

There is always a right price

— here is how you can find it

Skip the guesswork. Optimal pricing to maximize profit can be determined empirically. This kind of analysis is a powerful management tool for all operators.

THIS ARTICLE addresses two key questions for all mobile telecom operators:

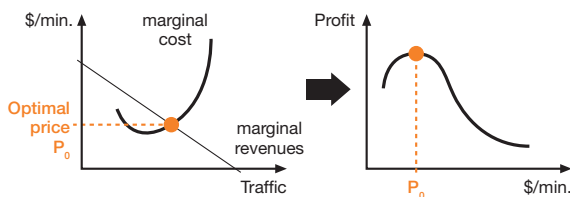
- Can price elasticity for mobile voice communication be estimated?
- Using this analysis, can the optimum price per minute — where profits are maximized — be estimated?

The telecom industry in all markets is a competitive industry with a limited number of service providers whose services are highly substitutable. Most countries generally have three, perhaps four mobile service providers, who are intent on creating switching barriers; for example, postpaid contract length, branding, and loyalty programs. These tactics have had limited success in Latin America, evidenced by the current churn rates in the region, which remain high (typically, 3 to 5 percent a month). In this context, understanding the fundamental drivers of profit maximization for operators is a key element in securing more-stable cash flows and higher profits.

We analyzed publicly available financial information from various operators around the world in an effort to demonstrate empirically that optimal pricing toward profit maximization can be determined.

Theoretical reminder

Given a wireless network without capacity restrictions, the optimal price level for a minute of use, MoU, is found where the marginal cost is equal to the marginal revenues — the price point where an additional minute does not generate any additional marginal profit. At such a price level, profits are maximized. The figures below illustrate this point:

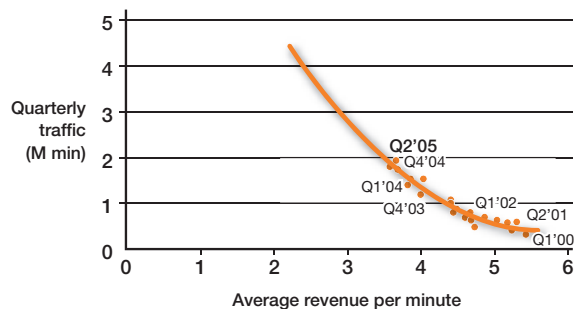


We performed an in-depth analysis of publicly available data for several publicly quoted wireless telecom companies over the last four years or more. Because we did not have access to internal accounting or financial information from the operators, we relied on SEC-compliant quarterly and annual reports for these companies.

Demand elasticity

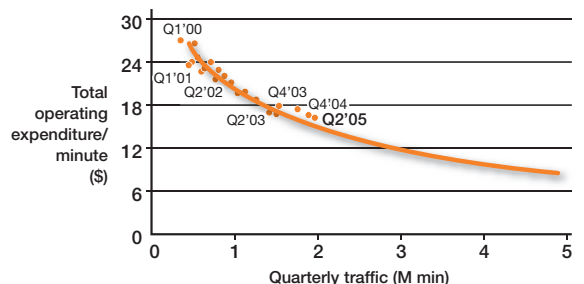
The following results are based on the analysis performed for a large wireless telecom operator in Latin America. The data reported here has been changed in order to hide the identity of the company, but the results shown are based on the actual analysis of this operator. The model was applied to several companies and produced similar results to the ones shown. However, for clarity of this article we illustrate our point with a single example based on the Latin American operator.

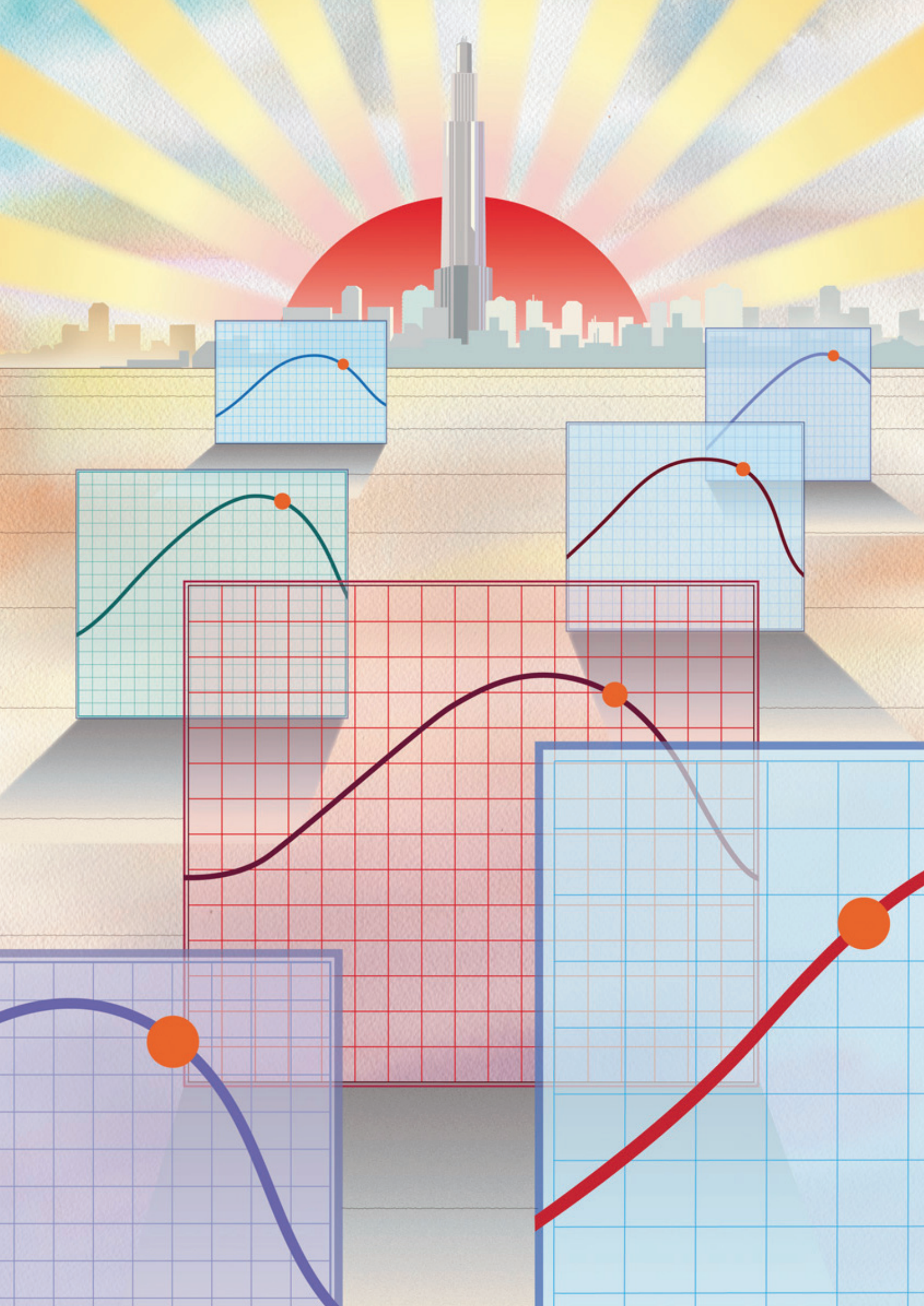
The average price per minute charged by this operator was reduced by approximately 40 percent over a five-year period. This is a blended price per minute, for both pre- and postpaid traffic, and includes local, long-distance national, and international calls.



The graph shows that price elasticity rose considerably between 2000 and 2005, and is accelerating: lower prices entail increasingly higher volumes of traffic. This is logical, because a lower price per minute allows new customers to adopt the service. It illustrates the recent increase in service adoption among lower socio-economic strata (especially among classes C- and D) throughout Latin America.

The operations of the company analyzed demonstrate decreasing marginal costs, as per the graph below.



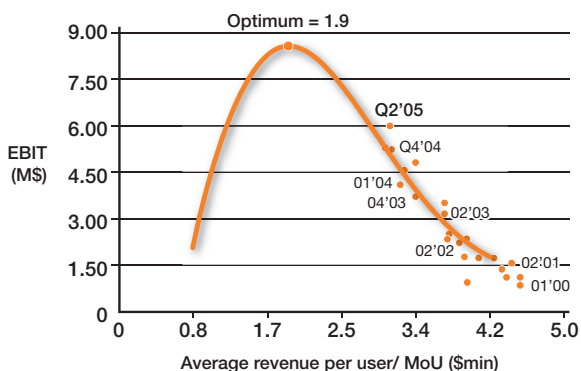


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This analysis demonstrates the impact of economies of scale that exist in the telecom industry. Moreover, it shows that, all other things being equal, operators have an inherent interest in increasing traffic in their networks, as the cost per minute decreases substantially over time. In analyzing this particular company, we can speculate that it would have to more than triple its current quarterly traffic levels to get closer to the point of diminishing returns. No reason to worry for the management team of this company!

Maximizing profit

We tracked actual results for Earnings Before Interest and Taxes, EBIT, which is used as a proxy for profits. We subtracted depreciation and amortization costs for this analysis to reflect the necessary capacity growth investment that this operator has made, in order to better reflect the impact of its decreasing price-per-minute strategy.



This particular curve is only valid for the operator analyzed, as each company will display its unique set of operational costs, structures, and levels. In other words, the determination of “optimal price” is company-specific, not given for a country where several operators compete.

A number of observations can be derived from this graph:

- Actual financial results for the operator show a surprisingly high correlation with the theoretical profit curve.
- This operator has been able to translate the economies of scale gained as traffic increased in its network into bottom-line results — a tremendous achievement and reflection of sound management.
- Using statistical analysis, we determine that the optimal price point for blended minutes of use stands at about \$1.9/minute.

Relevance for operators

We believe that this analysis is a powerful management tool for all operators, given that voice traffic represents the lion's share of their revenues. Conducting such an analysis provides valuable input for setting optimal pricing.

We know that changes in pricing strategy are one of the most visible commercial actions, immediately transparent in the marketplace. They should therefore be carefully consid-

ered, after exhaustive internal and external analysis, in order to avoid creating a negative financial impact over the long term. When prices have been lowered, there is no coming back! ■

Here are key points to keep in mind when implementing such a price strategy:

- Alter price per minute in small increments, because price elasticity constantly changes as price evolves. Gauge the impact of per-minute changes on price elasticity after each change.
- Consider bundling and on-network, off-network, peak/nonpeak tariff schedules, which will make changes to pricing strategy less transparent to competitors.
- While our analysis was performed using a blended price-per-minute methodology, it should ideally reflect “unique service” prices, such as price per prepaid minute for local calls.
- The decision to lower prices could have a positive impact on traffic, which might create a need for additional network capital expenditure, depending on network loads.

the authors



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