

Cross-Subsidy Models and the Dial 1298 for Ambulance Service

Five years ago, residents of Mumbai, India had few options in a medical emergency. When someone had a heart attack or was involved in an automobile accident, their loved ones struggled to get an ambulance. There was no service that covered the entire city, and most ambulances had little or no medical equipment—they were largely stripped down delivery vans. Victims often arrived at the hospital in the back of an auto rickshaw, in a family member's car, or even in the bed of a delivery truck. There was no ambulance service that covered the entire city, much less one that could be reached 24 hours a day at an easy-to-remember phone number similar to the 911 system in the U.S.

Around this time, one Mumbai resident's mother had a medical emergency in the middle of the night. Her son tried calling several hospitals and small ambulance providers but could not get an ambulance—either no one answered the phone, or the hospital's ambulance was already out on another call, or the ambulance was not staffed at night. He ended up putting his mother in the back of his car and rushing her to the hospital himself. He realized that Mumbai was in desperate need of an ambulance service that could serve the whole city, be reached at a single phone number 24 hours a day, and provide advanced medical equipment that could save the lives of patients. Along with several friends, he decided to launch such a service in Mumbai—one that would be financially self-sustainable while providing universal coverage for the residents of the city regardless of their ability to pay. The immediate challenge they faced, though, was how to sustain such a service when a significant portion of Mumbai's residents live below the poverty line.

Their solution was to operate the Dial 1298 for Ambulance (1298) service as a cross-subsidy business model. Under this approach, the wealthier customers pay the full rate for an ambulance ride while the poor receive a deep discount or free service. 1298 is not alone among businesses that serve the poor through cross subsidies; this model has been used by other social enterprises to provide a discount on goods and services offered to lower income customers.

I spent the past year working on marketing and business development for 1298 in Mumbai. During my time there, I had the opportunity to see first-hand some of the benefits and challenges associated with a cross-subsidy business model. This paper is a record of my observations. The issues I highlight do not necessarily apply to all other cross-subsidy business models. Rather, this is an attempt to note some of the actual and potential issues that stem from operating a cross-subsidy regime at 1298. It is also an attempt to stimulate critical thinking around such business models among entrepreneurs who are planning to start businesses that utilize cross-subsidies and among investors conducting due diligence on cross-subsidy models. As each business is different, there can be wide variance in the issues that might arise, but my hope is that this paper will serve as a useful starting point for thinking through those issues.

How is 1298 a cross-subsidy model?

A cross-subsidy model is one in which the price that some of a company's customers pay for its goods or services is lower than the marginal cost of producing those goods or services, while the price paid by other customers is higher than the marginal cost. A portion of the revenues generated from selling goods or services to customers willing to pay the full price is then used to subsidize them, allowing them to be sold at a price below their marginal cost to poor customers who would not be able or willing to pay the unsubsidized price.

It is important to note that cross-subsidy models are different from tiered-pricing models. The latter type of business sells its goods or services at different prices, but even the lowest-priced products are not sold below cost. Examples of tiered-pricing models include airlines, which offer several levels of service at different prices (business class, coach class, etc.), and movie theaters (club seating in leather chairs, general seating in the front rows, etc.).

1298 operates with the twin goals of being financially self-sustainable and providing ambulance service to everyone in Mumbai, regardless of income. It charges for its service, but the price varies according to the customers' ability to pay. Its pricing system evolved through experience. When 1298 first began operating, it asked its ambulance staff to determine whether the patient on the ambulance could afford to pay for the service. The staff could make an estimate based on the quality of the residence or hospital where they picked up the patient, but such an approach left room for error. It also created the opportunity for ambulance staff to charge the full rate while reporting back to the company that they charged a discounted rate, allowing the crew to pocket the difference.

After experimenting with this approach and learning its shortcomings, 1298 adjusted its approach to make it more objective and reduce the discretion exercised by each ambulance crew. Now, patients who ask to be transported to **private** hospitals are charged the full rate, while those who ask to be taken to **government** or **municipal** hospitals receive up to a 50% discount. Patients are informed of the estimated price when they call the ambulance service's control room to request an ambulance. If patients say that they cannot afford to pay even the discounted rate, they receive free service (1298 does not advertise this fact for fear of inviting misuse of the service). In addition, no charge is levied on accident or disaster victims.

This pricing system works because of the structure of the health care system in India. Very few people have health insurance, so they must cover the cost of hospital care largely from their own pockets. Private hospitals charge relatively high rates but provide higher quality care. Government and municipal hospitals, on the other hand, offer mostly free services but provide lower quality care. Common complaints include long waits to see doctors, lack of respect by doctors for patients, and side payments to hospital staff in order to get a scarce bed. Consequently, many people opt for private care if they can afford it. As a result of this system, ambulance patients self-identify their income levels

and their ability to pay for the service through their choice of hospital destination. The relative ease and objectivity of implementing this pricing system is a key element of the success of 1298's cross-subsidy model.

The fees that 1298 charges to patients cover a portion of its operating costs. This fee revenue is augmented by paid sponsorships, where private companies purchase advertising space on the side and back of each ambulance. Ambulance sponsorships are generally provided for one year and sponsors are charged on a monthly basis, providing 1298 with a consistent revenue stream. Together, the revenues from patient fees and sponsorships enable 1298 to sustain its operations while subsidizing its service for the poor and maintaining high quality standards.

There are multiple ways to implement a cross-subsidy pricing system. For instance, LifeSpring Hospitals, a chain of maternity hospitals headquartered in Hyderabad, India, provides neonatal and maternity care primarily to poor women through a cross-subsidy model. LifeSpring offers several levels of service in its hospitals: the price is Rs. 1499 for a normal delivery in the general ward; Rs. 3299 in the semi-private ward (with 2 beds); and Rs. 4799 in the private ward (one bed). These prices are highly transparent—they are posted in the waiting room at the hospital as well as on a sign outside of the hospital. LifeSpring staff do not have to determine each customer's income level and consequent ability to pay. Rather, each customer can choose the level of service she wants based on her own willingness and ability to pay. Like 1298, this cross-subsidy system allows the price for the service to be determined by each customer's own preferences, avoiding any means-testing or requiring the business to make a determination of each customer's income level.

It is important to note one distinction between the cross-subsidy models operated by 1298 and LifeSpring. The relative percentage of customers who pay the full price and those who receive a subsidized price varies markedly between the two companies. In 1298's current business model, the service is self-sustainable as long as 80% of the ambulance calls are fully paid and no more than 20% of the calls are subsidized or free. At LifeSpring, on the other hand, the majority of the patients use the subsidized ward while a smaller number pay for a semi-private or private ward. The poor could thus be viewed as peripheral customers at 1298, while they form the core customer base at LifeSpring. This is an important difference because when the majority of the customer base subsidizes the minority, the cross-subsidy model is less vulnerable to fluctuations in the composition of its customer base. For example, a decline of 5% in the proportion of wealthy customers (from 80% to 75%) would not have as much of an impact on 1298's finances as it would if wealthy customers made up only 20% of its customer base, when a 5% decline would reduce their percentage to 15% and would thus have a drastic impact on the revenues the business would use to subsidize its poor customers. It is hard to generalize to other business models in that customer revenues may account for only a portion of the revenues a company receives (as is the case at 1298 with its paid sponsorships), but when the majority of the customers are paying the full price for a good or service, the business model should become more robust.

How does 1298 benefit from operating a cross-subsidy model?

The primary motivation for 1298 to operate a cross-subsidy model is to serve everyone, regardless of income, in a sustainable way. 1298 characterizes itself as a social enterprise that is not a profit-maximizing firm but one that does seek to be self-sustainable. It must cover its operational and capital costs through a combination of revenues from ambulance calls, sponsorship funding, and donations. It does not rely on government funds or charitable grants to finance its operations, though it does receive some donations that help cover its capital costs and thus enable it to maintain low prices.

Operating as a financially self-sustainable enterprise, rather than depending on government funding or charitable grants, allows 1298 to plan strategically for the future. Government financing can fluctuate from year to year, and such uncertainty around annual financing levels would hinder long-term planning. In addition, government money often comes with strings attached that can reduce operational flexibility. Obtaining grants from foundations or other donors often requires hiring dedicated fundraising staff, and reporting requirements can be onerous. Similar to government financing, dependency on donor grants can lead to uncertainty about long-term funding levels.

1298's willingness and ability to serve everyone regardless of income not only gives it greater social impact; it also strengthens its brand and generates significant public relations value with potentially higher financial benefits for the service. Offering free ambulance rides to accident and disaster victims is a strong selling point for 1298 in publicizing its service. This practice has allowed 1298 to secure free advertising space in the government-run trains and buses in Mumbai as well as on digital signboards used by the traffic police, giving 1298 much greater public exposure. The traffic police and the railway and bus authorities have recognized the value of free ambulance service for accident victims in meeting their own responsibilities to commuters in Mumbai and therefore have an incentive to advertise the service to their customers.

1298's social orientation, facilitated by its use of a cross-subsidy model, also seems to give it more credibility among large parts of the population who have more trust in non-profits and organizations with a commitment to serving the interests of the public than they do in purely commercial enterprises. In addition, the more customers that 1298 serves, the more potential customers who become aware of the service through word-of-mouth. 1298's willingness and ability to serve everyone help to extend its reach, increase awareness of the service, and give it added credibility when working with hospitals, community groups, and other organizations interested in improving health care in the city.

Finally, the poor can benefit from higher quality services under cross-subsidy models than they might otherwise receive. 1298's cardiac ambulances contain the advanced life-support equipment demanded by wealthier clients and top private hospitals, allowing the service to gain the high income customers it needs to finance its cross-subsidy model.

These same well-equipped ambulances are equally available to the poor, though at a subsidized price, allowing low income consumers to access high quality medical care that may otherwise have been unavailable to them.

What challenges arise from 1298's cross-subsidy model?

While there are certainly many advantages that come from using a cross-subsidy business model to reach poor customers, there are also several challenges that businesses must manage. Among these is obtaining the capital required to scale up or expand operations. Purely profit-oriented investors may be hesitant to invest in a cross-subsidy model since subsidies can be viewed as lost revenues that reduce the profitability of the company. At 1298, several interested investors have questioned why the company insists on providing subsidized or free service to the poor rather than focusing only on the wealthier market segments, as the potential financial returns to any external investor would be reduced by subsidizing service to the poor. As a result, the field of potential investors or providers of capital is smaller than it otherwise would be. This could lead to more expensive expansion capital (due to fewer options for obtaining such capital) or difficulties in securing any capital at all. Providing capital to cross-subsidy models is a niche which Acumen Fund and similar socially-oriented or non-profit investors are well-suited to fill. Cross-subsidy businesses like 1298 would benefit from more competition among a larger group of such capital providers.

Providing subsidized goods or services can also make enterprises like 1298 more vulnerable to competition, especially for their higher income customers. Because 1298 has to generate a surplus from providing service to its wealthier market segments in order to pay for its subsidized service for the poor, the unsubsidized price it must charge is higher than would otherwise be the case. This creates an opening for competitors to provide the same quality product at a lower price to wealthier customers, potentially undercutting 1298. (Note: This has not yet happened to 1298 in Mumbai.) Cross-subsidy models like 1298 must therefore focus on continuing to innovate in the quality of the good or service provided or be even more aggressive than competitors in cutting costs or seeking below-market-rate financing so that they can continue to provide subsidies. A positive side effect of such cost-consciousness is its potential to drive innovation. For instance, 1298 is currently experimenting with solar panels on the top of one of its ambulances in order to reduce fuel costs and keep the charges for its service as low as possible.

1298, like other cross-subsidy business models, also faces a range of marketing challenges stemming from its need to have both wealthy and poor customers. It has to sell the same level of service, though at a different price, to very different income segments. Given its small marketing budget, it must either find advertising messages that appeal to all income brackets or come up with separate marketing campaigns for different customer groups. To date, its constrained budget has led it to seek universal marketing messages that might appeal to everyone in Mumbai. Crafting such messages is a real challenge, however. If, for instance, 1298 chooses to advertise the high quality of its

service, this message would appeal to higher income customers but might turn away the poor, who could associate such a message with high prices. If instead 1298 advertises the low cost of its service, wealthier customers might assume that this equates with low quality and would therefore be hesitant to use the service.

1298's marketing efforts to date have focused on messages such as "Available 24 hours a day" and "In a medical emergency, dial 1298 for an ambulance." These universal messages are aimed at raising awareness about the existence of the service and its phone number – characteristics that are important to all potential customers, regardless of income. Attempting to explain the subsidized price structure in a clear and catchy way would be very difficult to do concisely, particularly given the need to reach potential customers within a very short timeframe. 1298 is also concerned about potential misuse of its subsidized service if it highlights that the price is lower or free under certain circumstances. The London Ambulance Service, which has been a mentor and adviser to 1298, provides free service to everyone (it is a government-financed service). Its biggest challenge is preventing abuse of the service by people who view it as a free taxi ride or as a doctor delivered to their doorstep, rather than as an emergency transportation service. 1298 would like to avoid this problem.

An additional marketing challenge is the need to maintain a balance between wealthy and poor customers. At 1298, the current pricing structure allows for up to 20% of ambulance rides to be offered at a subsidized price or for free. If its marketing campaigns end up appealing more to poor customers, the service could find itself in financial difficulty. If too many wealthy customers are using the service, however, then it will not be meeting its social objectives. Maintaining a balance between wealthy and poor customers could become a tricky marketing exercise, requiring that publicity campaigns be fine-tuned to an extent that is not possible given a small marketing budget and a lack of information about customer tastes and desires.

What lessons can be learned from 1298's experience?

While each business is different, several general recommendations emerge from 1298's experience in using cross subsidies to serve the poor:

- In pursuing a cross-subsidy model, it is preferable to have the majority of the business's customers pay the full, unsubsidized price and a minority of the customers pay a subsidized price. This will reduce the vulnerability of the business to fluctuations in its customer base. Such an approach also makes scaling up easier because revenues are more robust, generating more financing for expansion.
- Cross subsidy businesses should utilize their social objectives to their advantage in marketing. A clear commitment to a social goal such as serving the poor can be an appealing selling point and can create a positive corporate image.

- Operating a cross subsidy model places a premium on continued innovation to reduce costs. Businesses must seek ways to offer a quality product at the lowest price possible so that they can head off any competition for higher income customers. Continuous innovation creates scope for flexibility in adjusting to changing portions of wealthy and poor customers, helping businesses deal with one of the challenges of a cross-subsidy model.
- Businesses that intend to expand should have a clear plan for attracting capital. They have a smaller pool of potential investors to draw from, as the subsidies they provide reduce the potential returns to investors. They should seek out investors such as Acumen Fund that have a social orientation and are thus willing to accept lower financial returns in exchange for meeting social objectives.