

Foundations for Utility Regulation in Africa

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Telecommunications Sector

Modern:

- Networks: Wireless, mobile, satellite,
- Intelligence: Software, packet switching
- Services: All features (compressed voice, data, video, internet)
- Market: Duopoly, public-private, private companies
- Institutional regulation

Competition levels

- Terminal (Computer, mobile, telephone)
- Network layers (international, national and local loops, private networks)
- Services (email...2G,3G)
- Software
- Content
- Micro-chips
- Rise in retail service (ISP's)

How do you determine competition?

- Extent of competition depends on the structure of the market ie numbers, sizes and relationships amongst service providers.
- The bigger the market the less likely the presence of a dominant operator
- The smaller the market the more likely the converse

How do you determine the market?

1. Geographic market definition

- Would the monopoly service provider make profit after imposing a significant increase in price on its product? Would consumers move to another town to get the same product at a less price.
- International, national, local

2. Product market definition

- Would the consumers substitute the current product if there is a price increase? Which group of consumers? Which products are substitutable

Market structure contd.

3. Determine economies of production
 - Economies of scope (one company = varied products),
 - Economies of scale (inc in production = dec in average costs)
 - Natural monopoly (one firm= efficiency ie lower price or price=cost) eg local loop

Break: Assignment

Describe the following features of the telecommunications market in your country:

- Geography (supplier options)
 - Customer: groups of similar options
 - Products:
 - Features of product
 - Which are substitutable
 - What are the differences and how important are they
- (Purc, 2002)

Market structure

4. Other formula

- Eg Hirschman-Herfindahl index
 - Sum of the squared market shares
 - Gen. Measures extent of concentration

HHI > 1.800 = Tight oligopoly

HHI < 1.000 = loose oligopoly

Eg.

Case A. Ten 10% firms = $10 \times 10^2 = 1.000$

Case B. Three 20% firms & 40% = $3 \times 20^2 + 40^2 = 2.800$

Case C. One firm monopoly = $100^2 = 10.000$

(Purc, 2002)

Summary: market structure

- Need to use a variety of methods
- Also look at outcomes ie performance of companies (profits, collusions) not just structures
- Look at financial statements of existing companies
- Benchmark before finalising decisions

Competition Strategies

1. Phased liberalisation

Controlling entry for a set period to allow the incumbent to prepare for competition

Examples:

- South Africa monopoly by Telkom 1996+/-2004,
- UK duopoly (BT and Mercury) 1984-1991
- Australia 2 fixed lined duopolies, 3 mobiles 1991-1997
- Botswana monopoly for BTC

Strategies included

2. Liberal licensing

No entry limits, regulator can restrict who is awarded a licence

Examples

- Tanzania allowed 3 fixed line and 5 Mobile
- Angola allowed 2 fixed line and 3 mobile
- Unites States fixed line

Strategies (contd.)

3. Restricted licensing

Limits to number of licences issued due to a variety of reasons (frequency spectrum availability, economies of scale/scope, support privatisation opportunities)

Examples

- United States Mobile
- South Africa VSATS

Strategies contd.

4. Unrestricted entry

Complete liberalisation, no licensing restrictions whatsoever, risk intensive

Examples:

- Guatemala fixed and mobile
- Almost countries ----ISP environment
- Almost countries-----VANS

Outcomes of competition

- Investors bear commercial risk but also gain profits
- Removes information asymmetries
- Increases product substitutability
- IS DEPENDENT ON REGULATION

What and how to regulate

1. Technical regulation

Principle: Technology neutral regulation

- Type approval
- Interconnection
- Monitoring

2. Social regulation

Principle: Consumer protection

- Quality control (call failure, delivery precision)
- Provision of information
- Affordable services, equipment
- Distribution

What and how to regulate

3. Economic regulation

Principle: Maximise economic efficiency

a. Price control

- Price Cap

- Ramsay pricing

b. Management of scarce resources:

- Frequency spectrum (mobile and radio providers)

- Numbers (fixed line and mobile providers)

Economic regulation contd.

- c. Management of information asymmetry esp. for
 - interconnection
 - price control
 - consumer protection
 - monitoring license conditions

- d. Manage anti-competitive behavior
 - mergers
 - predatory pricing
 - exclusionary provision (esp around essential facilities)

Summary

- New technologies have impacted on traditional service provision , making competition inevitable.
- The market structure has changed and made new demands for and on regulation
- Regulatory institutions are assuming more complex roles not less.
- Regulators tend to pursue social, technical and economic regulation