



# THE ROLE OF ICT REGULATION IN PROMOTING SMES IN DEVELOPING COUNTRIES

Egidius MBARARA,  
Rwanda Utilities Regulatory Agency (RURA)

# Introduction

- e-commerce has increasingly become a necessary component of business strategy and a strong catalyst for economic development
- The use of ICT in business has enhanced productivity, encouraged greater customer participation and reducing costs  
E-commerce promises better business for SMEs and sustainable economic development for developing countries

# Introduction

The ways and means to support SMEs in developing countries is to encourage transparent regulation;

- Independent Regulator
- Government credibility
- Increase government revenues
- Attract investment
- Increase market confidence

# Useful of Regulated ICT to SMEs in developing country

- It facilitates the access of artisans and Small Medium Enterprises to world markets
- It facilitates the marketing of agricultural products in the global market
- It assists service-providing more efficiently and directly provide specific services to customers globally

# SMEs' Challenges

- Lack of awareness and understanding of the value of e-commerce, Most SMEs in developing countries have not taken up e-commerce or use the Internet because they fail to see the value of e-commerce to their businesses.
- Lack of ICT knowledge and skills; technology literacy is still very limited in most developing countries

# SMEs' Challenges

- **Financial costs.** Cost is a crucial issue
- **The initial investment** for the adoption of a new technology is proportionately heavier for SMEs than for large firms
- **Security,** Ensuring security of payments and privacy of online transactions is the key to the widespread acceptance and adoption of e-commerce

# The areas that can benefit the SMEs

- **Reduce Administration Costs** - Automated system saves the costs involved in manually processing a customer order
- **Personnel Reduction** - A properly enabled e-commerce system will reduce labour time and cost in the followings: Document preparation, Reconciliation ,Telephone calling, Overtime, Supervision expenses

# The areas that can benefit the SMEs

- **Cycle Time Reduction** - Cycle Time is the amount of time between a customer placing an order and receiving the goods. Reducing cycle times can:
  - Increase competitive advantage
  - Decrease carrying costs
  - Decrease shrinkage costs
  - Improve cash flow.



# The key areas that can benefit the SMEs

- **Inventory Reduction** – e-Commerce systems can reduce inventory costs because of:
  - More accurate demand forecasts
  - Reduced cycle time
  - More dependable supplier schedules.

# The areas that can benefit the SMEs

- **Cash Flow Improvements** - Reduced operating expenses and improved accuracy when purchasing provide direct cash flow benefits. With e-Commerce systems you can be able to:
  - Negotiate better payment terms
  - Take advantage of discounts

# The Role of ICT Regulator:

- **Rule-making and Enforcement:** Inspection powers and authority to impose appropriate sanctions and penalties for violations of the utility laws and regulations. E.g. fines, or suspension or revocation of licenses.
- **Management of Scarce Resources:** formulates, enforces and reviews regulations for the effective and efficient management of ICT, radio spectrum frequencies.

# The Role of ICT Regulator:

- **Monitoring Performance of Service Providers:** Key indicators are service expansion, quality of service and penetration rate for service access
- **Monitoring and Responding to Changing Markets Signals**
- **Competition:** Periodically review all laws, regulations, guidelines and rules to ensure the opportunity for fair competition.

# The Role of ICT Regulator

- **Standards and Type Approval:** Ensure that it takes into account the needs of people with disabilities, particularly with regard to type-approval for customer premise equipment (CPE) and user equipment and the rules for connection of CPE to the networks
- **Tariffs Review:** Such decisions must not be made impulsively, and should be made only after careful review and thorough input from all stakeholders.
- **Interconnection and Numbering:** Provides interconnection guidelines that facilitate balanced interconnection negotiations, and ensure decisions when comparing facility expansion versus facility-sharing options
- **Consumer and User Protection:** Increase its capacity in mobilizing all sector players, including consumers, to effectively participate in matters related to sector development

# The Role of ICT Regulator

- **Disputes resolution:** Depending on the circumstances, Regulator may act as mediator or arbitrator in disputes that arise between service providers, consumers and other stakeholders.
- **Research and Development:** Encourages Services Providers to promote and conduct development research in all facets of technology and operations
- **Licensing of New Entrants in order to encourage the;**
  - Expansion of services
  - Serve unserved markets
  - Increase competition
  - Reduction in prices for services
  - Introduction of Advanced Services
  - Government licensing revenue

# Regulatory Objectives

- Universal access to basic services
- Creation of open competitive market
- Prevention of abuse of Market Power
- Favourable climate for investment
- Transparent regulatory and licensing process
- Protection of consumer rights

# Conclusion and Recommendations

- Small and Medium Enterprises face special challenges in developing E-Commerce due to issues of security and trust, including situations where the market may prefer to transact with larger companies rather than Small and Medium Enterprises



# Conclusion and Recommendations

- Network infrastructure is poorly developed in some regions posing barriers to entry in E-Commerce, especially among Small and Medium Enterprises.
- This problem can be partly mitigated through education. Government should offer curricula for teaching a new generation about information technology and, in general, work to promote computer literacy, particularly among Small and Medium Enterprises

# Conclusion and Recommendations

- Technical standards should also be promoted to facilitate information flows among multiple parties thereby addressing the issue of inter-operability. Regulations, however, should be consistent and transparent with flexibility built into every mode of government intervention
- Financial institutions should be brought into the decision process to help resolve payment and credit documentation issues. By the same token, governments not involved in the development of such a framework for E-Commerce can impede economic growth in their respective economies.

# Conclusion and Recommendations

- More government business should be conducted electronically. This can be done in the areas of customs regulation, tax payment, media transactions, quota setting, document licensing, and information systems. The private sector must cooperate with the public sector in defining and looking into the needs of consumers even as Regulators should provide the public with guidelines on the

# Conclusion and Recommendations

- usage of E-Commerce. Government, however, must understand the market before putting in place rules to regulate E-Commerce.
- A major role of government in E-Commerce would be in promoting infrastructure development including credible clearing house mechanisms needed to settle electronic payments

# Conclusion and Recommendations

- Regulators, including central banks, should encourage banks in support of businesses involved in E-Commerce
- A network of consumer protection agencies should help to promote trust and confidence in business conducted electronically, E.g. Integrity, interface of systems, Security and privacy, Recognition and verification

# Conclusion and Recommendations

- The opportunity to create creative and innovative environments for small and medium enterprises,
- The opportunity to create export markets over the Internet,
- The opportunity to improve efficiency in education and training,
- The opportunity to improve efficiency in government services,
- The opportunity to improve dynamism and flexibility in the private sector by lowering access costs to quality information and the opportunity given the consumer to have free market access and maximum choice at lower price.

E.g. Universal Access Funds

# Recommendation

- Strengthen the infrastructure for trust, security (including spam and viruses), privacy and consumer protection
- Develop and distribute digital content, including by expanding the commercial use of information about the public sector
- Encourage rollout of affordable quality broadband networks to underpin the competitiveness and growth of SMEs
- Move beyond policies for basic connectivity and ICT readiness to facilitate more widespread uptake and use of complex ICT applications and e-commerce uptake by small firms
- Reduce ICT skill impediments to the growth of SMEs

# Rwanda Success Stories

## **BROADBAND:**

Broadband transcends connectivity — Kagame







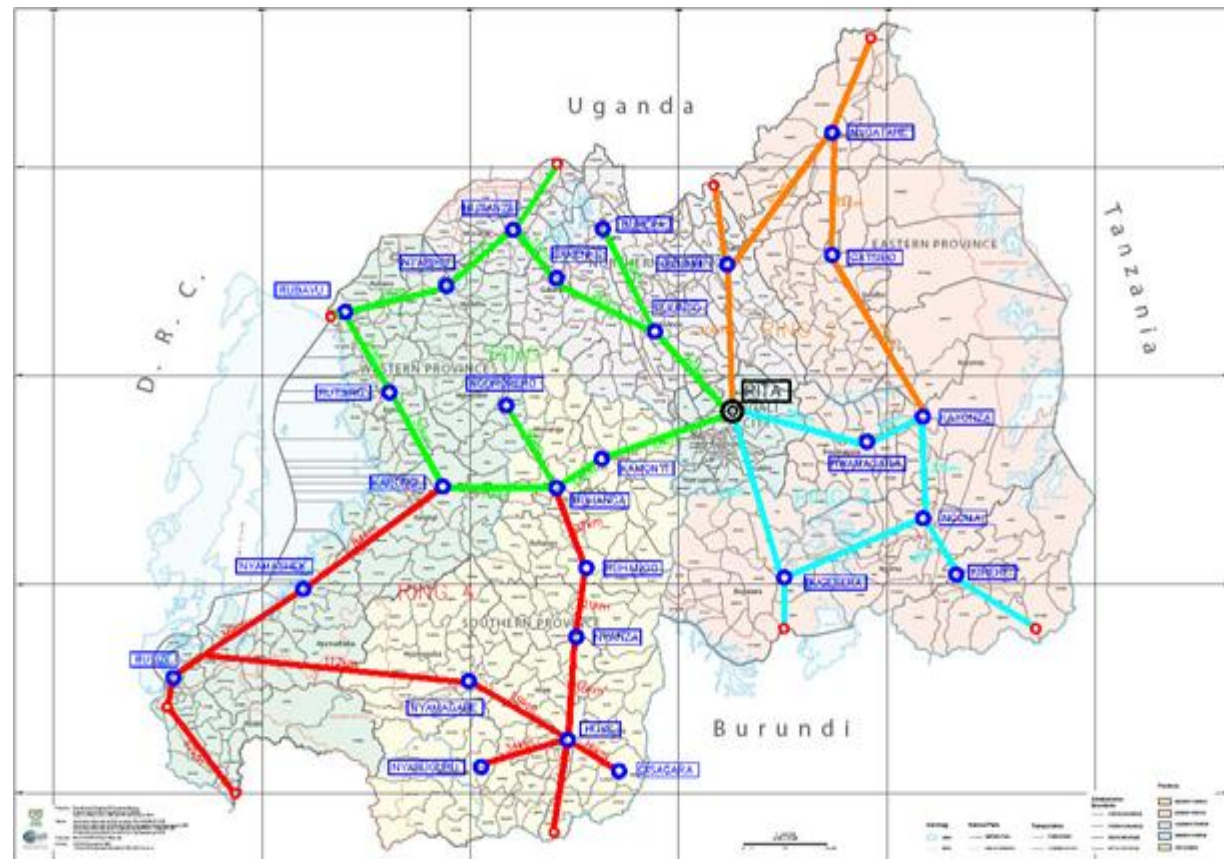
President Kagame (C) co-chairs the 7th meeting of the Broadband Commission for Digital Development

“Broadband is both an enabler and an engine of transformation. In Rwanda, we have witnessed the transformative power of broadband in crucial economic sectors and public service delivery.

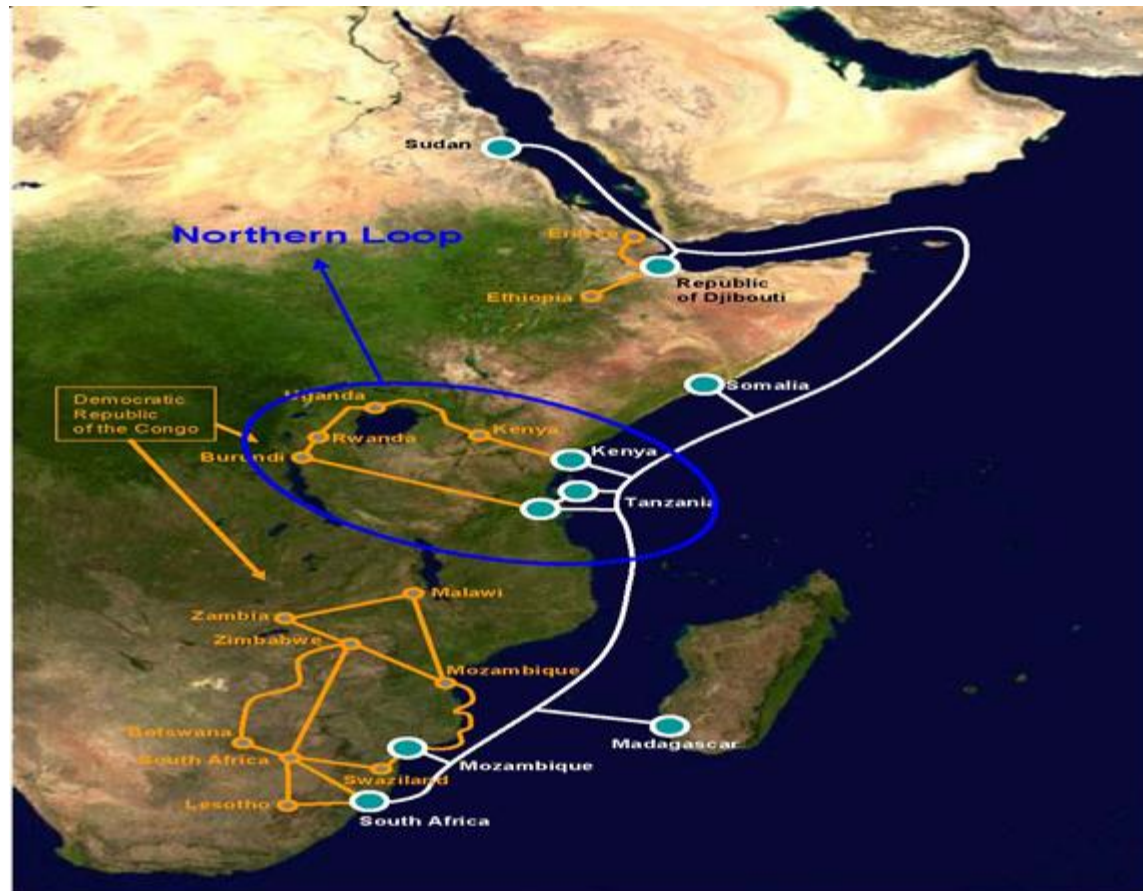
I believe the time has come for us to shift our thinking beyond connectivity and deliberate more on the transformation agenda.”

**Source:** [By Times Reporter March 18, 2013](#)

The figure below illustrates National Backbone Fibre-Optic Network in different districts and all borders of Rwanda. Source : ( Rwanda Development Board (RDB), 2010



The Figure2 shows the undersea fibre optic cable that will link the countries of East Africa to the rest of the world. Source: (Lishan Adam, n.d.)



Pupils busy on their green-and-white laptops. Source: The New Times / File.





**THANK YOU.**