



How Much Should You Charge? Why 'Smart Pricing' Pays Off

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*Your company has developed a new product that you think will be a winner. A lot of money has been poured into research and development, analysis of the competition and advertising. But there is one key element you may have overlooked: What do you charge for the product? Wharton marketing professors [Jagmohan Raju](#) and [John Zhang](#) say companies frequently don't put anywhere near as much thought into pricing as they should. In their new book, *Smart Pricing* Raju and Zhang argue that firms ought to engage in innovative pricing to achieve maximum profitability, and they show how companies like Google are doing just that.*

An edited transcript of the conversation follows.

Knowledge@Wharton: In *Smart Pricing*, you analyze many examples of firms that have successfully used different pricing strategies. But I wanted to ask you first about an important thesis that you state very early on in the book, which is that managers with pricing responsibilities do not usually think systematically about those pricing strategies. You say most pricing decision-makers never look for a strategy that could yield their product's maximum value. For most readers, that is quite a surprising statement. Why is so little thought apparently given to pricing?

Jagmohan Raju: Let's be clear: There are some companies that are very good at [pricing] and there are some companies that don't give much thought to it because they just follow what they've been doing for years. Some of them might look at what others are doing and just charge the same price. In fact, the pricing function in most companies is not very well recognized. It is only now that we are starting to see companies have a formal pricing function. Therefore, the responsibility of pricing is very diffused: Often times it [lies] with accounting. Sometimes it is with finance. Sometimes marketing people are involved in it.... The decision gets made in an ad hoc manner. However, the decision is very important because at the end of the day we all spend, as companies, billions of dollars developing new products. We spend billions of dollars advertising them and promoting them. But we probably don't even spend \$1,000 thinking about how to price it. And if we don't price it well, then where will the money be for developing the next new product or the next new idea?

John Zhang: For some companies, obviously, there are people who have this pricing responsibility. For instance, you probably would bump into some of the pricing managers or the vice president of pricing, and so on and so forth. But even in the case of those companies, I totally agree with Raju that, in fact, people probably don't have the sophistication to actually set good prices. I think there are probably two additional reasons for that.... Number one, it's actually a very risky decision. If you make a pricing decision, you know that the outcome would be very immediate -- either it is very good or it is very bad. If it is very bad, obviously, you are going to take responsibility for it. And you know that in a corporation you probably don't want to make those kinds of decisions very often.... [If] you make a pricing decision, you basically have to take responsibility for it, and the outcome could be good and it could be bad. I think that's one of the reasons why people probably shun this kind of decision-making. In that case, what do you do? Of course, what you do is what everybody else is doing: cost-plus-pricing, competition-based pricing [or] consumer-based pricing -- and that's essentially the approach that a lot of firms actually use.

The second reason is also very important. A pricing decision is hard to make. You really have to know a



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lot of stuff. To make a good decision, you really have to have street smarts and really know [how] the particular pricing decision you make [will] impact the consumers. So I always sort of liken the pricing decision to brain surgery; you really have to know what you are doing to open up somebody's brain. I think that in pricing a lot of people just get scared of making that kind of decision.

Knowledge@Wharton: You mentioned a moment ago the three simplistic approaches to pricing that you discuss in the book: Cost-plus-pricing is one approach, competition-based pricing is another, and consumer-based pricing is a third. Can you just quickly take us through those approaches and what they mean and what the shortcomings are to each?

Raju: I think they do mean different things to different people, but at least let's sort of try to clarify what we mean by that. So let's take cost-plus-pricing. I think many companies do have a reasonable sense of what it costs them to deliver a product or a service. And what they would do in some sense in a risk-averse manner is say, "How much margin do I need to make on my costs so that at least I am not wrong?" That doesn't mean that they are right, but they are not wrong. So it is a safe way of doing things. If I charge prices significantly or reasonably above cost I will be okay.

The problem with that is, say you don't get the right sales as a consequence of that, because [the price] is either too low or too high. Let's for the moment assume it is too low. What is your next step? You will say that, if my sales are too low, my costs will definitely go up ... so I'll increase the price even further. Then my sales go even lower and then you go into a spiral. The problem on the other side is you never know how high you could have gone if you do just cost-plus-pricing. So if your product seems to be better than what you believed, then you lose out.

Competition-based pricing is just looking at what others are doing and doing it. That's also a safe kind of approach. In some cases, it may be fine to do that. If you have a product that is no better than the competition, you don't deserve to get a higher price. But in many settings you will lose out.

Zhang: I think in the book we obviously are trying to point out that, for instance, as a single company, if you want to use cost-plus-pricing or you do the competition-based pricing, the problem is not really that bad. But the problem is that if everybody does that, it causes a lot of problems. For instance, if you do the competition-based pricing, why do you want to look at the competition when you set your price? Because you want to make sure that you can sell your product. You want to make sure that you can maintain your market share. Everybody else wants to do that, too, which means that when I look at your price, I am going to charge a little bit below yours. When you look at my price, you want to charge a little bit below mine. Ultimately, you are going to get into this price war. Over time what happened is that the prices keep going down and, not only that, the services get reduced simply because you do have to lower your costs to charge a lower price. That's essentially one of the messages that we try to get across ... that when you actually set the price you probably have to consider the consequences in the marketplace if everybody is doing it the same way, and what would be the opportunities for you to do something different.

[Consumer-based pricing] is the third [common pricing method.] Essentially, a firm would assess the consumer valuation -- which is not really a bad thing to start with -- and figure out how much a customer is willing to pay. And then I would charge you accordingly, right? If you are willing to pay \$10 for this then, I'm going to charge you \$10. If you are willing to pay \$12, I'm going to charge you \$12. That doesn't seem to be a really bad thing to do, right? Except that when you actually look across different firms, across different customers, you are going to see that there could be a lot of problems. The problem is, for instance, that if I buy the product from you I definitely want to make sure that I paid the lowest possible price. To make sure of that, as a buyer I'm going to do a lot of things to squeeze you, right? I will befriend the sales person. I will probably make a lot of threats. I would actually ... court other suppliers to make sure that I put pressure on you to charge a lower price.

A lot of problems that we actually observe in industries really stem from the fact that the seller uses too flexible of a pricing mechanism and charges different prices to different buyers. If you buy a product that has a higher price than your friends, even if the product is exactly the same, obviously you are going to feel really bad about this, right? Probably next time around you are going to shop [around] longer. You are going to look into more places before you actually make a purchase. There is a consequence to what you do in terms of how you price a product.

Knowledge@Wharton: We have talked a little bit about the simplistic approaches that companies take. So let's go through the meat of the book in which you two lay out nine creative approaches to pricing. Discuss pay-as-you-wish pricing, one of those approaches that you cover in the book, and how it involved the rock group Radiohead.

Raju: I think, first of all, maybe it's worthwhile talking about the general sort of idea of all these nine strategies. If you think about good pricing, it comes in two parts. One is [having] the organization for making a good decision. Another is having the skill set for making good decisions. The book focuses predominantly on having the skill set for making good decisions. In the process, we also talk about organizing. When we talk about having the skill set for making good decisions, what we are really talking about is that people should think about creative ways of changing the pricing practices in the industry. As opposed to changing prices, try to change the pricing practices in an industry. That's how you become a price leader. All of these nine chapters in some sense talk about not changing price, but [changing] the pricing practice in an industry. That's the sort of common theme across all nine detailed sections.

If you think about pay-as-you-wish, or any of the other chapters, I think all of them are in some sense changing what I would call as the denominator of pricing decision, as opposed to the numerator. Price per what? Or price how? If you have a lot of heterogeneity in terms of people's willingness to pay, you don't know what that [willingness] is. What is the best way to find out? It is pay-as-you-wish. In some settings, studies have shown that [pay-as-you-wish] actually results in higher revenues than if you were to set a price yourself. You don't know much about the customer, but how do you find out? Pay-as-you-wish is like an auction, except you are not creating an auction. ... The question we ask in that chapter is when would you [set] the price -- before [or] after the sale? So those are kind of the issues. ... If you don't know much about the customer, and there is a wide degree in variance across customers' willingness to pay for a product, then pay-as-you-wish is a good starting point.

Knowledge@Wharton: That seems to be an approach that would put a company at tremendous risk. In the case of Radiohead, the musical group put out a CD and said, "Our fans can buy this recording for as much as they are willing to pay." In the book you mention that a large percentage of people actually downloaded that music for free, but there was nonetheless, a good outcome for the group.

Zhang: In the book we are trying to sort of lay out ... a large number of possible ways to set a price for a product or service. Obviously, each one of those different pricing mechanisms would be applicable in different kinds of conditions. I think pay-as-you-wish pricing was a very, very good pricing mechanism for Radiohead, for instance. It may not be actually a good pricing mechanism for some other companies.

In the book we point out, number one, that you probably want to make sure that your costs of production is very small. In Radiohead's case, for instance, the marginal cost was zero. If you download another copy of the music it doesn't cost [the band] anything. That probably is a very good condition in which to use the pay-as-you-wish pricing. Even if a large number of people don't pay for [the product], you knew that [some people] were not going to pay for it in the first place simply because they could just [download] a pirated version. Given that, you don't lose anything. So that's the first condition [to consider.]

The second one is also equally important. Radiohead has some really loyal fans. Based on some of the data that we gathered for the book, some people were willing to pay up to \$20, thinking that they want to support this band. They want the band to produce good music. That's why the pay-as-you-wish pricing actually works in that particular case.

We also know that, for instance, if you are big oil, you don't want to use pay-as-you-wish pricing. Right? If you are big pharma, for instance, you don't want to use pay-as-you-wish pricing. Certainly now the financial services companies probably never want to use pay-as-you-wish pricing. They probably wouldn't get more money from you.

Another condition on which you probably want to use pay-as-you-wish pricing is the situation where the marketplace is very, very competitive. If it is very competitive, you are not going to make much money in

the first place. In fact, in that kind of a market what you want to do is to take the pricing discretion out of the hands of the firms who are selling the product. If you do that, then you have no way to compete on price. It cushions the price competition quite a bit if you use pay-as-you-wish pricing. It turned out that the music industry it is very, very competitive. If you let the consumers set the price, then you don't have to compete on price. That's another reason why it's very successful. In the book, we do lay out all those different conditions as to what kind of a pricing mechanism would work in what kind of conditions.

Knowledge@Wharton: Let's talk about the approach that seems to involve setting no price whatsoever for your customer. It is the Google approach, which essentially makes the product or service free to a consumer. How does that work and why has it been successful for Google?

Zhang: It is a very successful for Google. When I was teaching at Indian School for Business, the students there asked, "If I want to compete with Google, what are the things I could do to defeat Google?" The first answer that jumped to my mind was that probably you don't want to compete with Google. Google is big enough, strong enough, and is really a formidable competitor in the marketplace.... In India, where there are very ambitious techie students, obviously that is a bad answer. They certainly not take that as an answer. So my second answer was that, you probably don't want to compete with Google on price simply because Google already charges [nothing] for using a lot of the different services that they offer. If you [don't] compete on price, what would be the next thing you could do? You can probably just give money to people to use your search engine, right? [But] you probably never want to do that because if you do that, you are going to start a cottage industry where people just do the search for no good reason. They just stay around their computer, searching all day to make money, right?

What else you could do? Of course, you can compete in terms of technology, in terms of the quality of the search results, in terms of how you display the search information [and] how you make sense out of search information. That might be the way. But ... [being] free does give Google a huge advantage [and its] an advantage in the sense of penetrating the marketplace, because in most cases what stops a customer from buying a product is the price. If I take the price away there is no reason for you not to buy the product, right? You would definitely achieve the maximum market penetration. I think that's what Google did.

But then the question is, if you [offer] the service for free, how are you going to make money? Google [is charging] the advertisers. Of course, Google is working in a so-called two-sided market condition, which means that they can make money out of customers who use the search engine and they can also make money out of advertisers who want to get a hold of those customers.

In this kind of situation, normally what you want to do is to make money out of the side that is less price sensitive. I think that we can find all kinds of different examples like that in real life. For instance, frequently you go to a bar [and] they [are] charging men and letting the woman come in for free.

Knowledge@Wharton: Ladies night.

Zhang: Right. So ladies come in for free. In that case, we know that if ladies are there, obviously men are willing to pay a fortune to get in there. And so that's how they make money. In Google's case, it's exactly like that.

Knowledge@Wharton: Another innovative approach that you discuss in the book is allowing prices to be set by price wars, which, again, seems to be kind of a risky way to do business. How does that work for some firms?

Zhang: I have been teaching in China for many years and one of the questions that people always ask me there is, "Why is it in Western countries that you don't see a lot of price wars, but in China you see a lot of price wars?" Frequently what happens is that the top management of the company will get together ... and they decide that we are going to start a price war. They set a D-day [saying that] six months down the road we are going to start a price war on a certain day and ... we are going to start the price war [by] lowering the price by 30% or 40% and seeing what happens. When I come back to the U.S., and when I teach pricing here, everybody seems to have the notion that you never want to start a price war. You never want to get involved in a price war. If somebody

starts a price war, you want to get out of it as quickly as possible. That is why I decided to look into the situation and see why, for instance, in China people think differently. And why in the U.S., for instance, people have a totally different notion.

It turned out that there is a rationale behind all of that. When you look into the rationale, you can actually look into the art of a price war. This is another thing that is really amazing. [If] you go to China [and] you ask, 'How many of you have read the book "The Art of War"?' a lot of people will raise their hands. If you do that here, not many people [would say they had read the book.] [In China], they actually sort of treat the price war as a marketing opportunity. It is a marketing instrument that you can use to generate a lot of opportunities. In the chapter on the price war we actually discuss when you may want to start a price war. If you do start a price war, how are you going to plan for the price war? How are you going to execute a price war so that eventually, you become an ever-victorious general in waging the war?

Knowledge@Wharton: Another approach we can talk about is micro-pricing. "Thinking Small" I think is the phrase that you use to head this chapter.

Raju: Before we go to that I want to emphasize this issue of Google a little bit. It is important to recognize this idea of a platform, or a two-sided platform, is much more common -- and is applicable in many other industries -- [than] people realize. For example, think about a newspaper as a two-sided platform [where] they charge both sides. Google just chose to charge one side. Newspapers charge the subscriber as well as the advertiser. You can think of even an automobile as a platform. To some extent, an automobile creates a platform for creating businesses. The company makes some money on it. The service providers make some money on it. The company [also] makes some money from ongoing services like OnStar.

Companies these days have to decide where are they going to make the money. Which side is going to pay? Think about Ryanair, [a low-cost, no-frills airline based in Ireland.] They pretty much made it free.... They think of themselves as a two-sided platform where one side is the passengers and the other side is the hotels and the taxi drivers at the airport. They choose to charge taxi drivers and hotels that [are located] near the airports as opposed to passengers. I think this is again going back to the issue of changing the pricing practice in an industry and Google has triggered that by deciding to charge one side and not the other. But I think this area is applicable in many settings.

Now we get back to this issue of pricing small items or pricing in small increments. I think there, again, what you are trying to see is [if] different people consume different products at different rates. The consumption of a shampoo in the U.S. is on a daily basis. The small consumer in India, who is relatively poor, will use it on an infrequent basis -- on a special occasion, for example. To try to sell this person a full bottle of shampoo at a very large price is not going to be viable for the market there. But if you are now micro-pricing it, I think it is very useful.

Now micro-pricing doesn't have to be for just consumer-packaged goods. But if you go to India, you will see cell phone pricing on a per-second basis as opposed to a per-minute basis. It is an interesting opportunity for the Indian consumer and also for the companies that deal with them. What it does, of course, is put some pressure on the companies to measure at a micro scale, just like it puts some pressure on the companies to produce small packets [of shampoo] at a reasonable cost. It also puts companies under some pressure to bill on a per-second basis. That requires a lot of technology. That requires a lot of effort. But if you are able to do that, well, then it works out.

Knowledge@Wharton: Ultimately, how should companies begin to rethink their approach to pricing in the most overarching strategic way? And, secondly, is it worth considering within a company having a person or at least a small group for whom pricing is the responsibility? Or is that just not workable?

Raju: Its worthwhile thinking about [appointing] a chief pricing officer in companies, [or] someone with that responsibility. However, I would also say that it doesn't mean that other [departments] have to abdicate their responsibility on pricing. It is very important for the marketing people to be engaged in [pricing] -- and the finance and accounting departments. But the role of [a chief pricing officer] is to bring everyone to the table, to develop an organizational structure and a skill set. The combination of a good organizational structure, along with the skill set that allows [companies] to

make good pricing decisions; we know the returns from that are phenomenal. Study after study has shown that even small improvements here lead to really large outcomes in terms of the bottom line and there is so much low hanging fruit in this area that we can capitalize on it.

Zhang: The pricing environment is really getting tougher and tougher because of all the new information technologies that are available to ordinary consumers out there in the marketplace. Because of that, you can imagine that the payoff for doing the right pricing, and making the [right] pricing decisions, is going to be huge. Because of that, I totally agree with what Raju just said; that it probably does make sense for companies to think about having a chief pricing officer who will be responsible for actually making the pricing decision from the beginning to the end and making price adjustments over time. I think you see that some of the companies out there actually do that, and there is a tremendous pay off there because of that.... Between Raju and me, we have [instructed] over 4,000 or 5,000 people in pricing over the last 10 to 15 years. We really want to thank all these students for contributing their insights in the classroom discussion and a lot of those insights are actually crystallized into this book. So if you feel a little bit nostalgic about your student days this is probably a good book to read.

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