The Pricing Decision

We knew that we couldn't afford to get pricing wrong when we designed our offer. It can make or break your success. Consequently, we did a tremendous amount of market research among our target segment, and one thing became clear: Our audience did not trust the industry pricing plans. They all advertise "free this" and "free that," but young people know that there are a lot of hidden charges, and they resent this. These are savvy consumers, and they hate feeling like they're being conned. So we've got an opportunity to use pricing as a way to differentiate ourselves from the competition.

— Dan Schulman

Over 90% of all subscribers in the U.S. had contractual agreements with their cellular providers. The contracts were generally for a period of one to two years, and they required a rigorous credit check. Many plans had established "buckets" of minutes. Customers could sign up for a bucket of 300 minutes, for example. However, if they actually used more than 300 minutes, they were penalized with extremely high rates (e.g., 40 cents/minute) for the overage. If they used fewer than 300 minutes, they were still charged the fixed monthly fee, which then drove up their price per minute.

The carriers typically charged less for off-peak than on-peak minutes, but the off-peak period had shrunk over time. Originally, off-peak had begun at 6:00 p.m.; the starting time had since shifted to 7:00 p.m., then 8:00 p.m., and finally 9:00 p.m. Some carriers such as Cingular charged a monthly fee (about $7) to move the peak time back one hour. Schulman noted:

> The industry is making money from customer confusion. As a customer, you need to use minutes within the tight range that you signed up for in order to get a good rate. Your on-peak and off-peak minutes have to be in the right mix too. If all customers actually signed up for the optimal plan for their usage, the carriers would be making far less money than they are today.

In fact, the industry's pricing plans were quite rational if customers would always select the right plan for their usage patterns. (Please refer to **Exhibit 9a**.) However, customers usually could not predict their usage. Virgin Mobile studied hundreds of customers and found that the prices they actually paid varied widely. (Please refer to **Exhibit 9b**.) Schulman continued:

> Often customers *think* that they use more minutes than they *actually* use. For example, in our target segment, the majority of young people actually use from 100 to 300 minutes per month. However, if you ask them to predict their usage, they'll often come up with a much higher number. Other people will try to pick lower bucket plans to avoid high monthly fees. Then they'll get a $100 bill because they didn't realize that it would cost them 40 cents for every minute above the bucket.

Adding to consumer resentment was the fact that most carriers slapped on additional fees to add to the monthly bill. Schulman explained: "The carriers will only tell you about the monthly bucket fee; they won't mention the taxes you'll have to pay or the universal services charge that you'll have to pay. There are a bunch of one-time costs that are loaded on top of the bill that they don't advertise. So even if you end up being exactly right in your bucket, a $29 plan ends up being a $35 plan."

Schulman and his team carefully considered various pricing strategies. Although the pricing possibilities were endless, the team believed that there were realistically three viable options. Schulman said: "We're trying to be as open-minded as possible. We have the luxury of starting from scratch, so this is an opportunity to fix some of the problems that are endemic in this industry. Our only constraints are that (1) we want to make sure our prices are competitive, (2) we want to make sure we can make money, and (3) we don't want to trigger off competitive reactions."

Option 1—"Clone the Industry Prices"

The first option was to merely "clone" the existing industry price structure. (See **Exhibit 10a** for Option 1 pricing.) All of the major carriers paid high commissions to salespeople to explain their complicated pricing structures and to perform credit checks. (In fact, 30% of prospective customers failed to pass these credit checks.) Given Virgin Mobile's nontraditional channel strategy, its pricing message would have to be relatively simple. Schulman said, "With this first option, we would simply be telling consumers that we're priced competitively with everyone else, but with a few key advantages like differentiated applications [MTV] and superior customer service."

In addition, Virgin Mobile could attempt to differentiate from the competition by offering better off-peak hours and fewer hidden fees. "We know that consumers are sick of hidden fees and they hate off-peak deals that start at 9 p.m., so we'd be addressing a real sore spot among young people," said Schulman.

He added, "The nice thing about this idea is that it's easy to promote. People may not like the pricing plans, but given all the money the industry spends to promote them, the customers are used to 'buckets' and peak/off-peak distinctions. Given our limited advertising budget, it may be a stretch for us to break through with anything different. We could also put it on our packaging so that even without the help of a salesperson, consumers would get the message."

Option 2—"Price Below the Competition"

The second option was to adopt a similar pricing *structure* as that of the rest of the industry, with *actual* prices slightly below those of the competition. That is, Virgin Mobile would maintain the

buckets and volume discounts, but its price per minute would be set below the industry average for certain key buckets (see **Exhibit 10b**).

"This option would allow us to tell consumers that we're cheaper, plain and simple. Because our target market generally uses between 100 and 300 minutes per month, that's where consumers would get the best price," said Schulman. "Under this option, we could also offer better off-peak hours and fewer hidden fees, but I don't know if that would be necessary if our price per minute was clearly below the competition. We wouldn't want to leave too much money on the table."

Option 3—"A Whole New Plan"

The third option was the most radical. The idea was to start from scratch and come up with an entirely different pricing structure, one that was significantly different from anything offered by the competition. The pricing variables that Schulman was toying with included:

- **The role of contracts.** Did it make sense to shorten the term of the subscription contracts, or perhaps even eliminate the contracts altogether? Contracts provided carriers with a hedge against churn and a guaranteed annuity stream; yet even with the contracts, cellular providers struggled with an industry churn rate that averaged 2% per month. If Virgin Mobile were to shorten or eliminate such contracts, the risk would be that its churn rate would skyrocket. In fact it was estimated that churn would climb to 6% each month.[8]

  Schulman added:

  > From a marketing perspective, there's no question that it would be great if we could announce to the world that we've eliminated contracts. Keep in mind that, if you're under 18, you can't even enter into a contract with a cellular provider. Your parents need to do it for you. So eliminating contracts would be a big advantage for us from a customer-acquisition standpoint. Of course, in terms of retention, contracts are a safety net. So the question is, does it make sense for us to try to fly without a safety net?

- **Prepaid versus post-paid.** The vast majority (92%) of current cell phone subscribers in the U.S. had post-paid plans, which meant that they were billed monthly on the basis of their contract. Prepaid arrangements, in which consumers purchased a number of minutes in advance, were unusual because of prohibitive pricing (generally, between 35 and 50 cents per minute, and as high as 75 cents per minute). Most prepaid customers used their phones on an occasional basis as a safety device: "They just keep them in their glove compartment," as Schulman put it. Many of these customers had poor credit; in fact, the reason prepaid plans appealed to them was that such plans required no credit checks. Customers therefore thought that prepaid arrangements were a stigma, and the prepaid offers tended to attract low-usage customers. Still, in countries such as Finland and the U.K., prepaid arrangements were commonplace, accounting for the majority of new gross adds.

Schulman knew that the risks of adopting a prepaid pricing structure were significant. U.S. carriers were extremely wary of prepaying consumers because of their high churn rates; prepaying consumers tended to exhibit no loyalty to a provider once they had used up all of their prepaid minutes. If Virgin Mobile were to adopt a prepaid pricing structure, the danger was that the company would never be able to recoup its customer acquisition costs. In fact,

industry analysts estimate that total acquisition costs would have to be at or below $100 per new gross add for prepaid to be viable.[9]

In addition, there were a number of related issues to consider. A prepaid pricing structure would require some mechanism—perhaps via the Web or through physical phone cards—whereby consumers could easily add minutes to their phone.

- **Handset subsidies**. Most carriers purchased handsets from cell phone manufacturers such as Nokia, Motorola, and Samsung at a cost per handset ranging from $150 to $300 for the industry. The carriers then subsidized the cost of the handset to end users. This subsidy—which was typically about $100 to $200—was part of the customer acquisition cost.

  "We're debating all of our options here," said Schulman, "everything from increasing the subsidy so that our phones are cheaper than the competition, to lowering the subsidy as a way of getting consumers to feel more invested and loyal towards our service."

- **Hidden fees and off-peak hours.** "One of our goals is to offer a service that is priced so simply that consumers don't need a math degree to figure it out," noted Schulman. "One way to do this would be to eliminate *all* hidden fees, including taxes, universal service charges, *everything*. It would literally be 'what you see is what you get.' However, this would mean rolling all of those hidden costs into our pricing structure in such a way that our pricing feels competitive to our target market, and yet we still make money."

  As for off-peak hours, "We need to think about what makes sense for our target customer," said Schulman. "These kids don't lead the same kind of lifestyle as the typical business-person, so our service should define off-peak with that in mind."

As Schulman reviewed the various options for pricing, he realized the importance of laying the foundation for future profitability. "There's this assumption that you can't target young people and make money," he said. "Our goal is to prove otherwise. Ideally, every customer we acquire will have positive lifetime value (LTV) for us." (See **Exhibit 11** for LTV details.)

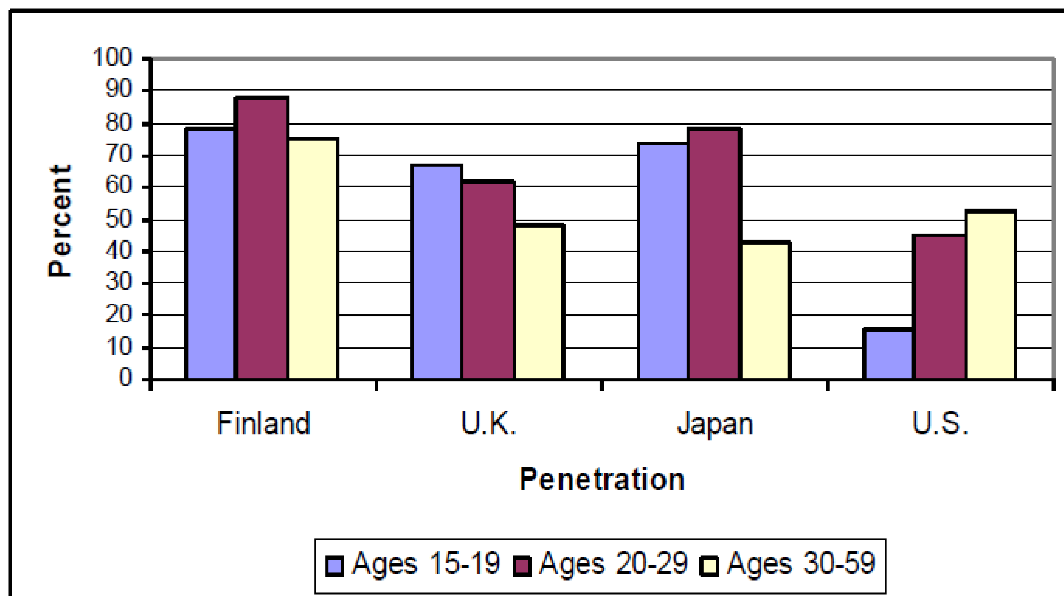
"That's why this pricing decision is so critical," he continued. "If we can figure out a way to create value so that we can successfully enter a very competitive and saturated market, and also create profitability with this target segment, then we will have truly accomplished something big."

Exhibit 1 Wireless Subscribers in the United States, by Carrier (Q4 2001, in millions)

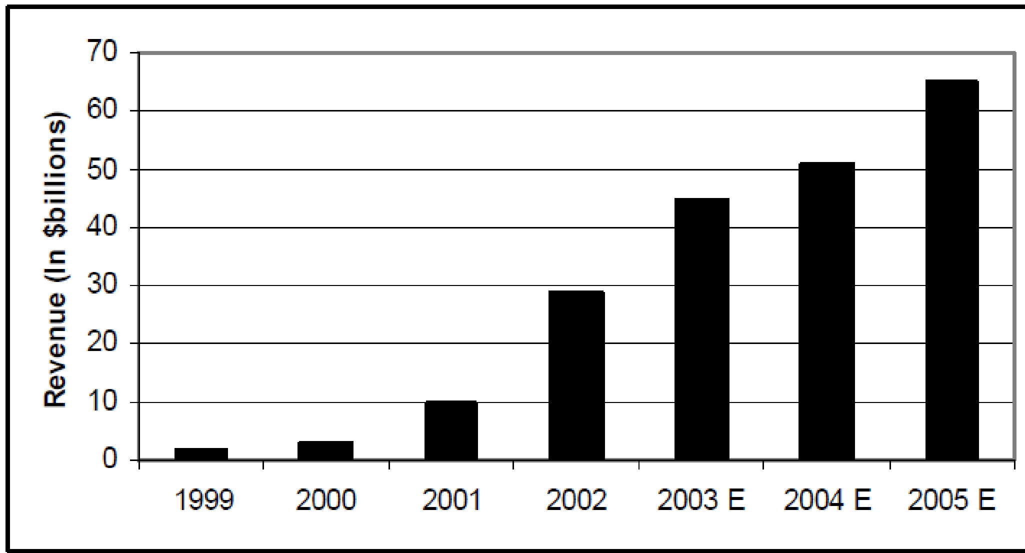
Carrier	Subscribers
AT&T (affiliates)	20.5
Cingular	21.7
Verizon	29.5
VoiceStream	6.5
Alltel	6.7
Sprint	14.5
U.S. Cellular	3.5
Leap	1.1
Other Carriers	26.1
Total	130.0

Source: Adapted from The Yankee Group.

Exhibit 2 Mobile Penetration by Age Group



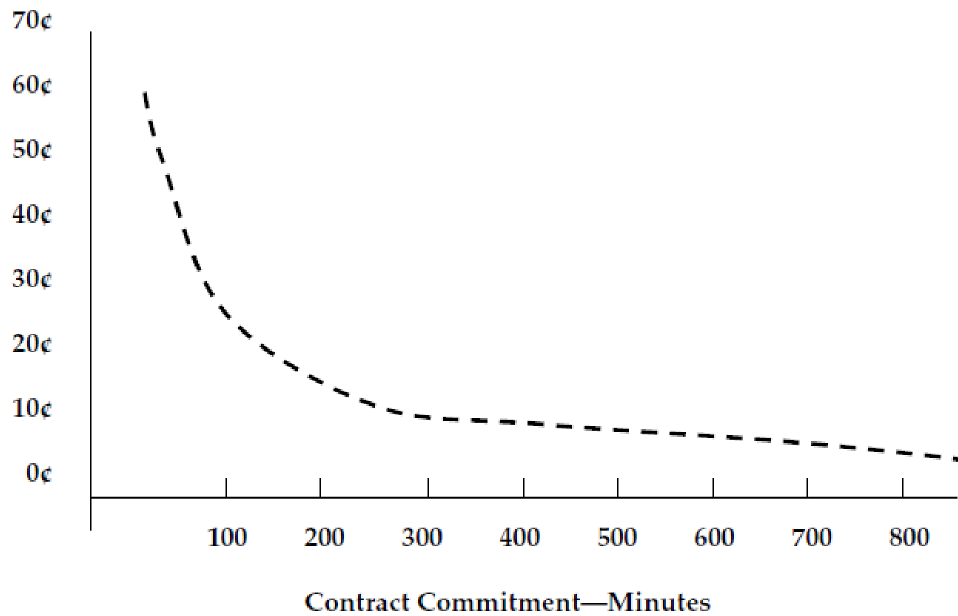
Source: Adapted from IDC, Salomon Smith Barney.



Source: Adapted from The Yankee Group.

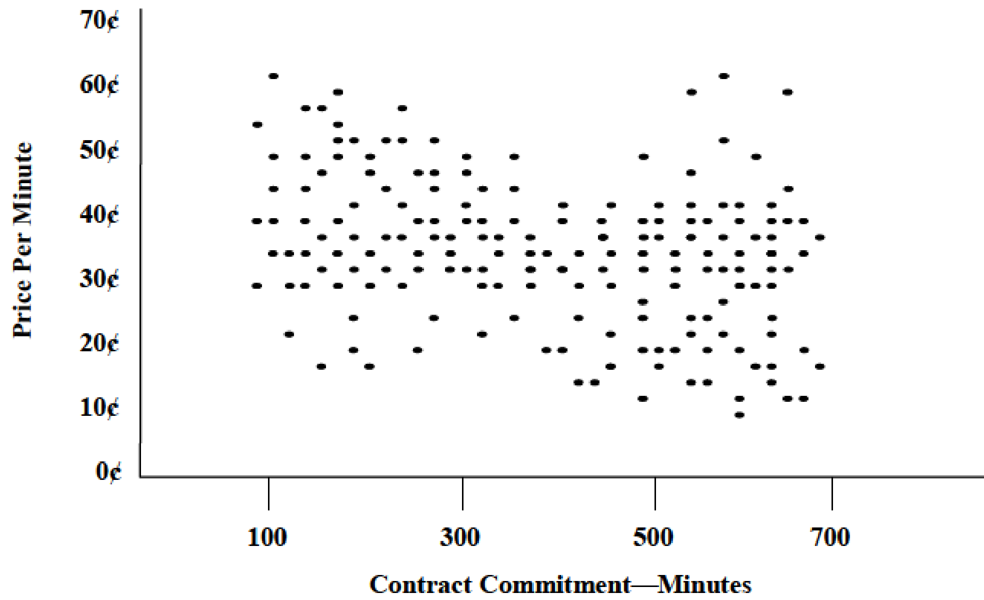
Note: Revenues include video, audio, graphics, and games.

Exhibit 9a Calling Plans—Industry Prices



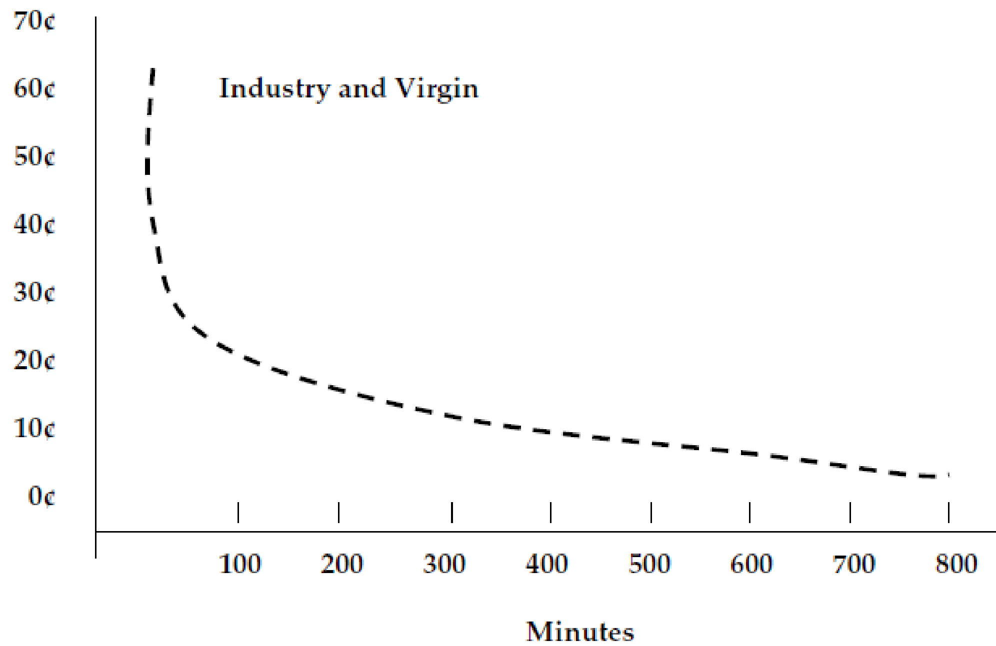
Source: Adapted from company data, Morgan Stanley research.

Exhibit 9b   Actual Prices Paid by Customers



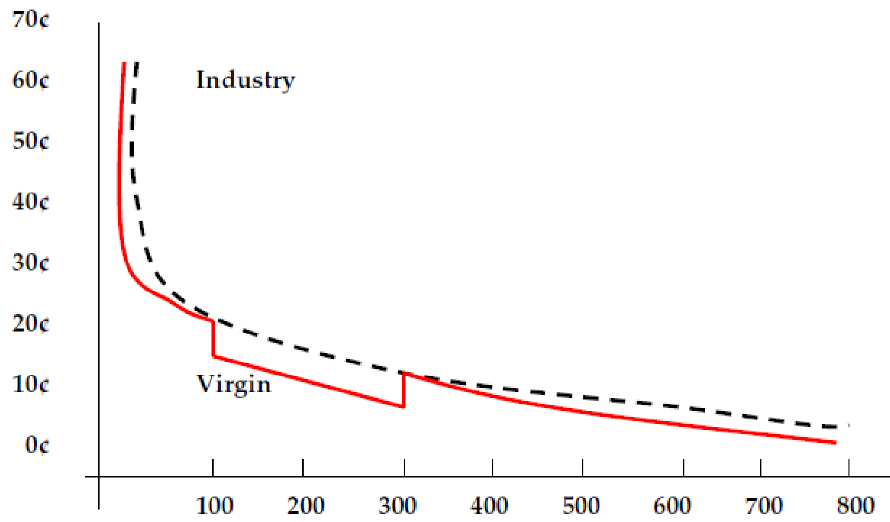
Source: Adapted from company data, Morgan Stanley research.

Exhibit 10a   Option 1 Pricing Structure



Source: Adapted from company data, Morgan Stanley research.

Exhibit 10b Option 2 Pricing Structure



Source: Adapted from company data, Morgan Stanley research.

Note: Prices are for a blend of on- and off-peak minutes, with off-peak beginning at 9:00 p.m. Each additional off-peak hour reduces average price per minute by approximately 1.5 cents.

Exhibit 11 Calculating Lifetime Value (LTV) for Cellular Subscribers

In general, lifetime value (LTV) for a customer is calculated as follows:

$$LTV = \sum_{a=1}^{N} \frac{(M_a) r^{(a-1)}}{(1+i)^a} - AC$$

where

N = the number of years over which the relationship is calculated

M_a= the margin the customer generates in year a

r = the retention rate ($r^{(a-1)}$ is the survival rate for year a)

i = the interest rate

AC = the acquisition cost

Source: Adapted from "Customer Profitability and Lifetime Value," HBS Note 503-019.

In the cellular industry, margin is relatively fixed across periods. Therefore, one can simplify the above expression by assuming an infinite economic life (i.e., letting $N \to \infty$), which leads to:

$$LTV = \frac{M}{1-r+i} - AC$$

Monthly Margin = average revenue per unit per month (ARPU) – monthly cost to serve (CCPU, or cash cost per user)

The components of AC were advertising per gross add, the sales commission paid per subscriber, and the handset subsidy provided to the subscriber.

CCPU consisted of customer-care costs, network costs (the cost of using Sprint's network), IT costs, and overhead. Industry analysts estimated that Virgin Mobile's CCPU would be constant at 45% of revenues during its first year of operations, since most of Virgin's costs were variable. Monthly churn was estimated to be 2% for customers under contract and 6% for prepaid customers.[a]

Interest rates were 5%.

[a]Numbers disguised for competitive reasons.