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The promise and problems of price subsidization in social entrepreneurship

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KEYWORDS

Social entrepreneurship; Pricing dilemmas; Price discrimination; Price subsidization **Abstract** Social entrepreneurship research has often focused on the benefits and challenges of designing hybrid organizations that integrate competing institutional logics to tackle social problems using market-based methods, especially in developing economies. Drawing on case evidence from the Safe Water for Africa program, we show how and why pricing new products at other than market prices offers a seductive but dangerous mechanism for managers seeking to pursue dual objectives in hybrid organizations. We identify five strategic and operational challenges with ethical implications that manifest as pricing dilemmas and show how and why they are likely to elicit moral dilemmas among stakeholders of social entrepreneurship who are not equally committed to both social and economic objectives.

1. The price is right

Determining the release price for any new product is difficult—set it too high and the product will not sell; charge too little and the venture runs the risk of lost revenue and profits. Worse yet, this release price—whether too high or too low—tends to fix the product's market value position, making it difficult to correct after the fact. Pricing poses strategic and operational challenges for all entrepreneurs, but for social entrepreneurs, pricing can also take on ethical overtones with social implications as they seek to serve the poor through price subsidization (Auerswald, 2009; Cooney, 2011; Prahalad, 2005; Yunus, 2010). By subsidizing some of their product's price, social entrepreneurs seek to employ market methods. They have the poor pay what they can while having charitable donations or wealthier customers cover the difference. But, even though subsidizing product prices appears to offer a means of pursuing the dual

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objectives (social and commercial) of social entrepreneurship, price subsidization has a dark side: it can impair social entrepreneurs' ability to learn from the market while exposing them to charges of exploitation, especially when these social entrepreneurs are tackling social problems in development contexts.

In this article, we describe a number of pricing dilemmas encountered by the Safe Water for Africa (SWA) program, a strategic partnership in social entrepreneurship in which corporate investors, philanthropic donors, and a hybrid organization came together to build privately financed micro-utilities that offer World Health Organization-guality (WHOguality) water at a nominal fee to the poor of Ghana, Nigeria, Liberia, and Sierra Leone. The SWA partnership is an exemplar of social entrepreneurial activity in today's developing world, with a diverse group working to balance complex challenges and competing objectives in a highly uncertain environment. In this case, we identify a number of strategic and operational challenges that call into question the benefits of subsidized product pricing frequently championed by the social entrepreneurship literature. We propose that (1) the potential for being perceived as exploitative is pervasive in social entrepreneurship; (2) such perceptions are likely when social entrepreneurs employ subsidized product pricing; and (3) fear of these perceptions can have the unintended effect of impairing the venture's ability to learn, further complicating short- and long-term strategic decisions that are essential to the organization's performance and survival.

After a brief introduction of the case, we discuss the strategic and operational challenges manifest in pricing dilemmas related to use of subsidized product pricing at SWA. For each dilemma, we show how SWA's pricing decisions were consistent with the pricing assumptions of the social entrepreneurship literature, but nonetheless problematic in practice. We then use these discrepancies between theory and practice to generate research questions concerning each pricing dilemma, and conclude with a discussion of the moral dilemmas—real and perceived—such pricing decisions encapsulate.

2. The Safe Water for Africa program and WaterHealth Ghana

Globally, one in ten people lack access to safe water (Water.org, 2018). According to the WHO/UNICEF Joint Monitoring Program for Water Supply and Sanitation: "The water and sanitation position in West/Central Africa is of particular urgency, as the region has the highest under-five mortality rate of all developing regions" (WHO/UNICEF, 2012). Impoverished communities in this region continue to depend on unsafe and unreliable water sources, such as unprotected wells or springs, rivers or ponds, vendor-provided water, tanker truck water, or bottled/sachet water for all needs. The United Nations announced the early achievement of Millennium Development Goal 7.C—"To halve, by 2015, the proportion of the population without sustainable access to safe drinking water and basic sanitation¹"—but data across West Africa does not exhibit this trend, challenging the operational sustainability, reliability, and scalability of water improvement efforts to date (The World Bank, 2016).

Despite this troublesome situation, West Africa's GDP in recent years has grown more than 45% faster than the global average (African Economic Outlook, 2016), making the region as economically promising as it is socially challenging. This dynamic made the region an attractive environment for a water-focused strategic partnership, anchored by two multinational firms with a commercial history and growing interests in the region: The Coca-Cola Company and Diageo PLC (Guinness).² Together with WaterHealth International (WHI) and the International Finance Corporation (IFC), the companies in 2011 announced Safe Water for Africa (SWA), a private-led initiative to provide sustainable access to safe drinking water in Africa-namely Ghana, Nigeria, Liberia, and Sierra Leone. Given the unique challenges associated with multiple corporate donors and a hybrid organization working together to enact a private solution for a public problem, the Global Environment & Technology Foundation (GETF)-anonprofit organization with expertise in multilateral management-was brought in to govern the partnership and navigate the various interests of the parties. Ultimately, SWA would work with West African communities to drive the expansion of an innovative, self-sustaining model of water provision developed by a leader in the sector: WaterHealth International (WHI).

WaterHealth Ghana (WHG), a subsidiary of WHI founded in 2008, would install the WaterHealth centers that were funded and publicly sponsored by SWA. These small modular structures, which operate as privately-financed micro-utilities, house purification equipment to treat locally available water and produce WHO-quality water that is available on site or

¹ <u>http://www.un.org/millenniumgoals/environ.shtml</u>

² Prior to this announcement, the Coca-Cola Company—through efforts like The Coca-Cola Africa Foundation (TCCAF) and its 2009 Replenish Africa Initiative (RAIN)—had a multi-million dollar history of supporting water issues and initiatives across the continent. Diageo PLC had equally large commitments to water initiatives, including its Water of Life program.

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pumped to additional distribution points, depending on the size of the community. WHG selects communities of least 5,000 members based on need (defined as a lack of clean water within a 0.5-kilometer radius). economic potential, and other technical considerations. The organization then works alongside selected communities to identify a center location (community-donated land that is centrally located and near a source of both surface water and electricity); install the center; determine appropriate usage fees; and hire local station operators. Following installation, WHG provides ongoing technical support and regular water quality monitoring for at least 10 years before transferring ownership to the community. With each additional center, WHG works to refine the WHI market research and installation process and tailor them to the local context (Table 1).

3. Pricing dilemma one: What to charge?

Firms set the release price of a new product through *pricing practices*: the set of activities that lead to a

price decision (Ingenbleek, Debruyne, Frambach, & Verhallen, 2003). Pricing practices are difficult to execute because they require firms to simultaneously consider and weight the fixed and variable costs needed for delivering their product, the prices and pricing strategies of all other players in the market, and the perceived value that customers attribute to the new product they plan to offer (Ingenbleek et al., 2003). At one end of the price spectrum, information about production costs and competitors' products helps firms to establish their price floor—the bottom of a firm's range of pricing options where revenues are minimized or zero-and plot the supply curve. At the other end of the spectrum is the price ceiling. To estimate the top of a firm's range of pricing options where revenues are maximized, entrepreneurs require a clear understanding of the product's benefits to customers, but because market demand information is retrospective and demand curves are unobservable. these benefits are difficult to approximate (Balvers & Cosimano, 1990). In addition to firm costs and customer benefits, entrepreneurs must also gauge the size of the market or market segments for

Table 1. Organizations involved in the Safe Water for Africa program

| Organization | Acronym/Abbreviation | Role |
|--|----------------------|--|
| Safe Water for Africa program | SWA | Sponsor of WaterHealth centers Partnership among multinational corporations, international development agencies, and social enterprise |
| WaterHealth Ghana | WHG | Social enterprise that establishes and operates WaterHealth centers Subsidiary of WaterHealth International |
| WaterHealth International | WHI | Parent of WaterHealth Ghana Designer of technology and modular micro- utilities known as WaterHealth centers |
| The Coca-Cola Company | тссс | Multinational beverage corporation Co-founder and donor of funding for Safe Water for Africa program |
| Diageo PLC | Guinness | Multinational beverage corporation Co-founder and donor of funding for Safe Water for Africa |
| International Finance Corporation | IFC | Largest global development institution focused on developing countries Member of the World Bank Group Donor of funding for Safe Water for Africa |
| Global Environment & Technology Foundation | GETF | Nonprofit organization with expertise in multilateral management Governing party of the Safe Water for Africa partnership |

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various prices at and below the ceiling (Ingenbleek, Frambach, & Verhallen, 2013). By estimating the size of a market at various price points, the entrepreneur seeks to clarify the range of pricing options. Thus, entrepreneurs take supply, demand, and market size information into account to identify an introductory (*equilibrium*) price point that they hope will be viable and lucrative for their firm.

After determining the full range of pricing options and the market's size at various points within that range, entrepreneurs formulate their release price. The two most common pricing strategies (Saaty & Vargas, 2012) that shape an initial price offering are *skimming* (setting the highest possible price to maximize profit in the shortest possible time) and *penetration* (charging a low price to generate large sales volume and maximum market share). Though entrepreneurs may want to target the largest market segment using a penetration strategy, maximizing volume does not always maximize profits.

First, the release price—less discounts or other incentives-establishes the market's first reference point for the product's true value (as judged by its makers) and communicates to the market what a company thinks its product is worth (Marn, Roegner, & Zawada, 2004). Even though a low release price might hasten market penetration, this strategy can handicap a product's long-term profitability, trading current lower margins over higher margins that a higher price may have captured upon establishment of a customer base (Marn et al., 2004). A low reference price is particularly damaging if it conflicts with the value position the company is trying to establish or if market demand has been underestimated. Second, because competitors cannot always instantaneously improve their own products, they may have no recourse but to respond to a low price that shifts the market with a low price of their own, triggering a price war. By contrast, a higher reference price suggests that a company is targeting profits, not market share, and may be less likely to generate immediate competitor reactions (Marn et al., 2004). Third, if an early adopter customer segment is willing to pay a premium for a new product, entrepreneurs may consider a high release price to capture the extra value, and then seek to attract latecomers with future price reductions. This strategy can help firms capture more revenue over the life of a product and help match demand to production capacity for the new product (Marn et al., 2004).

3.1. Setting the release price in social entrepreneurship

Social entrepreneurs often employ business models in which customers are also direct beneficiaries, either because the product uniquely benefits the poor, given their situation, or because the product is set at prices below the price ceiling, owing to some social mission (e.g., microloans at interest rates below those of payday lenders; Miller, Grimes, McMullen, & Vogus, 2012; Santos, Pache, & Birkholz, 2015). As a result, skimming is unlikely to attract social entrepreneurs seeking to reach as many customer beneficiaries as soon and as often as possible. With its attempt to generate large sales volume and maximum market share through the use of aggressively low prices (Saaty & Vargas, 2012), penetration pricing would seem more likely to appeal to social entrepreneurs. However, given higher production and delivery costs owing to lack of quality infrastructure in many developing countries (McMullen, 2011), price floors are often higher than social entrepreneurs would like. Additionally, while a price war between firms may sound favorable for the poor, such would not be the case if the social entrepreneur prices his competition out of business and then has his venture also prove unviable. Such a scenario could further damage an already handicapped entrepreneurial ecosystem and would likely leave communities worse off (McMullen & Bergman, 2017). Finally, the products that social entrepreneurs seek to provide in developing contexts are often goods that customer beneficiaries consider commodities or even gifts from nature that they have grown accustomed to getting for free or close to it—albeit at a lower guality—such as dirty and unsafe (but free) water. All of the above makes it extremely unclear what pricing strategy social entrepreneurs should employ; a penetration strategy that prices too aggressively could damage the ecosystem and undermine perceived value of the product, but a skimming strategy with a price near the price ceiling runs the risk of excess capacity and limiting—both in frequency and in total—the number of customers benefitting from the product.

Cognizant of these risks, SWA and WHG decided to employ a pricing strategy somewhere in between the extremes of skimming and penetration to introduce Dr. Water, the purified water product produced at WaterHealth centers. However, while refining their market research, WHG discovered a seemingly irrational tension between price and convenience among customers. WHG expected beneficiaries to be sensitive about price for good reason: in some instances, households spent up to 40% of their income on water. Conscious of this fact, but also respectful of the current market ecosystem, WHG set its initial price point at current market prices to prevent any market disruption. Consequently, the price was set at 10–15 pesewas (U.S. \$0.50–\$0.75) for 20 liters of Dr. Water, depending on the

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community. This price put WHG's product at a slight premium (typically 5–10 pesewas or U.S. \$0.25– \$0.50 for 20 liters) over raw water from boreholes (i.e., pipes that tap directly into the aquifer), but at a significant discount in relation to water in plastic sachet bags delivered to communities on a weekly basis. These bags could cost as much as 20 pesewas (US \$1 in 2013) for only a 0.5-liter bag, suggesting they are priced more like a premium beverage than a commodity. Although sachet water was perceived as high quality, in most cases it was simply tap water from an unknown and uninspected source, and thus of potentially worse quality than Dr. Water.

While buying sachet bags, beneficiaries would often complain about the price of Dr. Water, arguing that sachet water was of better guality and more convenient than WHG's product. In addition to articulating the health benefits and competitive pricing of Dr. Water, WHG addressed demands for convenience by adapting a number of centers and adding more vantage points. This created more access for customers but raised startup costs by as much as U.S. \$10,000-\$15,000 per center. Despite these educational and convenience efforts, there still appeared to be a perceptual map in place such that water from plastic sachet bags was classified in the beverage category (commanding higher premiums) while water from WHG was classified in the commodity category (commanding lower prices).

3.2. Unanswered questions

Most of the research on pricing strategies assumes that the decision maker's goal is to maximize profit and thus achieve viability (Saaty & Vargas, 2012). By setting its release price at a slight premium over raw water from boreholes, but at a significant discount compared to sachet water, WHG hoped to prevent disruption of market conditions while providing a more sustainable solution to the social need for safe water. In this regard, WHG was successful; it neither triggered a price war nor priced its product beyond the reach of the poor. WHG's product pricing strategy appears reasonable, given the assumptions of the pricing literature and constraints of the development context, but was it optimal for achieving SWA's objectives?

Whatever its price category, a product fills one of three positions: (1) *revolutionary*—it is so new that it creates its own market; (2) *evolutionary*—it offers upgrades to existing products; or (3) *me-too*—it brings a company into alignment with the rest of the market without adding new benefits (Marn et al., 2004).

Dr. Water featured novel characteristics, and SWA often discussed the product as if it were in

the revolutionary category. However, WHG set the price of Dr. Water as if it were in the commodity segment. This caused customers to ignore Dr. Water's revolutionary attributes and compare Dr. Water with other commodities, as opposed to premium-priced sachets or bottled water. Customers largely assumed they got what they paid for, and since they paid a commodity price, they assumed that the quality of Dr. Water was more consistent with that of borehole water than sachet bag water.

Would SWA have been better off pricing Dr. Water using a skimming strategy so that customers perceived its reference price as closer to that of sachet bags? In this scenario, WHG could have then offered price reductions to facilitate market penetration. This approach might have slowed adoption and even raised questions of SWA's intentions. However, it also could have focused customer attention on the quality advantages Dr. Water offered relative to raw water. Further, it may have encouraged more entrepreneurial beneficiaries to capture value of their own by repackaging and selling the water in their own sachet bags. Interestingly, the commodity signal may have precluded many from identifying this opportunity. Thus, contrary to expectations and best intentions, SWA may have set the release price of Dr. Water too low, undermining the reference price of the market value proposition that WHG offered the poor of Ghana while also slowing the payback period on the centers themselves. However strategically or operationally accurate, this conclusion fails to consider the hypersensitivity of the ethical context in which SWA was operating-a reality that became immediately apparent through the next pricing dilemma.

4. Pricing dilemma two: Price discrimination?

A review of the economics literature yields decades of research on price discrimination. Defined by Merriam-Webster as selling the same product at different prices to different buyers to maximize sales and profits, price discrimination seeks to capture consumer surplus above and below the market equilibrium price. It can take many forms, leading scholars to develop several taxonomies of price discrimination. A classic taxonomy, developed by Pigou (2002), separates price discrimination into three, non-mutually exclusive types: first degree, wherein firms sell a product at every customer's maximum price; second degree, wherein firms vary the price by the quantity demanded; and third degree, wherein firms charge different prices to different customer groups.

The most common form, third-degree price discrimination can discriminate through an endless range of customer or group traits, such as age, gender, ability, etc. One type of third-degree price discrimination present in the SWA case is *spatial price discrimination*: the ability of a firm to charge different prices to customers at different locations (Vogel, 2011). In addition to identifying the price discrimination opportunity, firms must also be able to discern the price elasticity of demand for that particular market segment and enforce the price discrimination scheme to prevent side selling or arbitrage by others outside of the firm (Samuelson & Marks, 2003).

4.1. Price discrimination in social entrepreneurship

Price discrimination is a commonly accepted approach to pricing in social entrepreneurship. Two well-documented examples are Aravind Eye Care and Grameen Danone. In the case of the former, Aravind Eye Care has been praised for its dual pricing structure in which the same guality services that are provided to paying customers are offered, free of charge, to the poor (Prahalad, 2005). Thus, paying customers cross-subsidize the services received by those in need but unable to pay. Similarly, Grameen Danone explicitly engages in price discrimination, but of a spatial nature. Grameen Danone charges customers in wealthier, urban areas higher prices for its nutrient-enriched yogurt than it does customers in poorer, rural areas (Yunus, 2010). Profits from the former are then used to subsidize prices for the latter.

Grameen Danone, Like SWA emploved spatial price discrimination, but rather than crosssubsidize by charging some communities more than others, WHG sought to pass on construction savings to consumers via lower prices of Dr. Water. Inflation contributed to higher construction costs of newer centers and thus prompted slightly higher prices of Dr. Water. Rather than charge the higher price among all communities, however, WHG left prices lower (roughly 5 pesewas less) in communities in which center construction costs had been lower. This discrimination caused grumblings throughout communities that were then voiced by municipal assembly members. Despite differences in construction costs and extensive explanation of those differences by WHG during its monthly community meetings, there remained an expectation that Dr. Water should be priced equivalently across communities, and at the lower of the two prices. The communities involved in such price discrepancies rarely considered the possibility that the higher price might be the more justifiable of the two and that price standardization could just as easily result in price increases as price reductions. This suggested that prices might be sticky across communities if these communities were in communication with each other.

4.2. Unanswered questions

How had a venture funded by charity and offering an essential service to communities at a price well below the price ceiling come to generate perceptions of price exploitation? Despite ready acceptance of price discrimination models within the social entrepreneurship literature (e.g., Krlev, 2012; Mair & Marti, 2009a, 2009b), there is a threat in the field-as the Dr. Water case demonstrates-that the group paying the higher price will perceive itself as the victim of price exploitation. This is true even among wealthy customers. Consider, for example, the outcry by American consumers upon learning the prices of prescription drugs in Canada (Silverman, 2015). Thus, the success of third-degree price discrimination may depend largely on salient differences between groups and acceptance of the premise (1) that the advantaged group should be willing to provide for the needs of the disadvantaged group or (2) that members of the disadvantaged group are somehow entitled to support by the advantaged group. If these conditions are not met, members may not perceive differences between the groups as salient or as just cause for price discrimination. Given that consumers often lack awareness of the full costs of production, it seems that equity-based notions of distributive justice in which outcomes are understood in relation to inputs (e.g., Collins, McMullen, & Reutzel, 2016) hold little persuasive appeal relative to the logic of equal outcome. No matter how embedded WHG was in the community or how transparent the explanation of prices, most people could not help but look to prices in other communities to determine whether they were getting a fair deal.

5. Pricing dilemma three: Price experimentation?

A product's price is an important piece of information for customers and firms alike. When no other evidence is present, as is often the case with new products, price enables customers to infer the quality of that product (Zeithaml, 1988). Due to uncertainties of the demand curve in a given market, price also becomes a vital feedback mechanism for a firm (Hayek, 1945). Over the last few decades,

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technological advances have enabled firms to collect more and better demand-related data and adjust prices faster. Together, these and other capabilities have produced a dramatic increase in the use of dynamic pricing strategies (Elmaghraby & Keskinocak, 2003). Yet, even though firms welcome these technological advances, they do not necessarily make setting or adjusting prices easier.

Both the marketing and psychology literatures articulate a number of challenges related to price adjustment. Research investigating differences in objective and perceived prices showed that customers do not always know or retain the actual (objective) prices of products or services, instead relying on mental codes that are meaningful to them, such as 'cheap' or 'luxurious' (Zeithaml, 1988). Similarly, reference price theory describes how customers form reference prices by averaging together past and current prices, which are then applied to new prices and new products (Lowe & Alpert, 2010). Both of these points suggest that objective price changes do not inherently produce alterations in consumer behavior or understanding, in turn limiting a firm's feedback and learning.

Applying this research to skimming and penetration pricing strategies, a penetration strategy that sets a low initial price may result in low perceived prices and reference prices that inhibit future price changes. Worse yet, companies often find that once prices hit the market it is nearly impossible to raise them, leading one McKinsey report to estimate that 80%-90% of all poorly chosen prices are too low (Marn, Roegner, & Zawada, 2003). Too often, entrepreneurs employ an incremental approach in which they use existing products as their reference point, figuring that if the new offering costs 10% more to build than some older version, they should charge about 10% more for it. Whether conscious of it, SWA applied this logic in determining how much to charge for Dr. Water in each community. Skimming strategies that introduce a high initial price can also suffer long-term challenges regarding price adjustments if customers continue to assume that they cannot afford a particular product or that a price decrease also represents a decrease in quality.

5.1. Price experimentation in social entrepreneurship

A number of issues frustrate the applicability of traditional pricing theory to social entrepreneurship. First, social entrepreneurs may be too ready to accept the cost-plus pricing strategy described above. For instance, Muhammad Yunus (2010) brags about Grameen Danone's use of this pricing strategy, but Grameen Danone nearly failed a few years

later when the input costs of milk skyrocketed and the company could not absorb them or pass them on to their impoverished customer beneficiaries. Ultimately, the company reduced its serving size—a suboptimal solution—and embraced the price discrimination model discussed earlier. Simply put, Grameen Danone had no financial reserves for tough times because its previous profits were less than they might have been under a pricing strategy that more closely reflected the product's market value.

Second, use of non-market pricing may be particularly problematic during the launch of a new venture. In this stage, the entrepreneur learns which features of a product customers do and do not value. Pricing a product below the ceiling price may be desirable or even necessary for a social enterprise, but doing so introduces considerable noise into the feedback received from this price signal. This noise amplifies as the price moves from the price ceiling toward the price floor, which is often set at cost in profit-seeking ventures and below cost in many hybrid organizations that use charitable donations to subsidize prices. Given that entrepreneurs do not necessarily know what the demand curve is, they often must learn it by witnessing how the market responds to prices. To the extent that prices are noisy, it becomes that much more difficult for the entrepreneur to interpret their message, infer their meaning, and adjust the venture's actions accordingly.

Third, raising prices is far more difficult than lowering them. This is true in most ventures, but it poses an extra risk for social entrepreneurs concerned about perceived exploitation. The status quo often becomes a reflective equilibrium that is perceived as the true market price, such that price increases—regardless of how necessary or justified they might be—are then perceived as evidence of exploitation made possible by the increasing market power of the venture. Stakeholders may be even quicker to form such perceptions when social enterprises are sponsored by powerful multinational corporations, like those (Coca-Cola and Diageo) backing the SWA-funded WaterHealth centers.

WHG's hybrid nature made price an exceptionally complex issue, compared to traditional for-profit ventures, for three reasons. First, none of the centers in Ghana operated anywhere near the 65,000-liter production capacity. This suggested that the marginal cost of producing additional liters was relatively low and that there could be potential to lower prices, increase demand, and serve a broader swath of beneficiaries without necessarily harming the viability of the centers. Second, this lower price strategy could also expose WHG to a significant risk. If demand did not increase following a price decrease, it could be unable to cover

operating costs and in the difficult position of needing to increase prices. This would likely lead to a social backlash. Although communities regularly tolerated price fluctuations by profit-seeking businesses, they rarely perceived them as necessary and were prone to interpret them as exploitative. The potential for negative reactions like this was likely to be even stronger for organizations that presented themselves to communities as charitably motivated. Therefore, any negative reaction or charges of exploiting the poor—regardless of the facts—would threaten WHG and impugn the reputation of its donors, effectively transforming any goodwill into a crisis capable of damaging the company's commercial ambitions in the region.

Finally, cognizant that prices may be stickier for hybrid organizations simultaneously pursuing social and economic returns, donors in the SWA partnership could still ponder lowering the price of Dr. Water if they were willing to absorb this risk by subsidizing the price differential, should the initiative fail to generate increased demand and revenues. This potential to absorb the social risk associated with a failed pricing experiment was a third factor unique to hybrid organizations. That is, the donors of this partnership were already subsidizing the financial costs required to start the centers. If they wanted to test whether lower prices increased revenues from the centers without having to bear the social risk of doing so, the partners could vote to reallocate some of their donated funds to cover any revenue shortfalls. This strategy, however, could tie up capital that could be used to build centers in other communities.

5.2. Unanswered questions

How can social entrepreneurs learn enough about their environment to reveal Dr. Water's demand curve if they cannot experiment by adjusting product prices to see how customers react? If prices can only be adjusted downward for fear of perceived exploitation and the social mission precludes the pursuit of price skimming, how should a social entrepreneur proceed? A firm that cannot adjust price will have difficulty learning, pivoting, performing, and ultimately surviving in a perpetually changing environment.

6. Pricing dilemma four: Accessibility or sustainability?

The realization that production capacity was underutilized highlighted a tension many hybrid organizations face in seeking to balance social

and economic objectives. Even if an organization stays true to the charitable motive behind its social objective, it may still have to face a trade-off concerning how much it can help beneficiaries both now and in the future. Trade-offs can be defined as decisions made under resource constraints, among competing decision outcomes (e.g., ensure access to safe water at the current center vs. expedite operational sustainability at the current center to free up capital for investment in the next center), and under competing decision objectives (e.g., serve the neediest vs. serve as many as possible; Hahn, Figge, Pinske, & Preuss, 2010). Haffar and Searcy (2017) noted that this competition is a form of tension, which Epstein, Buhovac, and Yuthas (2015) defined as two phenomena in a dynamic relationship involving both competition and complementarity. Thus, even if WHG stays true to its social objective and SWA sponsors remain committed to their charitable motives for involvement in the partnership, a tension remains that manifests as a function of time. Should SWA seek to be charitable today through subsidized accessibility, charitable over the mid term by ensuring operational sustainability, or charitable over the long term by seeking to establish financial sustainability?

6.1. Short-term trade-offs in social entrepreneurship

Time is a constant tension manifest in myriad tradeoffs throughout the corporate sustainability (CS) literature (Haffar & Searcy, 2017). Hart (1995, p. 988), for example, describes the strategic importance of establishing a long-term orientation by stating: "The firm must be concerned not only with profitability in the present and growth in the medium term, but also with its future positions and source of competitive advantage." There is, however, a big difference between the time pressures discussed in CS and those discussed in the social entrepreneurship (SE) literature. In CS, emphasis on short-term financial incentives preserves the firm's capital but at the expense of society. As a result, the CS literature is often characterized by discussions about how some executives manage to achieve enlightened self-interest to balance the firm's short-term financial demands with the longer-term considerations of ensuring the sustainability of the social and natural systems in which they operate (e.g., Haffar & Searcy, 2017; Hart, 1995). Furthermore, discussion tends to emphasize the discretionary nature of sustainability-related expenses within competitive environments, typically with scholars seeking to counter managerial bias toward narrow self-interest by encouraging managers and

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entrepreneurs to view sustainability-related expenses as less discretionary (e.g., Dean & McMullen, 2007; McMullen & Warnick, 2016).

In contrast, SE scholars often encourage entrepreneurs and managers to take a longer-term view to ensure that their social solutions will last into the future (e.g., Grimes, McMullen, Vogus, & Miller, 2013; Miller et al., 2012; Tracey & Owen, 2006). A short-term focus by social entrepreneurs can lead to a reduction in the firm's capital, especially if their customer beneficiaries are unable to pay the full product price. In such instances, social entrepreneurs who meet customers' current needs are likely to do so by jeopardizing longer-term concerns about profitability and, even more so, environmental sustainability. As with CS, SE scholars can focus on the discretionary nature of expenses, but given that managerial bias in SE favors value creation over value capture (Santos, 2012), social entrepreneurs are often encouraged to view these expenses as more—as opposed to less—discretionary in an attempt to increase profits. The hope is that these increased profits will help the venture become a non-loss/viable organization (Yunus, 2010), facilitating the likelihood of its survival regardless of donation fluctuations. Of course, profits are a function of more than expenses; revenues, which are a function of sales volume by price, also determine them. Thus, a pricing dilemma exists: should a venture maximize profits to expedite operational sustainability or should it sacrifice revenues to serve an immediate and pressing need? And if so, to what extent?

Per an ethnographic study of the SWA program in which we interviewed various stakeholders (see McMullen & Bergman, 2017), WHG's product was a significant matter of debate among SWA steering committee members. By entering at market prices, WHG sought to reduce the potential for unintended negative consequences that its entry into the market might have. Also, by pegging prices to the market, WHG sought to repay capital faster than it would if prices were lower. Each center took approximately 4–6 months to cover its direct operating costs, and about 9-12 months to cover overhead. However, SWA steering committee members from Coca-Cola and Diageo were quick to point out that the centers were pointless if their product was too expensive to help the intended beneficiaries.

6.2. Unanswered questions

As the third-party manager of SWA, GETF provided a valuable service by enabling several partners with varying interests to come together in a joint cause. Enabling commitment to a common cause, however,

is different from running a startup organization. Concrete decisions about what to do with unused production capacity forced a pricing dilemma that favored either the immediate and dire needs of relatively few individuals or the enduring but less-pressing needs of multitudes. This tension between current and long-term needs was neither unique to SWA nor new to practice. In "Wealth," Andrew Carnegie (1889) argued that those of great wealth should allocate and administer their surplus while alive, rather than entrust charities or bequests; give to institutions, rather than individuals; and help others who will help themselves, rather than offer relief.

Whether labeled empowerment or selfdetermination, the notion of helping those who help themselves is alive and well among many of today's social entrepreneurs and their supporters (Ellerman, 2005). Were he still around, Carnegie would undoubtedly side with WHG and push for a skimming strategy of higher prices and quicker payback allowing SWA to move on to the next center and help yet another community. In contrast, Thomas A. Kelley challenges Carnegie's claim that a philanthropic dollar misspent does greater harm than many times that amount well spent could do good. Having once shared Carnegie's position, Kelley (2001) recalled a return trip to Niger-14 years after his tour there with the Peace Corps—where he discovered the alms he gave a beggar were used to transform the man into a successful store owner. Such revelations backed up Coca-Cola and Diageo public relations executives, who championed the social mission of the Water-Health centers by advocating a lower price. As one Coca-Cola executive was quick to point out, lower prices had already transformed lives-now and into the future—by allowing one girl to go to school to become a nurse, instead of fetching water all dav.

While Coca-Cola and Diageo preferred a penetration pricing strategy, both still wanted to see profits. As founding platinum partners, the two firms contributed \$2.5 million and \$2.0 million, respectively, and many of the steering committee members had seen multiple Africa initiatives abandoned for want of a sustainable business model. Thus, both corporate partners were committed to a fee-for-usage model but prioritized the social mission over any economic objectives, including accelerated payback of the initial capital outlay. This differed from WHG, which wanted to help as many communities as possible by scaling operations as fast as possible. What was SWA: a charity, a business, or something else? Everyone seemed to agree that it was something else, but whatever harmony this ambiguous answer provided would be short lived as questions of what to do about 10

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product pricing and excess capacity led to the final pricing dilemma.

7. Pricing dilemma five: To scale or not to scale?

Excess production capacity triggered a price debate, which in turn necessitated a reexamination of the motives of each individual stakeholder. The partnership between WHG and SWA needed to move forward, though, and this required coming to terms with its hybrid nature. Was WHG a charity when funded by SWA but a business when self-funded? Did the difference matter? And if so, how?

Donaldson and Walsh (2015, p. 188) defined business as "a form of cooperation involving the Production, Exchange, and Distribution of goods and services for the purpose of achieving Collective Value." In turn, they defined collective value (p. 188) as "the agglomeration of business participants' benefits, again net of any aversive business outcomes." As such, business offers but one of many possible ways to create collective value.³ The appeal of business as a solution to social problems lies in the tightness with which it couples customer problems with venture solutions. This market efficiency encourages disciplined use of scarce resources and scalable solutions to the extent that the firm can capture the value it creates. Price subsidization in the name of social mission, however, explicitly sacrifices value capture—and long-term value creation-for short-term value creation.

Business requires demand, defined as the willingness and ability to pay the price of the product offering (McMullen, 2011). Demand should not be confused with need (Auerswald, 2009). An inability to pay for water does not negate one's need for it. Yet, it may still be possible to employ a business model to address individual needs (Santos et al., 2015). Business is best suited to fulfilling customer wants, but because it relies on the demand construct-which requires that individuals have the ability to pay the market price of the product offering-It is not always suited to address individual needs, such as safe water. If, however, need can be transformed into want through subsidization, then social entrepreneurship becomes capable of bridging the divide between charity and business. That is, if (1) the goal is to help as many consumers as possible with as few resources as possible, (2) subsidization allows all individuals to be treated as consumers, and (3) no normative judgments are made about the relative need of particular consumers within the population to be served, then customer want and consumer need may indeed converge. However, the last of these assumptions is difficult in practice.

To the social entrepreneur, value capture—and the firm equity that grows from of it-can feel morally similar to accruing personal savings while watching others die of need (Maranz, 2001). If the purpose of a hybrid organization is primarily charitable with emphasis on serving the greatest need, the venture will likely find it difficult to achieve operational sustainability. Arguably, a charity is better suited to such a relief-oriented mission. If, however, the purpose of a hybrid organization is to offer a better solution to the maximum number of people while using the least amount of resources, then business may have the edge. Unfortunately, as a business chases profits, consumer needs can be supplanted by customer wants (Battilana & Dorado, 2010). However, if the product solution-In this case, WHG's-offers a significant improvement in customers' quality of life at minimal expense, the question becomes: Is it morally wrong for SWA to maximize long-term impact over short-term need by serving the many who are willing and able to pay the offering price for safer water, as opposed to the few who are willing but unable to pay?

7.1. Long-term complications in social entrepreneurship

This short-term need versus long-term impact was the crux of the moral dilemma faced by Coca-Cola and Diageo as they supported WaterHealth centers. Considered purely in terms of individual needs, it would be almost impossible to justify letting anyone die in the name of efficiency; construed as an allocation problem wherein the goal is achieving the most good for an entire population given limited resources, a business model might triumph over charity (Wallace, 1999). Still, the question remained of whether to help, say, three suburban communities requiring minor subsidization or one rural community requiring major subsidization.

Such moral dilemmas are unresolved but welltrodden ground for philosophers⁴, but the blending of charity and business in the form of hybrid organizational models can give rise to pricing dilemmas that are also moral dilemmas in practice while simultaneously disguising them as business opportunities. For example, it was clear that the market

³ Others include charities, government, etc.

⁴ See, for instance, the runaway trolley scenario (Foot, 1978; Thomson, 1985).

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presented WHG with a number of opportunities but the pursuit of them could affect the social mission that initially attracted SWA to the partnership. Responding to customer convenience preferences. some centers made adaptations to their distribution, increasing center startup costs \$10,000 to \$15,000. Were these adaptations good business or distractions that slowed the introduction of SWAsponsored centers in other needy communities? Should WHG entertain the possibility of adding alternative services such as piping water to individual households? This would encourage the use of safe water by making it more convenient, but seemed like a luxury for some while others lacked access completely. Piping would consume capital that could be invested in new centers and possibly encourage government officials to regulate them like other public utilities. Finally, as regards convenience, underutilized production capacity could also lead WHG into the plastic sachet bag arena, either by packaging its own water or by supplying it to extant providers. Such sachets, while convenient, represented a major source of nonbiodegradable litter. If safe water in plastic sachet bags saved lives but did so by degrading the environment while exposing the corporate donors to public criticism, could SWA partake or sit by if WHG did?

Macro-trends also significantly affected SWA's external environment. Economic growth in Ghana contributed to increases in living standards, individuals' ability to pay for water, and consumer demand for services that public utilities could not yet meet. As a result, the steering committee faced a number of questions: Was this unmet demand an opportunity for SWA and WHG, and if so, for how long? The increasing ability of the poor to pay for water reduced the need for SWA to subsidize prices and contributed to the centers' ability to pay back the initial capital outlay faster. However, the same conditions that made a site feasible without heavy subsidization (e.g., populations of 5,000 people with an increasing ability to pay) were also those that eventually would trigger entry by public utilities, making the centers redundant. This would result in SWA repeatedly having to relocate the WaterHealth centers as the suburban frontier pushed outward. Should the partnership be content with providing safe water temporarily until the public infrastructure could tackle the problem permanently? Or, should SWA target rural communities unlikely to ever enjoy tap water or require relocation of the centers?

7.2. Unanswered questions

Whatever course of action the SWA partnership chose to take, the need—or lack thereof—to engage

in price subsidies would prompt stakeholders to revisit their understandings of what these centers meant to them and their stake in the partnership. Given that WHI's motives likely differed from those of Coca-Cola and Diageo, whose motives also likely varied, interpretations regarding which courses of action represented opportunities versus distractions were likely to vary widely by partner. Such interpretations revealed the lens—business or charity—through which each partner viewed the centers, while SWA's tactical decisions about how to price Dr. Water revealed the partnership's implicit assumptions about how WaterHealth centers should be used to achieve social impact.

Through their business approach to safe water, WaterHealth centers extended both Coca-Cola and Diageo's charitable reach, but SWA did not sponsor all of the centers. WHG could always pursue possibilities at WHG sites that were not financed by the SWA partnership, but WHG's actions were likely to be perceived by the public as a reflection on the SWA partnership and its partners, whether or not the centers were affiliated. Although this exposure was acceptable given WHG's dependence on capital provided by SWA, would WHG accommodate SWA's concerns as its need for outside capital diminished? Small disagreements about pricing were already beginning to materialize, causing SWA partnership representatives to confront the question of whether and how to use the excess capacity of the centers. Should SWA help many people on the outskirts of cities throughout Ghana a little by making safe water more accessible and convenient, or should it help fewer people in rural communities a lot by providing what could be their only source of safe water? The cities offered thousands of possible customers for WaterHealth centers, customers whose families were also likely to enjoy a Coke or a Guinness on occasion; though great, the need of these beneficiaries was still less than that of their rural counterparts. Moreover, Ghana's rapid growth showed no signs of abating, suggesting that municipal water supplies could eventually crowd out WaterHealth centers and force them to relocate periodically. But because the SWA-sponsored centers operated as subsidized businesses, increases in purchasing power meant an increased ability among customers to pay at least some of the cost of water production. The more they could pay, the less the partnership had to subsidize that particular facility, and the more funds SWA had available to invest in starting another center. Thus, SWA faced a moral dilemma: leverage the scale promised by Water-Health's business model to help as many people as possible or subsidize rural centers more heavily to help those whose need was most dire.

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8. Toward a solution

We have demonstrated that seemingly simple tactical pricing decisions are anything but simple in hybrid organizations operating in development contexts. Pricing dilemmas often mask moral dilemmas that manifest as social entrepreneurs wrestle with weighing the capital depletion associated with serving the dire needs of a desperate few against the capital preservation of serving the less pressing, but vitally important, needs of many.

Future research on this ethically sensitive area is needed to determine how managers make these decisions, especially given the potential for charges of exploitation of vulnerable populations. Because of the inherently ethical nature of such decisions, a foray into more normative territory may also be justified. For example, compared to managers of traditional for-profit ventures, how do or should social entrepreneurs establish the release price of their products? Are there circumstances in which penetration strategies are more appropriate than skimming strategies? What about successfully adjusting product prices upward as well as downward? When and how should social entrepreneurs consider absorbing social risk to enable price experimentation and engage in upward subsidization? Can this help to mitigate charges of exploitation from beneficiaries? Finally, how do social entrepreneurs discern customer preferences despite the noise of price subsidization?

Although there is unabashed enthusiasm for social entrepreneurship, not every social problem can have a business solution. Business requires that enough people share a problem that can be addressed, however imperfectly, by a single solution. Only then is the problem likely to justify the costs of production, exchange, and delivery borne by business. Deciding to supply this entrepreneurial solution, therefore, requires some sense of demand for the product. Can people pay for the solution, and if so, will they? Though negative answers to these questions are usually enough to dissuade even the most zealous of entrepreneurs, they are not always the fatal flaw they might first appear to be. There is a species in the genus entrepreneur that tends to focus primarily on need and second on how that need might be met partly if not entirely through business, especially in a development context. These social entrepreneurs have transformed the charitable work of many nonprofit organizations and nongovernmental organizations around the world by acknowledging the gap between what customers must pay for a business solution to be operationally sustainable and what individuals in a particular market might actually be able to pay and seeking to use charitable donations to bridge this divide.

As commendable as such initiatives are, they introduce a difficult challenge for hybrid organizations seeking to employ this type of social entrepreneurship. Instead of viewing price as the primary constraint standing between the venture and viability, they target the ability to pay as the focal constraint while treating price as an input. Too often, the result is a confusing signal to customers; confusing feedback for the entrepreneur; possible charges of price exploitation: and diminished prospects of value capture, scale, and survival. We hope that this article has pointed the field toward asking the kinds of guestions that, if answered, could help social entrepreneurs in development contexts avoid such problems, and that could encourage others to join them in their attempts to use business solutions to address social problems more sustainably.

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