# Smart Pricing Strategies for the Internet Age: A Primer 

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This article demonstrates how various concepts derived from marketing and behavioral economics can be useful to accountants and others whose advice is sought on the setting of prices. In particular, it shows that a one-price policy may not always be ideal. Using price as a strategic tool can increase both profit and customer satisfaction. Pricing strategies discussed include segmented (tier) pricing, pay-what-youwant pricing, pricing digital products, and peak-user pricing. The ethical implications of pricing decisions are also discussed.

One of the most important tools in in effective product marketing is pricing. One study found that a $1 \%$ increase in price increased profitability by $7.4 \%$ (Bhattacharya and Friedman, 2001). Setting a price too low may adversely affect profits as does setting a price too high. It is crucial for every company to understand the importance of properly pricing a product. Even not-for-profit organizations have to understand the key role prices play in customer satisfaction and profits. Accountants are often asked for advice on pricing products and their input is often quite helpful and necessary. However, accountants are very likely to focus on costs when trying to advise management on appropriate pricing strategies. The most naïve approach to pricing might use the following approach based on costs: The product costs us $\$ 100$ and we want to make a $25 \%$ return on investment before taxes, so we will sell the product for $\$ 125$. As we shall see, this "one-price fits all" approach makes very little sense when a firm has many different types of customers. In the global Internet age, a firm has to assume that it has many different types of customers. To arrive at a sensible pricing approach it is instructive to examine what various other disciplines have to say about pricing.

Marketers are attuned to the notion of market segmentation and hence are more likely to focus on the various consumer segments. Market segmentation involves dividing the market into distinct groups of customers, each with its own needs, and considering each as a possible target market. The firm then decides which segments to target and seeks to provide the selected target markets with different products and/or different marketing mixes.

Virtually all accounting programs require students to take a course in microeconomics and hence accountants are familiar with the economist's approach to pricing. Economists focus on rules for maximizing short-run profits, i.e., set marginal revenue equal to marginal cost ( $\mathrm{MR}=\mathrm{MC}$ ). This is because economists are more interested in studying the demand-curve for a product than on focusing on the actual costs; they are concerned with using demand (marginal revenue is derived from the demand curve) to determine the optimum price. Economic theorists have yet another view of pricing. Economic
theory considers the homogeneous product, one that cannot be distinguished by the consumer from competing products by other suppliers, as one of the conditions of perfect competition. The buyer of a homogeneous product bases his or her selection solely on its price.

But some of the fundamental principles of economic theory have recently been challenged. Economic theory is largely based on the premise of the "rational economic man." Rational man makes decisions based solely on self-interest and wants to maximize his utility. However, the rational man theory may be a dead or rapidly dying. After the Great Recession of 2008, Alan Greenspan, former Chairman of the Federal Reserve, told Congress: "I made a mistake in presuming that the self-interests of organizations, specifically banks and others, were such that they were best capable of protecting their own shareholders" (Ignatius, 2009). Many economists now realize that man does not always behave in a rational manner. This is why we must also draw on insights from the discipline of psychology. Ariely (2008) uses the latest research to demonstrate that people are predictably irrational. People continue to make the same type of mistakes and end up overpaying for items they do not own or overvaluing products they already have. People procrastinate when they should act and are highly influenced by emotions, rather than intellect.

Thaler and Mullainatha (2008) describe how in experiments involving "ultimatum" games, we see evidence that people do not behave as traditional economic theory predicts they will. People will act "irrationally" and reject offers they feel are unfair:

In an ultimatum game, the experimenter gives one player, the proposer, some money, say ten dollars. The proposer then makes an offer of $x$, equal or less than ten dollars, to the other player, the responder. If the responder accepts the offer, he gets $x$ and the proposer gets $10^{-} \quad x$. If the responder rejects the offer, then both players get nothing. Standard economic theory predicts that proposers will offer a token amount (say twentyfive cents) and responders will accept, because twenty-five cents is better than nothing. But experiments have found that responders typically reject offers of less than 20 percent (two dollars in this example).

## SOME PRINCIPLES OF BEHAVIORAL ECONOMICS

Behavioral economists, relying on the principles of psychology, have taught us several important pricing principles (Welch, 2010). Rule number one is to minimize consumers' pain of spending hardearned money by allowing them to delay paying for the product. It is easier for consumers to spend, say, $\$ 1,000$ on a new computer using a credit card than paying cash for it. It hurts much less if you do not see the cash leaving your pocket (Flynn, 2013). This may have been one of the problems of ARMs (adjustable rate mortgages) that were very low (even $0 \%$ ) for the first few years but then suddenly skyrocketed. Poor people were enticed to buy homes they could not afford and this helped cause the Great Recession of 2008 (Friedman, Lynch, and Herskovitz, 2013).

Try this experiment on your friends: Show them a $\$ 100$ bill and ask: "Would you rather have this $\$ 100$ bill now or wait two weeks and get $\$ 108$ ?" What you find is that people are not that rational and want things now. Most will take the $\$ 100$. Of course, a rational person should wait the two weeks for the $\$ 108$ - this is equivalent to earning an $8 \%$ return ( $\$ 8 / \$ 100$ ) for two weeks of waiting. Does anyone know of a bank that offers $8 \%$ interest for two weeks? Consumers want their pleasures now and want to postpone the pain of paying.

Behavioral economists have discovered that the pain of losing something we own outweighs the joy of winning by as much as two to one. Thus, for example, the pain of losing $\$ 1000$ that you currently have is about double the intensity of the joy you would experience getting $\$ 1000$. Emel (2013), citing the work of Dan Ariely, makes the following point:

Loss aversion means that our emotional reaction to a loss is about twice as intense as our joy at a comparable gain: Finding $\$ 100$ feels pretty good, whereas losing $\$ 100$ is absolutely miserable. People are more motivated by avoiding loss than acquiring similar
gain. If the same choice is framed as a loss, rather than a gain, different decisions will be made.

The following example cited by Emel (2013) demonstrates the principle of Loss Aversion.
Consider this example: Participants were told the US is preparing for an outbreak of an unusual disease which is expected to kill 600 people. They could pick one of two scenarios to address the problem:

- 200 people will be saved.
- $1 / 3$ chance 600 people will be saved. $2 / 3$ chance that no people will be saved.
$72 \%$ of participants chose option 1 , while only $28 \%$ of participants chose option 2 . The same group of people were given two more scenarios:
- 400 people will die.
- $1 / 3$ chance no one will die. $2 / 3$ chance 600 people will die.
$22 \%$ of participants chose options 1, and $78 \%$ of participants chose option 2. People picked the polar opposite answer of their original choice and the only difference was how the options were framed.

Emel (2013) concludes: "How you are framing the benefits of your product or service should focus on what can be gained, and you need to make the message as easy as possible." Tversky \& Kahneman (1981) were among the first to identify this cognitive bias know as framing. Thus, it is more important for a marketer to emphasize what a prospective customer loses by not making a purchase than what he or she gains by making the purchase (Flynn, 2013).

It is becoming evident that people respond differently to preferences/choices depending on whether they are presented as a gain or loss. For instance, doctors are more likely to prescribe a procedure when it is described as having a $93 \%$ survival rate within five years than if it is presented as having a $7 \%$ mortality rate within five years (McNeil, Pauker, \& Tversky, 1988). Likewise, 9 out of 10 students will feel that condoms are effective if they are told that they have a " 95 percent success rate" in stopping HIV transmission. However, if they are informed that it has a " 5 percent failure rate," then the number of students that rate condoms as effective drops precipitously to only 4 out of 10 (Linville, Fischer, \& Fischhoff, 1992).

Rule number two is to be careful with the presentation of choices. Too many choices can be a problem for consumers; they might be overwhelmed and simply not buy anything. Imagine going online to purchase a tie as a gift for someone and being presented with 500 ties. One good approach is to offer a recommended default option, which makes it easy for a consumer to make a decision. If you want to learn more about the problem of offering too many choices, read Barry Schwartz's book entitled, The Paradox of Choice: Why More is Less or view his TED lecture athttp://www.ted.com/talks/ barry_schwartz_on_the_paradox_of_choice.html

Ariely (2008: 152-153) demonstrates how having too many options often results in the failure to make any decision. For example, someone trying to purchase a digital camera might spend several months trying to buy the best camera and not consider the "consequence of not deciding." The difference among the cameras might be very small but the time spent dwelling over trivial differences as well as lost opportunities of taking pictures is not taken into account. Someone spending 2 months in deciding on the best television set to purchase would probably be a lot better off buying any decent brand at the outset. We often waste far too much time on making a trivial decision when we would be better off flipping a coin to make the choice.

Finally, how the choices are presented is important. It is crucial to position the preferred option using a little psychology (Welch, 2010). Consumers generally do not like buying the most expensive option. Suppose the preferred option for the retailer is a $\$ 20$ tie, which results in a very healthy profit. Showing a customer three ties for $\$ 5, \$ 10$, and $\$ 20$ - making the preferred option the most expensive - is not a good psychological move. A better strategy is to show the customer three ties for, say, $\$ 10, \$ 20$ and $\$ 75$. In such a context the $\$ 20$ tie is not the most expensive option and may appear as a bargain. The high price tie makes the lower-priced tie seem much more sensible. This effect is known as anchoring. The same is true of wine lists in restaurants. If you want customers to order the $\$ 80$ bottle of wine, do not make it the most expensive option. Also offer a $\$ 175$ bottle, which makes the $\$ 80$ bottle seem quite reasonable.

To price intelligently and successfully, it is advisable to utilize insights and concepts provided by accounting, psychology, economics, and marketing. The purpose of this paper is to introduce those involved in pricing to ideas derived from these disciplines which may prove invaluable in determining the ideal price to charge for a product or service.

## SEGMENTED (TIERED) PRICING

Consumers today use the Internet to make price comparisons and even to find out the seller's actual cost. Cost transparency makes it very difficult for sellers to attain high profit margins without using some psychology. Certainly, a firm selling a "commodity," i.e., where all brands are perceived as being essentially a homogeneous product, will find it difficult to charge more for its brand. However, a oneprice policy might be easy to administer but it is not necessarily the best way to maximize profits or to satisfy one's customers. Segmented pricing, also known as tier pricing, is where a firm charges different prices to different customers even when costs are the same for each of the market segments.

## Charging Inelastic Users More

There is no reason to believe that all market segments are the same when it comes to price. In fact, some market segments might be willing to pay more for the same goods or services than others. The airlines recognize that business travelers are willing to pay more for an airline ticket than vacationers and take advantage of this difference in price sensitivity (what economists refer to as price elasticity of demand) by charging more for a ticket if one wishes to leave and return during the week (typical pattern of a business traveler) than if one plans to stay over a weekend (typical pattern of a vacationer or someone visiting family or friends). As a rule of thumb, customers who have less of a need for a product or have more substitutes available to them, will be more sensitive (i.e., elastic) to price; customers with fewer substitutes and/or a greater need for the product will be less sensitive to price (i.e., inelastic) and willing to pay more.

In theory, companies selling on the Internet can charge customers different prices based on their sensitivity to prices. First, electronic commerce companies such as Amazon have vast amounts of information (including demographics, past purchases, prices paid for various products, type of music customer likes, etc.) on each of their customers. By examining the cookies each customer brings to its website, the company knows how much comparison shopping the customer has done. Furthermore, with the use of business analytics (also known as data mining and big data), the company may be able to use statistical tools to see which products the customer would be interested in purchasing and possibly the maximum price s /he would be willing to pay. A company should determine whether a particular customer is willing to sacrifice quality for lower prices or would rather pay a higher price to obtain better quality.

## Charging for Higher Quality

When it comes to quality levels, the same approach can be used. There are always customers who are willing to pay for higher quality. Airlines, for examples, offer customers the option of first class at a relatively high price or coach at a much lower price. Many airlines charge for seats that offer more legroom. There are people who are willing to pay an extra $\$ 25$ for seats that are somewhat more comfortable than the standard airline seat. Hotels offer fancy suites at much higher prices than standard
room. Customers should be allowed to decide on the level of quality they desire. Similarly, many firms doing business on the Internet offer different levels of service at different prices. For example, a customer who has trouble assembling a purchased product and wants to speak directly to a company representative should be able to pay for this privilege. For customers who do not want to pay, an email option might be provided. It almost always makes sense for a company to provide different levels of customer service at different prices.

In many cities, hospital emergency rooms (ERs) have become extremely crowded because of poor people who use them as substitutes for a primary care doctor. There is a national shortage of primary care doctors in poor neighborhoods. This fact, coupled with the huge increase in the number of people on Medicaid, has resulted in longer waits in ER. Hospitals made a huge mistake in not recognizing the need to segment the market for ER users. People who have insurance and/or high income are not pleased with the quality of service in most ERs. This is why many of them are going to urgent-care centers which are not attached to any hospitals. These urgent care centers are often owned by doctors or for-profit hospital chains and are located in high-end shopping malls. Some might charge more for a visit than the ER but patients do not mind since they only pick up the co-pay of, say, $\$ 50$. Some can actually charge less than hospital ERs and still make a healthy profit. Customers also get better and faster service in an urgent care center. Many urgent-care centers have extended hours and are open on weekends. There are luxury urgent-care centers that seem more like a spa than an ER. Some stress the "spa-like setting" of their facility. Patients are given luxurious robes to wear, snack on granola bars, and even get a massage while waiting in the waiting room. Prescriptions are filled on the premises to make things convenient (Shapiro, 2011). For most people, going to a luxurious urgent-care center beats going to a crowded hospital ER. Poor people without insurance have no choice, but those with insurance have a choice.

There are now three kinds of walk-in options for medical care: retail clinics, urgent-care centers, and emergency rooms. Urgent-care centers are perfect for health problems that are not sufficiently severe to require a trip to an ER, e.g., cuts that require stitches. Retail clinics attached to retail stores with a pharmacy such as CVS cater to minor health issues such as a sore throat, ear infection, or a vaccine ("When you need", 2014). Hospitals should have realized that using ERs for both patients with minor ailments such as sore throats and those with serious ailments such as gunshot wounds makes little sense. Moreover, mixing people who have good health insurance and are willing to pay not to wait with people with no health insurance or money is not a smart business practice.

Walmart is experimenting with primary care clinics in rural areas where doctors tend to be scarce and prices are high. Apparently, a major portion of the $\$ 1.7$ trillion spent by American on healthcare goes towards disease management, i.e., handling chronic illnesses such as diabetes or high blood pressure (Abrams, 2014).

Hospitals are competing for the upscale patient who is willing to pay for first class treatment. They charge considerably more for the customers who are willing to pay more in order to be in a hospital room that looks almost like a room at the Waldorf Astoria. These deluxe rooms come with chef-prepared foods, butlers, flat-screen televisions, and many other amenities. Bernstein (2012) notes:

> Many American hospitals offer a V.I.P. amenities floor with a dedicated chef and lavish services, from Johns Hopkins Hospital in Baltimore to Cedars-Sinai Medical Center in Los Angeles, which promises "the ultimate in pampering" in its $\$ 3,784$ maternity suites. The rise of medical tourism to glittering hospitals in places like Singapore and Thailand has turned coddling and elegance into marketing necessities, designers say.

There are now prisons that charge for more luxurious accommodations. Prisoners who can afford it may pay for a private cell with a shower, HDTV, and other amenities (Gorman, 2013). This paper should not be construed as commenting on the ethics of providing such niceties for prison inmates. It is, however, a good example of ways to generate income for government. Certainly, if prisons can do this there is no reason for all types of corporations not engage in such practices.

## Charging for Expedited Service

The same idea could be applied to speed of service. As noted above, that is one of the advantages of using urgent-care centers as opposed to crowded emergency rooms. Some customers might be willing to pay more for faster service than others. If this is the case, a company might wish to consider different prices for different market segments. Even government understands the value of tiered pricing. Thus, if you need expedited service in obtaining a passport, you can get one very quickly for an extra fee of about $\$ 60$. Many states provide expedited service for license renewal for an extra fee. Dry cleaning firms can also provide super-fast service for an additional fee for customers that are in a hurry. Even accounting firms should consider providing expedited tax returns for an extra fee. Note that Amazon and many online retailers offer consumers various shipping options. There are customers who want the product overnight and do not mind paying an extra ten or twenty dollars for this privilege. Why not offer them the option of next day delivery?

Similarly, a business or organization that notices that its waiting lines are unusually long should consider adding a special line with faster service. Certainly business travelers would be willing to pay quite a bit to avoid spending hours before a flight to take care of luggage check-in and other pre-boarding procedures. Time is money for a business traveler and s/he might be willing to pay $\$ 100$ to avoid spending so much time on the various airport queues. Olmstead (2013) notes that airlines have gotten everything wrong. What they have done is make the travel extremely unpleasant for all except the frequent flier. Indeed,

For the occasional flier the entire process is oppressive, from the moment they are herded like sheep onto long airport lines, then long security lines, then long waits at the gate to find all the overhead space gone by the time they board.

Olmstead (2013) asserts that airlines might be making considerably more money on a traveler who buys one full-price, premium ticket than on a frequent flier who purchases 10 cheap tickets. Airlines should not be focusing on miles traveled but on amount spent. Moreover, the person who travels less frequently but does not mind spending extra money for various amenities should be able to pay to avoid the long lines. Everyone gains with the addition of the premium line and customer satisfaction increases.

We all know how frustrating it can be to call the gas, electric, phone, or cable company and reach an automated phone system with all those annoying voice prompts ("press 1 for billing..."). It sometimes takes 10 or 15 minutes to reach a live person. Perhaps, it may be too costly to have a receptionist answer the phone but there is no reason a company should not consider offering the option of talking directly, without any wait, to a live person for a price. It might be worth a few dollars to someone who has no patience with the automated menu to skip the voice prompts and speak directly to a person. A tiered pricing program results in better customer satisfaction than a "one price fits all" policy.

The same notion applies to the area of repairs. If a private home computer crashes it might not be an emergency whose resolution cannot wait until the next day. It is a different story for an e-commerce company selling millions of dollars of merchandise every hour. This kind of company would pay a huge premium for expedited repairs. Consumers too might pay more for serious problems, e.g., a broken main, in order to get expedited service. Some problems cannot wait until the next day. It makes sense to offer the option of super-fast service at a premium. Many computer companies provide several levels of technical support: high fees for those who want immediate access to help and lower fees for those willing to wait. Even dentists might offer emergency treatment in the middle of the night but at extra cost. In the case of an excruciating toothache some people might be willing to pay a nice premium for an immediate house call.

Some doctors have a concierge medical practice which means that patients pay a set fee for a period of time to get treated. Concierge doctors do not accept insurance. Surprisingly, many patients have insurance but prefer this kind of medicine because it includes house calls, access to doctors by email and cell phone, and personalized service. Concierge doctors typically charge patients a fixed amount (say,
$\$ 100$ a month) for unlimited visits. Some concierge doctors charge very high fees and target the rich who are willing to pay top dollar for personalized service (Leonard, 2012).

## Charging for an Enhanced Warranty

We all have different attitudes when it comes to risk. Some consumers are willing to take a chance and do not need a product warranty. There are however consumers that are willing to pay for a warranty. This means that there are opportunities for making a nice profit in enhanced warranty pricing. Bhattacharya and Friedman (2001) demonstrate how improving the length of a warranty can result in increased customer satisfaction as well as additional profits. After all, extended warranties provide customers high in perceived risk a way to lower their risk; this will result in increased customer satisfaction.

Suppose the standard warranty for a refrigerator is 3 years and the firm's research indicates that only $10 \%$ of refrigerators will fail between year 3 and year 10 . If the cost of replacing the refrigerator is $\$ 2,000$, then the expected value of the cost of an additional seven years of warranty is $\$ 200(\$ 2,000$ times .10). If the firm offers an extended warranty for seven additional years for a price of $\$ 100$ per year, it can expect to make a profit of $\$ 500$ per warranty sold $(\$ 700-\$ 200)$. (We are not taking the time value of money into account in this example.) Charging $\$ 500$ for something that costs the company $\$ 200$ produces a substantial profit. The profit on the $\$ 2000$ refrigerator may not be as high as that on the warranty.

## Charging Peak-Users More

Problems associated with peak usage periods have been extensively studied. There are a number of industries that have to deal with this phenomenon. They include virtually all mass transit systems as well as bridges and tunnels. During off- peak periods, demand is considerably less than it is during peak periods (rush hour). A number of restaurants have this issue during the lunch and/or dinner rushes and so do theaters. Friedman and Lewis (1999) describe the problems this can cause:
(1) A great deal of equipment is needed for the peak-periods and is under-utilized during the off-peak periods. Think of all the buses and trains that are mainly needed to satisfy demand during peak periods.
(2) Additional personnel are needed to satisfy demand during the peak period. These employees may have little to do during the off-peak periods, so it may not always be feasible to keep them employed.
(3) Customers may not be satisfied with service during the peak periods. How happy can customers be sitting in a very crowded bus or train? Customers may have to wait a long time for service during peak periods. Try getting a table at a popular restaurant during peak periods, i.e., lunchtime and/or dinner time.

One simple solution to the problem of peak usage periods is to charge off-peak users less than the peak users. This type of pricing - known as peak-user pricing -- is quite logical given, as noted above, that peak users cost the company more than the off-peak user. One advantage of peak-use pricing is that it may flatten the peaks, since a portion of the peak users will switch to the off-peak periods since they now have a price incentive to do so. Even if only say, $15 \%$ of customers shift from peak to off-peak periods, the savings in equipment and personnel could be quite substantial. In addition, a side benefit is that customer satisfaction during peak periods may increase because it will be less crowded during the peaks. An organization using peak-user pricing may find that its profits will rise since equipment and personnel costs decrease and revenues may actually increase. However, revenues will not increase if most customers will be unwilling or unable to switch to the lower priced, off-peak periods.

Say that a bus company charges a fare of $\$ 2.00$ finds that it needs 200 buses and 200 drivers to satisfy peaks in demand that occur from 7 a.m. to 9 a.m. and 4 p.m. to 6 p.m. Suppose that this company averages 50,000 riders per day, with 30,000 passengers using the buses during peak periods. The company's revenue will be $\$ 100,000$ per day using a one-price policy. Suppose the company decides to
employ peak-user pricing and charges $\mathbf{\$ 2 . 7 5}$ during the peak periods and $\mathbf{\$ 1 . 7 5}$ during off-peak periods. Suppose some riders switch to off-peaks and they now have 24,000 riders during peaks and 26,000 during the off peaks. With only 24,000 riders using the buses during peak periods instead of 30,000 , the bus company ought to be able to cut down on the number of buses needed. In fact, they should only require about 160 buses and 160 drivers, saving quite a bit. If they decide to eliminate only 20 drivers and 20 buses, they will still save quite a bit and the buses will be less crowded during peaks than they were before the price change. In addition, they should find that their revenues will rise from $\$ 100,000$ per day ( $50,000 \times \$ 2.00$ ) to $\$ 111,500$ per day ( $24,000 \times \$ 2.75$ plus $26,000 \times \$ 1.75$ ).

The cost of traffic congestion (noise, pollution, lost time, additional fuel) is probably in the hundreds of billions of dollars. Building additional roads through heavily populated urban areas is not an ideal solution to this problem. Gary Becker (1998), Nobel Laureate and Professor at the University of Chicago, claims that a very simple solution is to charge vehicles for the right to use congested roads. This can be accomplished by using electronic toll collectors (ETCs) and placing them on roads and highways where there is often congestion. All vehicle owners would be required to have E-ZPass radio transponders attached to their vehicles that would emit an automatic vehicle identification code. Every time the vehicle would pass an ETC, a toll would automatically be added to the customer's E-ZPass account. Tolls could be adjusted depending on times of day, traffic congestion, and even selected lanes (e.g., express lanes). Such a solution would not only create revenue but also reduce congestion.

## The Problem of Free

One important purpose of price is to maximize profits or at least achieve a target return. This is not necessarily the case for not-for-profit organizations where there are other considerations in pricing. Not-for-profit organizations should have a basic understanding of what is known as the "tragedy of the commons." Hardin (1968) observed that whenever a resource is held in common by a group of individuals, it will always be in the interest of each individual to exploit the resource. This is the case when the resource is, for example, a lake full of fish or a forest full of trees. The tragedy is that eventually the resource will be completely depleted. For instance, if a forest is community property, everyone in town will keep logging it until the forest has been totally consumed. The same will happen with a public lake. Everyone will keep fishing until there are no longer any fish in the lake. This will not be the case if the lake is owned by one person. It is not in the owner's interest to allow the lake to be depleted of fish because it is a long term asset that must produce a profit in future years as well (Friedman and Lewis, 1999).

Friedman and Lewis (1999) discuss some solutions to the "tragedy of the commons." They include: (1) sell the common and make it private property, (2) keep it as a common but charge for the right to use it, or (3) allow a limited number of individuals to use the commons on a first-come, first-served basis and force everyone to wait in a long queue.

It should be noted that price is an effective way of keeping a resource from being overexploited. Prices serve as signals to indicate what should be produced and what should be consumed. Hence, if something is either free or nominally so it becomes a common that leads to its overexploitation. One case in point is the Internet, which is a common, albeit an electric common, and it is being spammed and packed with so much information that there is no way for capacity to keep up with the flow of so much valuable and so much unusable information. Similarly, at one time some communist countries kept the price of bread extremely low to ensure that every one would be able to afford it. This was a huge mistake. What happened was that the demand for bread increased dramatically because farmers fed it to their livestock. Normally, it makes more sense for farmers to feed their livestock grain rather than bread because bread requires considerably more labor (kneading, baking, etc.) to produce than grain and is hence considerably more expensive. Once bread became nominally free, it made more sense to use it rather than grain. Similarly, if milk were free, people would fill their swimming pools with milk, "water" their lawns with it, and wash their cars with it.

Countries that provide medical care completely free of charge have found that people run to doctors far too often. Individuals will visit doctors for every sniffle or slight ache. This means that more doctors
will be needed and more of society's resources will be shifted to the medical area resulting in the overuse of doctors. Also, the time one has to wait to see a doctor will be dramatically increased. Even not-forprofit organizations might have to consider pricing at a high enough level to discourage their overexploitation.

## Free Digital Products

We are, however, seeing a free price for many digital products on the Internet. The marginal cost of a digital product is about $\$ 0$ so this makes it possible to offer many kinds of products for free. Everything from Wikipedia to Google searches to Dropbox to YouTube to Facebook is free. The Internet practically demands that everything on it be free. People download free music, watch free television, and read free books on the Internet. There are quite a few free Apps for smartphones. How does a company make money when it gives its product away for free? Anderson (2009: 14) asserts: "Today, the most interesting business models are in finding ways to make money around Free. Sooner or later, every company is going to have to learn how to use Free or compete with Free one way or another." One way, of course, is via online advertising. This model worked for many years for television insofar as programs were free but consumers "paid" for content by watching the commercials.

Another way to profit from free is to offer a very basic service for free and then try to convince consumers to use a premium service for a fee. Anderson (2009: 26) refers to this as "varying tiers of content." With digital products, 19 people may be getting the digital product for free with one person paying for the "pro" version. That is ok with digital products since the cost of providing the 19 people with the free product is about 0 . In fact, this is normal for the Internet and is referred to as the " 5 Percent Rule." Nineteen people get the product for free for every person that pays for the premium version; in effect, one person pays so that 19 people get the no frills free version (Anderson 2009: 27).

The Internet has also demonstrated the power of altruism. A huge number of people are willing to supply content and information without getting paid. There are millions of articles on Wikipedia that would not be there without this kind of altruism. It is clear that money is not the only powerful motivator out there. Anderson (2009: 27) states: "The incentives to share can range from reputation to less measurable factors such as expression, fun, good karma, satisfaction, and simply self-interest (giving things away via FreeCycle and Craig's List to save yourself the trouble of taking them to the dump)." Incidentally, one important reason for making something free is to enhance one's reputation. Whether it is music, films, articles, or advice, the Internet is a good way to establish a reputation-for good and bad.

## Pay What You Want

Businesses around the world are experimenting with a pricing model that allows the buyer to pay what $\mathrm{s} /$ he wants (PWYW) (Bhatia, 2014). Radiaohead let customers pay as much as they wanted for its album In Rainbows released in 2007 and performer Amanda Palmer urged artists in 2012 to do the same with their audiences. There are shoe shiners and executive coaches as well as a few theaters that practice PWYW. Others, such as a handful of restaurants and the ride-sharing platform Sidecar have tried this approach only to abandon it when consumers either paid nothing or too little to cover costs and make a profit (Bhatia, 2014).

Although the practice of PWYW is few and far between, it has been getting attention for a number of reasons. For one thing, the online marketplace affords buyers a great deal more information about products and prices and hence confers greater savvy regarding price comparison and price determination. PWYW has also been used by businesses as a way of labeling themselves as anti-corporate and pro-social entities. Academics have been fascinated by the phenomenon as a harbinger of a changing culture of social entrepreneurship and responsibility and are studying it to ascertain in which situations it might work. The rise of behavioral economics, which studies actual financial behavior, has fed into this academic interest in PWYW as well.

Schmidt, Spann, and Zeithammer (2014) conducted a computer simulation experiment to identify the factors that determine the inclination of consumers to pay voluntarily in a PWYW environment. They found that "PWYW can be viable in a monopolistic market, but it is less successful as a competitive
strategy because it does not drive traditional posted-price sellers out of the market." This and other studies on the subject raise interesting questions about consumer mentality, such as the apparent unwillingness of buyers to confront their own level of altruism in the course of making purchasing decisions.

## Pricing the Unusual

Today there are lots of unusual ways to make money. Below is a sampling of novel services, incentives and the like and their prices.

- Sell space on your forehead (or elsewhere on your body) to display commercial advertising: $\$ 777$. Air New Zealand hired thirty people to shave their heads and wear temporary tattoos and wear the slogan "Need a change? Head down to New Zealand."
- Serve as a human guinea pig in a drug-safety trial for a pharmaceutical company: $\$ 7,500$. The pay can be higher or lower, depending on the invasiveness of the procedure used to test the drug's effect and the discomfort involved.
- Fight in Somalia or Afghanistan for a private military contractor: $\$ 250$ per month to $\$ 1,000$ a day. The pay varies according to qualifications, experience, and nationality.
- Stand in line overnight on Capitol Hill to hold a place for a lobbyist who wants to attend a congressional hearing: \$15-\$20 an hour. The lobbyists pay line-standing companies, who hire homeless people and others to queue up.
- If you are a second-grader in an underachieving Dallas school, read a book: \$2. To encourage reading, schools pay kids for each book they read.
- If you are obese, lose fourteen pounds in four months: \$378. Companies and health insurers offer financial incentives for weight loss and other kinds of healthy behavior.
- Buy the life insurance policy of an ailing or elderly person, pay the annual premiums while the person is alive, and then collect the death benefit when he or she dies: potentially, millions (depending on the policy). This form of betting on the lives of strangers has become a $\$ 30$ billion industry. The sooner the stranger dies, the more the investor makes.


## Ethics in Pricing

This paper has not focused on the ethics of pricing. For that we recommend the work of Michael Sandel. Sandel (2012) discusses the ethics of putting price tags on almost everything and feels that placing a price on the noble things in life can corrupt them (see his YouTube lecture at https://www.youtube.com/watch?v=GvDpYHyBlgc). Sandel may be right in his assertion that treating everything as commodities with a price tag on them has the potential of ruining the moral fabric of society. For example, there are those that argue that people should have the right to sell their kidneys to the highest bidder.

Sandel (2012: 3-5) provides the following examples of pricing that has ethical and moral implications:

- A prison-cell upgrade: $\$ 82$ per night. In Santa Ana, California, and some other cities, nonviolent offenders can pay for better accommodations- a clean, quiet jail cell, away from the cells of nonpaying prisoners.
- Access to the carpool lane while driving solo: $\$ 8$ during rush hour. Minneapolis and other cities are trying to ease traffic congestion by letting solo drivers pay to drive in car pool lanes, at rates that vary according to traffic.
- The services of an Indian surrogate mother to carry a pregnancy: \$6,250. Western couples seeking surrogates increasingly outsource the job to India, where the practice is legal and the price is less than one-third the going rate in the United States.
- The right to immigrate to the United States: $\$ 500,000$. Foreigners who invest $\$ 500,000$ and create at least ten jobs in an area of high unemployment are eligible for a green card that entitles them to permanent residency.
- The right to shoot an endangered black rhino: $\$ 150,000$. South Africa has begun letting some ranchers sell hunters the right to kill a limited number of rhinos, to give the ranchers an incentive to raise and protect the endangered species.
- The cell phone of your doctor: $\$ 1,500$ and up per year. A growing number of "concierge" doctors offer cell phone access and same-day appointments for patients willing to pay annual fees ranging from $\$ 1,500$ to $\$ 25,000$.
- The right to emit a metric ton of carbon dioxide into the atmosphere: 13 Euros (about \$18). The European Union runs a carbon emissions market that enables companies to buy and sell the right to pollute.
- Admission of your child to a prestigious university: Although the price is not posted, officials from some top universities told The Wall Street Journal that they accept some less than stellar students whose parents are wealthy and likely to make substantial financial contributions.

It is important to consider the ethical implications of all pricing decisions. In any case, there are many pricing strategies that result in a higher level of customer satisfaction than a one-price policy. Moreover, certain types of pricing approaches, e.g., peak-user pricing, can benefit society as well as consumers.

One area of pricing not covered in this paper is transfer pricing, which is not illegal or unethical per se. What is illegal and unethical is transfer mispricing or transfer pricing manipulation. Companies use transfer prices as a way to minimize taxes for the firm. A firm has an obligation to pay taxes but also to maximize profits. Accountants involved in transfer pricing should familiarize themselves with McGee's (2010) research which discusses the ethics of transfer pricing. McGee (2010) discusses the harm principle championed by several philosophers. This principle is that "individuals should be permitted to engage in any activity so long as it does not result in harm to others."

Indeed, this principle should be applied to all kinds of pricing approaches, not only to transfer pricing. Ensure that no one's rights are violated and that no one is harmed. If someone is harmed, then there should be a way to compensate all victims.

## CONCLUSION

This article demonstrates how various concepts from marketing, psychology, and economics can be useful to accountants and others who are asked for help in setting prices. In particular, it demonstrates that a one-price policy may not always be ideal. Clearly, using price as a strategic tool can increase both profit and customer satisfaction. Even "free" can be used to enable a company to establish a reputation.

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