

# GLOBAL HEALTH

## Innovation Insight Series



*A student with her d.light solar LED lantern*

Photo: d.light design

## D.LIGHT III: Building Credibility and Trust

SAN FRANCISCO, CALIFORNIA

ESTABLISHED 2006

NED TOZUN, PRESIDENT AND FOUNDER

SAM GOLDMAN, CHIEF CUSTOMER OFFICER AND FOUNDER

### THE PROBLEM/SOLUTION SPACE

Worldwide, 1.3 billion people still do not have access to electricity. This includes 550 million living in Africa and 400 million in India.<sup>1</sup> Many of these individuals live in total darkness at night. Those able to afford light spend between 5 and 30 percent of their income on kerosene oil for lamps.<sup>2</sup> However, kerosene is dangerous and can negatively impact health. Burning kerosene creates indoor air pollution, which kills an estimated 1.5 million individuals annually from respiratory diseases including chronic obstructive pulmonary disease (COPD) and respiratory tract infections. Over half of these deaths involve victims under the age of five.<sup>3</sup> Evidence also links indoor air pollution to lung,

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laryngeal, and nasopharyngeal malignancies, heart disease, and low birth weight. Moreover, kerosene lamps claim lives from burns, fires, and suffocation.<sup>4</sup> The poor quality of light and toxic fumes from burning kerosene also reduce the productivity of families and businesses and limit the hours children are able to study.



Photo: d.light design

*The d.light founding team*

## ABOUT D.LIGHT

d.light was founded by a group of four students attending Stanford University. Two MBA candidates, Ned Tozun and Sam Goldman, teamed up with two engineering students, Erica Estrada and Xianyi Wu, in a course called Entrepreneurial Design for Extreme Affordability, to address the need for safe, affordable lighting designed to fulfill the specific requirements of users in developing countries. Over the span of the two-quarter course, they developed prototypes of portable, solar-powered LED lights fit for use in low-resource settings. Within a couple of months, they started field testing their designs in Myanmar and found that the potential demand was not only strong, but overwhelming. “People would actually weep as they talked about how the lights had

transformed their lives,” Tozun remembered.<sup>5</sup> In one village, the police even confiscated the prototypes for their own use—they needed light too.<sup>6</sup> After taking the summer off to complete various internships, team members reunited at Stanford in the Fall and decided to form a company to develop their ideas into a real product.

## ONE CHALLENGE: BUILDING CREDIBILITY AND TRUST

The d.light team worked diligently over the next two years to refine its business plan and raise money in preparation for a preliminary launch in India. In parallel, they dedicated themselves to developing a high-quality and affordable product. “We had a lot of passion about this,” Tozun recalled. “We felt like if we could get the product right, at the right price, then we could just sell gazillions of them.”<sup>7</sup>

However, when Goldman moved to India to set up distribution for d.light’s first product, the company discovered it would not be quite that easy. “At the time, we didn’t fully understand how complex marketing and distribution can be. We quickly learned it’s not as simple as saying, ‘I have a great product, let’s just sell it to everyone,’” Tozun acknowledged.

The team’s first challenge was related to consumers. Although many individuals in the target market desired to have light, the team realized that it would be difficult, especially as a fledgling company, to convince them to invest in a d.light product. The market was littered with low-quality, solar-based lighting products. “People are used to getting screwed by bad products,” Tozun said. “Even if we could find a way to make the product available in hard-to-reach rural areas, which is hard enough, no one would actually buy them. This is a new technology and people are inherently risk adverse.” Although people had been more than willing to help test the products, getting large numbers of consumers

to make a purchasing decision was another matter. Despite its relatively low cost, any d.light solution would still be a sizable investment for most low-income families. “It became clear that a lot would have to happen to get people willing to try it out,” Tozun added.

The team’s second big challenge concerned the distributors. The large, reputable distributors in India desired to work with established companies that could offer multiple products, in combination with a strong brand and well-developed marketing materials that they could leverage to promote the product. Accordingly, they were less than enthusiastic when Goldman approached them about carrying d.light’s first offering. d.light subsequently identified another class of distributors, which Tozun called wholesalers. These organizations were more flexible about which companies they worked with, but were known for selling lower-quality and sometime unreliable solutions. “Then your product’s on the shelf with all the other junk products and everyone thinks it’s a junk product too,” he commented. Additionally, wholesalers did not provide any marketing support. “So they might be willing to put the product on the shelves of their retailers but, if it didn’t sell through, they’d never buy again,” Tozun said.

The d.light team needed a strategy to differentiate the company and its products as credible and trustworthy to earn the acceptance of consumers and distributors.

## THE SOLUTION: DEMONSTRATING HIGH QUALITY STANDARDS AND LONG-TERM VALUE

To broadly address these challenges, d.light elevated branding and marketing to among the company’s highest priorities. “We had placed some emphasis on marketing, but we didn’t have a clear brand message or a particularly strong marketing organization,” Tozun stated. The team started adding members with specialized expertise in building relationships with customers at the base of the socio-economic pyramid.

Additionally, d.light took several immediate actions to address its specific challenges in India. This approach was designed to demonstrate the value of its lighting solutions and build credibility and trust among potential distributors and customers.

### Partnering Only with Reputable, Trusted Distributors

d.light boldly committed to work only with distribution partners with the strongest reputations and credibility in target communities. “Customers don’t trust d.light yet, so they have to trust our distributors,” Tozun explained. The company would leverage the brand of its distribution partners to begin earning credibility with consumers.

The question was how to convince these leading distributors to take a risk on d.light. “They’re very wary about working with a start-up because, more often than not, start-ups fail. More often than not, start-ups have massive quality issues or they can’t scale as demand begins to grow. And ultimately, that has a negative impact on a distributor’s own brand, which it may have spent decades building. So, they’re very cautious about taking on a new technology or a new partner.”

To persuade select distributors to agree to work with d.light, Goldman and Tozun relied on patience and perseverance. By repeatedly making their case, leveraging contacts in their professional networks, and remaining steadfast in their commitment to establishing

these partnerships, they were eventually able to win them over. Tozun acknowledged, however, “In some cases it took us well over a year to convince them to work with us.” As d.light established its own reputation and expanded its product portfolio, it became progressively easier to add distributors to its network.

### Building a Network of Local Sales Agents

To stimulate sales in the near term and to add value for its distribution partners, the d.light team established a network of local sales agents who would promote d.light products at retail locations and sell them to family, friends, and neighbors in exchange for a small commission. According to Goldman, “This significantly increases our reach into the most rural areas and provides important supplementary income for rural households.”<sup>8</sup> These sales agents were carefully chosen—Tozun and Goldman identified and engaged well-known and well-respected members of target communities for these roles. The d.light team did not necessarily expect these entrepreneurs to make a high volume of sales. Rather, it hoped to benefit from their reputations as they acted as representatives of the company. “Again, people may not trust d.light, but they trust the people who are supporting us in this way,” Tozun stated. In addition to giving product demonstrations and making the lights available to early adopters, these local sales agents kept d.light informed about how its products were performing in the field and elevated any service issues to the team, which was important to building the high-quality brand the company desired.

### “De-Risking” the Product for Customers

Another important dimension of d.light’s plan was to find ways to “de-risk” its product for consumers so they would be willing to make the required investment. “Once people try the product, they immediately understand its benefits and see that it’s actually a good product. And then they have no problems with paying,” Tozun said. “It’s not really that people can’t afford the product; it’s just that risk is too high in the beginning for them.”

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Demonstrations via road shows, mobile sales vans, and other approaches enabled potential customers to interact with d.light products, but they did little to convince people that the d.light solution would last. Allowing potential customers to try out products better addressed this challenge, but at the cost of a high administrative burden. Additionally, as Tozun commented, “Trial programs can be hard to control. There are ways to run them effectively,

but you have to be careful that you don’t cause people to sit and wait for the next giveaway.” He also cautioned that companies need to be thoughtful about when they initiate trial programs: “You don’t want to start something unless you have manufacturing and distribution in place and are ready for demand to pick up.”

One approach that d.light experimented with was to loan free lights to students in target communities during exam season. “It’s something that gets awareness in a community without positioning the product as a handout,” Tozun explained. d.light structured the program to allow students to use a solar light to study at night for roughly a one-month

period. “After the month was up,” Tozun said, “we found that 70 to 80 percent of the families would buy the light. Plus, study time doubled in the evening for students, and grades went up dramatically.” Trials like this helped d.light to earn trust throughout the community as the lights proved to be reliable during the trial period and beyond.

Another strategy that d.light used to reduce ownership risks to customers was to offer warranties that went well beyond what customers generally expected and differentiated d.light’s products from other lighting solutions. Each d.light product came with a serial number and card that assured a six-month warranty. The card also included a stamp identifying the dealer and cell phone number of the sales agent who sold it so that customers knew who to contact if they experienced any problems. “If any issue came up during the warranty period,” reported Tozun, “we made sure the customer got a replacement with as little hassle as possible.” If a d.light product malfunctioned after the warranty period, the sales agent or dealer would order spare parts to repair the light. As other companies began to replicate this strategy (and as d.light’s confidence in the quality of its products continued to grow), the company increased its commitment to its replacement policy. “We launched an industry-leading two-year warranty on all of our products, which is unheard of in the world of low-cost portable solar lights,” Tozun noted.

Using strategies such as these, d.light was able to build a credible, trustworthy brand and a strong distribution network in India. It has since expanded to Africa, Southeast Asia, and beyond. As of 2012, nearly 10 million people across 40 nations had already benefited from d.light solutions.<sup>9</sup> ♦

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#### NOTES

- 1 Peggy Gibbs, “d.light Provides Business Case for BizSmart Global Students to Solve,” Bizsmart News, April 22, 2012, <http://www.bizsmartglobal.com/india/2012/04/22/d-light-provides-business-case-for-bizsmart-global-students-to-solve-2/> (October 22, 2012).
- 2 “Indoor Air Pollution and the Millennium Development Goals,” World Health Organization, <http://www.who.int/indoorair/mdg/en/> (October 22, 2012).
- 3 “Indoor Air Pollution and Health,” World Health Organization, September 2011 <http://www.who.int/mediacentre/factsheets/fs292/en/index.html> (October 22, 2012).
- 4 All quotations are from interviews conducted by the authors unless otherwise cited.
- 5 Jocelyn Wiener, “D.light’s Lofty Goals Meet Practical Challenges in India,” 2010, <http://www.gsb.stanford.edu/news/bmag/sbsm1005/feature-dlight.html> (October 29, 2012).
- 6 All quotations are from interviews conducted by the authors, unless otherwise cited.
- 7 “Say Goodbye to Kerosene Lamps, Here’s Kiran!” Rediff.com, December 23, 2009, <http://business.rediff.com/slide-show/2009/dec/23/slide-show-1-worlds-cheapest-solar-lamp.htm> (November 28, 2012).
- 8 Impact Dashboard, d.light design, <http://www.dlightdesign.com/impact-dashboard/> (October 29, 2012).