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Question 12/1: Tariff policies, tariff models and methods of determining the cost of national telecommunication services

STUDY GROUP 1

SOURCE: TELECOMMUNICATIONS EXECUTIVE MANAGEMENT INSTITUTE OF CANADA (TEMIC)

TITLE: CHANGES IN THE INTERNATIONAL ACCOUNTING RATE SYSTEM - A MISSING FACTOR

INTRODUCTION

The crisis surrounding the changes in the international accounting rate system has generated a heated debate especially on the eventual impact of settlement rate reform on developing countries.

TEMIC believes that the dramatic changes contemplated as well as the options available to successfully respond to these new challenges are not fully understood by many policy makers and operators.

Notwithstanding the fact that the accounting system is not the fundamental problem to be addressed and should not be viewed out of context of major policy issues, the purpose of this paper is to contribute to this debate in highlighting a critical area that, if researched adequately, would enhance our understanding of the true impact of potential changes on all stakeholders.

THE STAKEHOLDERS

The debate to date has been, generally speaking, limited to an evaluation of the probable impact on the operating (sometimes net) revenues. Such an evaluation is complex, and, as we will show later, has been somewhat misrepresented or at best been incomplete insofar as it has not considered, with sufficient rigor, some of the important variables related to such changes.

Notwithstanding the above, it is also important to distinguish the impact on the operator from the impact on the other stakeholders such as the users/customers, potential new entrants or investors as well as the government. The direction and magnitude of the impact may vary significantly among different stakeholders groups.

The user/customer

Insofar as reduced settlement rates would lead to reduced collection rates, residential as well as business customers would be the true beneficiaries of the changes in the "international accounting rate system".

Customers react to changes in prices/rates. Experience has shown that reduced rates whether resulting from new entrants or from reduced collection rates have (ceteris paribus) resulted in an increase in demand and consumption of these services. This new demand could substantially offset and probably more than offset the revenues lost as a result of lower accounting rates.

The degree of response to a price change (i.e. the price elasticity of demand) will vary from one customer segment to another and can sometimes be very high, especially when moving down from what is perceived as the high end of the price scale.

The operator

In assessing the impact of accounting rate reform, or any other operational change, an operating entity needs to understand how the changes will affect both costs and revenues:

- An adequate costing system as well as an appropriate evaluation methodology are required. Managers need to understand not only cost levels but also how these costs vary as a function of changes in different variables such as price/rate changes.
- To manage successfully in an entrepreneurial and competitive environment, revenue management skills are essential. Understanding how customers (and competitors if in a competitive environment) react to price/rate changes becomes a necessity and can even become a competitive advantage.

  The formulation of a pricing strategy should start with a price sensitivity analysis and the identification of market segments likely to have different sensitivities. Only then can an optimal pricing strategy be developed and associated costs determined. **Pricing affects volume and volume affects costs.**

  A decline in settlement rates when associated with collection rate reductions will not result in a proportional reduction in operating income and could even result in an overall increase in revenues.

  A key question must be answered:

  "How does total revenue change when the price/rate of international communications change?" The response depends on the price elasticity of demand, because price and quantity demanded move in opposite directions.

  The key link in the total revenue equation

  (Total Rev = price x quantity demanded) is the elasticity.

Policy makers/regulators

Just as the lowering of the water level of a river often reveals previously hidden litter or waste, the perspective of reduced accounting rates can reveal and accentuate significant systemic problems. The fundamental sector-based problems are the ones that should be addressed as opposed to a focus exclusively on symptoms.

Policy makers should avoid limiting their analysis to the impact on one stakeholder (e.g. the operator) but should rather balance the interests of all stakeholders and should investigate all options available to successfully respond to the new challenges (e.g. rate rebalancing).

Their main objective or test should remain that of **"increasing affordable access to Telecommunications services that will maximize social, cultural and economic development".**

MISSING LINK

It follows that the missing link, in the evaluation of the potential impact of accounting rate reform, is the lack of a rigorous evaluation of the price elasticity of demand and the associated revenue and the cost impacts.

The following related observations may be helpful in the above assessment:

- Some telecommunications products/services, such as long distance and international communications, are much more price sensitive than others, such as basic service and terminal equipment.
- There is a positive correlation between price elasticity and the distance of the calling relation (e.g. international services are more price sensitive than national long distance services).
- Price elasticities tend to be much higher at the high end of the demand curve (i.e. when prices are high). For example, the price elasticity of a 3-minute international call priced at $10 would be considerably higher than the price elasticity of the same call priced at $2. Studies have shown that the price elasticity of demand for long distance services in North America is between –0.8 to -1.5. (Some studies have shown long-run price elasticities as high as -2.71). Since these North American long distance services are relatively inexpensive (i.e. at the low end of the demand curve), it is probable that the price elasticity of international services in countries where the prices/rates are relatively high, will be significantly higher.
- The price elasticity will also increase as the number of alternatives increase.
- The degree of response to a price change, (i.e. the price elasticity) will be greater the longer the time span considered.
- An increase or decrease in prices/rates does not result in a corresponding increase or decrease in total revenues. Prices and demand generally move in opposite directions.
- The more basic an item is perceived to be in the consumption pattern of customers, the lower is its income elasticity. On the other hand, "luxury services" will have high income elasticities once income rises above a certain threshold or for the customer segments above this minimum threshold level.
- Income elasticities vary across countries, regions of a country, and customer segments. However, empirical studies have shown that countries at comparable stages of economic development have similar income elasticities.
- It can be argued that the practice of cross-subsidizing local service by long distance services is counter productive relative to the goal of universal service because the demand for local service is relatively inelastic (i.e. customers would subscribe irrespective of the subsidy).

- Price elasticity of international services is higher for households than for business customers. Other customer segments having higher than average price elasticities include lower income customer segments as well as those from rural areas.

CONCLUSION

Traditional arrangements not only restrain the growth of outgoing traffic but also mask and conceal more profound systemic deficiencies that should urgently be addressed in order to maximize Telecommunications development.

Without minimizing the problems facing developing nations in dealing with changes in the international accounting rate system, Governments and operators should be aware of the full range of options available to successfully respond to these new challenges.

Revenue to pricing relationships in general, and price elasticity in particular, constitute a link that should be considered carefully, in order to get a realistic picture of the impact of settlement rate modifications as well as successfully respond to these changes.