

Safety Standards are set of standards to ensure safety of people, animals and environment when equipment or network is in operation or when idle. These standards deal for example with:

- *Insulation requirements for equipment*
- *Maximum exposure levels (occupational and general public)*
- *Shielding requirements (domestic /workplace)*
- *Maximum emission limits (e.g. SAR)*

2.3 The Interoperability & Performance Standards

These are standards that deal with specifications for connectivity between devices and their performance:-

➢ *They can define physical layer characteristics of connectors, electrical levels even size of connectors;*

➢ *They also state the performance requirements of various pieces of equipment.*

2.4 Categories of Communications Equipment

(i) **Terminal equipment:**

➢ Any communication equipment at user side of the communication network infrastructure is categorized as terminal equipment; …………..

…..for fixed network the boundary is the line jack and for wireless interface the boundary varies depending on the type of technology.

2.5 Categories of Communications Equipment (2)

(ii) Network Equipment:

- The network equipment includes switches, Access Points, Base Stations, transmission equipment, etc.

- This does not include passive equipment (ducts, batteries, towers, etc.).

3.0 Regulatory Framework

Electronic and Postal Communications Act No. 3 of 2010 that provides for the legal framework on development of equipment technical specifications in Tanzania was enacted that:

➢ *Empowers the Authority to establish Technical Standards for any Equipment to be Connected to any Public Network*

➢ *Makes it Mandatory to Type Approve any Communications Equipment to be connected to any Public Network;*

➢ *Empowers the Authority to undergo Equipment Certification Process, including Testing of such Equipment*

➢ *Participation in standardization activities*

Regulatory Framework... (2)

- ➢ Covers ICT/telecom products and services (i.e. network and terminal equipment)

- ➢ Type approval follow the following procedures
  - ✓ *Manufacturer's declaration of conformity (**MDC**)*
  - ✓ *Equipment submission*

- ➢ Counterfeit products are identified by
  - ✓ *Market Surveillance*
  - ✓ *Inspection of importations at the point of entry*
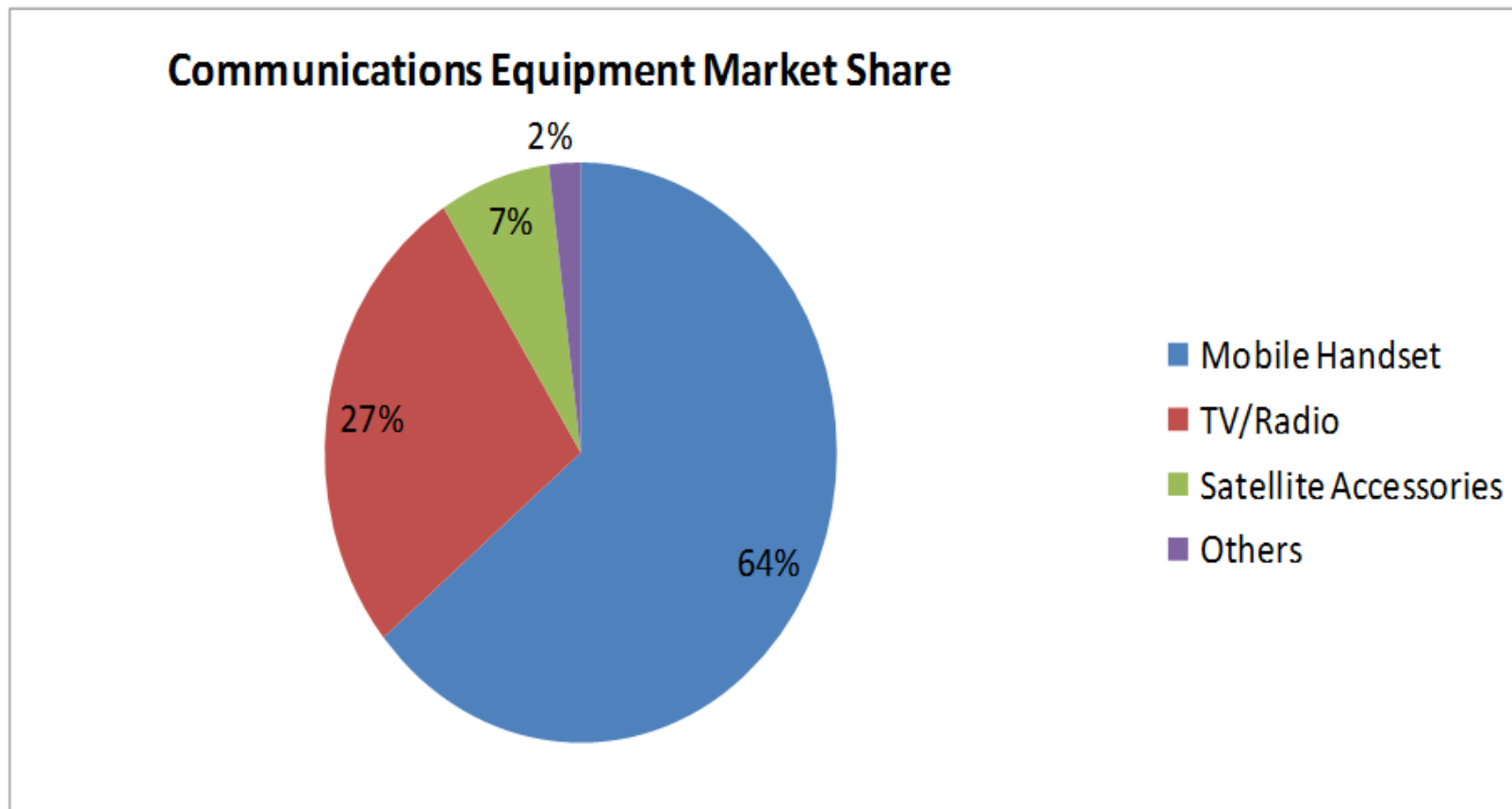 - ✓ *Complaint from customers*

Regulatory Framework... (3)

➢ Penalty for counterfeit and un-type approved equipment:

- ❖ *Fine not exceeding 5 million Tanzanian shillings (about USD 3,000) or one year imprisonment or both*

- ❖ *Equipment confiscated and removed from the market*

➢ Partners in fighting counterfeit:

- ❖ *Tanzania Bureau of Standards (**TBS**) – National Standard development organisation*

- ❖ *Tanzania Revenue Authority (**TRA**)*

4.0 Situation in Tanzania

➢ In the year 2007/8 the Authority conducted a Survey on available Communications Equipment countrywide;

➢ The Report (not published) showed that:-

➢ Most of the Equipment in the market were counterfeited Equipment with fabricated labels attached to them (Brand Names, S/N, etc.);

➢ The Labels could not guarantee quality and authenticity of the equipment;

Situation in Tanzania…(2)

Communications Equipment Market Share

- 64% Mobile Handset
- 27% TV/Radio
- 7% Satellite Accessories
- 2% Others

After the Survey, as Enforcement strategies…

➢ *The country through **TCRA** and in consultation with **ITU**, embarked on a plan to establish a Type Approval Laboratory (**TAL**) Project by initiating consultancy procurement processes to conduct the feasibility study for the project;*

➢ *The Consultants in **February 2011** concluded the consultancy services for Feasibility Study on the Establishment of Electronic communications Equipment Type Approval Testing Laboratory in Tanzania.*

Situation in Tanzania...(4)

➤ The Study declared the **TAL** project naturally viable;

➤ The estimated Cost to fully roll-out and operationalize the facility is about **Euro 27 million**;

➤ However, taking into considerations the priorities and the required time to build the Modern Type Approval Laboratory in Tanzania, the Study proposes a Four Phased approach and each phase will grow in terms of equipment and human resources requirements

Situation in Tanzania...(5)

Implementation Approach	Laboratory Functions & Equipment Covered
PHASE 1:	**Conformance** [DVB-T/T2 & Mobile Terminals; Efficient use of RF spectrum]
PHASE 2:	**EMC** (Emission); Health & safety; **Conformance** (DVB-C, S/S2; Analogue, FM, T-DAB Transmitter; Quality Measurements; IP-based Networks; NGN
PHASE 3:	**EMC** (Immunity), **Conformance** (Base Stations, Network Equipment, Legacy Network equipment)
PHASE 4:	**Expansion of the TAL Services to the entire African region or part of**

Situation in Tanzania…(6)

The Tanzania **TAL** will provide:

➤ *Hands-on Training opportunities in the region;*

➤ *Capability to verify Equipment Specifications;*

➤ *Collaborative avenue with other Equipment Certifying or Accreditation Bodies in the world;*

➤ *Means to do spot check for imported communications equipment not only in the country but also in the East African Region and beyond.*

➤ *Help to reduce counterfeit Communications Equipment in the country and therefore maintain better* **QoS** *and* **QoE**

Situation in Tanzania...(7)

As an update on the current Status.........

- ✓ *TCRA is constrained with space in its current building in order to house Type Approval Laboratory (TAL);*

- ✓ *In March 2013, TCRA acquired a plot with a purpose of developing investment property which will also house TAL.*

Situation in Tanzania…(8)

- ✓ In **February, 2014:** TCRA floated a Tender calling for Expression of Interest for the Provision of Consultancy Services for concept and Architectural design for implementation of Type approval Laboratory;

- ✓ In **March, 2014: TCRA i**nvited submission of Technical Proposals for the Provision of Consultancy Services for concept and Architectural design for implementation of Type approval Laboratory; and

- ✓ In **June 2014**, the Consultant was acquired and now work is in progress.

4.0 Challenges

➢ Generally, User Awareness and Low purchasing power in our countries, lead to opting for low quality (mostly counterfeits) communications equipment;

➢ Establishing **TAL** is an expensive undertaking but a necessity;

➢ Enforcement

5.0 Invitation for Partnerships

➢ Implementation of the Communications Equipment Type Approval Laboratory is one of the strategic decision in Tanzania, but the ITU and other UN families like **UNIDO** are invited to extend their helping hands in order to share the implementation costs;

➢ Considering the common markets in various country groupings (blocks) like East Africa, West, South, etc., the Test Centre(s) should be a regional agenda that needs high level of collaboration including using services and facilities as they become available within the region.

6.0 Concluding Remarks!

➢ *It has been said, Conformance testing measures how accurately a product implements a technical specification. So, equipment standards play an important role towards achieving overall quality of services as perceived subjectively by end users;*

➢ *Standards are important to ensure not only consistent performance of communications networks, but safe operations of communications equipment and value for money to end users;*

➢ *Tanzania through TCRA would wish to keep all available equipment in multi-vendor environment interoperable;*

Thank you